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Marianne Haddad-Adaimi. Proposal of national accreditation standards for lebanese Higher Education and a performance management system for Higher Education. Automatic Control Engineering. Université de Bordeaux, 2023. English. NNT : 2023BORD0119 . tel-04508767

**HAL Id: tel-04508767**

**<https://theses.hal.science/tel-04508767>**

Submitted on 18 Mar 2024

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THÈSE PRÉSENTÉE

POUR OBTENIR LE GRADE DE

**DOCTEUR DE  
L'UNIVERSITÉ DE BORDEAUX**

ÉCOLE DOCTORALE DES SCIENCES PHYSIQUES ET DE L'INGÉNIEUR

SPÉCIALITÉ : Automatique, Productique, Signal et Image, Ingénierie cognitive

Par Marianne HADDAD-ADAIMI

**Proposal of National Accreditation Standards for  
Lebanese Higher Education and a Performance  
Management System for Higher Education**

**(Proposition de standards d'accréditation nationaux pour l'Enseignement  
Supérieur au Liban et d'un système de gestion de la performance pour  
l'Enseignement Supérieur)**

Soutenue le 10 Mai 2023

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# Acknowledgement

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This endeavor would not have been possible without the support of many people. First and foremost, I would like to express my sincere appreciation to my director, Prof. Yves Ducq for his patience and invaluable feedback, and co-director Dr. Roy Abi Zeid Daou for his insights and for the countless hours we spent brainstorming. Their guidance and support helped me see clearly when I couldn't, and pushed me when I wanted to quit. Many thanks to the University of Bordeaux and IMS unit who gave me the opportunity to realize this project. My deepest gratitude goes to my husband and three children who endured this long process with me, patiently offering support, encouragement and love. Last but not least, I am grateful for my parents who gave me their passion for continuous learning, particularly my role model, my mother who inspired me to take this journey.

# Abstract

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The role of Higher Education is becoming increasingly important, as it significantly contributes to the development of human capital and innovation which drives productivity and economic growth. Human capital is developed through the social skills and technical and professional knowledge provided by Higher Education Institutions. Higher Education also contributes to the social, cultural, health and environmental development of societies by promoting social cohesion and finding innovative solutions to societal challenges through research in collaboration with governments and industries.

At the same time, Higher Education has grown quickly from an elite, to a mass system by becoming more accessible and more global with the expansion of tertiary education worldwide on one hand and following the increased mobility of students and academics on another. This new trend added significant opportunities but also challenges to the worldwide Higher Education sector.

As a result, Higher Education Institutions have grown in number to accommodate the expansion of students' numbers, and have also become more diverse; different levels of education, from traditionally academic-oriented to more professional programs, from subject-specialized to comprehensive Institutions, from public state-supported, private non-profit, to private for-profit Institutions, and from open access to very selective Institutions. This massification of Higher Education coupled with the changing trends in global economy, the evolving labor market demands and the rise in unemployment, led us to question if quality has accompanied quantity.

Following this expansion and diversification, doubts are being raised about the performance of Higher Education and its real contribution to society, through education, research and engagement. These same doubts have led to an increased demand for quality assurance in Higher Education worldwide, an increased pressure on Institutions of Higher Education to deliver "employable" graduates and to the pressing demand for more accountability and transparency.

As it became necessary to regulate and monitor the quality of Higher Education, issues of quality assurance and performance measurements have become a high priority on the agendas of policymakers in many different countries across the world. Some governments have developed national quality assurance programs, others have established external review committees and several independent accreditation agencies have emerged.

In Higher Education, concepts such as quality assurance, internal improvement, accreditation, performance monitoring are all activities aiming at guaranteeing or assuring a minimal standard of education quality and effectiveness delivered by Institutions. Whether mandatory required by the government, or optional for internal improvement or simply for marketing reasons, quality assurance and accreditation and their implementation are at the heart of education talk and sector reforms since the past decade. Moreover, the increased use of performance management tools in Higher Education Institutions in many countries, is driven by governments' need to develop improved policies and best practices, introduce

market-like competition into the sector in order to compare and benchmark Institutions, make them more flexible, cost-efficient and responsive to the demands of the society.

But can quality assurance and accreditation systems be “a one size fits all” solution for all types of Higher Education Institutions operating in various environments? A diverse society has created diverse education systems, which in turn requires diverse and complex mechanisms of quality control. Furthermore, can performance measurement systems be generic industry-related and independent from the Institutions’ mission and context? What about the specific case of the Lebanese Higher Education system, stained by a series of frauds, while struggling to adapt a basic national quality assurance framework?

In view of those challenges, it was important to propose an adapted accreditation framework with specific accreditation standards based on the Lebanese context, that would help in maintaining minimal quality standards within the Higher Education system in Lebanon. Based on those rationales and the need to have an appropriate framework for quality assurance in Lebanon, the first research question explored in the thesis is to study the quality assurance and accreditation systems of five key countries worldwide in order to determine the main and common pillars that steer accreditation in Higher Education before proposing accreditation standards for Lebanon taking into consideration the context, history and setting of the country.

A second goal comes as the natural extension of the first purpose of this study; the need to come-up with a Performance Management system adapted to Higher Education, that would allow to measure at the institutional level, the evolution and success of the implemented accreditation actions and/or monitor internal improvement attempts as part of quality assurance efforts. In order to do so, an innovative method is proposed, based on Performance Indicators that allows to measure and monitor the overall performance of a Higher Education Institution across various dimensions. This new system was applied and validated through a case study on a private Lebanese Higher Education Institution.

Keywords:

Quality – quality assurance – accreditation – performance management – performance indicators – higher education – accountability – performance – higher education institution – university – Lebanon

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## **Unité de recherche**

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## **Proposition de standards d'accréditation nationaux pour l'Enseignement Supérieur au Liban et d'un système de gestion de la performance pour l'Enseignement Supérieur – Rémusé**

L'Enseignement Supérieur (ES) occupe une place de plus en plus décisive mondialement, puisque c'est l'éducation tertiaire qui contribue au développement du capital humain, à l'innovation, incite à la productivité et à la croissance économique. En même temps, l'ES devient de plus en plus accessible et international avec l'expansion de l'offre d'un côté et l'accroissement de la mobilité des étudiants et des professeurs d'un autre côté, situation qui ajoute de nombreux défis au secteur. Par conséquent, le nombre et la diversification des Institutions d'ES ont augmenté considérablement afin de répondre à cette demande croissante. Paradoxalement, le taux de chômage mondial a également augmenté. Cette tendance, qualifiée de massification de l'ES a apporté des doutes quant à la performance du secteur et de sa réelle contribution au développement économique et communautaire. Ainsi, l'on se demande si la qualité a accompagné la quantité. Aujourd'hui, il y a un besoin pressant de contrôler la qualité de l'offre de ces Institutions d'ES et un désir de la part des gouvernements, de « responsabiliser » ces Institutions, d'exiger plus de transparence et de rigueur dans leurs activités. La première conséquence de cette nécessité de garantir la qualité de l'ES était la prolifération de nombreuses agences d'accréditation. La seconde était l'adoption progressive de systèmes de gestion de la performance de la part des établissements d'ES qui ont été poussés à établir des mécanismes d'auto-évaluation pour piloter leur performance de façon continue avec une approche autonome de la qualité.

Ce contexte pose deux problématiques :

1) Les agences d'accréditation ont développé des standards plus ou moins semblables à travers le monde et certaines agences couvrent plusieurs pays. Comment prétendre évaluer toutes les Institutions de la même manière et selon les mêmes critères alors que l'ES est de plus en plus diversifié, différent d'un pays à l'autre et d'une Institution à l'autre ?

2) Les systèmes de pilotage et de gestion de la performance utilisés dans le secteur de l'ES sont puisés dans l'industrie. Ce transfert de modèles de l'industrie vers l'ES a été l'objet de nombreuses critiques à cause de l'inadaptation des mesures et des modèles à la nature du secteur. Et pourtant, la revue de la littérature ne montre aucun progrès significatif dans le développement d'un système dédié à l'ES.

Les notions de qualité et d'assurance qualité ne sont pas récentes dans le secteur de l'ES. La définition du concept de qualité est fondamentalement un sujet polémique et assez subjectif. Dans l'ES, cette notion est encore plus complexe de par la nature des prestations, le profil et les attentes des parties-prenantes (étudiants, parents, gouvernement, « actionnaires », employeurs, professeurs, etc.) ainsi que l'intangibilité du concept de qualité dans ce secteur. La pénurie des ressources, la restriction des fonds publics et la massification de l'ES ont engendré des pressions accrues pour responsabiliser les Institutions et ont entraîné la prolifération d'agences d'accréditation ayant pour rôle de

contrôler et d'assurer la qualité de l'ES en évaluant leur performance selon des critères préétablis.

L'accréditation des Institutions d'ES est définie comme l'acte par lequel une agence d'accréditation (ou l'Etat) reconnaît la vérification effectuée dans un établissement d'ES, sur la qualité de ses programmes académiques, de son organisation, de son fonctionnement et de l'accomplissement de sa raison sociale. Une accréditation génère une reconnaissance publique, une confiance et certifie que l'Institution accréditée remplit un minimum de critères qui lui permettent de délivrer ses prestations d'une manière responsable et satisfaisante en répondant aux besoins des étudiants et du marché du travail. Le processus d'accréditation commence par une auto-évaluation, suivie de la visite d'un groupe d'experts qui évalue l'Institution (ou ses programmes) par rapport à des normes et critères préétablis avant de délivrer son verdict. De nos jours, l'accréditation est un sujet contesté à plusieurs niveaux. Le défi essentiel est l'application des standards de qualité, indifféremment d'une Institution à une autre. Or il existe plusieurs critères à considérer avant d'appliquer inconsidérément des normes définies préalablement par des étrangers ; la taille, l'environnement, le contexte et la mission de l'Institution sont quelques exemples de critères à prendre en considération.

Le sujet d'assurance qualité est étroitement lié aux concepts de mesure de la performance et de pilotage, où le management factuel tend à remplacer le management réactif. La pression grandissante sur les institutions d'ES de la part des gouvernements pour faire preuve de responsabilité et d'utilisation efficace des ressources a forcé ces institutions à mettre en place des dispositifs systématiques et structurés de mesure de la performance, afin de démontrer leur engagement envers la qualité de leur enseignement, de leur recherche et de leur administration, prouver l'efficacité de leurs processus ou de mieux répondre aux exigences de l'accréditation. En effet, l'évaluation de la performance fournit les informations nécessaires pour estimer dans quelle mesure une organisation crée de la valeur et atteint l'excellence. En réponse à cette tendance, les établissements d'ES ont tenté l'exploration de modèles de gestion de la performance initialement développés pour les entreprises et l'industrie. Cependant, les académiciens ont souvent critiqué ces systèmes et ces mesures qui sont empruntés à l'industrie. La manière dont les entreprises planifient leurs opérations et pilotent leurs performances a été jugée insatisfaisante et inadéquate pour l'ES ; ces systèmes ne tiennent pas compte de la complexité du secteur de l'ES, de la mission particulière de ses institutions et de leur nature multidimensionnelle. Ces lacunes ont incité les experts en ES à rechercher des systèmes de mesure mieux appropriés au secteur ou à adapter des systèmes existants, au contexte de l'ES. Mais la situation est bien loin d'être idéale.

Le contexte de l'ES au Liban – tel qu'il sera présenté plus loin – est caractérisé par la prépondérance d'Institutions privées, une absence de réglementations garantissant la qualité et par une tendance à importer des systèmes d'accréditation étrangers inadaptés.

#### **Buts de la thèse :**

**Partant du contexte libanais, nous avons conclu que des standards et des systèmes importés ne peuvent pas refléter réellement la situation des Institutions, ni**

**celle du secteur, et ne pourront jamais répondre efficacement au but ultime de l'assurance qualité. Par conséquent, nous avons proposé un projet d'accréditation national pour l'ES libanais. Tel est le premier but de la thèse.**

**Le second but est de proposer une méthode pour le pilotage des Institutions d'ES afin de répondre aux exigences de contrôle de l'accréditation d'une part et pour le travail d'amélioration continue et de pilotage interne d'autre part. Pour ce faire, nous avons dans un premier temps, proposé un large éventail d'indicateurs de performance et établi une base de données assez exhaustive. Dans un second temps, nous avons présenté un modèle générique de gestion de la performance d'une Institution d'ES basé sur l'analyse d'indicateurs composés puisés dans la liste proposée.**

Dans notre étude nous commençons par une présentation des concepts de qualité et d'accréditation en général et dans le contexte de l'ES en insistant sur les difficultés de leur application au sein des Institutions d'ES avant d'en déduire la première problématique de la thèse. Nous introduisons ensuite le lien entre qualité et gestion/mesure de la performance en présentant la place de ces systèmes dans le secteur de l'ES et les défis de l'usage de modèles empruntés à l'industrie, avant d'en déduire la seconde problématique. Dans la première partie du chapitre deux, nous présentons les systèmes éducatifs de cinq pays en insistant sur leur réglementation par rapport à l'assurance qualité et à l'accréditation et en présentant les standards d'accréditation d'une des principales agences ou commissions dans chaque pays. Dans la seconde partie, nous abordons le rôle de la recherche institutionnelle dans les établissements d'ES puis nous présentons plusieurs systèmes de gestion de la performance utilisés dans l'ES en insistant sur le pilotage par indicateurs de performance avant de préciser les principaux risques liés à leur emploi. Le secteur de l'ES libanais est ensuite présenté, avec ses avantages, ses désavantages et ses défis actuels. Le contexte des institutions d'ES privées est exposé en insistant sur les répercussions potentielles de la mise en place d'un système d'assurance qualité et d'accréditation. Dans le chapitre quatre, les principes d'accréditation des cinq systèmes étudiés sont synthétisés et comparés avant d'en déduire les points communs et de proposer une politique nationale et des standards d'accréditation adaptés au contexte et environnement libanais. Le chapitre cinq décrit la place et l'utilisation des indicateurs de performance dans l'ES aux niveaux national et institutionnel avant de proposer un système de gestion de la performance innovant et adapté au contexte de l'ES avec son cadre théorique, une base de données et la méthodologie d'application. Le chapitre six porte sur l'application pratique du modèle proposé sur une université libanaise privée.

Avant d'aborder un aperçu des systèmes d'ES, nous commençons par une introduction sur les terminologies et les thématiques employées dans ce secteur. Les réglementations et politiques nationales de l'ES diffèrent certes d'un pays à un autre, mais il existe des notions communes, des thèmes récurrents (tels que l'accès à l'ES, diversification, responsabilisation, qualité, équité, recherche, responsabilité sociétale, engagement communautaire, etc.) et une étendue plus ou moins prononcée du rôle de supervision/intervention joué par l'Etat (de l'Etat interventionniste au système libéral).



L'étude des systèmes d'ES de cinq pays clés (Etats-Unis, France, Allemagne, Angleterre et Japon), notamment l'organisation du secteur, l'assurance qualité, le rôle et la place de l'accréditation, permet de mieux comprendre le fonctionnement de différents systèmes d'éducation nationaux, et de saisir la diversité et la complexité de ce secteur.

Aux Etats-Unis, le secteur est caractérisé par un grand nombre d'Institutions publiques et privées, spécialisées ou générales, avec une réglementation différente d'un Etat à l'autre. Le gouvernement fédéral finance l'ES dans tout le pays en versant des fonds directement aux particuliers, par l'intermédiaire d'établissements d'ES « reconnus », en d'autres termes, éligibles ou approuvés pour recevoir des fonds fédéraux dans le but de les distribuer à des étudiants méritants (sous forme de dons, prêts ou abattement d'impôt). Pour être éligible, une institution doit être légalement autorisée par un Etat, certifiée par le gouvernement et accréditée par une agence d'accréditation reconnue. C'est le moyen de s'assurer que les Institutions qui administrent ces fonds publics sont conformes et dignes de confiance et que les étudiants reçoivent une éducation de qualité qui répond aux exigences établies par le gouvernement fédéral. Or, le gouvernement n'étant pas en mesure d'établir toute une structure de supervision et de réglementation pour assurer la bonne utilisation des fonds publics, invita les agences d'accréditation à remplir ce rôle à sa place et en son nom. Il existe plus de 61 agences plus ou moins spécialisées aux Etats-Unis (dont 10 régionales). La « triade » a donc été construite sur l'hypothèse d'un partenariat et de responsabilités partagées entre les 3 acteurs : Le gouvernement fédéral, les agences d'accréditation et les Institutions d'ES. La réalité de cette dynamique est aussi complexe que contradictoire. En effet, les agences d'accréditation sont des commissions privées, qui comptent sur leurs clients (les établissements d'ES) pour survivre financièrement. D'une part, ils ont les établissements d'ES en tant que clients, payant pour une accréditation facultative valable pour trois ou cinq ans et d'autre part, ils ont le rôle de gardiens de plus de 120 milliards de dollars de fonds d'aide fédérale. Aujourd'hui, le sujet de l'assurance qualité dans l'ES aux États-Unis est critiqué suite à plusieurs cas de gaspillage, fraudes et scandales qui ont bouleversé le secteur. L'agence d'accréditation NECHE (New England Commission of Higher Education) a été sélectionnée et ses standards d'accréditation présentés en annexe.

En France, il existe plus de 3500 Institutions d'ES, principalement publiques, jouissant mondialement d'une réputation de qualité ; plus de 12% des étudiants en France sont étrangers. Les établissements d'ES en France bénéficient d'une large autonomie dans leur gestion académique, administrative et financière. La qualité d'un diplôme français est garantie par l'État ou par des organismes indépendants délivrant des accréditations ou des labels. En France, les établissements d'ES doivent être reconnus ou accrédités par l'État pour avoir le droit de fonctionner et délivrer différents types de diplômes et de formations ; c'est l'institution qui est accréditée et non les diplômes, étant libre d'organiser en interne ses programmes et son règlement. Cette reconnaissance doit être renouvelée et s'appuie sur un cadre de l'éducation nationale qui assure la qualité des diplômes nationaux dans le respect de l'autonomie des institutions. Les établissements d'ES doivent prouver qu'ils sont capables de répartir efficacement leurs ressources en tenant compte des aspects académiques, financiers et de gouvernance. Le processus d'accréditation est long et très coûteux généralement valable pour une durée de 4 à 6 ans. En France, un organisme externe principal

conduit la plupart des évaluations (avec trois autres commissions travaillant sur des domaines spécifiques) : le Haut Conseil de l'Évaluation de la Recherche et de l'Enseignement Supérieur – Hcéres créé en 2013 dont le référentiel est résumé en annexe.

Les établissements d'ES en Allemagne sont connus pour la qualité de l'enseignement, l'excellence dans la recherche, l'application pratique et les bonnes perspectives d'emploi. Certains sont régulièrement classés parmi les meilleures universités du monde et sont également les plus anciens d'Europe. L'Allemagne propose un vaste choix de cursus mais en tant que pays industrialisé, les universités d'ingénierie sont particulièrement appréciées. Dans le système fédéral en Allemagne, la responsabilité de l'éducation incombe entièrement aux États fédéraux qui régissent leurs propres lois et sont responsables des reconnaissances de nouveaux programmes, du financement et de l'organisation des établissements d'ES. Par conséquent, la structure, les lois et les réglementations en matière d'accréditation et d'adoption de nouveaux programmes diffèrent d'un État à l'autre même si certains principes de base restent communs. Les Institutions d'ES en Allemagne jouissent d'une autonomie pour gérer de manière indépendante l'attribution de bourses, les activités de recherche et d'enseignement ainsi que les questions liées aux ressources humaines et au contrôle budgétaire. Avec plus de 85% d'établissements publics (représentant 94% du nombre global d'étudiants), l'Allemagne est la seule destination académique de premier plan où les études restent gratuites même pour les étudiants étrangers qui comptaient 5% des étudiants internationaux du monde en 2013. Il existe dix agences d'accréditation indépendantes opérant en Allemagne. Ces agences privées sont à leur tour accréditées par le Conseil Allemand d'Accréditation, l'autorité publique de surveillance qui certifie les agences d'accréditation et établit les lignes directrices et les critères pour l'accréditation des programmes et des systèmes. Près de deux décennies après la décision initiale d'introduire les réformes et de faire pression pour l'accréditation externe, l'accréditation reste timide avec moins de 60% de programmes accrédités en septembre 2016. Le processus d'accréditation est lent et lourd pour les universités, impliquant des coûts directs et indirects très élevés. L'agence d'accréditation ZEvA (*Zentrale Evaluations und Akkreditierungsagentur Hannover*) a été sélectionnée et ses standards présentés en annexe.

L'ES au Royaume-Uni est apprécié dans le monde entier pour sa rigueur et le prestige des diplômes délivrés (40% des étudiants sont étrangers en 2019). La ville de Londres est considérée comme la capitale mondiale de l'ES avec ses 4 universités classées parmi les dix meilleures au monde. Au Royaume-Uni, les établissements d'ES sont soumis à des conditions spécifiques pour utiliser diverses appellations réglementées par la loi et sont tous des établissements publics (à l'exception de l'Université de Buckingham et le BPP University College) mais cela ne signifie pas que l'enseignement soit gratuit. En effet, les étudiants couvrent une partie des frais de scolarité (qui restent assez élevées par rapport à d'autres pays malgré la mise en place d'un seuil maximal par le gouvernement) et le reste est couvert par l'État (à travers l'Office for Students (OfS) et le UK Research and Innovation (UKRI)) sous la forme de prêts ou d'un financement public direct. Au Royaume-Uni, de nombreuses entités sont impliquées dans la réglementation de l'ES et font partie intégrante du système éducatif ; L'OfS est un régulateur indépendant qui garantit une expérience épanouissante et enrichissante qui améliore la vie et la carrière des étudiants. Le UKRI est

une organisation indépendante financée par l'Etat chargée de créer le meilleur environnement propice à l'épanouissement de la recherche et de l'innovation. Un autre organisme de réglementation est l'Office of qualifications and examinations (Ofqual) qui réglemente les qualifications, les examens et les évaluations depuis 2010. Au Royaume-Uni, les établissements d'ES sont des organisations autonomes et indépendantes dotées de leur propre identité juridique et de leurs propres pouvoirs académiques et de gouvernance même si elles sont dépendantes du financement du gouvernement. Sous réserve des autorisations requises, elles sont libres de concevoir des programmes, fixer les frais de scolarités et les conditions de délivrance de diplômes. L'assurance qualité au Royaume-Uni est assurée par la Quality Assurance Agency (QAA), organisme indépendant créé en 1997 qui vérifie les normes et la qualité de l'enseignement. C'est le point de référence national et tous les établissements d'ES sont tenus de répondre aux normes du code de qualité (manuel) qui énonce les « attentes ». Il joue le rôle d'une agence d'accréditation nationale (le manuel se trouve en annexe).

Au Japon, la politique générale, la gestion et l'administration de l'ES sont placées sous l'autorité du ministère de l'éducation, de la culture, des sports, de la science et de la technologie qui approuve la création des nouvelles institutions d'ES (privées et publiques), établit les normes des programmes, les qualifications et le nombre de professeurs. Les établissements peuvent exercer leur autonomie dans de nombreux domaines, mais le ministère de l'Éducation conserve l'autorité principale sur la croissance et le développement de l'ES au Japon. Avec 75% des institutions privées, la qualité de l'éducation varie considérablement d'un établissement à un autre et il est extrêmement difficile pour les étudiants d'être admis dans les universités à cause d'une forte concurrence pour les meilleures. Le ministère de l'Éducation garantit la qualité de l'ES par la mise en place d'un système d'assurance qualité et d'accréditation, approuve la création de nouvelles institutions et finance certaines dépenses, les activités de recherche et l'aide financière aux étudiants. Tous les établissements d'ES sont tenus d'évaluer de manière autonome et indépendante l'état de leurs activités d'enseignement et de recherche, leur système de gouvernance et leurs installations techniques. Ils doivent offrir aux professeurs des opportunités de développement et de recherche et publier les résultats de cette évaluation avec les normes suivies. Les agences d'accréditation doivent être également certifiées par le ministère. Les établissements sont régulièrement évalués conformément aux normes fournies et bénéficient ouvertement du label de qualité et d'accréditation. Il existe 4 commissions d'accréditation et 5 associations spécialisées qui couvrent des sujets spécifiques ; les normes du Japan University Accreditation Association (JUAA) sont présentées en annexe.

L'étude et la comparaison de ces cinq systèmes a permis de déduire huit principes généraux communs qui régissent la pensée d'assurance qualité et d'accréditation dans le monde, à savoir :

- Mission et objectifs ;
- Organisation, gouvernance, planification, recherche institutionnelle ;
- Ressources (physiques, financières, humaines, technologiques) ;
- Etudiants (admission, apprentissage, progression, évaluation et services) ;

- Indépendance, intégrité, transparence et diffusion de l'information ;
- Enseignement et recherche ;
- Révisions et mises à jour ;
- Engagement des étudiants.

Suite à ce tour d'horizon, nous abordons le contexte libanais où la situation du secteur de l'ES (en termes de qualité et gestion de la performance) est aussi précaire que problématique. En effet, le Liban se caractérise par un environnement bien spécifique au niveau de l'ES. Avec plus de 150 Institutions (dont 46 universités) et une seule université publique sur une population de cinq millions d'habitants, le Liban se distingue par un large éventail d'Institutions privées, fondées notamment par des organisations à but non lucratif, des ONG, des congrégations religieuses ou encore des sociétés civiles. Le secteur, géré par le Ministère de l'Education et de l'Enseignement Supérieur, n'est régi par aucune réglementation quant à l'assurance qualité. Il n'y a aucun organisme en charge de contrôler ou de garantir la qualité des Institutions ou de leur enseignement. Le ministère approuve tout nouveau diplôme ou Institution à travers une procédure d'évaluation longue, volontairement lente et sujette à des pressions politiques ; terrain propice à la corruption et au clientélisme. Les Institutions d'ES au Liban, de par leur statut d'établissement privé, sont confrontées à une concurrence féroce et à un besoin pressant de rentabilité. Ces contraintes vont souvent à l'encontre de la rigueur académique et forcent certaines Institutions à adopter des mesures douteuses. Nous avons retenu ci-dessous les principales caractéristiques des institutions d'ES privées au Liban :

- Flexibilité et adaptabilité à la demande du marché, innovation ;
- Consumérisation et orientation client ;
- Faibles taux de rétention, diplomation et progression ;
- Orientation internationale ;
- Gouvernance et gestion stratégique ;
- Politique financière ;
- Stratégie de recrutement ;
- Diffusion publique de l'information ;
- Concurrence et compétitivité ;
- Autonomie et souveraineté ;
- Influence sectaire et politique ;
- Indépendance et impartialité de l'examen par les pairs ;
- Faible engagement des étudiants.

Cet environnement bien particulier affecte certains principes d'accréditation et entrave/freine – à juste titre – la mise en place de certaines normes et réglementations ; la planification financière, l'intrusion des audits, la mesure de l'apprentissage des étudiants, le statut des professeurs, les ressources physiques disponibles, etc. d'où la nécessité de développer un système national contextualisé qui servira à réellement améliorer la qualité du secteur.

Comme déjà mentionné, le besoin grandissant pour l'excellence et la performance dans l'ES a poussé les établissements à mettre en œuvre des activités de gestion de la

performance, formelles et systématiques, d'établir des mécanismes d'auto-évaluation, de remodeler leurs structures organisationnelles et leurs pratiques du management. Parce-que c'est en identifiant les problèmes, mettant en place les solutions appropriées et détectant les opportunités, que les organisations pourront fonctionner efficacement et réussir. A noter que cette tendance (associée à d'autres facteurs tels qu'une concurrence accrue et une pénurie des ressources) n'a pas été accueillie favorablement par certains académiciens car elle a été associée à la bureaucratie et à l'érosion de la liberté académique. L'activité de recherche menée dans les établissements d'ES pour collecter, mesurer, analyser et interpréter des données concernant les étudiants, les professeurs, le personnel, les programmes, les ressources techniques, etc. dans le but de mesurer et d'améliorer la performance, est effectuée par le Bureau de la Recherche Institutionnelle. Ce bureau pilote la performance de l'Institution et promeut l'efficacité institutionnelle. Il produit également les informations statistiques nécessaires à l'accréditation dans le cadre de l'auto-évaluation. En fournissant des informations utiles dans les domaines académiques et administratifs, ce bureau est censé aider la direction à effectuer une meilleure planification, développer des politiques et des réglementations et prendre des décisions basées sur des données objectives et fiables. Toutefois, le rôle traditionnel de ce bureau se limite à des rapports externes et souvent superficiels. C'est un gaspillage de connaissances institutionnelles et d'expertise technique puisqu'il peut générer des informations vitales, utiles pour prendre des décisions stratégiques éclairées et piloter ainsi efficacement l'Institution.

Alors que les systèmes de gestion de la performance concernent principalement les sociétés de production, néanmoins, une revue de la littérature suggère que très peu ont été utilisés par ou adaptés à l'ES. Nous retenons les plus pertinents : les Indicateurs de Performance (IP) et les méthodologies associées à ces indicateurs à savoir, le Balanced Scorecard (BSC) et le Benchmarking. Le BSC proposé par Kaplan et Norton en 1992, découle d'un besoin d'adopter une approche plus équilibrée et multidimensionnelle pour évaluer et piloter une organisation. Cela voulait dire d'évaluer non seulement la santé financière de l'organisation, mais piloter également sa situation par rapport à quatre perspectives proposées : Client (comment les clients nous voient-ils ?), processus internes (dans quoi devons-nous exceller ?), développement et apprentissage (pouvons-nous continuer à nous améliorer et à créer de la valeur ?), en plus de la perspective financière (comment les parties prenantes nous regardent-elles ?). Le BSC, largement utilisé dans les entreprises, n'a pas eu la même popularité dans le secteur de l'ES, ne répondant pas aux besoins et contexte de l'ES. Quant au benchmarking, il peut être défini comme un instrument de diagnostic, un outil d'auto-amélioration, un exercice d'apprentissage collaboratif et d'évaluation continue et une approche systématique de mesure continue des processus de travail. C'est un processus volontaire d'auto-évaluation par comparaison systématique et collaborative des pratiques et des performances avec des Institutions similaires ou pas. Il contribue à l'amélioration des performances des systèmes d'ES, aide à la conception et à la mise en œuvre des politiques d'ES, permet des comparaisons entre pays et un apprentissage par les pairs. Le benchmarking est assez courant entre les pays de l'OCDE. C'est un moyen de trouver et d'adopter les « meilleures pratiques », mais il reste toutefois limité à certains indicateurs communs et traditionnels. En effet, une comparaison approfondie entre les

Institutions serait une tâche laborieuse en raison de la complexité des opérations et de la diversité de l'offre, même dans un même pays. Néanmoins, les établissements d'ES regardent le benchmarking d'un point de vue réputationnel et compétitif plutôt qu'un exercice de réflexion sur le développement, d'autant plus qu'il reste utile pour définir des objectifs appropriés et fixer des seuils de performance ou de comparaison.

Nous nous attarderons sur la présentation des IPs puisqu'ils sont les outils de gestion de la performance les plus communs et au cœur du modèle qui sera proposé au chapitre cinq. Suite à l'intérêt récent envers les mesures de performance dans l'ES, le rôle des IPs est passé d'une simple aide à l'allocation des ressources vers un outil de management et d'élaboration de stratégies. Un indicateur est une mesure qui relie les performances réelles/résultats obtenus aux objectifs souhaités. Aligné sur la stratégie de l'organisation, il quantifie un objectif stratégique avec sa déclinaison en objectifs opérationnels et détermine le niveau de sa ou leur réalisation, permettant ainsi d'établir des comparaisons dans le temps, entre départements, ou avec des normes préétablies. Afin d'être utile, un IP doit posséder certaines qualités notamment : Pertinence (utile aux personnes concernées), vérifiabilité, statistiquement exempt de biais, quantifiabilité, faisabilité économique (les bénéfices qui en découleront sont supérieurs au coût de son calcul) et acceptabilité institutionnelle (accepté et perçu comme clair, pertinent et juste par les personnes qui vont l'utiliser). Les IPs peuvent être classés de différentes manières selon leur fonction, leur objectif ou leur nature ; en fonction du niveau auquel ils sont utilisés dans l'organisation (stratégiques ou opérationnels), de leur emploi (financiers, clients, ressources humaines, etc.) ou de leur nature (indicateurs de résultat ou de progrès, etc.). Les IPs sont de quatre types : Indicateurs quantitatifs d'entrée (input) ou de produits ou sortie (output) et indicateurs qualitatifs de résultat (outcome) ou de processus (process). Ils doivent être stratégiquement choisis, utilisés de manière équilibrée et doivent représenter des mesures de performance institutionnelle critiques pour le succès actuel et futur de l'Institution. L'utilisation des IPs dans l'ES se fait aux niveaux institutionnel (pilotage interne dans le cadre de l'amélioration continue ou pour l'accréditation) ou national (assurance et audits qualité, responsabilisation, allocation de fonds publics, classements mondiaux, financement public basé sur la performance générale, budgétaire, ou des ressources humaines, etc.). A noter que les agences d'accréditation s'appuient principalement sur l'utilisation des IPs d'entrée et de processus pour l'évaluation de la performance/activité des établissements d'ES. Cela est essentiellement dû à l'hypothèse selon laquelle des ressources d'entrée et des processus de qualité, conduiront éventuellement à des résultats ou des produits de qualité. Nous citons les indicateurs les plus couramment utilisés mondialement dans l'ES :

- Distribution des effectifs ;
- Profil d'admission ;
- Statistiques sur les inscriptions ;
- Taux de rétention des étudiants/taux de diplomation/durée moyenne des études ;
- Diplômes délivrés par formation, département et faculté ;
- Aide financière ;
- Situation académique des étudiants ;
- Taux de réussite aux examens professionnels ;

- Certaines données financières ;
- Informations sur le corps professoral et la performance de la recherche ;
- Enquêtes de sortie et données sur l'Alumni ;
- Données sur les ressources physiques ;
- Satisfaction des étudiants.

Ces IPs, généralement imprécis et superficiels, sont ceux qui sont divulgués au grand public. Les informations sensibles et surtout défavorables, saboteraient la réputation de l'établissement et ne seront donc jamais publiées par ces derniers. Toutefois, suite à la tendance récente d'autonomie et d'auto-régulation, les Institutions d'ES ont commencé à adopter de nouveaux outils pour le pilotage interne et le contrôle qualité en (développant et) mesurant des indicateurs plus critiques et plus pertinents. Nous citons les plus communs :

- 1- Résultats d'apprentissage ;
- 2- Accès à l'éducation ;
- 3- Taux de progression ;
- 4- Taux d'achèvement ;
- 5- Engagement des étudiants ;
- 6- Employabilité ;
- 7- Salaires de départ ;
- 8- Efficacité d'apprentissage ;
- 9- FTE (nombre équivalent de temps plein) ;
- 10- Impact et productivité de la recherche ;
- 11- Bibliométrie ;
- 12- Brevets et contrats industriels ;
- 13- Subventions ;
- 14- Dépenses pour la recherche ;
- 15- Salaire et réputation du corps professoral.

Bien que ces mesures touchent des niveaux plus profonds et pertinents d'évaluation institutionnelle, certains de ces indicateurs peuvent encore être adaptés/modifiés pour mieux servir l'objectif ultime de pilotage et d'amélioration continue, révolutionnant ainsi le rôle traditionnel purement informatif du bureau de recherche institutionnelle. En effet, le but est d'identifier quels indicateurs témoignent justement de la qualité de l'enseignement et de la recherche et ne servent pas à montrer publiquement les dimensions sociale, réputationnelle et communautaire de l'établissement, d'autant plus que les IPs devraient refléter le vrai besoin de pilotage et d'évaluation des différentes parties-prenantes ; ces dernières ayant des intérêts et des priorités assez divergents et une perception de la qualité assez hétérogène. Ceci nous conduit à mentionner quelques défis et risques à contourner pour une implémentation réussie d'un système de mesures de performance : non-implication des parties-prenantes dans l'exercice, manque de transparence, de confiance, de feedback et de consensus, manque d'engagement de la direction, bureaucratie excessive, mauvaise performance du système informatique, fausses interprétations des rapports, désalignement avec les objectifs stratégiques de l'Institution, nombre excessif d'indicateurs, mauvais choix d'indicateurs ou de données de base, déséquilibre dans la répartition des indicateurs

(insistance sur une seule dimension au détriment des autres), difficultés de collecte (ou indisponibilité) des données, inadéquation entre les données nécessaires et celles disponibles, absence de benchmarking ou d'objectifs précis, etc. Sachant que l'introduction des IPs peut parfois entraver la progression ou avoir des conséquences négatives ou incitations inverses, néanmoins, en comprenant les défis et les obstacles potentiels, les établissements d'ES amélioreront leurs chances de surmonter ces difficultés et de tirer le meilleur parti de l'exercice.

Partant du contexte libanais décrit ci-dessus d'une part, et de l'inadéquation d'utiliser des outils de gestion de la performance empruntés à l'industrie d'autre part, nous proposons un système d'accréditation national, contextualisé à l'environnement libanais ainsi qu'un nouveau modèle de gestion de la performance adapté et adaptable.

En s'appuyant sur la synthèse des cinq systèmes d'ES étudiés, nous proposons un système d'accréditation national, adapté au contexte Libanais qui tient compte des spécificités du pays et des caractéristiques de ses Institutions. Après présentation du cadre général et du processus d'accréditation recommandé, nous avons défini et commenté huit axes dont les thèmes sont les suivants :

- Mission, vision et stratégie ;
- Gouvernance et management ;
- Enseignement et recherche ;
- Etudiants ;
- Ressources (humaines, financières et techniques) ;
- Intégrité, éthique et responsabilité sociétale ;
- Engagement des étudiants ;
- Enseignement numérique.

L'absence de systèmes spécifiques pour l'évaluation de la performance des institutions d'ES nous a poussé à remettre en question les méthodes actuellement utilisées, qui ne tiendraient pas réellement compte de la complexité du secteur et de toutes les dimensions de l'ES. Ainsi nous proposons un modèle innovant qui servirait pour le pilotage interne de l'Institution et pour le contrôle des standards d'accréditation. Nous l'avons nommé CMBO (Compound Monitoring by Objectives) :

- « Compound » parce qu'il s'appuie sur un mix (bien pensé) de plusieurs IPs ;
- « Monitoring » puisqu'il sert à piloter et suivre de près la performance des Institutions au niveau de toutes les dimensions de l'ES ;
- « Objectives » parce qu'il se base sur les objectifs stratégiques de l'Institution et s'adapte au contexte et priorités de chacune.

Le CMBO est fondé sur les principes et modèles de management suivants : BSC adapté (avec cinq perspectives – et non pas quatre – adaptées à l'ES), Facteurs Clés de Succès (FCS), IPs et planification stratégique. Afin de faciliter la mise en place du modèle et contrer certains risques courants, nous proposons dans notre étude une base de données de 290 indicateurs avec leur description et méthode de calcul, catégorisés selon les dimensions de l'ES (qui se recoupent avec la BSC adaptée). Les dimensions sont les suivantes : Finances,



opérations, étudiants, ressources humaines, ressources physiques, enseignement et apprentissage, recherche, réputation et relations externes.

Dans un premier temps, les objectifs stratégiques de l'Institution sont déclinés en FCS puis reliés à un mélange pertinent d'IPs pondérés, puisés dans la base de données (ou choisis sur-mesure). En d'autres termes, suite à la détermination des objectifs, les FCS qui les décrivent le mieux sont identifiés et plusieurs IPs pertinents sont sélectionnés. L'idée est que lorsque plusieurs IPs pondérés sont combinés pour évaluer un objectif, les résultats obtenus décriraient mieux la situation, seraient plus exhaustifs et conviendraient à la complexité de l'objectif. En ajoutant différentes pondérations à chaque indicateur de manière à refléter l'importance de chaque facteur par rapport à l'objectif, les mesures seraient personnalisées (certains facteurs seront plus ou moins importants selon le profil de l'Institution), reflèteraient mieux la réalité de chaque Institution et permettraient un jugement précis et plus éclairé. La méthodologie à suivre se résume comme suit :

- 1- La première étape consiste à définir une liste d'objectifs dérivant du plan stratégique, qui répondraient aux questions – orientées passé et futur – suivantes : 1) Comment avons-nous réalisé certaines tâches/ quelle a été notre performance à certains niveaux pendant une période donnée ? 2) Quelles actions devons-nous entreprendre pour obtenir les résultats souhaités au cours de la période suivante ? Ces questions impliquent qu'il faut non seulement connaître les performances, forces et faiblesses d'hier et d'aujourd'hui, mais être aussi capable d'estimer les performances de demain en prédisant l'impact des décisions stratégiques prises aujourd'hui ou des actions exigées par l'accréditation. Les résultats souhaités, doivent être préalablement définis, dans le but de comparer les résultats réels avec ces valeurs cibles.
- 2- Dans la deuxième étape, chaque objectif est relié à ses FCS en répondant à la question suivante : Quelles actions critiques doivent être réalisées afin d'atteindre l'objectif souhaité ? Qu'est-ce qui compte le plus pour atteindre l'objectif ? Pour chaque objectif, deux à six FCS peuvent être identifiés, sachant qu'un FCS peut être utilisé pour différents objectifs.
- 3- La troisième étape consiste à relier pour chaque FCS, une composition adéquate d'IPs avec un poids attribué à chacun et qui sera défini par la direction. Un indicateur peut être lié à plusieurs objectifs ou FCS et avoir un coefficient différent en fonction de son importance par rapport à l'un ou l'autre objectif (ou FCS). Dans notre étude nous avons fixé l'échelle de poids entre 1 et 3. De cette façon, chaque Institution développe un mix adapté d'IPs avec leur poids respectif, en fonction de ses priorités, sa mission, ses besoins propres, ou de la disponibilité des données.
- 4- Après calcul des indicateurs, la quatrième étape est la normalisation de ces données afin d'obtenir des valeurs d'IPs homogènes, dans une échelle comparable. Les IPs pouvant représenter une multitude de valeurs (pourcentage, nombre, valeur monétaire, etc.), il convient de les standardiser avant de calculer le CMBO final et être en mesure d'associer des données hétérogènes. La normalisation est le processus de conversion des données dans une échelle spécifique entre 0 et 1 (ou entre -1 et +1), elle est nécessaire lorsqu'il existe de grandes différences dans les valeurs de

- résultats hétérogènes. Dans notre étude, nous appliquerons la normalisation Min-Max en utilisant un ensemble de données sur quatre années consécutives.
- 5- Dans cette cinquième étape, les indicateurs normalisés sont multipliés par leur coefficient afin d'obtenir le CMBO global pour chaque objectif. Une valeur composée unique, reflète des informations recueillies à partir de dizaines d'indicateurs. Donc au lieu d'examiner une multitude d'IPs hétérogènes – ce qui peut sembler long et contre-productif – ce modèle permet un suivi vaste et global en n'étudiant que quelques mesures compilées.
  - 6- Les prochaines étapes sont l'analyse des écarts, le reporting et les actions correctives. L'analyse des écarts se fait par rapport à des benchmarks (s'ils existent), des valeurs historiques ou des valeurs prédéfinies, et aide à orienter les ressources et les efforts vers les domaines identifiés afin de les améliorer. Lors de cette analyse, il est important de s'interroger sur les raisons de ces lacunes et d'identifier les causes profondes avant de concevoir un plan pour corriger, améliorer et prévenir ; ce qui nous amène au reporting et à la mise en place d'actions correctives. Le reporting est une étape importante dans tout système de management mais il est d'autant plus crucial de partager les résultats avec les parties-prenantes concernées et non seulement avec la direction de l'établissement ou les chefs de départements. La diffusion des résultats et la fréquence des analyses doivent être bien pensées. La mise en place d'actions correctives est sans doute l'étape la plus délicate de cet exercice. C'est en remédiant aux faiblesses que le cercle vertueux de l'amélioration continue apportera ses fruits.
  - 7- La dernière étape est la remise en question régulière des objectifs, des FCS, des valeurs cibles, des indicateurs et de leur poids parce que le contexte, les priorités et les conditions changent. Avec le temps et l'expérience, à force d'instaurer des actions correctives et d'analyser leurs effets, les Institutions seront en mesure de prévoir les conséquences que certaines actions auront sur certaines mesures et pourront ainsi prendre des décisions éclairées, basées sur des données probantes afin de piloter/contrôler efficacement leur performance.

L'originalité de la méthode proposée repose donc sur les points forts suivants :

- BSC adapté aux dimensions de l'ES ;
- Base de données de 290 indicateurs de performance ;
- Pondération des indicateurs ;
- Mesures personnalisées ;
- Mesures orientées passé et futur (estimation de l'impact des actions prises aujourd'hui) ;
- Mix d'IPs adapté ;
- Agrégation d'un grand nombre d'indicateurs pour une vision intégrale et une visibilité globale ;
- Révision et mise à jour régulière des objectifs, des FCS, des valeurs cibles, des indicateurs et du poids attribué à chacun ;

La dernière partie de ce travail est la validation de la méthode proposée par application sur une université privée au Liban, l'Université libano-allemande (LGU). Afin de démontrer la valeur ou le double usage de la méthode proposée pour le pilotage interne d'une part et comme outil d'accréditation d'autre part, le CMBO sera calculé pour illustrer ces deux usages. A cette fin, nous avons sélectionné quatre normes d'accréditation extraites de diverses agences d'accréditation (à savoir, la NECHE américaine, le Hcéres français et le QAA anglais) et un objectif stratégique, pour lesquels nous avons appliqué la méthodologie du CMBO. Ces normes et cet objectif ont été choisis et tirés du plan stratégique de la LGU, répondant ainsi à ses priorités qui se synthétisent comme suit :

- Engagement envers le développement durable et la responsabilité sociétale ;
- Engagement envers l'excellence et la qualité de l'enseignement ;
- Suivi/amélioration de la situation financière ;
- Satisfaction des étudiants (dont prise en charge des plaintes et pétitions).

Comme déjà mentionné, une condition indispensable à la bonne implémentation d'un système de gestion de la performance, est la qualité et la disponibilité des données ainsi que l'adaptabilité du système informatique. De plus, cet exercice prend sens lorsqu'il est effectué sur plusieurs années dans le but de créer un cercle vertueux (partant de l'identification des tendances, la fixation d'objectifs, le suivi des lacunes, la proposition d'actions correctives et se terminant par l'évaluation des nouveaux résultats avant de recommencer). Or, à la LGU, le système informatique actuel ne permet pas la collecte directe de toutes les données nécessaires. Un autre obstacle, lié aux conséquences de la pandémie et à la crise économique libanaise a empêché la collecte des données sur plusieurs années consécutives. En effet, les années de COVID ont bouleversé les fondements de l'enseignement et de la recherche dans le monde et ont profondément perturbé l'environnement de l'ES et la notion même de qualité. La LGU, comme la vaste majorité des Institutions d'ES, a répondu à la crise en passant à l'enseignement en ligne puis hybride, en s'appuyant sur les réseaux sociaux pour communiquer avec les étudiants, en interrompant les activités de recherche et se concentrant davantage sur l'accompagnement personnalisé des étudiants. Cependant, au Liban la pandémie s'est accompagnée d'une crise humanitaire, économique et financière sans précédent, qui a laissé le pays et ses institutions au bord de l'effondrement. Les chiffres ne reflétaient plus la réalité telle qu'on la connaissait, la priorité n'était plus la qualité ou à l'amélioration continue mais la survie. Au vu de cette situation, il a été jugé inadéquat de collecter des données après 2019 afin d'établir une tendance, évaluer les résultats des décisions prises et créer un cycle d'amélioration. En effet, à partir de l'année académique 2019-2020, la majorité des données collectées sont soit biaisées soit indisponibles. Les valeurs historiques ne peuvent donc pas être comparées aux valeurs actuelles, la normalisation et l'analyse de l'impact des actions correctives mises en place sont irréalisables, et les critères de performance ont radicalement changé. Afin de contourner ces limites, nous avons démontré la viabilité du système proposé à travers les données de l'année académique 2018-2019 (dernière année où l'activité était « normale »). Cependant, pour illustrer une application complète du modèle, appliquer la normalisation et obtenir plusieurs valeurs de CMBO comparables dans le temps, certaines données ont été calculées manuellement et l'objectif retenu a été choisi en fonction de la disponibilité des données sur

sept années (dont cinq années pré-COVID et pré-crise), qui répond en même temps à un des piliers du plan stratégique ; l'objectif financier. Cet objectif, portant sur les ressources financières de l'Institution, exige que cette dernière démontre dans quelle mesure ses ressources sont allouées et gérées d'une manière qui reflète sa mission et ses objectifs et qu'elle montre une capacité de réagir aux urgences financières et aux circonstances imprévues.

Le calcul d'un seul CMBO sur quatre années consécutives a permis d'explorer une multitude de pistes d'amélioration et identifié de nouveaux enjeux. Cette mine d'informations condensées en un seul chiffre, permettrait à la direction de piloter en parallèle des dizaines d'objectifs en concentrant son attention sur les sujets problématiques, sans avoir à suivre et interpréter un nombre excessif d'indicateurs. La direction serait également en mesure d'identifier les problèmes assez tôt et de leur consacrer une attention particulière, concentrer les efforts et allouer le budget là où c'est nécessaire. De plus, avec le temps et l'expérience, le système informatisé peut passer en mode « deep learning » et devenir artificiellement intelligent ; l'impact des actions correctives pourrait être quantifié et l'Institution pourrait reconnaître – sur la base d'hypothèses réalistes et de données historiques – quelles actions devraient être prises et quelles valeurs d'indicateurs cibler, pour obtenir un certain niveau de CMBO.

Au terme de cette étude, nous avons établi que la qualité dans l'ES est à la fois une nécessité et un sujet contesté, puisqu'elle implique un degré de subjectivité et ne peut être dissociée des contextes institutionnel et national. Nous avons également constaté que les plus grands systèmes d'ES au monde – aussi diversifiés soient-ils – s'appuyaient sur des principes communs pour l'accréditation de leurs Institutions et comportaient des défis inhérents qui menaçaient la qualité. Par ailleurs, nous avons observé que l'usage de systèmes de performance dans ce secteur – dont les mérites ne sont plus à prouver – n'était pas exempt de risques, notamment celui de l'emploi de modèles génériques destinés à l'industrie. L'analyse du contexte de l'ES libanais nous a permis de confirmer la nécessité d'adopter un système d'accréditation national fondé sur les caractéristiques de l'environnement libanais. En observant l'application des systèmes de gestion de la performance dans l'ES basés principalement sur les indicateurs de performance, nous avons relevé le besoin de développer un modèle adapté à l'ES qui servirait à évaluer la performance des Institutions tant pour le pilotage interne que pour les besoins de l'accréditation. Le modèle proposé que nous avons nommé CMBO, a été présenté en détail avec sa méthodologie, ses avantages, sa base de données et une validation par application directe sur un cas pratique.

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# List of acronyms

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HE – Higher Education

PHEI – Private Higher Education Institutions

PI – Performance Indicator(s)

KPI – Key Performance Indicator

PM – Performance Management

CSF – Critical Success Factor(s)

BSC – Balanced Scorecard

CEP – Continuing Education Program

IR – Institutional Research

LGU – Lebanese German University

CMBO – Compound Monitoring by Objectives

GB – Governing Body

BOA – Board of Administration

BOT – Board of Trustees

AH – Administrative Head

HOD – Head of Department

SAO – Students Affaires Office

SD – Sustainable Development

MEHE – Ministry of Education and Higher Education in Lebanon

MEXT – Ministry of Education, Culture, Sports, Science and Technology in Japan

NECHE – New England

HCERES – Haut Conseil de l'évaluation de la recherche et de l'enseignement supérieur

ZEvA – *Zentrale Evaluations und Akkreditierungsagentur Hannover*

JUAA – Japan University Accreditation Association

ROI – Return on Investment

SoV – Share of Voice

MFI – Media Favorability Index

SEO – Search Engine Optimization

NPS – Net Promoter Score

CTR – Click-through rate

ENQA – European Association for Quality Assurance in Higher Education

ECA – European Consortium for Accreditation

EQAR – European Quality Assurance Register for Higher Education

ESG – European Standards and Guidelines

CEQ – Course Experience Questionnaire

# Chapter 1 – State of Quality Assurance, Accreditation and Performance Management in Higher Education

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## 1.1 Introduction

In the early stages of quality management, quality assurance was limited to the manufacturing businesses and consisted of the informal efforts made by workers to ensure that the final product was built according to certain specifications. Through the middle-age of quality with the development of the Japanese statistical quality control systems up until today, quality has become embedded at all levels of any organization, across sectors, and affecting all processes and functions. Many quality gurus accompanied this evolution of quality and conceived total quality management philosophies to be applied in all different kinds of organizations (Sallis, 2002). Many standardization and evaluation agencies emerged as a consequence of the popularization of quality, with the aim of evaluating and recognizing that an organization is meeting a pre-determined set of quality standards. The Higher Education (HE) sector was no exception. Governmental efforts and even transnational initiatives are continuously done to assure the quality of the HE Institutions operating in the country as the vitality of HE is a fundamental and increasingly important factor of the world economy; It contributes to labor productivity, entrepreneurial energy, quality of life, enhances social mobility, encourages political participation, strengthens civil society and promotes democratic governance (Jalaliyoon & Taherdoost, 2012). HE can also lead to economic growth through both private and public channels. In this worldwide context of increased awareness to the need of assuring quality in HE, why is Lebanon lagging so far behind? What was once known as the “University of the Orient” has even failed to formulate national policies to regulate quality within the sector. While some private Lebanese HE Institutions took the individual initiative of undergoing a foreign accreditation, one cannot but wonder how can an imported system account for local needs, when even “*the definition of quality and quality standards is relative*” (Harvey & Green, 2006)? Worldwide, there (justly) isn’t one unified HE quality assurance model and in some cases, disparities exist in the same country. In a complex environment like Lebanon, what makes it acceptable to implement an imported system?

In addition, the subject of quality is inextricably linked to the concepts of performance and measurement, where factual management starts replacing action management (Finch, 1994). Moreover, HE Institutions are increasingly under pressure from governments to demonstrate accountability and effective use of resources through quality evaluation and performance measurement. Therefore, Performance Management (PM) in HE is becoming more and more the priority of governments and HE Institutions. Measuring commitment to teaching quality as part of an accreditation process for instance, requires that decision makers in HE Institutions go beyond the simple identification and study of expenditures related to teaching and support services. It requires a commitment to efficiency and effectiveness through a well-thought PM and assessment system. Even in cases where Institutions have no “formal obligation” to operate efficiently and with accountability, accreditations agencies encourage HE Institutions to “*recognize the need to develop a system of internal monitoring and a culture of evidence and awareness of analytics consistent with their core values*” (McLaughlin, McLaughlin, & Kennedy-Phillips, 2005). With increased public scrutiny, harsher competition for public funds and tighter race between Institutions to recruit students, “*PM seems to be an efficient practice to improve*

*education quality and enhance competitiveness*” (Chen, Wang, & Yang, 2009). In other terms, quality assurance, accreditation and PM go hand in hand as the latter is the process that measures the extent to which an Institution satisfies the standards of quality and brings evidence of effectiveness and efficiency.

This research work starts by defining quality assurance and its application in HE before introducing the topic of accreditation in HE and addressing the current challenges related to quality assurance and accreditation faced by governments and HE Institutions around the globe. Next, the concept of PM is introduced, highlighting its use in the HE sector for both accreditation and internal monitoring purposes. The conclusion of both parts will confirm the dual objective of this study being first, the necessity to develop a contextualized quality assurance and accreditation system for the Lebanese HE sector, second, the need to design an adapted PM and measurement system that can be practically and effectively used by HE Institutions while recognizing the particularity of their context, mission, type and strategic objectives. The purpose and novelty of the work will be then detailed. The second chapter introduces general HE themes and governance schemes and review five main HE systems worldwide while stressing on their quality assurance and accreditation systems. Next, the role of PM in HE will be presented followed by the most used measurement tools with an emphasis on the use and characteristics of Performance Indicators (PI) in HE. The limitations and challenges of performance measurements will be described before presenting the HE system in Lebanon and stressing on its singularities and the characteristics of its Institutions. In the following chapter, a quality assurance framework and accreditation process and guidelines for Lebanese Private HE Institutions will be proposed based on a synthesis of worldwide institutional accreditation principles and an adaptation to the Lebanese context. In chapter five an innovative PM tool is proposed with a complete description of the framework and application methodology as well as a database of 290 PI before concluding the work with a case study that will demonstrate the use and methodology of the proposed PM tool.

## **1.2 Quality Assurance and Accreditation**

In order to introduce the topic of quality assurance and accreditation of Institutions of HE, one must start by defining quality and its specific place in HE, what is and how is quality assurance applied before understanding the accreditation model of HE Institutions.

Literature on quality and quality assurance in HE reveals considerable difficulties and confusion associated with the definition of quality. This is not surprising as quality deals with several complex notions. For example, in many HE Institutions, there are often surprising variations of views about the essential elements of quality, about what characteristics of institutional work are regarded as being of the greatest value and why, what constitutes academic performance at the highest level and how such performance can be recognized. Sometimes there is disagreement within the same HE Institution about what constitutes good teaching, or which graduates have the most valued characteristics. Even between researchers, the concept of quality differs significantly in their views about key terms. Many see quality as a relative concept, meaningful only from the perspective of

particular judges at particular points of time, measured against some either explicit or implicit standard or purpose. Technical matters such as measuring academic performance of students, comparing academic standards over time and between Institutions, and devising means to ensure that teaching is of consistently high quality have also divergent points of view.

Various authors have tried to define the concept of quality and offered different definitions and approaches. There is a wide variety of interpretations and different perspectives on quality that either depend on the stakeholder's point of view (the providers, the users, the employees, etc.) or that are standards-driven focusing on meeting a pre-defined set of standards. Moreover, the multi-dimensional aspect of quality makes it difficult to reduce its concept to one definition especially when it evolves with time (Schindler, Puls-Elvidge, Welzant, & Crawford, 2015). The American Council on Education defines quality as "*the planned and systematic activities implemented in a quality system so that quality requirements for a product or service will be fulfilled*" (American Council on Education, 2015). It is process-driven and focused on the development of the product or delivery of the service.

Quality assurance, in general, is a way of preventing mistakes and avoiding problems when manufacturing a product or delivering a service. It involves systematic measurements, comparisons with a standard, monitoring of processes and performance with systematic feedback to prevent the repetition of the error or inaccuracy or to reduce the gap with the standard. In other terms, the idea of continuously improving internal practices is embedded in the quality assurance principles. Moreover, quality assurance efforts are an organization-wide responsibility with a strong focus on customer satisfaction and accountability. While quality assurance and total quality management originated in the manufacturing sector, their principles are applied to many industries (banking, hospitality, health, education, etc.).

The quality debate in HE is not a new topic. In the past, HE Institutions and governments used different terminologies, such as academic standards, standards of degrees and diplomas, student assessment, and accountability. Back then, the main issues in the quality debate were largely about maintaining academic standards according to some national or international norm, the maintenance and improvement of levels of teaching and learning, and how to provide sufficient financial and other resources to achieve quality HE. Many of these issues are still important today, but the new dialog is now about the achievement of quality outcomes, the establishment of appropriate management processes to monitor achievement and the extent to which specified goals and objectives are being met, assessing the suitability of graduates for the job market, and providing information to stakeholders in order to assure them of the quality and credibility of outputs (Meek & Harman, 2000). In other words, the main difference between the old approach to quality and the new one is that, while the old was focused largely on inputs, national and international academic standards, the new is much more concerned about management processes and their effectiveness, outputs and their assessment, performance monitoring, and how well outputs meet employer and others' needs; a trend going the same direction as the new ISO 9001: 2000 guidelines.



### 1.2.1 Quality Assurance in Higher Education

“*Quality is in the eye of the beholder*”; defining quality in general is not an easy task per se. Defining quality in HE doesn't have a unanimous answer either. All of them could be right but none of them alone. Even if there would be an agreement on what quality and quality assurance in HE would be, producing unified evaluation tools and processes to assess it would be a colossal task (Schindler, Puls-Elvidge, Welzant, & Crawford, 2015). Moreover, there is no unanimity regarding the definition of the end product of HE, let alone assessing its quality. Is it the students' learning outcome? In this case how would it be evaluated? Is it science-based or labor market-based? Defining quality measures and corresponding PIs is also subject to many question marks. Is it the employability of the students? Or the set of processes and resources put in place to ensure certain results? A HE Institution could guaranty the quality of the opportunities it provides to students, but it cannot guaranty how any particular student will experience those opportunities. Quality assurance in HE can be largely defined as “*the set of processes and methods that ensure a HE Institution's internal structures, human and material resources, procedures and activities are apt to achieve the institutional goals and provide a sound basis for high-quality teaching and learning*” (Manning, 2018). In other words, it is a systematic management and assessment process adopted by a HE Institution or an external system, to monitor the performance and to ensure achievement of quality outputs or improved quality. Quality assurance aims to give stakeholders confidence and making sure that appropriate and effective teaching, support, assessment and learning resources are provided to students, enabling them to satisfactorily achieve their qualification. Consistent with the principle of institutional autonomy, the primary responsibility for quality assurance in HE should lie within each Institution. This provides the basis for real accountability of the academic system within the national quality framework, but also opens the door to many subjective interpretations (OECD, 2010).

Quality assurance in HE is a sensitive and crucial topic nationwide. As the quality of the education and services rendered by the Institutions of HE have direct impact on their graduates, they are consequently believed to have a strong impact on the local economy and job market (Vibert, 2018). Therefore, regulating quality within the HE sector has become critical and vital worldwide. Internationally, quality and quality assurance have become key issues for HE since the 1990s. In many countries, concerns about quality and how to put appropriate quality assurance mechanisms in HE is a top priority for Institutions, policymakers and the public. In some cases, it even crosses the borders, as is the case with the European Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG). A key goal of the ESG is to “*contribute to the common understanding of quality assurance for learning and teaching across borders and among all stakeholders*” initially adopted by the HE Ministers in 2005 and revised in 2015. They play a major role in the development of national and institutional quality assurance systems across the European Higher Education Area and cross-border cooperation.

Governments are concerned about the costs of providing credible academic and professional degrees and the need to ensure that standards are maintained at an appropriate level. At the same time, the rapid increases in enrolments and tendency towards a falling

financial support per student, raise doubts about whether quality is being maintained. Employers are increasingly concerned about the outputs of HE Institutions and the suitability of graduates to meet the job market needs. The public questions whether their societies are getting real value for their massive investment in HE and urges the governments to adopt stricter control mechanisms on the work of HE Institutions. Quality and accountability have thus become key elements in the efforts of many countries to become and remain internationally competitive in a world where interdependence in trade is rapidly growing. On another level, there is more emphasis on quality associated with increased mobility of professional and skilled labor, and the greater need for recognition of qualifications across national boundaries (Meek & Harman, 2000).

Harvey and Green, examined the nature of the concept of quality in relation to HE and grouped widely differing conceptualizations of quality into five distinct but interrelated categories as below:

- Quality as purposeful or as fitness for purpose. Quality conforms to the stated mission and vision, measured against the objective or purpose as well as to a set of standards;
- Quality as exceptional aiming to achieve distinction and exclusivity of services through high standards;
- Quality as transformation as it affects positive change through the teaching and learning with a focus on improvement;
- Quality as value for money and accountability of HE Institutions towards stakeholders for optimal use of resources (efficiency) and accurate delivery of services;
- Quality as perfection or consistency, process-focused and characterized by notions of zero faults/defects and getting the things right the first time (Harvey & Green, 2006).

Robin Middlehurst identified four different ways that the term quality has been used in the HE debate of the twentieth century; quality as a defining characteristic or attribute, quality as a grade of achievement, quality as a particularly high level of performance or achievement which, by virtue of general consensus and reasonable stability over time, comes to be seen as a standard against which to judge others, and quality as fitness for purpose achieved through performance that meets specifications (Middlehurst, 1992).

As one of the underlying concepts of quality is the satisfaction of the internal and external customers or the stakeholders, it is important to mention that in the case of HE, the list of “customers” is quite long; students may be the first group that comes to mind but their parents are also customers. Faculty members have similarly an important status, whereas employers and professional associations have a growing role to play. Last but not least is the government, especially when public funds are involved. Therefore, defining quality and quality assurance in HE also depends on the point of view and different interests of its stakeholders. From the researchers and faculty members’ perspective, it can be the ranking position and the rating of the Institution, or the focus on scientific progress. Students and their parents want adequate preparation for the labor market, employers want well-prepared

graduates and the government aims for accountability and the effective use of public finances.

Over the past decade, extensive experimentation has taken place internationally with quality assurance and how it is managed in HE (Kinser & Phillips, 2018). Most quality assurance mechanisms depend on one or a combination of methodologies; quality assessment, quality audit and more importantly, accreditation using various tools and approaches; self-evaluation, peer review by panels of experts, analysis of relevant statistical information and PIs, and surveys of key groups (such as students, graduates and employers). At the national level, the most common forms of assessment are ‘horizontal’ reviews of disciplines and ‘vertical’ evaluations of institutions (Scheerens, 2006).

One important distinction is to be made between quality assurance and accreditation. As will be presented in the following section, accreditation is often one of the main mechanisms of quality assurance. Quality assurance refers to processes of on-going review, assessment and monitoring applied to all recognized and established HE Institutions, in order to ensure that courses and degrees are of a high standard and that institutional monitoring of performance is effective. While the standards and criteria used in the accreditation should inform quality assurance mechanisms, the latter entails more than a periodic assessment followed by a judgement; it establishes a sense of accountability and clarifies the roles and responsibility of HE Institutions and various stakeholders.

### **1.2.2 Accreditation in Higher Education**

Webster dictionary defines accreditation as “*to give official authorization or approval to recognize or vouch for as conforming to a standard, or recognize as maintaining standards*”. It is generally a voluntary and non-governmental process (except for some countries), performed by accreditation agencies or commissions. It can be an accreditation covering the Institution as a whole (institutional accreditation), its system (system accreditation) or a faculty, department or just one program (programmatic accreditation). In some countries, the term accreditation has developed three meanings: 1) a process of review or assessment conducted by a government agency to enable a Ministry or approved authority to recognize and approve a HE Institution or program; 2) a process of assessment and recognition carried out by professional (mostly private) associations or agencies; 3) a process of review carried out by a governmental body to enable graduates of particular fields to practice in the particular State or Territory. In this thesis, unless stated otherwise, the term accreditation will refer to the second meaning.

In the HE circle, accreditation is a process of assessment and review (whether voluntary or mandatory), undertaken by an Institution of HE in collaboration with an accrediting agency that enables a HE program or the Institution to be recognized or certified as meeting appropriate standards. It entails a self-study or self-assessment in comparison to a set of standards performed by the Institution, followed by an external peer-review with an on-site visit, in the purpose of assuring a certain quality of service, adequacy of resources, accountability, governance fitness and the continuous improvement of its services. Accreditation evaluates whether an Institution’s objectives are appropriate (for the degree

level in question or for the Institution as a whole) and the adequate implementation of those objectives. Typical implementation questions include whether sufficient resources are available to meet the objectives and whether the resources are used effectively to produce the desired outcomes (Massy, 1996).

However, defining the mission and purpose of accreditation in HE is as questionable and disputed as defining quality assurance (Neal & Alacbay, 2018). The literature on accreditation in HE points to a tremendous variety in approaches and methods. The most common pattern is where accreditation responsibility lies with a specialized governmental agency (or department/ministry responsible for HE quality assurance). In a few countries, however, responsibility lies with one or several independent agencies often set up by the HE Institutions themselves. Another important variation between accreditation systems is whether participation is voluntary or compulsory. While many countries initiated institutional audits on a voluntary basis, strong moral and professional pressures usually produce a high level of participation making it indirectly a compulsory national review process. In the US, what used to have a purely optional academic oversight function based on self-study and peer-review, has now become a regulatory and gate-keeping role. As will be presented later in chapter two (2.3.1), the US federal government has assigned the US accrediting agencies with the contradictory task of gate-keeper and optional accrediting body, whereas in France, accreditation is a purely optional matter that nearly doesn't entail any positive or negative consequences.

#### **1.2.2.1 Accreditation motives**

For an Institution of HE, the reasons of being accredited can be various. If not mandatory, earning the accreditation seal can help them to differentiate themselves from the competition, to inspire the public a degree of confidence in the quality of their services or to facilitate the process of credits transfer between universities as a mechanism of mutual recognition of credits or programs. In some cases, accreditation has taken a large role in consumer protection ensuring that the consumers get trustworthy and transparent data about the Institutions, or that unworthy Institutions will be “kicked-out” of the market, as well as making sure that public funds are adequately allocated. Some other purposes can be to create transparency in internal planning and decision-making processes, to improve the quality of teaching in the support of quality development, to promote autonomy and accountability or to allow a performance comparison between Institutions or between different departments within the same Institution.

#### **1.2.2.2 Accreditation benefits**

From an external point of view, there are several inherent benefits in undergoing an institutional review. For instance, institutional accreditation increases trust and enhances reputation. Through this process, HE Institutions can demonstrate that they live up to certain standards for teaching and learning and provide all necessary conditions for successful learning. This may have a positive effect on the mobility of students and staff (both incoming and outgoing) and may facilitate the forging of cooperative relationships with foreign universities. Accreditation promotes excellence and drives self-reflection and

change, systematic and honest internal assessment being an important prerequisite for successful external assessment. Institutional accreditation provides an occasion for thorough self-analysis and can make it easier to implement measures for improvement. Another benefit is that it supports quality enhancement in teaching and learning. HE Institutions applying for institutional accreditation have the chance of receiving expert advice that helps them to improve their programs and procedures and demonstrate excellence. Accreditation hence, acts as a benchmark for institutional effectiveness and gives the Institution a higher academic ranking. Moreover, accreditation facilitates the acquisition of funding (public or private) and increases graduates' employability.

Recently, important changes have taken place in the accreditation and quality assurance environment worldwide. It was mainly due to globalization, changes in educational technology, international recognition of qualifications, changes in quality assurance in industrialized countries, increased accountability pressures, scandals, increase in the number of private HE Institutions, and complaints from Institutions seeking accreditation (for lack of flexibility and in some cases biases). Globalization means that employers, government agencies, professionals and students are better acquainted than ever with developments in other countries; they can compare courses and degrees of foreign HE Institutions. It also means an increased mobility of skilled personnel and international mobility of students. Developments in technology enable HE Institutions to offer courses in new forms (distance learning creating more competition among HE Institutions) and provide students with access to new forms of educational resources. These changes are creating pressures for rigorous action by Institutions and governments to improve quality assurance and to establish regulated reciprocal relations in the recognition of academic and professional qualifications between countries. These pressures and changes were accompanied by new challenges that are shaping HE across the globe, as will be presented in the following section.

### **1.2.3 Challenges of Quality Assurance and Accreditation in Higher Education around the world**

In this section, the main challenges facing quality assurance and accreditation in HE worldwide will be briefly addressed as this topic will be reviewed later on in chapter three in the Lebanese context.

Many authors argue that the success of ISO implementation in any industry – just as that of any quality system – is dependent upon a variety of factors such as organization size, employee preparedness as well as leadership ability and change methodology. Barriers to implementation have been identified as the costs of training, consultation, registration and the practical difficulties of performing internal system audits. This, in part, explains why many companies, particularly small and middle-sized enterprises, are dissuaded from pursuing the formal certification route of ISO because of its perceived resource cost (White, Samson, Rowland-Jones, & Thomas, 2009). In HE, challenges are even greater.

Although it is an efficient way to ensure quality, enhance accountability and promote internal improvement, accreditation is not always cheered. Over the years, quality assurance

and accreditation have been difficult to apply correctly and have been criticized for several reasons. First, the process-oriented nature of quality assurance systems is not easily applicable to HE Institutions, second, academics consider quality assurance and accreditation systems as something forcefully imposed and not useful, finally, many biases have been detected in the accreditation systems (Stura, Gentile, Migliaretti, & Vesce, 2019). In fact, accreditors have an important role to play in this ambivalent situation. On one hand, accreditation helps Institutions in assessing and improving the quality of their education, on another hand, it is a long, costly, time-consuming and complex process that doesn't always take into consideration the Institution's type, size, environment and context. Moreover, while the support and involvement of the academic community produces major benefits to the success of any quality assurance program, gaining that support is not always possible as academics have seen the initiative as a threat to their professional independence and work. Therefore, the purpose of any quality endeavor should be explicitly stated, and should fit well with the culture and values of the Institution. Another important challenge is that we are not dealing with a tangible end product in order to assess its quality. Moreover, the efficiency of the quality assurance systems that are put in place by the government or by the agencies themselves is hard to evaluate as well. Education is a "long-term experience good" that is very difficult to assess and that is dependent upon several personal and subjective factors (Manning, 2018). The same experience could be perceived differently from one person to another and it could be impossible to discern the root of a problem. On another note, the economic, social and cultural context in which the HE Institution operates, affects its performance in the delivery of its main key functions (education, research and engagement). Therefore, a good understanding of context is essential in understanding performance and consequently, should be the starting point of any quality assurance framework or accreditation structure. Macro-economic factors (such as GDP growth, government spending, debt or labor market vigor) greatly influence the environment of HE from available budgets to the employability of students, regardless of the quality or performance of the Institutions. Another major influence is the socio-demographic factor. The age structure of the population, its income or education inequalities are all indicators that affect the HE Institutions (equity in education, ageing of staff, number of potential students, weight of tax-payers, etc.). Standards of quality vary from a country to another, from public to private sector, from economy to economy. Therefore, what might be a foundation for quality in one case can be totally irrelevant in another context. Moreover, the American Council on Education saw accreditation as a basis for quality in HE Institutions but argued that meeting accreditation standards may be insufficient for demonstrating overall institutional and programmatic quality, therefore, defining quality assurance must be developed with regional context in mind (American Council on Education, 2015).

So how can accreditation agencies operating in one country apply the same standards for accreditation on HE Institutions operating in a completely different part of the world? Furthermore, how can a government apply imported quality assurance policies and implement ready-made frameworks without adapting them to the national context and environment? As it will be detailed in chapter three, the absence in Lebanon of a national framework for quality assurance as well as the inexistence of local accreditation agencies

have forced some Institutions to seek foreign accreditation (from the US or Germany), pushed others to rely on self-improvement initiatives and allowed many others to relegate quality considerations to the background and did no efforts at all. As irrational as it may seem, up until today, no serious efforts to come-up with a national quality assurance framework or local alternative for accreditation was shown from the government's side. Hence, the first purpose of the study: *Proposing national standards for institutional accreditation of Lebanese Private HE Institutions*.

In order to do so, chapter two will present the basic concepts of HE policies and accreditation processes before introducing five of the most relevant HE systems worldwide along with their quality assurance and accreditation systems. In chapter three, the Lebanese HE system will be presented, highlighting the absence of a national quality assurance framework and discussing the characteristics of Lebanese Private HE Institutions before addressing the challenges of “importing ready-made accreditation standards” to the very particular case of Lebanese Institutions. In chapter four, based on a synthesis and comparison of the accreditation guidelines of the five countries previously studied, a national framework is proposed along with the accreditation process and standards contextualized to the Lebanese environment.

### **1.3 Performance Management**

The need for greater efficiency, productivity and quality in the HE sector has triggered increased governmental interest towards different mechanisms of accountability, especially evaluation and performance measurement. This interest has developed over a relatively long period of time but it has now reached its culmination point (Kivistö, et al., 2019). Moreover, HE Institutions saw the need to adopt a self-driven approach towards quality assurance, and establish mechanisms and procedures to self-assess their effectiveness on a continuous basis where emphasis falls on accountability at all levels as well as on internal improvement. Since quality assurance is an ongoing, continuous process for evaluating/safeguarding the quality of a system or an Institution, the intrinsic concept of evaluation underpins the ideas of assessment, monitoring and improvement or in other terms, Performance Management (PM). In their literature review on quality in HE, Brockerhoff *et al.* deduced that quality, against a standard, is relative and found out that many researchers have defined quality in terms of performance (through indicators), efficiency and effectiveness (Brockerhoff, Huisman, & Laufer, 2015).

The modern concept of quality assurance is having a more systematic and far-reaching approach to monitoring performance and ensuring that Institutions and systems have in place appropriate and effective mechanisms for review and assessment, renewal and improvement. Compared with past approaches, the new mechanisms also put much more emphasis on external scrutiny, seeking the views of employers and graduates and, in various ways, making the results of assessments more widely available.

This brings us to the second part of this chapter that introduces the models of performance measurement and PM and their application in HE. Our focus will be on the use

of PM and PIs in HE for accreditation purposes on one hand, and for internal improvement on another hand, as we believe those two activities are a vital proxy for the implementation of a genuine quality assurance system within a HE Institution.

### 1.3.1 Performance Management in Higher Education

We will start by some definitions. The Business dictionary defines performance as: *“The accomplishment of a given task measured against preset known standards of accuracy, completeness, cost, and speed. In a contract, performance is deemed to be the fulfillment of an obligation, in a manner that releases the performer from all liabilities under the contract.”* The most quoted performance measurement definition is that of Neely *et. al.* *“the process of quantifying the efficiency and effectiveness of past actions”* (Neely, Adams, & Kennerley, 2002), the terms effectiveness and efficiency in organizations being defined by Amitai Etzioni (in his book *“Modern Organizations”* published in 1964) as: *“Organizations are constructed to be most effective and efficient social units. The actual effectiveness of a specific organization is determined by the degree to which it realizes its goals. The efficiency of an organization is measured by the amount of resources to produce a unit of output”* (Ball & Halwachi, 1987). While this definition of performance measurement emphasizes effectiveness as well as efficiency, it is unlikely to make managers stop and challenge their performance measurement systems and gives little indication as to what they should quantify or why. The definition that Max Moullin recommends is *“evaluating how well organizations are managed and the value they deliver for customers and other stakeholders”* (Moullin, 2007). According to Moullin, this definition gives much more guidance to people involved in performance measurement. It encourages them to consider the extent to which organizations measure the value they deliver to their customers and whether it covers the main aspects of how performance is managed. This definition offers a clear link between performance measurement and organizational excellence. The latter is defined by the same author as *“the outstanding practice in managing organizations and delivering value for customers and other stakeholders”*. The two definitions together show a clear relationship between performance measurement and organizational excellence or quality. Performance measurement provides the information needed to assess the extent to which an organization delivers value and achieves excellence (Moullin, 2007).

PM systems are systems that provide timely and reliable measures and information, that allow the organization to forecast, plan and take the right corrective and preventive actions. Over the last three decades, interest in PM has increased substantially till it became one of the most important management techniques for organizations in all fields, anywhere in the world not only for the survival of those organizations, but also for developing their ability to thrive and succeed. The increased need for performance excellence in HE is driven by the growing competition, cuts in public expenditures, the desire for internal performance and the pressure from stakeholders for more accountability and creation of value (Asif & Searcy, 2014). Moreover, a well-designed PM system stimulates top-management to develop high quality strategic plans, set ambitious targets, track performance closely and consequently, sustain value creation (Waal, 2013).



Strategic PM is defined as: *“The process in which steering of the organization takes place through the systematic definition of mission, strategy and objectives of the organization, making these measurable through critical success factors and key performance indicators in order to be able to take corrective and preventive actions to keep the organization on track to great performance (being the achievement of the goals and targets set by the organization)”* (Waal, 2013). Strategic PM has many purposes; from helping to achieve sustainable improvements in organizational performance, to increasing employees’ motivation, creating continuous improvement, benchmarking and international ranking. In the case of HE, PM has also been stimulated by governments or independent accreditation agencies, due mainly to its association with improved efficiency and effectiveness (Taylor J. , 2001). It is also a means for some HE Institutions to demonstrate wise management of public funds to relevant stakeholders in order to ensure a sustainable level of funding.

The benefits of implementing PM are numerous and literature suggests that Institutions that have implemented a strategic PM system generally perform better both financially and non-financially than those that didn’t. Results showed increased profit (from increased revenue and reduction of costs), higher efficiency of operations and goals achievement, better decision-making process, and overall improvement in managing quality. This was explained by the fact that PM brings clarity in regards to an organization’s mission and goals, directs focus and motivates the organization to act in a strategically performance-driven way. This change in attitude leads to improved employees’ behavior and commitment, directs their orientation towards achieving organizational goals, and fosters professionalism at all levels (Waal, 2013).

While the advantages for any organization to have a system that provides timely and reliable data as the base for corrective actions and improvement plans is not to prove, implementing a strategic PM system in Institutions of HE come however, with some challenges, as will be outlined in the following section.

### **1.3.2 Challenges of Performance Management in Higher Education**

The first challenge that comes to mind when implementing a PM system is the choice and number of PIs. As will be detailed in chapter two (2.4.2.1), PIs should be carefully curated, as bad quality indicators or too many of them, would leave the performance information useless. Excessive concentration on financial information (by not having a balanced holistic view of the organization’s performance) and overly bureaucratic procedures (that would need a huge investment in time and money) might also hinder the benefits of such a system. Another risk might be an increased sense of internal competition among employees that can build-up pressure and counteract motivation. Moreover, a lack of stakeholders’ commitment, participation and effective communication, can transform the PM system into an unproductive, expensive and time-consuming practice.

Yet, the biggest challenge in implementing a PM system in a HE Institution remains the inadaptability of industry-borrowed systems and PIs to HE. In the past decades, there have been considerable changes in the traditional post-war methods of performance

measurement. The traditional approach focused mainly on financial indicators (such as turnover, profit, debt, ROI) and was based on standards set up to measure worker performance, and looked mainly at individual performance but hardly at business performance. In the 1970s and 1980s, fundamental transformations in industrial systems created a challenging business environment, which prompted organizations to search for better insight into their business activities and operational performance. The growing importance of these changes further intensified the need for alternative control and performance measures to allow businesses to stay competitive and profitable (de Waal, Kourtit, & Nijkamp, 2009). In response to this trend, HE Institutions begun to explore the application of formal methodologies in PM, initially developed for businesses and industry. The mostly used methods of PM and measurement in HE are the Balanced Scorecard, Benchmarking, Performance Prism, Employee Performance Management, Management Dashboards, Process Performance Management and Lean Six Sigma (more details in chapter two 2.4.2). However, many academics and practitioners have over the years criticized traditional management control and performance measurements borrowed from the industry to be applied in HE. The ways in which companies plan their operations and monitor performance were seen as unsatisfactory, because they mainly contained one-dimensional financial information, lacked a match between the company's competences and its dynamic business environment, lacked a strategic focus, had a retrospective orientation and short-term vision, and had a weak strategic content (Waal, 2013). Moreover, those systems didn't take into account the complexity of the HE sector and particular multi-faceted mission of HE Institutions. These shortcomings enticed HE experts to search for measurement systems that supported them better in the challenging HE environment. Therefore, there has been a growing interest in changing and improving existing PM systems. As will be addressed in chapter five, those efforts have not led to any meaningful change yet.

In addition, traditional PIs used to measure and monitor performance, carry the same pitfalls. While many studies suggest lists of PIs at national and institutional levels to be used for accreditation or internal monitoring/institutional research, they all conclude that each Institution should develop its own set of indicators to reflect its unique context and strategic objectives. Furthermore, indicators required for accreditation by the agencies, reveal only a fraction of what can be measured in a HE Institution as will be argued in chapter five.

Consequently, the second purpose of this study is to propose a PM system along with PIs especially devised for HE that can be adapted to any type and size of Institution, to measure its performance whether as part of accreditation requirements or for internal monitoring. Although the focus of our study is the HE environment in Lebanon, the proposed system can be applied to any HE Institution of any type, size and *raison d'être* in any part of the world. Chapter two will highlight the institutional research activity in HE and present the main PM tools used in HE before addressing the risks and challenges of adopting generic industry-models to the particular case of HE. In chapter five, the new PM model is presented along with its methodology, its advantages, an extensive database of PIs before validating it by an application on a Lebanese private HE Institution in chapter six.

## 1.4 Methodology

### 1.4.1 Purpose of the research

There are several rationales underpinning the purpose of this qualitative research. First of all, there is the fact that accreditation and quality systems in HE – already a contested subject – are country-specific, meaning they ought not be directly imported and implemented from country to country or system to system, and yet, many HE systems/Institutions still do it. Second, Lebanon doesn't have any quality and accreditation framework governing its HE Institutions. Therefore, it was important to propose an adapted list of accreditation standards based on the Lebanese context, that would help in maintaining certain quality standards within the HE system in Lebanon. In fact, the lack of quality assurance endeavors in the country have led to the creation and development of a certain anarchy in HE headlined by scandals and the proliferation of unaccredited majors and/or Institutions. The third idea behind this work is the challenges of on-field implementation of a quality and accreditation system. In my position as member of the governing body of a private HE Institution in Lebanon, and based on various reviews of the literature confirming this fact, there are no clear and systemic methods that:

1. Explain how (international) accreditation standards should be implemented;
2. Provide measurement or guidance as to how a HE Institution should assess and monitor its performance for accreditation reporting;
3. Provide a useful and adapted system to measure performance in general whether for accreditation purposes or internal monitoring and improvement.

Based on those rationales and the need to have an appropriate framework for quality assurance in Lebanon, we proposed as a first step, to study the quality assurance and accreditation systems of five key countries worldwide in order to determine the main and common pillars that steer accreditation in HE before proposing accreditation standards for Lebanon taking into consideration the context, history and setting of the country.

A second goal comes as the natural extension of the first purpose of this study; the need to come-up with an adequate PM system that would allow to measure the evolution and success of the implemented accreditation actions and/or manage and monitor any internal improvement attempt undertaken by a private HE Institution as part of quality assurance efforts. In order to do so, we proposed an innovative method based on PIs that allows to measure and monitor the overall performance of a HE Institution across various dimensions. This new system was applied and validated through a case study on a private Lebanese HE Institution.

### 1.4.2 Novelty of the work

The novelty of the work is manifold. First, we didn't find any recent comparison of HE quality assurance systems and accreditation standards among the key countries that attract most of international students worldwide. Comparing the North American, German, French, British and Japanese systems allowed us to identify the main topics and principles overarching quality and accreditation in HE in general. Based on these findings and on the

model of the HE environment in Lebanon, we proposed a list of accreditation standards for a national quality framework. While some have tried to propose national guidelines for assuring quality in the HE environment in Lebanon, there is no up-to-date scheme or serious proposal for quality standards, even less standards based on both international rationale and contextualized approach. Moreover, an extensive literature review and personal experience in managing a private HE Institution revealed that there is ambiguity around the mechanisms of implementing and monitoring the accreditation standards. Worldwide, Institutions are expected to apply and demonstrate most quality standards “as they see fit”. However, this implies a great deal of personal and conveniently arranged interpretations which contradict the very principle of standardization and quality. Furthermore, a review of the literature indicated that PM systems and concepts are industry-based. Very few have proposed models designed for HE and those who did, overlooked several aspects of HE, concentrating only on the obvious teaching and research dimensions and disregarding quality and accreditation measures and other HE dimensions. What is proposed in this work – based on a new Balanced Scorecard – is an extensive list of 290 PIs adapted to and covering all dimensions of HE from finance to teaching and research, through students, human resources, operations and external relations and reputation. This unique list includes the calculation method and description/use of each indicator. Those indicators were gathered from the literature, HE reports and from personal experience and accrued needs following 14 years of managing a HE Institution. An additional originality of this work is the proposal of a PM model specifically designed for HE Institutions for the purpose of measuring, assessing and monitoring their performance for accreditation, auto-evaluation, internal improvement and decision-making. While the original scope of this study was to create a complete quality cycle for HE in Lebanon – from quality framework and standards definition to a measurement and monitoring system – the suggested PM model is applicable to any HE Institution in any part of the world, whether small or large, private or public. The particularity of this approach being its adaptability and compliance with each Institution’s mission and objectives or country’s system and context.

### **1.4.3 Validation and difficulties**

The model put forward in this work was validated through a practical application of the proposed system on a private HE Institution in Lebanon. My position as Vice President and member of the University Council granted me access to confidential and delicate data that allowed me to perform the needed computations without restriction. However, the pandemic years coupled with the financial and social crisis in Lebanon deeply influenced the nature of HE activities and priorities. To name a few, courses were moved online overnight without proper groundwork, events and social actions were halted, research was impossible to sustain, marketing efforts were ceased, tuition fees value was divided by 15 (!), many students dropped their studies and a majority of faculty members and staff relocated in other (more clement) countries. Those outcomes affected all HE Institutions in Lebanon with more or less severity. Consequently, this shift prevented the collection of exhaustive data over several years as it should have been done in order to allow comparison, adjustment and monitoring of the impact of the decisions taken and further confirm the value and efficiency of the model.

## 1.5 Thesis structure

The introduction sets the background of the study and an overview of the current HE environment. It introduces the topics of quality, accreditation and performance in HE while establishing two research objectives.

Chapter one is divided into two subparts illustrating the double purpose of the work. In the first subpart, quality, quality assurance and accreditation are defined and presented in the context of HE. The inherent challenges of quality assurance and accreditation implementation in HE are described next, leading us to the first purpose of this study. The second subpart introduces PM systems and their application in HE before tackling the related challenges, steering us towards the second purpose of this study. The methodology part summarizes the objectives of this work while highlighting its novelty and encountered challenges.

Chapter two starts with an overview of HE national policies, governance systems and general HE themes before a general description of an accreditation process in HE. This introductory part is followed by a parallel presentation and overview of the HE environment, quality assurance scheme and accreditation system of five selected countries: United States, France, Germany, United Kingdom and Japan. The ensuing part details the topic of PM in HE. It starts with a presentation of the role of institutional research in HE Institutions, followed by the main PM tools mostly used in HE; Balanced Scorecard, benchmarking and PIs. The latter will be particularly detailed in preparation for chapter five. The following part points out the intrinsic relation between performance measurements and quality and accreditation, reveals the pitfalls of traditional PM reporting while exposing the (explicit and unspoken) risks and challenges of implementing a PM system.

Chapter three gives a full description of the HE sector in Lebanon; its history and historical predicaments, latest developments, quality assurance situation and main characteristics. Those particularities are lengthily presented since they shape the sector and constitute a main barrier to the proper implementation of quality assurance and accreditation systems.

Chapters four and five replicate the parallelism with chapter one since they constitute the contribution towards the dual objective of this study. Chapter four covers the topic of accreditation in HE. It starts with a synthesis and comparison of the main accreditation principles found in the studied countries. Based on those findings and on the specificities of the HE sector in Lebanon, a new accreditation framework and adapted accreditation process and standards are proposed for Lebanese Private HE Institutions.

Chapter five presents a new PM system – called CMBO – based on the prerequisites for a successful implementation of PIs in HE. The framework and related business models that influenced the new system are described, followed by a presentation of the full concept and application methodology while highlighting its novelty. The CMBO is proposed with a thorough database of 290 HE PIs, presented with their calculation method and description.

Chapter six is an application and validation of the proposed model on a Lebanese Private university. It starts with a brief presentation of the Institution and its strategic plan

based on which, a list of five strategic objectives is identified. Those objectives are then used to apply the proposed model in chapter five, calculate the CMBO and present a short analysis of the results.

The conclusion summarizes the key findings of the study while highlighting its main contribution and originality based on the research's dual objective. The limitations of the study are reminded and recommendations for future works are proposed.

# Chapter 2 – Literature Review on Quality Assurance systems and Performance Management in Higher Education Institutions

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## 2.1 Introduction

This chapter starts with a brief presentation of HE policies, governance and related quality assurance themes before presenting the general steps of an accreditation process. Several quality assurance systems and accreditation schemes will be then described by taking the example of five of the oldest and most developed quality assurance systems in the world: the North American, the French, the German, the British and the Japanese systems. Following a short overview of their respective HE system, their quality assurance model will be highlighted along with their accreditation framework and distinctive evaluation standards.

The second part of this chapter starts by describing the role of institutional research in HE Institutions as being the heart and driver of institutional performance. Then, the concept of PM is detailed while presenting the main related systems used in HE, as found in the literature, as well as the concept of performance measurement through PIs. The two main roles of PM that are of interest to the study are measurements for accreditation requirements and for internal monitoring. They will be highlighted before addressing the challenges and risks with regard to the use of PIs and PM systems.

## 2.2 Higher Education national policies

HE national policies govern the way HE systems and Institutions are organized and managed in a particular country. It encompasses the structures, relationships and processes through which, at both national and institutional levels, policies for HE are developed, implemented and reviewed. It therefore comprises a complex set of legislative frameworks, characteristics of Institutions and how they relate to the whole education system, how funds are allocated to Institutions and how the latter are accountable for the way it is spent. Policy-making plays a crucial role in developing and sustaining efficient education systems through policies and other steering instruments. They have the capacity to direct HE Institutions towards meeting national goals and achieving desired outcomes. At the same time, designing and implementing effective policies is a complex process that involves a high degree of coordination between and within education levels (primary, secondary and tertiary levels) and a consensus building between different types of stakeholders (OECD, 2017).

### 2.2.1 Higher Education governance

HE governance deals with how authority is distributed between the state power, institutional autonomy, and the market forces and encompasses the relationship between HE Institutions, government, business and communities (OECD, 2017). In any HE system, the following three coordination mechanisms exist in varying degrees:

- State (national) authority includes setting goals, national priorities and the regulation of the HE sector. It steers HE systems and influences HE Institutions' behavior through four types of "policy levers": Regulation (setting rules, legislation and enacting decrees), funding (performance-based funding, financial aid to students,



- etc.), information (collecting and disseminating relevant information for HE Institutions) and organization (defining specific procedures that influence the Institution's operational activities);
- Institutional authority is the internal arrangements within the HE Institutions to determine their values, mission and purposes, their systems of decision-making and resource allocation, the patterns of authority and hierarchy. HE Institutions are autonomous and have the freedom to manage their own affairs without interference from the government;
  - Market mechanisms play a role in influencing HE systems by competing for students, staff, research income, etc.

Given the Importance of HE in the development of a skilled workforce and the impact of HE Institutions on both the economy and the society, all governments have a responsibility to oversee the provision of HE. The extent of the oversight varies largely from one country to the other reflecting history, political influence, and culture. The nature of the relationship between Institutions and state has a profound influence on the ability of Institutions to plan and manage their own affairs. There are essentially three models of state-authority, where lines between these models can be blurred. Moreover, the position in individual countries can change over time (Taylor & Miroiu, 2002):

- The state-controlled model where there is a strong government control. Typically, the state will regulate the access conditions, the curriculum, the degree requirements, the examination systems, the appointment and remuneration of staff, etc. The academic community usually retains considerable authority and independence in the day-to-day running of internal affairs;
- The state-supervising model where HE Institutions have more freedom to determine their own affairs and plan their future, establishing their own priorities often with a more diversified funding base (public and private). The government retains oversight of the system, "steering at a distance". Such supervision may be exercised through the operation of quality assurance schemes for teaching and research, by the provision of policy guidance, and by the maintenance of accountability systems;
- The market-based model where the government does not fulfill either an active or an interventionist role. Institutions develop programs of teaching and research based on market demands. This model exists in countries with a large number of private Institutions who compete for student recruitment and research funds. Direct government funding is minimal or inexistent in that case. Under this model, like the state supervisory model, there is a strong emphasis on planning and management at the institutional level. HE Institutions are free from constraints regarding income and expenditure but are subject to the pressures of business and sustainability.

### **2.2.2 Higher Education policy themes**

It is important to understand the fundamental themes, common to all HE systems, that govern policy mechanisms of HE in each country as those themes will be recurrently

used throughout this study. Three dimensions of policy perspectives constitute the general framework for any HE system (OECD, 2010):

- Quality of educational outcomes and educational provision;
- Equality of educational outcomes and equity in educational opportunities;
- Adequacy, effectiveness and efficiency of resource management.

Under those dimensions there are policy themes differently adopted by countries. There is no unique set of policy themes but those that will be presented below are generally present in all HE systems and concern the assurance of quality. They provide a common structure for the collection of qualitative information to describe the policy mechanisms driving the different HE systems (OECD, 2017):

- 1) Participation or access in HE (policies to increase students' enrollments, widen participation, target under-represented groups);
- 2) Diversification of study provision (policies to address needs of different types of students, types of institutions and programs, needs of job market, etc.);
- 3) Funding (different types of funding research and teaching targeting national priorities);
- 4) Accountability (develop mechanisms to demonstrate and evaluate the quality of HE Institutions towards tax-payers, establish quality assurance frameworks, reporting and evaluation schemes, etc.);
- 5) Quality (policies on licensing, registration, accreditation, etc.);
- 6) Links to the labor market (alignment with the labor market demand, on making public information available about graduates' employment, targeting prioritized fields, etc.);
- 7) Equity of access to education or fairness (by making sure that personal circumstances don't constitute an obstacle for students to achieve academic potential);
- 8) Research and innovation (policies to develop research capacity and its societal impact, policies to develop human capital and research collaboration);
- 9) Academic career (policies to balance academic freedom with HE responsibility, policies on careers, recruitment, promotion, workload, salaries, etc.);
- 10) Life-long learning and Continuing education (policies to make HE accessible in all fields at all age, to increase adult continuing education based on labor market needs, etc.);
- 11) Internationalization (policies to engage HE in global academic environment with mobility, skilled migration and programs internationalization, etc.);
- 12) Technology transfer and innovation (policies to transfer knowledge and technology from HE to industry and society, commercialization of research, support for entrepreneurship, etc.);
- 13) Social engagement (develop the civic engagement and competence of Institutions and its students);

- 14) Regional development (policies to develop interaction between HE and regional stakeholders to engage in initiatives for regional development, and to reduce geographical imbalances).

### **2.2.3 Accreditation Process in Higher Education**

Since most accreditation processes generally follow a similar procedure, we find it relevant to describe in this section the steps that lead to an Institution's accreditation and present common terminology.

Accreditation agencies use a manual of "Standards for Accreditation" (that can be named differently in some countries). It is a list of standards or references that establish criteria for institutional quality (or program quality) created by stakeholders. Generally, HE Institutions participate with experts, practitioners and even students in the creation of those standards to make sure it represents the interests of all stakeholders and that it can be applicable and fair. Each standard can be divided into areas and sub-areas, detailed by a list of policies or criteria that clarify the objectives of the standard and its application. Those references constitute the basis for the evaluation by the visiting Board of experts (as described below). In general, accreditation agencies evaluate the overall performance of the Institution in regards to the standards knowing that it can perform better in some areas or have weaknesses in some others.

Before presenting the process of how accreditation is performed, it is useful to define the term Institutional self-study or self-assessment since it is the foundation of any successful accreditation effort. Self-study is an internal attempt that every Institution makes to evaluate the effectiveness of its programs and activities. It reveals strengths and weaknesses in the Institution. It is done with the aim of making sure the Institution is working to accomplish its educational mission. It is indeed the first step to official accreditation; however, Institutions might want to go through this process at any time for internal improvement, without getting to the following step.

Figure 1 shows the four general steps that are usually followed in most of the countries when performing the evaluation and consequently accreditation of a HE Institution. Those steps are then described:

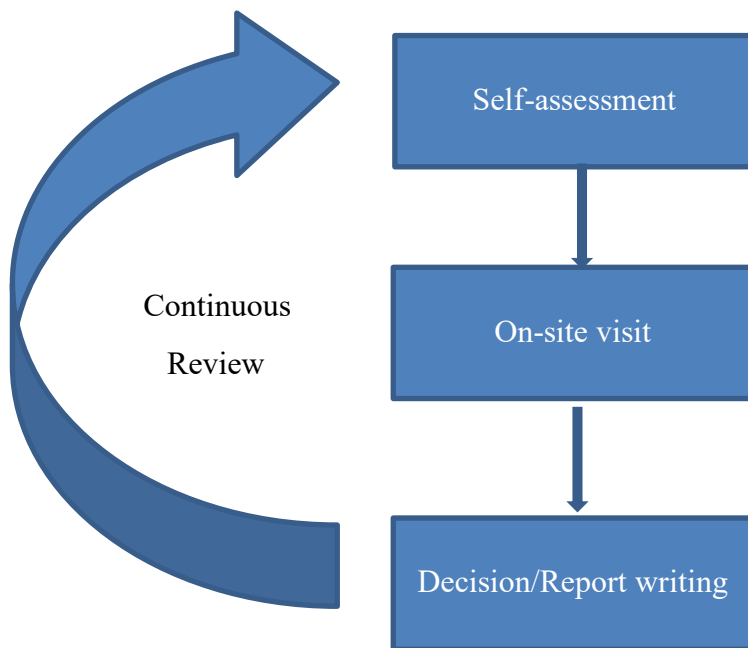


Figure 1: Block diagram of accreditation steps

- 1- Self-assessment or self-study: Institutions' adherence to the standards starts with a self-evaluation exercise. A comprehensive documentation and report are prepared by the HE Institution, covering all accreditation dimensions. This auto-evaluation report will be used by the accrediting agency during its visit – next step – to evaluate how much the Institution is meeting the standards. Self-regulation and commitment to quality is an essential element of any accreditation process, especially at this point;
- 2- On-site visit or peer-review: the self-study is submitted and studied before a visit is performed by a team or board of experts strategically chosen (*i.e.*, independent, impartial without any conflict of interest and with the appropriate background and expertise) to perform the evaluation of the Institution through interviews or observation. Peer review is a well-established academic process and generally works well provided external members are included and panel members show respect for the values of those being evaluated and accept that often their main contribution will be in assisting with self-learning. At the same time, peer review can easily introduce outside values and constructs. Traditionally, peer review involved a visit by a group of well-regarded academics in a particular field but recent practice, especially for reviews of programs or disciplines, the tendency is to add other experts to panels, such as industry experts, practicing professionals, or students. Their job is to gather information, assess the extent to which the Institution is meeting the defined set of standards and judge whether this Institution should or shouldn't be recognized or accredited. The study covers a wide range of interests from the adequacy of resources and institutional governance to the teaching activities and students' progress. Following the visit and a certain amount of negotiation, a general report is prepared. While some confidential findings on sensitive issues are produced only for the top- management, practice varies on whether reports

are published, and whether the results are reported officially to the government or funding agency. Increasingly the recent practice is to make the results more widely available. While Institutions being assessed often wish to limit circulation of a report, particularly one which includes critical comments, the demands of accountability and transparency usually require wider circulation;

- 3- Decision and report writing: this is the step where the team meets to review all the collected information to reach a decision regarding the institution (or the program) and write the final report. The decision can be to deny, withdraw, accept with conditions or recommendations, affirm (renew) or fully approve for a specific period of time (it can range between three to ten years). In general, it is a pass or fail result. Relative results (levels of quality) usually don't exist;
- 4- Continuous review: once accredited, the Institution (or program) commits to uphold the quality standards set by the agency and engages in periodic reviews to make sure it improves constantly before the next cycle.

### **2.3 Overview of Quality Assurance and Accreditation in Higher Education Systems**

As presented in chapter one, the term quality assurance in HE denotes the practices whereby academic standards, or the level of academic achievement attained by graduates, are maintained and improved. This approach of defining quality assurance is consistent with the emerging focus in HE policies on student learning outcomes (the specific levels of knowledge, skills, and abilities that students achieve as a consequence of their engagement in a particular education program). A useful distinction is drawn between internal and external academic quality assurance. Internal quality assurance refers to policies and practices whereby HE Institutions themselves monitor and improve the quality of their education provision, while external quality assurance refers to supra-institutional policies and practices whereby the quality of HE Institutions and programs are assured by external entities. Individual Institutions have always implemented policies and practices designed to assure the quality of education, but they have also always operated within a national policy framework designed by the state to assure academic standards. In this chapter, external quality assurance practices will be covered.

During the last 20 years, human capital has become a crucial factor in economic and social development and a central component of a nation's competitive advantage. Consequently, many countries shifted from elite to mass systems of HE. The combined impacts of globalization and massification have radically altered the traditional relationship between the state and Institutions of HE and motivated policymakers to seek new means for assuring academic quality in HE (Dill, 2007). The traditional national frameworks for external quality assurance vary from country to country, but generally follows three trends: the European model of central control of quality assurance by state educational ministries, the US model of decentralized quality assurance combining limited state control with market competition, and the British model in which the state essentially ceded responsibility for quality assurance to self-accrediting universities (Dill, 2007). All countries seeking an

effective national framework for academic quality assurance will likely include an appropriate classification of academic degrees, the provision of valid and reliable information on academic quality, and some efficient means of external assessment designed to assure that Institutions of HE have in place effective internal quality assurance processes. As centralized control of academic quality by state education ministries is impractical in mass systems, practices such as voluntary accreditation or external examining have proven their limitations; academic audits of internal quality assurance have clearly revealed that they can be improved, existing national quality frameworks are being questioned, reforms and new practices of external quality assurance – including accreditation – are being drafted and implemented.

While the accreditation process is quite similar worldwide, accreditation framework and practice also vary from one country to the other and sometimes there are no unified standards even in the same country. As it will be described in this section, the United States don't have a centralized and unified authority that regulates the HE system and assures the quality of academic services, whereas Europe created the common European HE qualification framework since the start of the Bologna process in the 90s, and the European Association for Quality Assurance in Higher Education (ENQA) in 2000 and more recently adopted the common European Standards and Guidelines for Quality Assurance in Higher Education (ESG) in 2005, to promote European cooperation in the field of HE quality assurance and create a common understanding of quality assurance for learning and teaching across Europe.

In this section, five of the most relevant and popular HE systems worldwide will be introduced. They were chosen in view of their state-of-the-art quality assurance and accreditation models. For each country, there will be a brief general overview of the sector before addressing the national quality assurance framework followed by a presentation of the accreditation system. For the sake of completeness, an example of one accrediting agency for each country and a summary of its evaluation standards will be included as a reference in appendix A.

## **2.3.1 Higher Education system in the United States**

### **2.3.1.1 Presentation and overview**

The US HE sector is a very complex, diverse and specific system. With more than 7,700 public, private for-profit and non-profit Institutions, offering a wide variety of degrees and programs in several forms of delivery, these Institutions vary widely as to type, ownership, and governance arrangements. They range from small single-purpose, vocational to very large comprehensive universities, secular and religiously affiliated, urban, suburban, and rural (U.S. Network for Education Information, 2008):

- Technical Schools: Career and technical schools used to be called postsecondary vocational education. They provide short training courses or specialized degree programs. The vast majority of career and technical schools are private and many of

- them are operated on a for-profit basis. They are approved and regulated by state governments and may be accredited. Accreditation is important because only then, can they provide training that is commonly accepted in other states and by employers and licensing authorities outside the home state;
- Higher Education Institution: In the US, HE Institutions are organized and licensed as non-profit or for-profit corporations, regardless of whether they are public or private. These corporate entities are governed by boards of trustees and established as single campus Institutions, multi-campus Institutions or systems comprising several independent Institutions;
    - o Public Institutions: In addition to having governing boards appointed by state authorities, public Institutions also receive annual allocation of state budget funds. Some of their property may be state owned and subject to some state regulations depending on the nature of their relationship to the state as defined in their charters. Public Institutions are internally self-governing and autonomous with respect to academic decision-making;
    - o Private Institutions: These are independent of state control even though they are licensed by state governments. They may be non-profit or for-profit, and may be secular or affiliated with a religious community. Some private Institutions may be authorized by state governments to receive state operating funds and to provide some public services.
  - Community and Junior Colleges: Community colleges are public Institutions that provide a wide variety of educational services, ranging from adult and community education services, through postsecondary career and technical education, to academic and professional studies at the university level allowing transfer to higher level studies. Some community colleges have begun to offer accredited bachelor's degree programs and most of them have transfer arrangements with local public and private colleges and universities that allows qualified students to transfer to bachelor's level studies with up to two years of academic credit.

Both public and private Institutions may charge students tuition fees (although public one may have restrictions set by states on how much they can charge students), may receive gifts and donations and hold an invested endowment, and may earn income from research and instructional grants and contracts. There were approximately 19.6 million college students in the US in 2018, with around 74% of students enrolled in a public HE Institution (Statistica Inc., 2020). Institutions that offer the bachelor's and higher degrees are often called "senior" colleges or universities, to distinguish themselves from "junior" colleges and other Institutions offering the associate degree as their highest qualification. However, some colleges and universities offer studies at all degree levels from the associate to the doctorate degree. The terms "college" and "university" are not legally protected, nor are institutional titles such as "institute," "academy," or others. An institution is permitted to use the title as authorized in its license to operate. Institutions are classified according to the highest degree they award, regardless of title, as well as whether they specialize in a few subjects or offer a comprehensive range of programs, and whether they serve special populations. Programs

are accredited at each degree level, and accredited Institutions that offer programs at the same level are considered to meet the same minimum standards.

Many private and public colleges are characterized by historical service to a particular ethnic group, race, or gender. There is a long tradition of HE Institutions being founded for these purposes. Tribal colleges founded by the American Indian nations, historically black colleges and universities and single-sex colleges are only among the most well-known of these types of Institutions. To note that faith-related HE Institutions, established and operated by religious communities, are the oldest tradition in US HE, dating to 1636 and the founding of Harvard College (then a Puritan Congregationalist institution). Unlike seminaries and similar schools, which prepare individuals specifically for religious vocations and related occupations, faith-related Institutions function similarly to secular Institutions offering a variety of subjects and respecting academic freedom. At the same time, faith-related Institutions offer distinctive environments for learning and for student development. Most of them qualify for recognition by the US federal student assistance program and are fully accredited by recognized agencies. Many are among the most well-known and respected US colleges and universities.

The HE system in the US is not a unified system all over the country. The states have direct supervision and legal oversight over the private Institutions operating within their geographic area, and an "owner operator" role for public Institutions. The federal government plays an indirect role only through and because of the Title IV funds (more on this topic in paragraph 2.2.1.2.1 below). Accrediting agencies can be regional, national, programmatic (specialized in the accreditation of a certain program for example ABET for engineering degrees only) or professional, but they should be accredited themselves by the federal government in order to be eligible to evaluate the institutions "worthy" of receiving federal funds.

### **2.2.1.2 Quality Assurance**

To be able to grasp how the quality assurance system functions in the US, it is important to understand first the relationship between the state, the federal government, the accrediting agencies and the HE Institutions.

#### **2.2.1.2.1 Title IV funds**

The federal government finances post-secondary education across the country by giving funds directly to individuals, through a "recognized" Institutions of HE. Recognized here takes the meaning of eligible or federally approved to receive federal funds for the purpose of distributing it to deserving and eligible students. Eligible students are those who meet certain academic standards and have their income within a certain range calculated according to a percentage of the poverty line. On another level, to be eligible, an institution must be legally authorized by a state, certified by the government (the Education Department) and accredited by a recognized accrediting agency (Ewell P. T., 2018).



Federal Aid intended to students can come in different forms:

- a- **Grants:** Grants are taxpayers' money used to finance post-secondary education that don't need to be repaid. In this case, the taxpayers hold the higher part of the risk associated with whether the students will or will not graduate, will find a suitable employment or not. This source of financing students' tuition fees has been very popular and the main form of federal aid up until the 80s;
- b- **Loans:** With time, since the 80s, federal grants decreased and students' loans became the main form of federal Aid. Students' loans are guaranteed low-interest loans given to students to pay their tuition fees. In this case, the risk shifted from the taxpayers to the students and their parents. In 2013, 63 percent of graduate students completed a degree with federal students' loans debt. Although students now bear the full risk of their choices, it was proved that students' loans did not decrease dropouts, or improve retention or graduation rates (Velez & Woo, 2017). More and more dropout students find themselves after several years of attending a university, without a degree, without a job and with a huge debt that they will never afford to pay back;
- c- **Tax benefits:** It is the case when students or their parents benefit from a tax deduction. All tuition and education-related fees are then tax-deductible.

### 2.2.1.2.2 *The Triad*

The HE system in the US revolves around what is called the Triad that encompasses the federal government, the states and the accrediting agencies. The concept came forward following the Higher Education Act (HEA) of 1965 through which the government undertook to invest more extensively in HE by providing grants and low-interest loans to citizens through the universities they are attending. But this required the government to make sure that the education those students are receiving is beneficial, of value and answers – to a certain degree – to defined requirements set by the federal government. The federal government wanted to ensure that the institutions administering those funds are trustworthy and adequate guardians of those funds. Since the government was not willing to invest to build a whole supervisory and regulatory structure to ensure the good utilization of those funds, accrediting agencies were asked to fill this role on behalf of the government. The Triad was consequently built on the assumption of equal partnership and equal responsibilities between the 3 legs of the triad. The reality of the dynamic is quite different but will not be addressed here as it is not the purpose of this study.

In sum, quality assurance in the US is, as described above, the role of the Triad. It was the inevitable result of the government's objective to watch over its funds and the increasing demands of the consumers of HE. The consumers of HE are the students (present, prospective and graduates), their parents and the employers.

In the US, at a time where the cost of HE is continuously increasing, where students' loans keep on rising without any matching increase in the average annual income, one cannot but ask for more assurance about the quality of education the students are receiving. Students and their parents want the best return on their investment as they invested time,

effort and money (Barmak Nassirian, 2018). Employers are also complaining that graduates do not meet the jobs' requirements or are not qualified to fill the jobs openings. They too, invest large amounts when hiring fresh graduates, to train them and find the best candidate for each position, with the risk of having done a "wrong" investment. Therefore, they demand some assurances that those graduates get the best education that meets the needs of the job market (Koc, 2018).

In the US, a lot of importance is given to transparency in the published information (Studley, 2018). Transparency helps consumers make better and informed choices about the Institution they are choosing. Published information can come from the Institution itself, from the accrediting agency or from the government. It can include simple data about the programs and degrees offered, or more sensitive ratios about graduation rates, employability, average salary, low-paid employment fields, etc. However, there is no pre-defined set of metrics and ratios that are published, neither a simple way of presenting the information in a comprehensible format that is accessible to the public. Different data from several sources presented in different ways do not constitute a reliable source of information for the public. Therefore, consumers of HE rely mainly on the certification (or accreditation) badge that an Institution has.

### **2.2.1.3 Accreditation**

Accrediting agencies in the US have a highly complex role. On one hand they have the HE Institutions as clients paying for an optional accreditation and on another hand, they have the role of gatekeepers to more than 120 billion dollars in federal aid funds. Moreover, quality assurance in the US is today at a turning point following several cases of waste, fraud, and abuse that left the HE institutions as well as the accrediting agencies under fire and held accountable for fake credentialing, unemployed graduates, wasted federal money, increased students' debts that will never be repaid, etc. (Barmak Nassirian, 2018)

According to the U.S. Department of Education, more than 85% of all colleges in the US are regionally accredited by a recognized accrediting agency. In turn, in order to be officially recognized as national, regional or programmatic accrediting agency, accreditors should themselves be recognized by one or both the US Department of Education (USED) and the Council for Higher Education Accreditation (CHEA) (Council for Higher Education Accreditation, 2015)). CHEA is an association of degree-granting colleges and universities that recognizes institutional and programmatic accrediting organizations, governed by a board of college and university presidents, institutional representatives and public members. It is the only non-governmental HE organization in the US that recognizes and affirms the quality of the accreditors.

As already mentioned, there is not one unified system or unified set of standards used by all the agencies in the US. In appendix A, the list of standards related to the New England Commission of Higher Education is summarized.

## 2.2.2 Higher Education system in France

### 2.2.2.1 Presentation and overview

The French HE sector has a long and reputable history, it comprises more than 3,500 public and private institutes of HE (72 universities, 25 multi-institute campuses, 271 Doctoral schools, 227 engineering schools authorized to award the title of engineer, 220 business and management schools, 45 post-secondary public schools of art, 22 schools of architecture and 3,000 private schools, Grandes Ecoles, and institutes) and involves 2.5 million students. 12% of them are from abroad, 75% of which choose universities to pursue their post-secondary education (Ministère de l'Enseignement supérieur, 2018). The French HE sector offers highly diversified programs in a large array of fields and education levels based on high scientific standards and focused on the employability of graduates.

- Universities: Located all around France, universities are mainly public Institutions financed by the French government. They offer national degrees based on the qualifications framework of European countries who adhered to the Bologna process since early 2000. A great place is given to research. Over 60% of the student population is enrolled in a university;
- “Grandes Ecoles”: They are very selective recognized public or private Institutions of HE with tuition fees that can be very high. They cover programs like engineering, business or political studies and have an excellent reputation worldwide;
- Public and private Institutions of HE: There are Nearly 3,000 public and private schools and institutes that offer courses in specific sectors (medicine, audio-visual, communication, journalism, fashion and design, agronomy) and confer degrees that may or may not be recognized by the government. Most of those HE Institutions are public and only 18% of students are enrolled in private ones.

French HE has adopted the LMD system (*Licence, Master, Doctorat*) based on the Bologna Process. Study programs are organized in three cycles (bachelor's, masters and doctoral degree). Most degrees are based on ECTS credits that are recognized by many countries in the European Union and around the world making students' mobility easier in Europe and around the world.

In general, HE institutions in France have ample autonomy in their management academically, administratively and financially. They are governed by a Board or administrative council, chaired by a President or a Director.

### 2.2.2.2 Quality Assurance

The value and quality of a French HE diploma is guaranteed by the state or by independent organizations issuing accreditations or labels. In France, a degree is considered 'national' when it is recognized, meaning accredited by the state who is responsible for ensuring its quality. This state recognition is a guarantee of quality. It is given after evaluating the study programs before the accreditation of the Institution and the authorization to deliver the said program.

When a degree is not recognized by the state, it bears the name of the institute that awarded it. It may have value on the work market, but does not provide an equivalence enabling the bearer to continue his or her studies. Accreditation is a reliable indicator that guarantees the quality of the degrees awarded by such an institute or of the Institution itself.

In France, there are independent associations or foundations that award the accreditation or certification for specific programs like business and engineering schools and just a few ones that accredit the Institutions.

### 2.2.2.3 Accreditation

As mentioned above, HE Institutions in France need to be state-recognized or accredited in order to operate and award different types of degrees and trainings; it is the Institution that is accredited and not the degrees, the HE Institution being free to internally organize its programs and regulations. HE policy specifies that this recognition needs to be renewed and is based on a national education framework that ensures the quality of the national diplomas while respecting the autonomy of the Institutions. Institutions of HE should prove that they are able to efficiently deploy their resources taking into consideration educational, governance and financial aspects.

The accreditation process is long and very expensive usually valid for a period of 4 to 6 years. In France, one main external accrediting body conducts most of the evaluations that contribute to the development of this vast and diverse system: the High Council for the Evaluation of Research and Higher Education (Hcéres – *Haut Conseil de l’Evaluation de la Recherche et de l’Enseignement Supérieur*) created in 2013. In theory, many evaluation bodies could be created in France since the law stipules that Hcéres may “conduct evaluations directly or check the quality of those conducted by other bodies by validating their procedures” (High Council for Evaluation of Research and Higher, 2020).

Alongside Hcéres, there are three established commissions, each working within a defined scope (Lecocq, Papin , Pernot , & Pizarz , 2013):

- The Commission for Engineering Qualifications (CTI – *Commission des Titres d’Ingénieurs*) is recognized by Hcéres and is responsible for the periodic evaluation of all engineering study programs for the purposes of the accreditation of engineering schools;
- The Commission for Qualifications issued by Business Schools (CEFDG- *Commission d’Evaluation des Formations et diplômes de Gestion*) evaluates the business and management study programs offered by private and public HE Institutions. It is still pending the validation of Hcéres at the time of writing this thesis;
- The National Advisory Commission of the University Technology Institutes (CCN-IUT – *Commission Consultative Nationale des IUT*) is consulted by the Ministry of Higher Education on issues related to the University Technology Institutes. It is still pending the validation of Hcéres at the time of writing this thesis.

In appendix A the role of Hcéres and its quality standards are summarized.

## 2.2.3 Higher Education system in Germany

### 2.2.3.1 Presentation and overview

German HE Institutions are known to have high education standards. Students value German Institutions for the quality of education, hands-on experiences during their studies, good job prospects and most importantly the safe and friendly environment. They enjoy this worldwide reputation thanks to their recognized teaching and research excellence, build upon a long and rich tradition of HE. Besides being among the best, some German universities are also the oldest in Europe. Germany offers countless degree courses designed to suit everyone's interests with programs mostly based on the Bologna Process. As an industrialized country, Germany has invested a lot in engineering universities that are particularly valued at German universities, other study programs are also global leaders like medicine and pharmacy. Furthermore, the list of traditional courses in German universities is expanding fast as new study fields are emerging accordingly with cutting-edge scientific improvement.

Due to the federal system in Germany, responsibility for education, including HE lies entirely with the individual federal states that are responsible for the basic funding and organization of HE Institutions. Each state has its own laws governing HE, therefore, the actual structure and organization of the various systems of HE may differ from state to state. Moreover, the management structures of HE Institutions vary, as do the regulations governing the accreditation of new degree programs. However, in order to ensure the same conditions of study and to guarantee mobility within Germany certain basic principles have been agreed on by the federal state ministers within the framework of the Standing Conference of the Ministers of Education and Cultural Affairs (HRK, 2020).

HE Institutions in Germany enjoy the autonomy to independently manage the scholarship awarding, research and teaching activities and in the last two decades this autonomy has broadened to include issues related to human resources and budget control. For academic and governmental matters, these institutions have to be in accord with the Lander's (state) ministry. Germany's main education providers recognized as HE Institutions are:

- Universities and Equal Institutions (including Fraunhofer Institutions);
- Universities of Applied Sciences "*Fachhochschulen*";
- Theological colleges;
- Art and Music Colleges.

The main difference between the Universities and Equal Institutions and the Universities of applied Sciences is that the first set of Institutions are dedicated to basic research and award doctoral degrees, whereas *Fachhochschulen* (FHs) awarding only Bachelor and Master degrees, are more industry-oriented and focused on the practical application of knowledge. Studies usually include a practical internship (concentrated mainly in fields like engineering and business). A further distinction lies also in the admission requirements (Kehm, 2013). In 2018, more than 60 percent of students have studied at a university

whereas around 34 percent attended *Fachhochschulen*, and the rest attended colleges of arts (DAAD, 2019).

Due to the increased need for highly qualified professionals, HE is becoming more and more a necessity while the cost of attending HE Institutions is increasing even faster. Germany is the only top study destination whose universities (public universities) charge no tuition fees even for foreign students (with some exceptions in some states). Although this situation has been criticized and challenged several times because of its unsustainability and high burden on public funds, the decision to start charging tuition fees in public Institutions was never passed. Since the 16 German States have legislative authority over tertiary education, the role of the federal government in the funding of HE has traditionally been limited. In recent years, however, both the federal government and the states have sought to expand the federal role in some special cases.

In Germany there are 426 HE Institutions among which 106 are universities (of which 19 are private), 246 universities of applied sciences (of which 93 are private), 52 colleges of art and 16 theological universities. Publicly funded HE Institutions hold an obvious majority with more than 94% of enrolled students. In the 2018/19 winter semester, there were 2.8 million students in Germany (Federal Ministry of Education and Research, 2019).

There are several different funding models for HE Institutions in Germany. More than 85% of HE Institutions are state-run; others are operated privately, and some by the church. Public universities funding come from public sources (federal government or states). There are around 30 percent HE Institutions that are state-approved but privately operated. Private universities charge tuition fees that go far beyond the average of €500 that public universities are collecting per semester (around €30,000 or more for a Bachelor's degree). A further 10 percent of HE Institutions are run by one of the churches in Germany. They are state-approved and often also open to students of other denominations. They usually focus on a specific field such as theology, philosophy, social work or education.

In recent years, Germany has experienced increased participation rates in university education in general, and a growth of enrollments at private Institutions in particular (the number of newly registered students excluding foreign students in the first semester increased by more than 34 percent in the last decade). The emergence of the private HE sector has contributed to recent overall growth in German university enrollments. Religious private HE Institutions have existed in Germany since the beginning of the 20th century, but non-religious private HE on the other hand, is still a relatively new phenomenon and did not take hold on a larger scale until the late 1990s. Since then, the sector has expanded considerably. The number of non-faith based private universities increased from 23 in 1990 to 112 in 2018.

In view of the rapid aging of Germany's population, the German government has made the internationalization of HE a strategic objective. In fact, internationalization brings various benefits ranging from positive impacts on the quality of research and education to enhancing the global reputation of academic Institutions. It can also help ease Germany's skilled labor shortages and stimulate immigration. In 2013, Germany attracted 5% percent of the world's international students and was the 5<sup>th</sup> most popular destination country after

the United States, the United Kingdom, Australia, and France. In 2018, 14 percent of Germany's students are international students (Federal Ministry of Education and Research, 2019).

### **2.2.3.2 Quality Assurance**

As previously mentioned, Germany has a federal system of government which grants its 16 member states a high degree of autonomy in education policy. The Federal Ministry of Education in Berlin has a role in funding, financial aid, and in setting the regulation of vocational education and entry requirements in the professions. Most other aspects of education fall under the authority of the individual states. The ministries of each state should approve every new degree program that a HE Institution wants to introduce with respect to three dimensions: (a) a guarantee that the program to be established has sufficient resources; (b) the compatibility of the new program with the HE planning of the respective state; (c) the adherence to the structural rules and regulations of the state. While the state continued to approve of resources and legal issues, accreditation was established to assess the quality and the labor market relevance of new degree programs (Kehm, 2013). A federal law provides a central legal framework for HE. A coordinating body, the "Standing Conference of the Ministers of Education and Culture," facilitates the harmonization of policies among states. Regulations and laws are consistent in many states, but there can still be considerable differences in key areas (length of the secondary education cycle, administrative tuition fees, etc.).

Quality assurance mechanisms in Germany have undergone significant changes since the introduction of the European Bologna reforms. In 1998 following the first Bologna declaration, the German states jointly decided to add external program accreditation as a quality assurance mechanism for new bachelor's and master's degrees – a key concept of the Bologna reforms (Michalk, 2007).

### **2.2.3.3 Accreditation**

Germany's HE Institutions are generally recognized and regulated by the ministries of education in the individual states. In order to become state-recognized, private Institutions must also be accredited by the "Science Council," an advisory body to the federal and State governments (Bartz, 2018). As for accreditation agencies, there are ten independent agencies operating in Germany. These private agencies are in turn accredited by the German Accreditation Council, the designated supervisory public authority that certifies accreditation agencies and establishes guidelines and criteria for program and system accreditation.

Almost two decades after the initial decision to introduce the reforms and press for external accreditation, program accreditation remains shy (Kehm, 2013). As of September 2016, less than 60% of all existing degree programs were externally accredited in Germany. The accreditation process is slow and burdensome for universities, involving high direct and indirect costs. The new concept of "system accreditation" has consequently become a popular alternative to the program accreditation. First introduced in 2007, system accreditation allows Institutions to forgo external program accreditation by creating internal

quality assurance systems that are evaluated by the accreditation agencies. By 2016, 47 HE Institutions had obtained accreditation of their quality assurance systems – a considerable increase compared to previous years. Appendix A presents the accreditation agency ZEvA (*Zentrale Evaluations und Akkreditierungsagentur Hannover*) and summarizes its standards.

## 2.2.4 Higher Education system in UK

### 2.2.4.1 Presentation and overview

HE in UK is valued all over the world for its renowned standards, quality and prestige from its graduates' work. Some of the British HE Institutions are ranked at the top among universities in the world. London is considered to be the world's capital city of HE with its 4 universities being ranked in the world's top ten. Based on Times universities ranking in 2019, the University of Oxford and the University of Cambridge ranked first and second worldwide (Times Higher Education, 2020).

In UK, HE Institutions (or as they call them HE providers) are of different types with specific conditions to use various titles regulated by law (EuroEducation.net, 2019) “Higher Education Institutions”, “Further Education Institutions” and “Alternative Providers”. For example, there is a difference between college, university-college and university; a college is a Further Education Institution which prepares its students to earn degrees, while a university is a licensed “HE Institution” where students will gain a degree (called degree awarding power) based on several conditions. The university-college grants degrees but doesn't meet the numerical criteria for university title (that is 1000 full-time students). We will not go further into the details and conditions of each title (complete information can be found on (European Union, United Kingdom - England Higher Education, 2019)), but what is worth mentioning is that all those “HE Providers” are state-financed (except for the University of Buckingham and BPP University College). In UK, being publicly funded doesn't mean teaching is free. It means students cover only part of the tuition fees. The rest is covered by the state through the Office for Students (OfS) and UK Research and Innovation – UKRI (before 2018, both were the Higher Education Funding Council for England – HEFCE) in the form of direct public funding for teaching and public loans (Office for Students, 2018).

The reputation of HE in the UK goes hand in hand with its costs as tuition fees are very high compared to other countries. Fees may vary between Institutions and administrative zones (England, Scotland, and Wales), but the government sets the maximum tuition fees that HE Institutions are allowed to charge (which is normally higher for foreign students); today it is approximately 12,000 GBP per year (GOV.UK, 2018). Therefore, students' loans are very popular.

In the UK, many entities are involved in HE regulations and are an integral part of the British system. We will mention the most significant ones. The Office for Students (OfS) is an independent regulator of HE in England. It ensures that every student has a fulfilling and



enriching experience of HE that enhances their lives and careers. Their work covers all students whether undergraduate or postgraduate, national or international, young or mature, full-time or part-time, studying on a campus or by distance learning (Office for Students, 2018). The UK Research and Innovation (UKRI) is an independent organization that is funded by the Science Budget by the Department for Business, Energy and Industrial Strategy, and works in partnership with universities, research organizations, businesses, charities, and government to create the best possible environment for research and innovation to flourish. Operating across the whole of the UK with a combined budget of more than 7 billion GBP, UKRI invests taxpayers' money wisely in a way that maximizes impact for citizens, in the UK and across the world, based on the following elements:

- Pushing the frontiers of human knowledge and understanding;
- Delivering economic impact and social prosperity;
- Creating social and cultural impact by supporting the society and others to become enriched, healthier, more resilient and sustainable (About us, 2019).

Another regulatory body is the Office of Qualifications and examinations regulation (Ofqual) that regulates qualifications, examinations and assessments in England since 2010 (the other zones have different bodies or councils). It is a non-ministerial government department that makes sure:

- Regulated qualifications reliably indicate the knowledge, skills and understanding students have demonstrated;
- Assessments and exams show what a student has achieved;
- People have confidence in the qualifications that they regulate;
- Students and faculty members have information on the full range of qualifications that they regulate (Ofqual, 2020).

The UK doesn't abide by the Bologna Process for regulating HE inside the European Education Area. Degrees regulations in the UK HE system are based on the following schemes (EuroEducation.net, 2019):

- Postgraduate courses that lead to a Doctorate, a Master's degree, postgraduate diplomas, Post-Graduate Certificates of Education (PGCE) and professional degrees. To enter this level, it is usually required to have a first degree (Bachelor);
- Undergraduate courses which include a wide range of first degrees (Bachelor's): honors and ordinary degrees, qualified teacher status, enhanced first degrees, intercalated degrees. It usually takes 3 years to finish but some HE Institutions are offering 4-year undergraduate courses, also known as "sandwich courses". This program includes one year in a workplace;
- Other undergraduate courses: Foundation degrees, SVQ, NVQ, Higher National Diploma HND (or equivalent), NHC (or equivalent) etc.

In the UK education system, most syllabi are set by the universities which are offering them and are not controlled by the government or certain British educational institutions. The only exception to this is teacher education programs. However, the Office for Fair Access (OfFA) has a say on the admission procedures of each university. This office was

created to promote fair access to HE, even for those who are attending university as international students. Fair access also includes those of different cultures, different races, different nationalities, and those who have disabilities.

In UK, HE Institutions are autonomous and independent organizations with their own legal identities and academic and managerial powers. Subject to their degree-awarding powers they are free to design programs and awards and to determine the conditions on which they are awarded. However, the power to award UK degrees is regulated by law and it is an offense for an Institution to award a UK degree if it is not authorized to do so. They are dependent on government funding but they are private. In 2017, there are 813 HE private providers located in England (88% of the total), Scotland, Wales and Northern Ireland, out of which, 64% are for-profit, teaching mainly business programs.

In 2018-19 academic year, 2.4 million students were enrolled, 40% are international students (EU or other) representing a substantial part of the student population in British universities. The UK is the second most popular study destination for international students following the US. The HE participation rate in 2017-2018 was 50.2% with a steady increase since 2006 (Bolton, 2020). The overall distribution of student numbers between HE Institutions is planned by the government and the OfS. Each Institution has a limit (with some exceptions) – or ‘student number control’ – on the number of students it may recruit. The purpose of this control is to enable the government to control the level of publicly funded student loans and grants for fees and maintenance.

#### **2.2.4.2 Quality Assurance**

The power to award UK degrees is regulated by law (European Union, United Kingdom - England Quality Assurance, 2019). The procedure for gaining “Degree Awarding Powers” (DAPs) or being “recognized” changed in April 2018 as a consequence of the Higher Education and Research Act 2017. Since then, Institutions wishing to obtain new DAPs have to be registered with the OfS, satisfy all of its conditions of registration, and apply to it for authorization. Once the OfS is satisfied that eligibility criteria are met, it seeks advice from the Quality Assurance Agency for Higher Education (QAA), which acts the role of designated quality body (more on QAA in the following section), before deciding whether to authorize the award of DAPs. Many colleges and other Institutions, such as further education colleges, do not have degree awarding powers, but provide complete courses leading to recognized UK degrees. Courses at these Institutions are validated by Institutions that have degree awarding powers under a formal recognition arrangement. The other providers of HE may use other institutional titles such as “college”. The use of such titles is not regulated by law (Brown R. , 2004).

Quality assurance in the UK is ensured by the Quality Assurance Agency for Higher Education (QAA). It is an independent body created in 1997 that checks on standards and quality in UK HE. It is the nationally agreed, definitive point of reference for all those involved in delivering HE programs which lead to a qualification or the award of academic credit from a UK degree-awarding body. All HE Institutions are required to meet the

Expectations (standards) of the Quality Code (manual) that sets out the expectations they are required to meet. The purpose of the UK Quality Code for Higher Education is to:

- Safeguard the academic standards of UK HE;
- Assure the quality of the learning opportunities that UK HE offers to students;
- Promote continuous and systematic improvement in UK HE;
- Ensure that information about UK HE is publicly available.

The Quality Code covers all four nations of the UK and British education delivered internationally. It protects the interests of all UK HE students and provides assurance for the wider public. QAA regularly conducts reviews and quality assessments of all UK HE Institutions to ensure that they are meeting the Expectations set out in the Quality Code. This makes it possible to ensure that HE provision and outcomes are comparable and consistent at a threshold level across the UK. The Quality Code relates to the learning and teaching activities of a HE Institution with the exception of some areas that are not covered (research beyond the provision of research degree programs, knowledge transfer activities and estates management). It provides consistent principles and practices and a common vocabulary for the management of academic standards and quality. It will be presented at length in the following section.

QAA conducts quality assessment reviews, develops reference points and guidance for providers, and conducts or commissions research on relevant issues (Quality Assurance Agency for Higher Education, 2019). QAA checks how universities, colleges and alternative providers of UK HE maintain their academic standards and quality through regular external peer review. During these external reviews, HE Institutions are required to provide evidence that they are meeting the Expectations set out in the Quality Code. They do so by demonstrating the effectiveness of the design and operation of their particular organizational policies and processes for setting, describing and assuring the academic standards of HE programs and qualifications and the quality of the learning opportunities offered to their students.

#### **2.2.4.3 Accreditation**

In the UK, there isn't a distinct system for the accreditation of HE Institutions. Their capability to manage their own quality and standards is assessed by the Quality Assurance Agency for Higher Education (QAA), with the UK Quality Code as the reference point as mentioned in the previous section. Appendix A gives an overview of the QAA values and "Expectations". The term Expectations refers to the commonly used term "Standards". They express key principles that the HE community has identified as essential for the assurance of academic standards and quality. They clarify what UK HE providers are required to do, what they expect of themselves and each other, and what students and the general public can therefore expect of them. HE Institutions are required to demonstrate they are meeting the "Expectations" effectively, through their own management and organizational processes, taking account of organizational needs, traditions, culture and decision-making. This uniformity of practices provides safeguards for students, the whole HE sector and the general public, without damaging the diversity that is inherent to the UK HE.

UK HE providers are autonomous and increasingly diverse. The student body is also increasingly varied, and there are many different programs and levels offered to those students. The Quality Code gives HE providers a – UK-wide – shared starting point for designing, setting, describing and maintaining the academic standards of their programs and qualifications and for assuring the quality of the learning opportunities they provide for students. It can be interpreted locally as appropriate to individual HE providers' missions. Being autonomous bodies, HE providers decide how they apply the Quality Code to their activities, in the context of a complex and innovative sector in which new developments take place all the time. While the UK HE system reflects a strong level of integration and coherence, responsibility for HE is however delegated to the separate administrations of the four nations of the UK, from the Westminster parliament to the Scottish, Welsh and Northern Irish parliaments or assemblies. Different methods of external review operate to reflect different policy and historical contexts for HE across the UK thus, in certain circumstances, aspects of the Quality Code may not apply to the whole of the UK in the same way (such as tuition fees, funding and governance arrangements).

The Quality Code Expectations are summarized in appendix A.

## **2.2.5 Higher Education system in Japan**

### **2.2.5.1 Presentation and overview**

The HE system in Japan is a very powerful tool for the country's national politics and culture. Japan's educational system is believed to be in a top position worldwide in terms of quality and performance, the academic accomplishments of the students studying in Japan being higher than the international standards (OECD, 2011). The general policy, management and administration of HE are under the authority of the Ministry of Education, Culture, Sports, Science and Technology that has the authority to approve the creation of all new HE Institutions, both private and public. It also lays down the minimum standards for universities with regard to curriculum, facilities, qualification and number of faculty members. Institutions can exercise autonomy in many issues, but the Ministry of Education keeps hold of the main influence over the growth and development of HE in Japan. Japan attracts students from across the world and the government has provision for scholarship programs for international students to make it an even more popular destination (Higher Education Bureau - Ministry of Education, 2016).

The Japanese transformed their HE system by adapting and acquiring useful and valuable information and technology from different education systems. The educational culture of Japan is established on the Shinto, Buddhism and Confucianism philosophy. During the 19th-20th century, three major reforms were introduced, which contributed to individual work of students, originality, individuality and internationalization of education. Equality in education is one of the modern educational norms of Japan. Approximately 70% of students who graduate from high school go for HE studies, making Japan one of the most educated nations in the world and entering the stage of universal

access to HE. The percentage of students enrolling in universities and junior colleges has steadily increased since the Second World War.

There are over 1,200 HE Institutions in Japan enrolling about 3 million students. HE Institutions are classified as National (supported and originally established by the central government enrolling around 20% of the total number of students), Local public (supported by governments at the municipal or prefecture level that play an important role in local research), and privately funded Institutions established by educational corporations. Approximately 75% of all universities in Japan are private enrolling around 80% of all students. HE Institutions are of different types:

- Universities (undergraduate and graduate schools): Awarding bachelor, master, doctorate and professional degrees, there are 780 national, public and private universities in Japan (86 are national, 95 are local, and 599 are private universities). The duration of studies in an undergraduate university is 4 years with the exception of some medical specialties. Universities establish graduate programs in areas where they aim to provide opportunities for profound research and scholarship for both their faculty and their students;
- Junior Colleges: Awarding associate's degree, there are 372 (out of which 22 are Local and 350 are Private Junior Colleges) junior colleges. The duration of studies is two to three years and they mainly focus on home economics, education, nursing, humanities and sociology;
- Specialized/Professional Training Colleges: Specialized training colleges provide vocational and technology-related education as well as education in the enhancement of skills and knowledge required in life. Lower secondary school graduates are admitted and receive practical and creative completion education. These colleges mainly provide specialized training in a particular industry or career. The duration of studies is around one year;
- Colleges of Technology: Colleges of technology provide courses in the engineering field, merchant shipping and other related areas of study, which lasts for 5 years. There are 57 colleges of technology out of which 51 are national (Higher Education Bureau - Ministry of Education, 2016).

The quality of education varies widely among Japan's four-year colleges and universities, which accounts in part for the stiff competition among students who wish to enter the best schools. Generally, universities aim to expose students to a broad range of knowledge while providing a context for research to be conducted by faculty.

The academic environment in Japanese universities and colleges has come under criticism in recent decades. It is extremely difficult for students to gain admission to universities, and they often only do so after taking a particular admission test two or three times. Having been admitted, however, many students often lapse into what are sometimes called "leisure lands" in Japan (that is, universities where little real academic work is completed) where students may dedicate a good portion of their time to extracurricular activities. In the 1960s, many students were extremely politically active and spent much of

their time on leftist causes. Although that is not so much the reason for the leisure lands today, the result in that period is similar to the result today; students often skip class and fail to spend much time on their studies. Some reasons often given for this phenomenon are that: 1) many students do not get admitted into the school of their first choice and are less motivated to work hard; 2) they have not yet grasped the significance of the course of study they have selected and its importance to their future; 3) many of the professors have given in to the phenomenon and are less than inspiring teachers, preferring instead to conduct their research and other duties; and 4) there remains the perception that companies or government agencies traditionally hire their employees from the same universities, with little regard for the degree of academic achievement of graduates. Some aspects of this approach to university life have changed in recent years. The educational and working culture has changed as a result of globalization and as a result of Japan's economic downturns, creating a more competitive atmosphere in universities and in companies.

In Japan, all national or public universities, which were previously part of the Ministry, have been reorganized as corporations since 2004 with the purpose of improving their independence and autonomy, revitalizing education and research activities, and thus making universities more unique and attractive. Such reorganization has enabled each national university to become independent from national frameworks in terms of personnel affairs, budgetary matters, etc. and manage itself under its own responsibility and at its own discretion under the leadership of the President and a Board (Higher Education Bureau - Ministry of Education, 2016). In Japan, private universities have greatly contributed to the development of Japanese education. The Japanese government has deemed the promotion of private universities as one of its important policy issues and has adopted various kinds of promotion measures aiming to maintain and improve education and research conditions and reduce tuition fees burdens on students as well as to improve the soundness of management. Those measures include 1) subsidies for operating costs (personnel expenses for the faculty and staff, education and research expenses, etc.) and facilities maintenance costs, 2) loans, 3) preferential tax treatment, 4) support for the managerial improvement of educational corporations. It has been expected that each private university will maintain and further strengthen its management base through its own efforts and actively provide information concerning its education, research activities and financial condition, making itself more unique and attractive so that it can meet people's demands. Each university has made efforts to clarify its own originality and characteristics based on its educational principle, aiming to qualitatively maintain and improve its educational activities. However, in view of the increased percentage of students enrolling in universities, the diversified students' needs, the decrease in the population aged 18 and the progress of universities' cross-border education activities, it has become necessary to reexamine not only measures taken by each university but also how the entire HE system should be.

#### **2.2.5.2 Quality Assurance**

The Ministry of Education, Culture, Sports, Science and Technology (MEXT) has made efforts to support universities' own education activities by:

- Guaranteeing the quality of HE through the establishment of approval system and the quality assurance and accreditation systems;
- Enhancing the quality of undergraduate and graduate school courses;
- Improving international competitiveness;
- Funding some basic expenses, faculty research activities and some financial assistance to students.

As mentioned, its approval is also required when establishing a new Institution in order to ensure quality and protect students' interests. Upon approval, the Council for University Establishment and School Corporation shall conduct an inspection under the minimal standards for university establishment of the University Establishment Standards. Since 2004, only prior notification to the Minister is required to change the organizational structure and since 1991, all universities have been required to make sincere efforts to implement self-evaluation. While the implementation of self-evaluation has become mandatory since 1999, this mandate has only been clearly stipulated by law in 2004 (Higher Education Bureau - Ministry of Education, 2016). All HE Institutions shall autonomously and independently evaluate the state of their respective education and research activities, organizational management, facilities and equipment, give faculty members development and research opportunities, and publish the results of such evaluation along with the standards for performance assessment.

### **2.2.5.3 Accreditation**

Accreditation associations must be certified by MEXT. Universities are regularly checked in accordance with the self-provided standards and results are to be published for the society. Through such process, universities can be granted quality assurance and accreditation openly and encouraged to improve themselves based on such results. There are 4 accrediting bodies and 5 specialized associations that cover specific topics; Japan University Accreditation Association (JUAA) will be presented in appendix A.

This part of the chapter presented information about the most renowned HE systems worldwide, their organization, quality assurance policy and accreditation system. They will be synthesized and compared in chapter 4.2. This overview brings enough material to learn the lesson from the most efficient HE systems before addressing the Lebanese case in the following chapter. The next section will demonstrate how the use of PM systems in HE supports quality assurance efforts. In other words, how they ensure that the education provided to students properly equips them for the job market and provides the country with a highly skilled workforce that supports economic and social growth, clearly displaying the relation and complementarity between the two research topics of this study.

## **2.4 Performance Management in Higher Education**

As introduced in the first chapter, the need for performance excellence in HE is a result of a growing competition among Institutions, cuts in public expenditures, desire for

internal performance improvement, scarcity of resources and pressure from stakeholders for more accountability and value-for-money creation. These circumstances urged HE Institutions to implement serious PM activities and pushed them to renew and reshape their organizational structures and management practices. As Sir Francis Bacon said “Knowledge is power”, the smooth functioning of any Institution – let alone HE ones who advocate knowledge – relies on the ability of the Institution to identify problems, find appropriate solutions and detect opportunities to act on them. Without this ability, no organization can function successfully. At the same time, many HE systems are under pressure because of their many failures that resulted in the rise of unemployment, rise in the cost of education, skills gap, cases of fraud, etc. (McLaughlin, McLaughlin, & Kennedy-Phillips, 2005). This situation pushed HE Institutions to adopt a different approach to establish mechanisms and procedures to self-assess their effectiveness on a continuous basis, emphasizing more on accountability at all levels with a self-driven approach towards quality (Koorts, 2005). It also pushed HE Institutions to rely more on effective planning, an activity that has increased in recent years. While for some members of the academic community such developments have been unwelcome – as they were associated with administrative bureaucracy, erosion of academic freedom and self-determination – planning and monitoring are now a central activity within HE Institutions and the foundation of PM. The reasons they have become so important are numerous. To name a few: Increased competition, pressure on resources, accountability, need for external interaction and change in internal management. Details on how those factors have affected the trend are in appendix B.

Implementing a PM system encompasses several steps. While at this stage we will not dwell on how to successfully implement a PM system, we will however mention that along with strategy development, performance measurement and performance review are the cornerstones of any PM system, briefly defined as following: Performance measurement is the process whereby data and information is collected, treated, analyzed and distributed. Information is based on a set of PIs as will be detailed in the following chapters. As for performance review, it is the process where actual performance, targets and gaps are reviewed to ensure that timely preventive and corrective actions take place. The definition of performance measurement as recommend by Max Moullin is “*evaluating how well organizations are managed and the value they deliver for customers and other stakeholders*” (Moullin, 2007). This definition portrays a clear link between performance measurement and organizational excellence, which is the intention of any HE Institution aiming to achieve outstanding practice in management and deliver value for customers and other stakeholders. According to the same author, performance measurement provides the information needed to assess the extent to which an organization delivers value and achieves excellence.

The activity carried out in HE Institutions to collect, measure, analyze and interpret data concerning students, faculty, staff, programs, facilities and other educational and administrative services in the purpose of performance measurement and improvement, is generally done by the Institutional Research (IR) Office. Since it plays a major role in PM, its traditional role in performance measurement and institutional effectiveness will be described before addressing how the IR Office can rise above this mostly informative role and support the Institution’s efforts to develop strategies in line with its mission using



innovative monitoring tools, whether for the sake of accreditation or for internal improvement. Next, some of the most used PM tools in HE will be presented with detailed description of the types and uses of PIs before highlighting the challenges and risks associated with the implementation of PM systems and PIs.

### **2.4.1 Institutional research**

The main purpose of IR is to provide objective, systematic and thorough research that supports the Institution's goals, planning, policy formation and decision making. It keeps track of the Institution's performance and promotes institutional effectiveness. It also produces statistical information required for accreditation as part of the self-study. By providing useful information in both academic and administrative areas, IR assists the management to perform better planning, develop policy and regulations and make decisions based on objective and reliable data. Collected data is various and addressed to diverse stakeholders; students' data is important to students' enrollments and retention, whereas financial figures are essential to the finance office and faculty data to the HR office. When needed or for accreditation purposes, the office of IR conducts research into specific issues, such as students' turnover, retention rate, graduation rate, faculty turnover, or student diversity. It shares the findings with the concerned departments in the Institution with the sole purpose of finding solutions, identify future challenges or opportunities.

The office of IR is generally a more or less large office that is in the higher hierarchy of the Institution, active in every strategic cross-institutional committee. To build a strong, evidence-based decision culture, Institutions must make accurate data available, connect people with information, and build a culture that supports the use of analytics and data at all levels of the organization. IR professionals are essential partners and catalysts in this work at all levels of the Institution, they offer the knowledge, analysis and interpretation that turns data into meaningful and actionable information. It is important to note that the success of the IR office depends on the data literacy and capacity of users as well as the efficiency of the information system. Offices of IR divide their time between the external and the internal organizational roles. The internal role includes providing data, analysis and survey research to assist managerial policymaking, enrollment strategies, student outcomes assessment, etc. The externally focused tasks include forecasting admissions applications, benchmarking the Institution against national and peer databases, transmitting official numbers to government agencies, etc. This traditional research and reporting work of the IR office covers topics requested for official or accreditation reports, funding requests, international rankings, national surveys, or to be used as a marketing tool to attract students. However, to consider this office as only serving those goals, would be a waste of institutional knowledge and technical expertise. The IR Office's tasks shouldn't be limited to external and sometimes superficial reports, it could generate much more knowledge to be used for making data-driven strategic decisions and efficiently monitor the Institution. Moreover, the increased pressure on HE Institutions to achieve greater efficiency and accountability pushed them to progressively implement more systematic, formalized quality assurance processes and develop the role and scope of the IR office. Whether HE Institutions have a pressing public

obligation (or as part of accreditation process) to operate efficiently and with accountability, or because HE leaders recognize the need to develop a culture of evidence and awareness of analytics, IR can produce valuable systematic evidence of effectiveness and efficiency through performance measurements and monitoring, that goes far beyond the traditional indicators as it will be argued in the following section.

A classic dilemma faced by most institutional researchers is the potential conflict between the internal and the external roles in PM. Public and private Institutions alike, face the need to improve themselves by having better teachers, better learners, researchers, and administrators. To accomplish this, Institutions need to expose their weaknesses and identify what needs to be changed through the IR office. However, the very act of such openness runs the danger of reducing the Institution's enrollment appeal and threatening its revenues, especially in an atmosphere of fierce competition and performance funding (Volkwein J. , 2010).

It is important to note that the use of indicators and IR reporting has not always been cheered by HE Institutions. Furthermore, the implementation of the culture of institutional reporting and analytics was not universally adopted at the same time worldwide. In North America, there is a relatively strong corporate culture and executive managerial behavior within HE Institutions. Therefore, the information technology trend of the mid-eighties and consequently the information systems related to institutional data dedicated to IR and decision support, was rapidly embedded within the American HE culture. As much as North America relatively embraced quickly this new culture of information sharing, Europe, by contrast (as well as many developing countries with HE schemes that are inspired from or a reflection of the European systems), has been more resistant to adopt such a movement. There are many reasons that can explain this divergence in the behavior of HE Institutions. First, the availability and use of management information systems was not as developed as it was in North America. Second, there is no culture of concentrated corporate and executive power with European Institutions. Third, up until recently, there was no pressure to be competitive and make strategic managerial choices to be efficient and effective and demonstrate accountability. This resistance may also be due to a sense of interference by governments or accreditation agencies in the life of the Institution, therefore threatening its autonomy and sovereignty. Lately, following mounting pressure from governments, funding agencies, and the general public to have more information and transparency about the utilization of scarce resources by HE Institutions and about the state of their performance, the role and scope of information management and IR within the Institutions substantially increased (Kells, 1992).

In the section below, the most relevant PM models used in HE will be described; the Balanced Scorecard and Benchmarking. They both emphasize the use of PIs. Therefore, they will be presented as well.

#### **2.4.2 Performance Management tools**

There are numerous PM and performance measurement tools that have been developed throughout the years for industries and businesses from various fields. An

extensive list of those systems and tools can be found in (Ravelomanantsoa M. Ducq Y., 2018) article where the authors present and compare 60 different PM systems found in the literature. While most of those systems focus on production companies, a literature review suggests that very few have been implemented in HE or have been the subject of research papers to study their potential implementation in HE. Of the few systems that have been adapted by HE from the industries, we will retain only two: Balanced Scorecard and Benchmarking. The first reason is that most of the literature related to PM in HE refers to those models, second, those methods seem to be the most applicable tools to the HE context and Institutions' functions and operations.

To note that these systems are based on the use of PIs as a tool to measure and monitor performance, therefore, the different types of PIs along with their classifications will be described below before presenting the Balanced Scorecard and the Benchmarking models and their use and limitations in HE.

### 2.4.2.1 Performance Indicators

In line with the recent growing interest in performance measurements in HE, the use of PIs shifted from being an aid for resources allocation in the late 1960s to a management and policy-making tool. PIs now provide strategic and vital information at many levels of an Institution (Parmenter, 2007).

In chapter five a PM system will be proposed based on the use of a large array of different types of PIs that assist HE Institutions with their accreditation process and most importantly with their monitoring efforts for internal improvement. This chapter will review the literature around the multiple notions of PIs and the context in which they are used in HE, their types as well as their implementation challenges.

#### 2.4.2.1.1 Definition

In management, an indicator is a measure that relates actual performance or results achieved to desired objectives. A PI is an indicator that is aligned with the business strategy of the organization as it quantifiably expresses a strategic objective and measures performance against a specific goal. The literature provides numerous definitions of PIs. According to L. Berrah, *a PI is constituted by the triplet: one objective O, one efficiency measure M and one essential variable V* (Berrah, 1997). The OECD defines PIs as: *Signals derived from databases or from opinion data that indicate the need to explore deviation from either normative or other preselected levels of activity or performance* (OECD, 2010). Another definition is: *“a performance indicator is a quantified data which measures the efficiency of the decision variables, in comparison to the achievement of an objective defined at the considered decision level, and accepted in the frame of the global objectives of the enterprise”* (Ducq, 2007). In this research work, the following definition is retained because it is specific to HE: *Performance indicators are defined as measures which give information and statistics context; permitting comparisons between fields, over time and with commonly accepted standards. They provide information about the degree to which teaching and*

*learning quality objectives are being met within the higher education sector and institutions* (Chalmers, 2008).

In other terms, PIs help Institutions evaluate and monitor their developments or performance, demonstrate the need and show the area(s) to investigate further and are an essential step in quality assurance. When assessing quality in a HE Institution, whether for accreditation audits or government reporting, performance is compared to certain norms or standards and deviation towards a certain direction is a good indication of that Institution's performance (Meek & Lee, 2005). While thousands of indicators could be created in theory, there are some qualities that PIs must demonstrate in order to be meaningful. They can be summarized as follows:

- Relevance: meaning the indicator is useful to concerned persons;
- Verifiability: meaning similar measures would come up if different persons are to examine the same data;
- Statistically free from bias;
- Quantifiability (although non-quantifiable indicators are as if not more relevant);
- Economic feasibility: meaning the benefits that will derive from the use of the PI outweigh the cost of its calculation;
- Institutional acceptability: meaning the indicator must be accepted and perceived as clear, relevant and fair by the people who will be using it (Ball & Halwachi, 1987).

Although the terms indicators, PIs and Key Performance Indicators (KPIs) are often used interchangeably, PIs can be classified in various ways based on their function, purpose, and scope. They can be classified based on the level at which they are used in an organization (strategic, tactical, and operational), on their function (financial, customer satisfaction, HR, etc.), or based on the source of the data (internal or external). As will be discussed below, they can be leading indicators (used for planning and forecasting) or lagging indicators (used for performance evaluation and reporting).

According to David Parmenter, there are three classifications for performance measures:

- 1- Key result indicators (KRIs): They tell you how you have done in a certain perspective (referring to the BSC perspectives) and they are the result of many actions. They give a clear picture of whether you are traveling in the right direction but they do not tell you what you need to do to improve these results. Thus, KRIs provide information that is ideal for the board who is not involved in daily management, mostly used for periodical reporting. Examples of KRIs are customer satisfaction, net profit before tax, profitability of customers, employee satisfaction, return on capital, etc. KRIs typically cover a longer period of time than KPIs; they are reviewed on monthly/quarterly basis, not on a daily/weekly basis as KPIs are. Separating KRIs from other measures has a profound impact on reporting, resulting in a separation of performance measures into those impacting governance and those impacting management. Some references name this indicator a "lagging indicator", as it is used to evaluate

historical performance, it is results or output-oriented and difficult to influence since it only records what has already happened.

- 2- Performance indicators (PIs): They provide information that throws light on specific issues and help you make a decision. In between KRIs and KPIs, there are numerous PIs that complement the KPIs and are shown with them on the scorecard for the entire Institution or for each department. Examples of PIs are profitability of the top 10% of customers, net profit on key product lines, percentage increase in tuition fees of different faculties, number of employees participating in an activity, etc.
- 3- Key performance indicators (KPIs): They tell you what to do or what action needs to take place to increase performance. They are strategically chosen and represent a set of measures focusing on aspects of institutional performance that are the most critical for the current and future success of the Institution. They demonstrate how effectively an Institution is performing. KPIs are therefore current or future-oriented measures as opposed to past measures (number of schools' visits planned for next month). Some references name KPIs "leading indicators" as they can influence change, or predict future performance and are often used to guide decision-making. They are used for daily or weekly monitoring by all concerned staff. The author defines seven KPI characteristics:
  - Non-financial measures;
  - Measured frequently;
  - Acted on by the senior management team;
  - Requires an understanding of the measure and of the corrective action by all staff;
  - Ties responsibility to the individual or team;
  - Has significant impact as it affects most of the core critical success factors and more than one BSC perspective. In other words, when the top management and staff focus on the KPI, the Institution scores goals in all directions, meaning it has a flow-on effect; an improvement in a key measure like customer satisfaction would have a positive impact on many other measures (profitability, reputation, etc.);
  - Has a positive impact (Parmenter, 2007).

It is important for any Institution to use an appropriate mix of these three types of indicators and to develop their own set of indicators as too often, organizations blindly adopt generic or industry-recognized PIs and then wonder why it doesn't reflect their own business and fails to affect any positive change. PIs can also change with time shifting with the needs of the Institution.

Often, simple indicators (that provide a description of a situation or process) are confused with PIs (that imply a point of reference that provides relative information or a judgment). In our study we will use both terms interchangeably as we consider that all types of indicators, whether simple or related to performance, are important and can describe a different aspect of institutional effectiveness.

Before presenting the different types of indicators and their use in HE, it is important to emphasize the consequences of creating a good and suitable PI that can be used by all concerned persons and acted upon. Otherwise, the whole task and invested efforts would result in a waste of time and resources, and would produce inflexible data. Writing a clear objective for the PI is one of the most important steps of developing PIs. A PI needs to be intimately connected with a key business objective that is vital to the organization's success and in line with its strategic plan while paying attention to homogeneity and avoiding redundancy. If not, it would be like working towards a goal that has no impact for the Institution. PIs also need to be context and time-related with the right balance between aggregation and complexity. In fact, in developing PIs there is a tension between the needs for accuracy and simplicity, and the need for completeness without overwhelming the management with endless tables and totals; PIs are an aid to good judgement and not a substitute for it (Meek & Lee, 2005).

#### **2.4.2.1.2**      *Types of Performance Indicators*

As it is essential for any Institution wishing to monitor the performance and effectiveness of its activities to develop a set of indicators that covers various functions at multiple levels, it is even more essential to identify and select the appropriate set of indicators. There are thousands of possible PIs that one can choose from or that can be created. It is therefore very important to determine which ones are the most relevant to measure the desired goal without getting lost.

To be useful, PIs should be compared to (absolute or relative) standards, over time, between different departments and when possible, against a benchmark. It is agreed that PIs are considered as goals and not facts, value and context-oriented and used in different ways depending on the performance model being employed (Chalmers, 2008). Once identified, most of the PIs can be automated and generated from the University Information System in multiple ways over different periods of time, covering a single department, a faculty or the whole Institution. In reporting, there are many different ways to present the PIs (matrix, BSC, control charts, graphs, etc.) depending on who is reading the report, the nature of the data and the Institution's preference.

PIs are a universally accepted tool used to monitor ones' own performance for comparative and improvement purposes, to facilitate the assessment of institutional operations, and to provide evidence for typically external quality assurance audits of institutional teaching and learning quality (Chalmers, 2008).

##### **2.4.2.1.2.1**      *Quantitative Indicators*

Quantitative indicators measure a quantity or amount and are expressed as numerical values. They include the input and output PIs.

*Input indicators:* In a HE Institution, input indicators reflect the human, financial and physical resources involved in supporting institutional programs, activities and services. They have a main limitation in their inability to determine the quality of teaching and

learning without extensive interpretation. For example, an indicator such as resource allocation should be interpreted with several other indicators to determine teaching and learning quality, otherwise, it cannot give a useful measurement of the intended goal. Assessing teaching and learning quality for example should be accompanied by enrolment data (to determine resource to student ratio), resource quality (*i.e.*, condition) and conceptual range (*e.g.*, library book topics). While helpful in providing an overarching quantitative perspective, such measures are too crude to serve as the primary vehicle for achieving accountability or demonstrating quality. In fact, an over-reliance on input measures such as expenditures per student can drive up costs and distort one's view of quality (Massy, 1996). It is however argued that when a set of resources is demonstrated to be available through input indicators (and in the presence of institutional will), it indicates a good chance that current conditions favor the creation of quality education. At least the opposite is true. Even if some inputs do not guarantee a good level of education, their absence suggests a high likelihood of a poor one (Manning, 2018). Therefore, it is important to measure and improve inputs because of their strong empirical connection to important outcomes like academic achievement and graduation rates;

*Output indicators:* Subject to similar limitations, output indicators reflect the quantity of outcomes produced (such as number of graduates), including immediate measurable results, and direct consequences of activities implemented to produce such results. The defining feature is quantity or numerical amount, but the quality of these numbers is almost entirely disregarded.

Input and output measures are inherently constrained by their data-driven “quantitative” nature, which limits the study of educational, interactive and learning processes that are the foundation for assessing the quality of an Institution, its educational programs and its graduates and consequently, supporting the enhancement of teaching and learning quality. Quantitative PIs don't demonstrate quality of education, but rather quantities of its outcomes. It is the role of IR to combine those quantitative measures with other indicators in a strategic and meaningful way to understand or make a judgement on qualitative or intangible results. However, quantitative PIs are quite useful as the results they produce constitute the groundwork that supports quality. They do not guaranty the quality of education, but a poor level will likely indicate a mediocre education. This is the main reason why accreditation agencies or performance management tools still stress on the financial capabilities and budgeting decisions of Institutions. A HE Institution may be wealthy but allocates its spending inadequately by neglecting critical areas (such as teaching and research) or may not have the will to assure quality. Conversely, Institutions with limited resources even with the greatest will to assure quality, will be challenged to manage their resources wisely and even when they do, their financial capacities might not be enough to guaranty adequate means and sustainability.

#### 2.4.2.1.2.2 Qualitative Indicators

Qualitative measures focus on quality aspects and allow measurement of deep and complex issues. Qualitative indicators are associated with observation-based descriptions,

rather than an exact numerical measurement or value. They involve comparisons based on qualities or non-numerical data such as the policies and processes for assessing student learning, the experience of a learning community or the content of a mission statement. They include outcome and process indicators and they typically don't involve generating the quantity of outcomes in the form of numerical data (as do output PIs), but measure complex processes and results in terms of their quality and impact.

*Outcome indicators:* Outcome measures in a HE Institution are different from output measures as they focus on the quality of educational programs, activities and services for all stakeholders. While they both measure the effects of HE, output PIs measure this quantitatively, and outcome measures do this qualitatively. An outcomes-based accountability system focuses on the added-value to students through their HE experience (in terms of experience satisfaction and quality of acquired skills). This approach is aligned with the “student as customer” culture as developed in chapter one (1.2.3), where learning is described as identifiable skills and products. The nature of outcome indicators, comprised of values like quality, satisfaction and learning outcomes, implies that outcomes are more difficult to measure than numerical outputs and consequently less often used than quantitative indicators. Outcome indicators are however considered to be more insightful, meaningful and accurate in measuring the methods and quality of teaching, learning and research as they relate to the objectives of HE. They are considered to better account for the complexity associated with HE and are also more useful in providing information aiming to enhance teaching and learning. For example, collecting information on student satisfaction and skills is more instructive to the Institution, instructors and prospective students, than retention rate data, when the purpose is assessing the learning outcomes or teaching quality, whereas an indicator such as retention rate is more useful from social and economic perspectives.

*Process indicators:* Process indicators are those which include the means used to deliver educational programs, activities and support services within the HE Institution (teaching, learning, research, administrative activities, knowledge transformation, etc.). These measurements consider how the system operates within its particular context. Process indicators allow the collection of qualitative information on aspects of teaching and learning quality such as policies and practices related to learning and teaching, process PM, professional development of staff, quality of curriculum, the assessment of student learning, and the quality of facilities, services and technology. Process indicators are critical because of their direct role in student integration and growth and because they facilitate corrective intervention. They have been identified by empirical research to be the most practical, useful and appropriate measures of quality teaching and learning within HE Institutions and are the indicators commonly reviewed through institutional audit. Process indicators provide an understanding of current practice and the quality of that practice. This has been shown to be effective in informing further initiatives and policy decisions, leading to quality enhancement. Although generating them is challenging, process indicators are an invaluable source of information on teaching and learning quality because they investigate the core of the student's learning experience (such as quality of teaching, curriculum, assessment, services and facilities), and they are contextualized to the Institution. They provide



information and context to facilitate interpretation of output and outcome indicators. When combined with valid and reliable input, output and outcome indicators, process indicators provide a comprehensive perspective for institutional strengths and weaknesses to be identified so that further improvement and enhancement can be undertaken.

While some researchers argue that there are concerns whether PIs can adequately and directly measure the quality of teaching and learning, it is obvious that without multiple sources of both quantitative and qualitative information, interpretation may be inaccurate. It is also crucial that indicators should only be interpreted in light of contextual information related to the Institution, provided it is made explicit why and how the information is being used. Although indicators do not objectively provide explanations or permit to draw conclusions because of the complexity of HE, they can – if well-chosen –, depict trends, facilitate comparison and uncover interesting questions about the state of HE and of the HE Institution. Successful indicator systems, whether at national or institutional levels, incorporate all four types of indicators in a well-balanced interrelated manner, to inform decision-making and quality assessments. Inappropriate dependence on less informative input and output PIs because they are easier to measure constitute a risk just as emphasis on output or outcome indicators over input and process indicators will likely result in an unbalanced system with unintended negative consequences. Although qualitative indicators are more insightful in measuring the quality of teaching and learning, they are not used as often as quantitative indicators because of the difficulty to gather related data and the complexity to measure them (Burke J. , 2005).

#### **2.4.2.1.3 Use of Performance Indicators in Higher Education**

As previously mentioned, indicators are useful tools for supporting strategic decision-making in HE. Figure 2 summarizes the main purposes of using them at the institutional and national levels. The clear difference proves the necessity to create diverse perspectives and a clear understanding on how to appropriately select indicators.

## HE Institution Level    National Level

- |  |  |
|--|--|
| <input type="checkbox"/> monitor own performance for comparative purposes                                | <input type="checkbox"/> Ensure accountability for public funds                |
| <input type="checkbox"/> facilitate the assessment and evaluation of institutional operations            | <input type="checkbox"/> Improve the quality of HE provision                   |
| <input type="checkbox"/> provide information for external quality assurance audits                       | <input type="checkbox"/> Stimulate competition within and between institutions |
| <input type="checkbox"/> provide information to the government for accountability and reporting purposes | <input type="checkbox"/> Verify the quality of new institutions                |
|  | <input type="checkbox"/> Facilitate international comparisons                  |
|  | <input type="checkbox"/> Assign institutional status                           |

*Figure 2: The use of performance indicators at the national and institutional levels<sup>1</sup>*

The main purpose of using indicators in HE Institutions is to monitor and control the performance of their activities and processes. Indicators provide adequate information to governments and policymakers, accrediting bodies and stakeholders to identify progress and achievements. These indicators are also used for benchmarking purposes by comparing the Institution's performance against other comparable Institutions. Moreover, when flattering, they are used for marketing purposes to attract prospective students and qualified faculty members in addition to satisfying stakeholders' expectations. This study will focus on the use of indicators at the institutional level for:

- Internal improvement, planning and monitoring
- Accreditation and quality audits

While the BSC and Benchmarking are the most used PM models in HE using PIs as a tool, a literature review suggests other applications of indicators in HE based on various models of performance. The most relevant ones are briefly described in the following paragraph:

- Quality audits (very similar to accreditation) are collaborative efforts using performance measures and indicators that offer a sort of consumer protection. Quality audit is the scrutiny by a group external to the Institution that checks if the quality assurance and quality control processes are appropriate and working properly. It usually involves the Institution carrying out a critical self-analysis, and an external review team verifying the self-report, making recommendations for improvement, and following up on the progress. The advantage of this model is that by basing it on a self-study, Institutions maintain their autonomy and safeguard their

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<sup>1</sup> (Chalmers , Lee, & Walker, International and national quality teaching and learning performance models currently in use, 2008)

uniqueness while learning a lot through the process. The review encourages continuous improvement and is transparent and flexible enough using qualitative and quantitative measures focusing on processes and inputs. This method bears however some risks. Placing emphasis on processes and inputs implies that if the Institution has implemented acceptable quality arrangements, satisfactory outcomes will follow. Which is not the case. Moreover, quality audits aren't concerned by how successfully the objectives have been attained, they identify areas of improvement and recommend actions to address them. It is also a very costly time-consuming process that can be sometimes perceived as a form of external control. Since quality audits are based on a pass/fail system, there is no incentive for quality (just meeting minimum and sometimes questionable standards) and consequently, no incentive for improvement and innovation (Craft, 2005).

- Performance funding is typically a government initiative that rewards high performance on indicators that reflect national or state priorities. Indicators tend to be outcome-focused (such as completion rates or graduate employment) and incentives are provided for (mostly public) Institutions that perform well on specified indicators (like teaching or research performance). This type of funding reflects the government's appreciation of quality education. Indicators provide objective criteria for institutional comparisons and the assessment of quality and consequently the distribution of funds. However, funding formulas can lack flexibility, and safeguarding institutional diversity may become challenging. In fact, Institutions will tend to conform to national priorities at the expense of their identity or even worse, manipulate performance data to satisfy the required conditions. The worst way to use indicators is to assume that they can be summed up to explain all of the functioning and outputs of a system as well as the costs involved and, therefore, can be used to drive the major funding choices for teaching and research. A number of arguments are advanced in favor of performance funding (it provides strong incentives towards excellence and sends out clear messages from government agencies to Institutions and academic staff). On the other hand, opponents of performance funding argue that it can distort the purposes of evaluation, damage the links between evaluation and improvement and, by denying funding to lesser performing departments or institutions, damage their reputations, their ability to recruit staff and students, and their capacity to improve. Also, it is very difficult for less strong Institutions to attract (additional) funding in to order to build on their strengths. Some newer Institutions have put considerable effort into building-up research capacity of particular departments, but generally these efforts have attracted little additional funding. Moreover, within such Institutions, there is often considerable ill-feeling about the fairness of the performance evaluation and about the indirect adverse effects it has on teaching, since faculty members will likely spend more time on and adopt strategies to maximize publishing (Meek & Harman, 2000). Joseph Burke argued that there are eight common objections to performance funding of public colleges, claiming that the complexity of HE's goals, diversity of Institutions' type, subjectivity of educational quality, relative power of the allocation amounts linked to performance measures, politics of resource allocation, cost of

- required research, and incompatibility of external accountability and institutional, make it unreasonable to compare HE Institutions based on some indicators (Burke J. , 1998).
- Performance budgeting also ties funding to institutional performance but it assesses overall performance for budgeting decisions. It refers to procedures or mechanisms intended to strengthen links between the funds provided to public Institutions and their outcomes and/or outputs through the use of formal PI in resource allocation decision-making (Robinson & Brumby, 2005). The introduction of performance budgeting has been linked to large public reform efforts to improve expenditure control and/or public sector efficiency and performance (OECD, 2007). Its difference with performance funding lies in the relationship between the indicators and the funds. Performance funding employs a set of indicators that are all weighed and measured to determine how well the Institution performed, and the requisite funding it will receive. The indicators are compiled into an assessment criterion and each indicator is directly linked to the funding decision. In performance funding, there is a tangible incentive for Institutions to meet each specified indicator. This approach is usually used in budget preparation, rather than as a form of reward for performance. The advantage of performance budgeting over performance funding is that the longer list of indicators, allows a broader scope of performance to be evaluated, is more valid and reliable as a result of having multiple measures, allows greater consideration of an Institution's circumstances, and is more flexible. Its disadvantage is that there is less direct incentive for Institutions to perform well on each indicator.
  - Performance reporting literally refers to the report of institutional performance to the authorities. Performance is reported on a selected set of indicators that are pertinent to national goals. The reports provide useful information for policymakers and other stakeholders. They have been described by researchers as consumer reports that follow the customer-centered approach and market-driven focus of HE today. Since there are no financial incentives involved, it is less costly and less controversial than performance funding. Performance reporting is considered to be a powerful model of change, particularly when the performances are reported in national reports, ranking or league tables. The US, Canada and the UK have long histories of performance reporting. Since most HE systems are required to submit performance reports to their respective governments, and many reports are published for stakeholders and the public, this is the most universal performance model (Chalmers, 2008).
  - Faculty performance evaluation or performance appraisal. It is one of the mostly used PM tools to measure the productivity of academic employees in different contexts (Camilleri & Camilleri, 2018). It often entails a reward or incentive system (for promotion, tenure, and financial compensation), whereby research indicators (productivity and sometimes impact) are the basis of evaluation. The paper of (Simon Cadez, 2017) on research, teaching and performance evaluation gives a deep insight on the relationship between research performance and teaching quality on one hand, and portrays the risks of favoring research over teaching on another hand.

HE Institutions striving for government funding, research grants and high rankings, have adopted strategies for recruitment and reward systems that favor academics with top publications and profuse research activities. As much as research and knowledge production is at the heart of HE Institutions' mission, this "publish or perish" mentality may be detrimental to creativity and innovation in teaching, as faculty members will tend to economize on teaching efforts to concentrate on research as it will improve their career prospects. Some faculty members also claim that such performance evaluation system based on research productivity (and maybe impact) doesn't allow to effectively measure all aspects of a faculty member's work (Üçtug & Köksal, 2010). It is also worth noting that the performance appraisal exercise relies on the skill and on the predisposition on the part of the evaluators who can either provide constructive criticism and key recommendations to their colleagues, or give subjective and biased ratings. Therefore, clear objectives should be set to measure productivity and effectiveness while identifying the faculty members' strengths and weaknesses that will require further improvement (Camilleri & Camilleri, 2018).

- Universities ranking is a subject worth mentioning even if it isn't a model for performance evaluation in essence; it is a consequence of performance reporting. The creation of global markets for HE through increased internationalization, have triggered the demand for the establishment of national and global rankings. Despite the fact that methodology and indicators adopted by existing world university ranking systems continue to be controversial, they are nonetheless reshaping universities' strategic planning and national HE policies and reforms. The US, the UK, Europe and Japan are competing for an increasingly competitive market for international students. Universities' rankings affect the decisions of students, the international league tables attract most of international students even though the basis of the ranking lacks teaching indicators or indicators that truly reflect the quality of teaching (Chalmers, Lee, & Walker, 2008). Quality rankings use reputational surveys of academic peers, students or industry experts to assess how major stakeholders view the institutions (Marope, Wells, & Hazelkorn, 2013). *On the one hand, reputational hierarchies are measured by rankings; on the other, rankings influence reputational hierarchies by that very measurement* (Federkeil, 2009). Therefore, basing the reputation of an Institution on rankings, or a ranking on reputation, bears several pitfalls (Haddad-Adaimi, Abi Zeid Daou, & Ducq, 2022).

#### 2.4.2.2 **Balanced Scorecard (BSC)**

In 1992, Robert Kaplan and David Norton's introduction of the Balanced Scorecard (BSC) into the business literature came from the managers' need to have a more balanced approach to evaluate an organization on both financial/operational and non-financial measures. In other words, concentrating only on the financial well-being to the exclusion of customers, business processes, and learning and growth was risky and would lead to sub-optimization of outcomes. Kaplan and Norton didn't intend to isolate organizations from their dependency to financial indicators, but rather to complement those indicators by other

qualitative PIs, specifically meaning to implement a more balanced approach, placing the mission of the organization as the center of concern, while shifting from analyzing the past to learning about the future. A BSC uses measures and indicators as the drivers of performance, equally distributed over four proposed perspectives (Kaplan & Norton, 1992):

- Financial perspective – how do we look to stakeholders?
- Customer perspective – how do customers see us?
- Internal Processes perspective – what must we excel at?
- Innovation and learning perspective – can we continue to improve and create value?

Although BSC has evolved from its early use as a simple performance measurement framework to a full strategic planning and management system, and has been widely used in businesses, it didn't get the same popularity in the education sector (Daryush Farid, 2008). In fact, measuring excellence in HE is traditionally about measuring academic performance through indicators and ratios such as those that will be presented in chapter five. Moreover, the constituents of the four perspectives also depend on the Institution's vision, mission, size, type, strategic objectives, etc. and cannot be equally applied. As an example, a private Institution would put more emphasis on the financial perspective than a public Institution that would emphasize more on the learning and growth dimension. Some researchers tried to apply the BSC to private HE Institutions while others have argued about its effectiveness in the public sector (Aljardali, Kaderi, & Levy-Tadjine, 2012).

#### **2.4.2.3 Benchmarking**

Benchmarking is one of the most useful tools available to help Institutions of any type, size and activity with their process improvement (OECD, 2017). Benchmarking in HE is a method to implement collaborative work between several HE Institutions, mainly to deal with the accreditation processes. It can be defined as a diagnostic instrument, a self-improvement tool, a collaborative learning exercise and an on-going evaluation and systematic approach of continuously measuring work processes. It is a voluntary process of self-evaluation through the systematic and collaborative comparison of practice and performance with similar Institutions. It contributes to the enhancement of performance of HE systems in general, helps in HE policy design, implementation and evaluation and allows cross-country comparisons and peer learning (Epper, 24-31). Benchmarking uses PIs and aims to achieve the following objectives:

- Enhance the quality of education and research;
- Prepare students effectively for the job market in an intercultural and globalized world;
- Enhance the reputation and visibility of the Institution;
- Provide service to the community and increase social engagement.

In order for a benchmarking exercise to be meaningful, the scope of the self-evaluation should be first defined and the PIs and benchmarks should be well identified (targeting a critical process, a specific department, unsatisfactory results, etc.). Second, data (qualitative and quantitative) should be made available and collected for evaluation and comparison.

Last but not least, corrective actions should be taken and improvement plans implemented (OECD, 2017).

(Achim, Cabulea, Popa, & Mihalache, 2009), mentioned four types of benchmarking in HE:

- Internal benchmarking where comparisons of performances are made between different departments, faculties or campuses within the same Institution;
- External competitive benchmarking where a comparison of performance in key areas is based on information from Institutions seen as competitors;
- External collaborative benchmarking involves comparison with Institutions that are not immediate competitors;
- External trans-industry benchmarking where comparisons are made across multiple industries in the purpose of finding innovative practices.

It is important to mention that when comparing HE Institutions at the national level or when a HE Institution plans to implement benchmarking as a tool for self-assessment and improvement, it would be appropriate to develop benchmarks for families of Institutions with similar characteristics. In a sector as diverse as HE, it might not be pertinent to apply all measures to all Institutions in the same way. The interpretation of institutional-level PIs should take into account the context of the Institution. For instance, a public Institution would be more interested in some demographic indicators (for concerns of equality and equity of access) than a private HE Institution that would be more concerned with the retention of its students. In some cases, an “adjusted sector” benchmark can be created. It is a calculation method (proposed by the British Joint Performance Indicators Working Group – JPIWG, created in the 1990s by Michael Sterling) that provides a relative measure of performance against a sector and a way of judging whether two Institutions are comparable or not (Cave, Hanney, & Kogan, 2006).

In HE, benchmarking practice is quite common, especially among OECD countries. It is a way of finding and adopting “best practices”, however limited to some common and traditional indicators, as deeper comparison between Institutions is very difficult due to the complexity of operations and diversity of provision even in the same country. For instance, there are no national standard assessments or curricula in most countries. It would therefore be precarious to assume that a degree of a given class in a given subject is equivalent at all Institutions, or that its content would be similar in order to be compared. While the problems of standardization are much reduced when the qualifications lead to entry exam to professions, this approach however, can only be applied to a very small part of HE provision (OECD, 2017). In fact, both external influence (political, economic, competitive) and organizational characteristics explain the disparities between the systems and the difficulty of comparing performance across Institutions and countries. These factors are related to the system being measured, not the measures themselves. When one adds barriers such as the validity and reliability of measures, poor information systems, variation in the influential input variables and other aspects of measurement, one can begin to understand why the subject of PIs, particularly the comparative use of such techniques, is technically difficult and controversial. This point of view has been confirmed by the studies of Johnes and Taylor (1991) with respect to UK universities through regression analysis with the four most

popular PIs (completion rates, degree results (level), first destination of graduates, and research ratings). They concluded that input variables explained 80% of the variance in measured performance across the universities and that no indicator could be used convincingly to compare institutional performance. In other countries and systems, the disparities are even more pronounced (Kells, 1992).

Another limit is the risk of stimulating rigidity rather than flexibility and diversity (Meek & Lee, 2005). In fact, governments' desire to introduce through the use of benchmarking more market-like competition into HE to induce more flexibility, cost-efficiency and responsiveness (to the needs of society), may ironically be having the opposite effect. Because of the heterogeneity of the sector, the student population and the qualifications offered, it is important not to undermine the intended enhancement in quality and inhibit diversity for the purpose of benchmarking.

On another level, among many HE Institutions, the general attitude towards benchmarking is the focus on reputation maximization and competitiveness assertion rather than a reflective exercise in institutional development and strengthening (Meek & Lee, 2005). However, the subject of benchmarking in HE is worth addressing as it can help the Institution establish appropriate targets and set performance thresholds if well intended and implemented. As will be discussed in the following section, PIs need to be compared to a reference point in order to be meaningful and benchmarking with peers can provide the needed formalized comparison, provided there is enough homogeneity in the system to allow useful comparison and interpretation, although in many cases, differences within the same Institution make even internal benchmarking meaningless.

### **2.4.3 Performance measurement for accreditation**

The inherent complexity of HE Institutions suggests the need for establishing appropriate measurement systems for monitoring and controlling the performance of these Institutions, especially those with limited resources. Nonetheless, meeting national and international standards of accreditation agencies requires developing well-defined PIs, based on which, 1) HE Institutions are evaluated and certified, 2) accrediting agencies evaluate the extent to which HE Institutions adhere to their set of predefined standards and thus, reflecting the quality of their activities. The ultimate goal of accrediting agencies is to enhance the performance of Institutions by assessing and reviewing their activities in order to maintain continuous quality improvements in the purpose of producing well qualified and competitive graduates. Accreditation standards are relatively similar in the way that they all tend to emphasize input resources and processes (Chalmers, 2008). This is likely due to the assumption that assuring a high quality of inputs and processes will probably lead to high-quality outputs. Although accreditation agencies tend to stress on clarifying their standards and documentation requirements, most of them do not explicitly elaborate on the PIs on which HE Institutions can rely for evaluating their activities or demonstrating their effectiveness (Mati, 2018).

There are some key indicators commonly required by accreditation agencies for monitoring the inputs of the Institutions. In the following section, we will cover those



indicators knowing that the selection was guided by the multiple studies conducted by Peter T. Ewell on the performance reports of HE Institutions in ten states in the US that also converge with a compilation of the most published IR reports found online today. Peter T. Ewell, president of the National Center for Higher Education Management Systems in the US, is among the most prolific scholars in HE. He has consulted with over 400 colleges and universities and 27 state HE systems on topics like assessment, program review, accreditation, and student retention. his findings are summarized below (Ewell & Jones, 2006):

- Enrollments: the distribution of students by gender / ethnicity / region / major / degree / faculty or department / status (Full-time or Part-time students). It can cover a semester or an academic year and show a general trend. It helps the Institution use its resources more efficiently, by deciding for example to discontinue a program that is not attracting students, or by allocating more funds to programs that are attractive to students, or granting more scholarships to students in programs with a low enrollment number yet strategically important to the Institution. More information can be given regarding the country of origin of those students (in the case of Institutions that attract international students) and their percentage of the overall number of students. If suitably measured, this indicator could also give an idea on diversity and accessibility of education at that Institution and the rate of representation of minority groups. Those two topics are always a priority on a national level;
- Admission profile based on Entrance Exam scores or school ranking. To note that such indicators are too much input-oriented and therefore don't actually relate to performance. Student entry qualifications may inform about the relative attractiveness of an Institution (or the profile of students it attracts), however, it tells little about the quality of educational provision (Ball & Halwachi, 1987);
- Registration statistics where data on the number of applications received is compared with the number of acceptance and number of registrations. This indicator can also be defined by department / faculty and degree level. This data is important for the admissions department, it helps them pinpoint the most attractive departments or those that fail the most to enroll accepted students;
- Students' retention/graduation rate/time to completion. It is the ability of an educational Institution to retain a student until he/she graduates from that Institution during an acceptable period of time. It can be distributed by gender, race, age, geographic location, and test scores. This information is very useful to the Institution but mostly, to the government. Governments give a lot of attention to those indicators at the national level as time to completion, retention and graduation rates indicate the effectiveness of the entire sector with regards to accountability of HE Institutions, social benefits and efficient use of public funds. For instance, a higher retention rate is a reflection of the effectiveness of the programs and services offered by the Institution it doesn't directly affect the students; students' primary objective is to gain knowledge and skills, thus, the retention rate indicator isn't relevant from their perspective and doesn't indicate the presence or absence of quality. Students'

retention rate is the percentage of the initial cohort of full-time first-time students who enroll in the following semester. Graduation rate is the percentage of the initial cohort of students who completed the program in the maximum residency time (as an example for a Bachelor degree, the maximum residency time is 6 years). Time to completion is the average period needed by a full-time student to complete his/her degree. A lower time to completion rate indicates teaching effectiveness and better students' follow-up. Those indicators, if inadequately low, indicate a waste of taxpayers' money and public funds. While those measures inform about accountability and efficiency, monitoring the number of graduates or time to degree completion may not adequately assess the actual quality of teaching and learning in a HE Institution. However, when scaled-up to the national level, they rather give an indication on the efficiency of the entire HE system. Much of the literature stresses that quality improvements and assessments of teaching and learning need to focus more on the institutional level (Chalmers , Lee, & Walker, 2008);

- Degrees granted by major, department and faculty (Certificate, Bachelor, Master, and Doctorate) also distributed by gender, race, age, residency time. This information is important because it reflects the number of students who were able to successfully complete their studies in the chosen major and Institution;
- Financial aid. It indicates the amount or size of the financial aid granted by the Institution to their students. It can be distributed by faculty and by type (need-based or merit-based financial aid). The trend can also be studied by headcount or by total amount. This indicator demonstrates the community engagement of the Institution.
- Academic achievements of students: Students' overall GPA is compared by department/faculty and year level (freshman, sophomore, junior and senior);
- Pass rate on professional exams are an ideal measure for comparison between Institutions as the standardized exam at the end of the program is a benchmark for the intended learning outcomes of the program;
- General financial data. Some reports feature budget distribution related to revenues by department or by type, and cost distribution by cost centers (type of faculty members, cost of research, staff, etc.) along with some purely financial ratios. This information helps the finance office take decisions related to funds allocation, recruitment and cost control.
- Faculty members and research performance. Related indicators involve general information about the distribution of faculty members by type (Full time or Part time) / gender / department, students to faculty ratio, as well as some information regarding their performance (such as the number of publications, accomplished workload or results of the students' evaluation). Such data can be used for recruitment, retention, development and promotion decisions. Increasingly, academics have to demonstrate that their research has academic impact and their Institutions have to demonstrate the research performance of its faculty members using various indicators. Journal rankings and journal impact factors are commonly used to assess the research impact of individual academics. More recently, citation counts for individual articles and the *h*-index have also been used as indicators to measure that impact. There are however, several problems with relying heavily on

journal rankings, journal impact factors and citation counts. For example, articles without any impact may be published in highly ranked journals or journals with high impact factor, whereas articles with high impact could be published in lower ranked journals or journals with low impact factor. Citation counts can also be easily gamed and manipulated, and the *h*-index disadvantages early career academics. These risks suggest that research impact measurements are to be taken with caution (Gruber, 2014). We argue that research performance deserves to be assessed through multiple viewpoints.

- Exit surveys and Alumni data. Such information includes indicators about graduating students and Alumni with regards to job placement, employment status (company type/country), feedback on career services upon graduation, and job satisfaction;
- Physical resources data include information about the Institution's tangible facilities such as library holdings (number of references by type), campus services, number of classrooms, laboratories, IT services, etc. Publishing appealing data about educational facilities can help attract students and faculty;
- Students' satisfaction. Whether part of IR, accreditation process, quality assurance efforts or as a marketing tool, students' surveys have become very common in HE. They can cover various topics from course teaching questionnaire to satisfaction with certain services and represent an increasing role in assessing the service quality and satisfaction of students. As the latter are increasingly seen as consumers of HE services, their satisfaction has become essential to recruit and retain them. More and more, HE Institutions are realizing that the sector is becoming more a business-like service industry and they are beginning to focus more on meeting or even exceeding the needs of their students. This development is especially true for tuition-based HE Institutions (Gruber, Fuß, Voss, & Glaeser-Zikuda, 2010).

Those indicators do not provide a deep enough and meaningful information on the quality of education or the performance of an Institution. There are so many dimensions and measures that can give a better understanding of an Institution's performance. Chapter 5 will present additional measures used by some HE Institutions that cover more significant aspects of HE.

#### **2.4.4 Paradigm shift in performance measurement: from generic reports to effective tailored monitoring**

As previously presented, the IR office regularly produces a report containing more or less information about the HE Institution to be used for institutional self-study and/or by external accreditation agencies. It is a summary or a "fact book" about the Institution's achievements, facilities, offers and services, but also in some cases a display of its shortages and deficiencies. It gathers sensitive and important data mostly in the form of indicators, for internal or external surveys and evaluation reports. Those reports have often another (debatable) role, that is performance funding and universities rankings. In most cases – except when they are only intended for institutional improvement – IR reports are made

available to the public. This public disclosure of data is however, not always cheered. For instance, any HE Institution with a high retention rate will take delight in displaying this information to showcase the effectiveness of its educational programs to prospective students and to the general public. When it is the opposite case, why would an Institution of HE publish such not so flattering information especially when it isn't a mandatory task?

Moreover, why would IR and performance measurement efforts be only used for generating generic reports instead of being used for genuine steering and monitoring of the Institution? Many authors argue that there is an obvious conflict between assessing for internal improvement and evaluating for external accountability. In some cases, there is even a gap between stated purposes and actual purposes of quality assurance systems and frequently there is tension between accountability and improvement purposes (Meek & Harman, 2000). On one hand institutional researchers need to expose weaknesses and identify areas for improvement, on another hand, the very act of such openness runs the danger of reducing the Institution's appeal and threatens enrollment numbers and consequently revenues, especially in an environment of fierce competition between privately-owned Institutions.

Typically, institutional performance is assessed through the appraisal of topics such as students' retention, distribution and graduation rate as seen in the previous section. But what about students' progress, learning outcomes, academic performance, students' "real" employability, curriculum value, advising efficiency, library effective usage, reputation, research impact, contribution to social, cultural and environmental development, etc.? While the public and the governments have growing demands for better performance from HE systems and for more transparency and accountability, institutional reporting doesn't seem to answer those concerns (Chalmers, 2008). In fact, in those areas, very few relevant data is available to the public; it is expected from HE to produce societal impact and to engage more effectively with the wider world, whereas performance data in such areas is nearly absent and HE's contribution difficult to measure. Moreover, because the cost of HE is continuously increasing, public expectations regarding the quality and equity of HE are raising too, as well as a growing pressure on the public funds. Governments want HE to be relevant to the needs of society, to have useful and sustainable outcomes, and most importantly, they want value-for-money from their HE systems. The latter is assessed based on economy (can HE minimize cost), efficiency (is HE making the most efficient use of available resources) and effectiveness (has equity accompanied quantity).

The failure of IR reporting to answer those concerns led us to think that there should be a **paradigm shift in the core mission** of this office. Instead of focusing on gathering data to measure the admissions and retention performance for universities rankings or performance funding and rely on input measures, the IR office should tackle more sensitive and deeper topics and adopt a different approach for institutional evaluation. Although there is an important cause-effect connection between quality of inputs and that of outputs, a growing attention to performance outputs and outcomes and more relevantly, to process measurement is henceforth required. This shift in the approach of IR will yield more relevant

data enabling HE Institutions to monitor their performance more effectively and take corrective actions when needed.

In chapter five it will be argued how measuring performance to provide strategic data-driven decision support should be done by using a tailored mix of PIs. Before doing so, it is important to cite some challenges related to the implementation of PM tools in HE.

#### 2.4.5 Performance Management risks and challenges

The implementation of a PM model for HE involves particular difficulties and challenges. Although there is a wealth of information collected and published about HE, it does not always lead to the construction of useful and meaningful PIs. In fact, the creation of relevant PIs at the institutional level and their correct interpretation, appear to be quite difficult; gathering reliable data and cross-sector benchmarking can be even more challenging.

A proper and clear framework for analysis and application is necessary. If a PI lacks “decision relevance” it is ignored. Paradoxically, the use of PIs may have a dysfunctional impact. It could lead to less easily measured activities being given lower priority (Cave, Hanney, & Kogan, 2006).

Although many researchers argue that PM contributes by pushing Institutions to be more strategic and efficient, a growing number of authors addressed the risks accompanying its application, potential policy-design and implementation problems. Moreover, some researchers have warned against the blind use of PIs (Melo & Figueiredo, 2019). Thomson Reuters’ report mentioned that “*finding, generating and reconciling the necessary data was described as a complicated and time-consuming process for universities*” (Thomson Reuters, 2008).

In the past, Institutions have chosen to use the older and more traditional assessment measures to demonstrate their effectiveness. While some of these measures do fit the purpose, many institutional goals are trickier to measure. In fact, measures such as graduation rates, retention rates, or percent of faculty with terminal degrees do reflect the effectiveness of the Institution with regards to its mission of supporting education to the target student population. However, determining metrics related to non-specific institutional goals that require interpretation prior to their measurement remains critical. Technology for example (in the learning process or as a way to reduce cost and bureaucracy, or both) is required by many accreditation standards and is now included in institutional goals too. *The question is: based on the wording of the goal, how does an institution prove this use of technology is occurring and that it is having positive results? Just spending money on technology does not prove it; neither does it show the number of staff engaged in training in the use of technology. The answer to the question is: what did the Institution specifically have in mind when it set the goal? In other words, what did the Institution expect success to change* (Hinton K. E., 2012)? The same applies to learning outcomes, or research impact where the number of faculty members with terminal degrees or where the allocated research budget are not enough evidence to assess the students’ learning outcome or the societal impact of research.

Below are briefly listed the main challenges associated with the implementation of a PM system at the institutional level (being the emphasis of this study) for the purpose of highlighting critical matters and serving as an introduction to the topic covered in chapter five (5.2.2).

- PM systems may introduce perverse incentives and divert attention from unmeasured but equally important issues, or focusing on outputs rather than on social outcomes (Melo & Figueiredo, 2019). Although the application of PIs, particularly when linked to an Institution's reward system (e.g., funding and promotion), is believed to trigger an improvement in academic effort and the achievement of the Institution's goals, they could also lead to undesirable consequences like increased pressure to reorganize work to suit the indicators or internal competition. An individual may decide to focus on the activities that are measured by the PIs and neglect other activities which are not measured by the indicators but are equally or even more important for the future survival of the institution;
- PM should be aligned with Institutions' mission and strategic goals (Ball & Halwachi, 1987) (McLaughlin, McLaughlin, & Kennedy-Phillips, 2005) (Parmenter, 2007) (Hinton K. E., 2012) as measurements should reflect the attainment of those goals.
- The lack of commitment and engagement from the management and/or from the faculty and staff could hinder PM efforts (Kells, 1992) (Tee, Suitability of performance indicators and benchmarking practices in UK universities, 2016);
- When top management doesn't give proper feedback on the results of the PIs the exercise stops being a process of continuous improvement (Kells, 1992) (Waal, 2013) (Ewell & Jones, 1996);
- Too much emphasis on only one dimension of HE (such as research, finances or physical inputs) is probably the most common risk associated with PM (Chalmers, 2008). In an effort to attain good scores on the indicators, an individual may behave in ways that are dysfunctional to the Institution. For example, greater emphasis given to research where funding is linked to performance rather than teaching, will push faculty members to focus more on research at the expense of teaching if it brings high scores. There will be greater pressure to publish regardless of the quality of the material published. The pattern of publications will be affected as well by favoring subjects that attract more funds or that can be measured bibliometrically (Cave, Hanney, & Kogan, 2006).
- Governing through excessive paperwork and complex time-consuming procedures is likely to destruct rather than stimulate diversity (Melo & Figueiredo, 2019) (Asif & Searcy, 2014) (Waal, 2013);
- There should be clear specification of how the PIs fit into the management and decision process (Cave, Hanney, & Kogan, 2006). Lack of transparency from the top management with regards to the aim of PM and excessive performance evaluation of faculty and staff with the purpose of control, incentive or blame sharing will provoke unhealthy competition among colleagues and destroy motivation (Asif

- & Searcy, 2014) (Tee, Suitability of performance indicators and benchmarking practices in UK universities, 2016);
- Having a proper information system is the main prerequisite for a proper implementation of a PM model; not enough strategic information in the system, inappropriate information system producing inadequate or unreliable data (de Waal, Kourtit, & Nijkamp, 2009);
  - Low quality reports or overly aggregated information (Parmenter, 2007);
  - Inadequate targets will lead to misinterpretations or frustration (Tee, Suitability of performance indicators and benchmarking practices in UK universities, 2016);
  - Bad timing of review (too soon or too late) (Parmenter, 2007);
  - Bad implementation of reward system or incentive compensation (Aguinis, 2014);
  - Top management doesn't nurture a culture of trust and continuous improvement (Camilleri & Camilleri, 2018);
  - Uncritical interpretation of performance measures and considering PIs as a substitute for judgement and not an aid to it (Kells, 1992), (Ewell & Jones, 1996), (Meek & Lee, 2005);
  - There should be a proper selection process for PIs (Cave, Hanney, & Kogan, 2006). When there are too many, aggregation and interpretation become hard (Parmenter, 2007) (de Waal, Kourtit, & Nijkamp, 2009);
  - When the process is too expensive and too bureaucratic it will likely be dropped (de Waal, Kourtit, & Nijkamp, 2009);
  - PIs shouldn't be too subjective otherwise they become unreliable (de Waal, Kourtit, & Nijkamp, 2009);

The issues related to PI calculations in HE Institutions mentioned above, become obviously even more complex when dealing with sector-level indicators. The use of PIs for the management, policy-making and assessment of HE systems is not the focus of this study, it is however worth mentioning for the sake of completeness, that many countries have recently endeavored to develop and analyze qualitative and quantitative country-level indicators that can be internationally comparable. These indicators would enable educational policymakers and practitioners to see their education systems in the light of other countries' performances and are designed to support and review the efforts that governments are making towards policy reform. Standardization and cross-countries cooperation can only bring positive impact and assistance in lessening the challenges associated with such a colossal task.

The most relevant example is that of OECD countries (Organization for Economic Cooperation and Development). The Organization publishes annually a report with indicators that provide a setting where governments can compare policy experiences, seek answers to common problems, identify good practice, and work to coordinate domestic and international policies. In their publications, OECD countries *examine the quality of learning outcomes, the policy levers and contextual factors that shape these outcomes, and the broader private and social returns that accrue to investments in education through indicators* (OECD, 2010). Member countries and the OECD continue to strive to strengthen the link between policy needs and the best available internationally comparable data. In

doing so, various challenges and trade-offs are faced. First, the indicators need to respond to educational issues that are high on national policy agendas, and where the international comparative perspective can offer important added value to what can be accomplished through national analysis and evaluation. Second, while the indicators need to be as comparable as possible, they also need to be as country-specific as is necessary to allow for historical, systemic and cultural differences between countries. Third, the indicators need to be presented in as straightforward a manner as possible, while remaining sufficiently complex to reflect multi-faceted educational realities. Fourth, there is a general desire to keep the number of indicators as small as possible, but it needs to be large enough to be useful to policy makers across countries that face different educational challenges (OECD, 2010).

H.R. Kells argued (in his review of PIs in HE to the Education and Employment Division Population and Human Resources Department at the World Bank) that major policy mistakes can arise from *the use of simplistic assumptions about the ability to observe cause and effect relationships between particular process steps and a supposedly measured outcome, or from the assumption of comparability across these drastically complex, multivariable and often very different systems* (Kells, 1992). It is not about the nature of the indicators and whether they can be used reliably, but whether the system to be described has clear, accessible basic elements (goals, structures, processes and outputs), and whether they are similar enough across the Institutions and across countries to permit useful interpretation. There is considerable difficulty involved when measuring cause and effect when the system contains multi-variable influences including variable input influences (skills and motivation of incoming students), variable goals (particularly across country settings), variable structures and programs, different critical mass levels, and vastly different levels of external influence (political, economic, competitive) (Kells, 1992).

Similar limitations apply when trying to assess performance within an Institution, benchmarking with other Institutions or between faculties and department. One indicator cannot paint a complete picture of institutional performance on a certain topic let alone explain the gaps.

## 2.4 Conclusion

In the first part of this chapter, it was shown how HE policies are regulated, how authority is distributed among the players and what are the main HE policy themes or factors that play an important role in HE policy-making. Then, the common steps of an accreditation process were briefly presented before examining the HE system of five of the most popular countries for HE studies worldwide. This overview showed that the structure of the government, the economic and social contexts and the policies and quality assurance mechanisms put in place, play a major role in shaping the profile of the HE environment and that of the Institutions (type, characteristics, level, diversification, quality culture, etc.). Government's responsibility, intervention and funding varies among countries and affects the role of the other HE actors too, such as accreditation bodies, quality assurance agencies, local and regional councils or commissions, etc. It was demonstrated as well, that



accreditation can be purely optional and inconsequential or vital and crucial for the sustainability of the Institution. Another finding is that regardless of the country's size, some systems encompass only one accreditation agency covering the whole country, while others have many agencies competing against each other to attract clients (HE Institutions willing/required to get accredited).

The second part of this chapter presented the use and purpose of having a developed IR activity in HE Institutions in charge of implementing and overseeing a PM system mainly based on performance measures and metrics to help Institutions identify areas of improvement, monitor academic and administrative activities, take data-based strategic decisions and make meaningful comparisons. Two important PM models used in HE were presented along with a description and classification of PIs and their use in HE, while highlighting the importance of using the right mix of PIs in a smart and effective manner, if deep conclusions and useful interpretations for effective monitoring and internal improvement are to be developed.

In the following chapter, the current situation in the HE sector in Lebanon will be briefly presented, while emphasizing on the state of its quality assurance efforts and accreditation practices.

# Chapter 3 – Higher Education System in Lebanon

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## 3.1 Introduction

Chapter two presented the HE system of five of the most popular HE destinations worldwide, along with their quality assurance frameworks and accreditation systems. This review was done in order to learn from their experience and take-away key principles to be used in the Lebanese context.

Quality assurance has particularly become of great importance in countries where, as a result of increased competition, market forces and rise of private Institutions, there are community concerns about the possibility of quality being sacrificed for the sake of profits. But where does Lebanon stand? As will be presented later, the Lebanese HE environment is characterized by the prevalence of private Institutions, a lack of regulations guaranteeing quality, and a tendency to import foreign accreditation systems that are unsuitable for the local context.

This chapter will start with an overview of the Lebanese HE sector, its challenges and the state of its quality assurance initiatives. The particular case of Private HE Institutions operating in Lebanon will be highlighted, as it is important to understand their contextual factors before addressing the issue of quality assurance and performance measurements within such Institutions.

## 3.2 Higher Education sector in Lebanon

### 3.2.1 Presentation and overview

The Lebanese HE system is basically regulated by the Ministry of Education and Higher Education (MEHE), presided by the Minister of Education and Higher Education. It governs the education sector in Lebanon, both public and private. The Education strategy is based on the principle of equal opportunity education for all, quality education that contributes to building knowledgeable citizens while developing the economy and promoting social integration (Ministry of Education and Higher Education, 2020). The MEHE oversees the activities and the development plans undertaken by the Institutions of primary, secondary and post-secondary education and implements strategic reforms plans based on the skills of the society, the needs of the job market while developing the sense of citizenship and social responsibility.

Any educational Institution should get accredited by the MEHE (by Presidential decree) before its creation, it should get another approval before launching its operations and a third one to get the equivalency of their majors. The MEHE has a set of requirements that should be met at each stage of the approval process by any organization applying for recognition. By law, all HE Institutions should be non-profit and they hold a high level of academic and financial autonomy (even the public university). The term accreditation here refers to the process of assessment and review, carried out by the MEHE, which enables a HE Institution or one of its programs to be recognized or certified as meeting appropriate standards and consequently leading to approval for the particular program or Institution to operate within the country and award the specified degrees.

The Ministry is divided into two departments: Directorate General of Education (till the secondary education) and the Directorate General of Higher Education – DGHE (for post-secondary education except for vocational institutes that are under the responsibility of the Directorate General of Technical and Vocational Education). Both departments are presided by a General Director and have an overall responsibility for all levels of education in the country. In this work, we will only focus on the Higher Education Directorate.

The Lebanese HE is highly influenced by both the French and American systems. Thus, the Lebanese system is a mixture of many characteristics coming from different educational models although it remains in line with the Bologna Process.

Up until 2014, the sector had been governed by a law which dates back to 1960. A new law regulating the Lebanese private HE sector was adopted by the Parliament in 2014 and is now in the implementation phase. In application of the law 285/2014 the DGHE regulates, supervises and coordinates all actions related to the private HE sector. It is in charge of the 46 private HE Institutions currently in operation in the country. The DGHE manages the licensing and official recognition of new HE Institutions, the validation of their programs and the recognition of their degrees. All other responsibilities are in the hands of each Institution's governing body. The recommendation to legalize an Institution (or a faculty or a major) is taken by the Council for Higher Education while the final decision remains in the hands of the Council of Ministers. In granting the licensing of an applicant Institution, political and sectarian considerations are taken into account (more on this topic in section 3.3.2.11). According to the 2014 law, the licensing process includes three phases:

- 1- A decree issued by the Council of Ministers after a thorough study of the file;
- 2- A starting-up authorization from the HE council, based on the recommendation of a technical academic committee;
- 3- A degree equivalency or recognition of degrees signed by the Minister will be granted 3/2/3 years after the starting up before graduating the first batch of students (for Bachelor/Master/Doctorate degrees).

The recognition (program's accreditation) is given for a certain period of time before the Institution will be subject to a new audit and review process as the evaluation and certification of any study program is no longer granted forever. With constant political instability and frequent absence of state (or interim government), this audit is often cancelled or postponed. The only exception made to all these licensing requirements is related to the public Lebanese University (LU) that enjoys a clear autonomy with its own system of governance. HE Institutions include universities, university colleges and vocational institutes:

- Universities are HE Institution comprised of at least three faculties specialized in one of the major academic fields, offering at least nine majors at the Bachelor level. They can deliver Bachelor, Master and Doctorate degrees and they conduct scientific research;
- University colleges are independent Institutions offering programs in only one or two fields (mainly in technology). They can deliver Bachelor degrees and in some cases Master degrees too;

- Vocational institutes are specialized in technical and vocational fields. They deliver Technical degrees (Superior Technician and Technical License).

The public HE sector is represented by only one HE Institution, the “Lebanese University” (LU) and one public vocational institute (that is not really considered as a HE Institution). The LU is governed by its own law, decrees and bylaws under the tutorship of the MEHE, but enjoys a high degree of independence and autonomy. This unique public university has five branches spread all over the country. The responsibility of managing the faculties relies on the Deans while the management of the university relies on the University Council, headed by the Rector. The LU is funded by the Government via the MEHE with a moderate contribution from the students (about 100 Euros per year for Lebanese students and 500 Euros for international students). Any other funding or donations must be approved by the Council of Ministers and the budget allocated to the LU does not follow any performance-based funding. In other terms, education at the LU is almost free and fees contribute only for 6.5% of its total budget. It is open to all Lebanese and to foreigners who are legally resident in Lebanon.

The rest are all private universities, university colleges or vocational institutes owned by religious congregations, political parties, private NGOs, non-profit or for-profit associations or even individuals. There are three foreign HE Institutions operating in Lebanon and 31 private universities, 16 private university colleges and 414 private vocational institutes in 2020. University-type Institutions have a very high social status in Lebanon, which attracts many students in comparison to vocational institutes. 65% of students are enrolled in a private HE Institution in 2019. Private HE Institutions do not receive any direct support from the State, their main source of funding comes from tuition fees and different types of resources and donations. Some universities benefit from endowments and gifts used to finance buildings, equipment, programs or to provide scholarships. In some cases, foreign governments provide support to some universities through the provision of professors or teaching material, or as part of academic joint programs (this is particularly the case with France and the US).

Private HE Institutions have financial autonomy and control, they are independent from the state in terms of managing their financial affairs and resources, they are only accountable to their respective founding organizations. The cost of studies is defined by the private HE Institution and there is not a general rule or national scheme regarding the financial support of students, nor a public lending program. Each Institution defines its own strategy in terms of pricing and financial aid. The latter can be need-based (according to the social situation of the student), merit-based (according to the academic performance of the student), work-based (when students work part-time at the Institution) or simply based on some political or promotional considerations.

While the private sector used to enjoy a good reputation worldwide (both secondary and post-secondary with some universities reaching 150 years – the first Institution of HE was established in 1866), 15 years ago it started suffering from serious quality problems and huge disparities between Institutions settled (Hana Addam El-Ghali, 2016). Some historic and traditional universities struggled to maintain their reputation of excellence in the midst

of the increased competition and rush for students' recruitment, while others had to resort to more aggressive and (academic) lenient strategies to attract students.

There are many reasons that led to the deterioration of the HE sector in Lebanon shifting it from an elite system to a massively commercial one (Mediterranean Network of National Information Centers on the Recognition of Qualifications, 2019). First of all, the social demand for HE has been growing over the past 15 years, students' enrollment increased from 115,000 in 1995 to 197,000 in 2016, which led to the tremendous and rapid growth of private HE Institutions, a point that will be developed later in this section. It is worth noting that the number of international students decreased over the years from around 16% in 2010 to only 10% in 2016 due to the prevalent political and economic crisis. Second, in the last decade and a half, the proliferation of new private universities and branches of already existing universities (25 new HE Institution or branch were accredited by the MEHE between 1996 and 2000 making the total number of HE Institutions operating in Lebanon reach 50), most of them aiming at maximizing their profit with a commercial or political mindset, led to an increased competition among HE Institutions. This situation started a chain reaction. Universities became increasingly dependent on students' numbers and tuition fees for their financial sustainability. These conditions have pushed some HE Institutions to recruit students who are not adequately prepared for HE because they carry shortcomings from a "failed" school system. In addition, these Institutions may have not provided these students with the necessary academic support to make-up for their lack of preparation because their focus is on profitability instead of learning outcomes. In fact, to be able to generate quick profit, universities had to compromise on their level of education by increasing the enrollments while cutting cost randomly. This resulted in abusive enrollments, exaggerated discounts on tuition fees, poor qualifications of faculty members (because of budgetary restrictions on faculty remunerations), derisory facilities (because of the lack of facilities maintenance, renovations, and adequate equipment), and absence of research activities (because of the lack of budget, research being regarded as a luxury they can skip), etc. At the same time, the MEHE was busy drafting laws that never saw the light while meddling in the affairs of "unbacked" private HE Institution related to insignificant matters instead of focusing on establishing a quality assurance and solid accountability system.

With the drop in the academic level on one hand, and the lack of accountability on another, it became necessary to regulate the quality of education rendered at these Institutions in order to maintain competitiveness within the regional and global market (Hana Addam El-Ghali, 2015). As a result of this inadequate academic oversight, and of the absence of a national policy for the labor market, the latter suffered from a rush of freshly graduated young people lacking skills and the right qualifications to do the job; a serious gap between the needs of the market and the students' skills and specializations emerged. Coupled with an increasingly deteriorating economic and financial situation affecting all sectors, this situation resulted in an unemployment rate among youth reaching 47.8% (and 29.6% in total) in 2022 (Presidency of the Council of Ministers - Central Administration of Statistics, 2022). A lowering proficiency of graduates' skill affects the labor market and the social outcomes of HE, consequently affecting the returns on investment of the students

(because they paid for an inadequate degree) and of the society (taxpayers and employers). Those with poor skills are more likely to be unemployed; and those who do find a job will be more likely to earn less than those with better skills (Hana Addam El-Ghali, 2016). These graduates will contribute less to society both as citizens and professionals. On another hand, the public sector represented by the LU catering to almost 35% of the total students' body in Lebanon, has its own array of challenges that adds to an already deplorable state of HE in Lebanon; deteriorating and unsuitable facilities, politicized governance (in the enrollments selection, in the recruitment of faculty members, etc.), frequent strikes, etc.

The lack of national studies and statistics on one hand and the rapid increase in the number of private HE Institutions without proper legislation on another, constituted a great challenge to the MEHE who made some fruitless attempts to draft a new law to reorganize HE. The clear absence of the government, a stagnating policy development process hindered by political interests, and a delayed progress of a new proper law started to weight and have negative repercussions on the Lebanese HE reputation that was once known as the University of the Orient (Hana Addam El-Ghali, 2016).

So how can a Ministry, suffering from internal challenges and obvious deficiency, impose quality standards on the private sector when the public sector itself struggles to keep the minimum requirements? In 2014, a new Higher Education law was passed, with the ambitious purpose of reforming the entire HE system to supposedly guaranty a certain level of quality standards in the HE Institutions in Lebanon. Unfortunately, the notion of “quality” was mostly used as shorthand for bureaucratic procedures applied to monitor the Institutions as Joseph Burke so rightly said: *HE (in Lebanon) does not lack legislation, rather it lacks enough of the proper kind and is burdened by too much of the unproductive kind* (Burke J. , 2005). The new law was basically a long list of conditions and specifications that intend to:

- Define the needed requirements to open a new university or a branch or a faculty within an existing Institution;
- Define the penalties that might be faced by the HE Institutions in case they fail to meet certain conditions;
- Enforce new fees for each and every step of the procedure;
- Explain the internal governance and authorizations process inside the MEHE distributed among the Minister, the High Council for Education and the Technical Committee, with the mission, tasks and operations of each council.

To note that the above-mentioned (sporadic) reporting required by the MEHE doesn't have uniform approaches and criteria across all private Institutions and results of those quality audits are not made available to the public. Moreover, reporting and approval procedures for new degrees or majors differ whether it concerns a long-established Institution or one that was established during the last 20 years; the rationale is that “old” Institutions don't need to be supervised and studied as much as the “new” ones do, because time has supposedly proven they have the required quality level. Those double-standards have created inequality and discrimination especially towards Institutions that are not

supported by a political or a religious party. It has also created an environment of mistrust and a culture of fraud and dishonesty.

It is also relevant to mention that the MEHE has put specific corporative status to any individual or organization attempting to open and manage an Institution of HE. This condition supposedly aimed to ensure reliability and sustainability of the management body of such private Institutions to prevent arbitrariness, conflict of interest and personal gain in their academic-related decisions and governance. Was it enough? Of course not. Quality and self-regulation should come from within, because in the absence of will, any policy or condition can be eventually evaded. Unfortunately, this is what happened in Lebanon.

### **3.2.2 Challenges facing the Higher Education sector in Lebanon**

The Lebanese HE system suffers from many impediments. Some of them were preventable and self-inflicted and some others were the consequence of socio-demographic and political circumstances.

One of the main challenges in the Lebanese HE that resulted from the rapid expansion of mass universities and prevented the MEHE from properly sustaining that growth, is the considerable enlargement and diversification in the learning provisions with an equally large disparity in quality, cost of education and services. For example, some universities belong to the top 250 universities worldwide (QS rating – 2020 and 60<sup>th</sup> in Asia University Rankings) and some others offer unaccredited low-quality degrees. Moreover, a Bachelor degree tuition fees can range from USD 6.000 to USD 80.000, in a country where the minimum wage was USD 450 with a poverty rate of 27% in 2019 (Gemayel, 2019), a minimum wage that reached USD 75 with a poverty rate of 82% in 2021 (UN News: Global Perspective Human stories, 2021).

Traditionally, quality in HE was seen as providing an elitist education where exceptional faculty members and researchers were recruited to teach outstanding students in an exceptional environment with exceptional libraries, laboratories, etc. (Tremblay, Lalancette, & Roseveare, 2012). Back then, emphasis was on high quality inputs that will yield high quality outcomes. The pursuit of profit maximization in a competitive context led to the “massification” of HE, a term used to describe the rapid increase in student enrolment that was witnessed towards the end of the twentieth century. More people have now access to a larger variety of HE offerings. While one can argue that “massification” can be an opportunity to widen HE access for underserved or underprivileged young people, ensuring the quality of the teaching can however be extremely hard in that case, especially when the country lacks the right policies and framework (Hornsby & Osman, 2014). Taking the example of large classes as they are part of the “massification” trend. They are mostly existent in some private universities that seek rapid financial gain being the result of a financially affordable and academically less challenging HE provision. Large classes also exist at the LU, the only public and free university in Lebanon. Large classes are believed to correlate with low student performance (Hornsby & Osman, 2014). Academically speaking, it is difficult for students to acquire knowledge and have meaningful interaction



with the professor – whose qualifications are often questionable in those cases – when classes are large, demographically diverse and whose only aim is to validate the course and move on to the next one.

The second main challenge is the extent of political influence over the MEHE decisions. This influence makes the ministry unable to enforce rules or pass new resolutions when they don't suit the personal interests of some parties, in topics ranging from a new law passing (as will be detailed in section 3.3.2.11 below), to holding HE Institutions accountable for cases of cheating and fraud, to conducting quality audits. And more often than not, the MEHE is forced to answer to that pressure, making it almost impossible to adopt fair and strict policies.

### **3.2.3 Quality Assurance and Accreditation in Lebanon**

Improving the HE sector in Lebanon should be a priority because it would reflect positively on the economy as graduates contribute to the development of the nation. In order to do so and bring significant implications for the sector, quality within HE Institutions in Lebanon should be regulated. In the global, regional and local contexts, quality assurance developments have become a high priority on the agendas of policy-makers. Many countries have developed accreditation systems, while others have established external review committees or independent bodies to monitor the quality of services in their HE Institutions. Circumstances may vary among countries, nevertheless, several trends have contributed to growing governmental interest in establishing clear policy mechanisms to ensure quality and accountability in HE. Regrettably, Lebanon lingers far behind.

In our opinion, the major weakness of the Lebanese HE system with regards to assuring quality, is the absence of an independent national agency that can publicly vouch for the quality of Lebanese HE Institutions. The lack of a serious quality assurance system is a major drawback in the international marketing of Lebanese HE that used to be the education hub and serve as a benchmark in the MENA region. Although a law for the creation of a national agency for Quality Assurance in HE had been approved by the government, it has been stuck in the Parliament for ratification since 2012 (more on this in the following section). The only quality control currently conducted in the HE sector is the audit and monitoring that the Ministry carries out at the licensing, starting up and recognitions stages in addition to some random audit requests. Those tasks are done by the technical academic committee, specialized committees and the HE council. To note that the members of those committees are academic experts employed by HE Institutions. It is therefore difficult to expect an independent and unbiased opinion when files are studied by competing universities. While the DGHE has introduced in its audit procedures several quality criteria, these still fall short of a standard quality assurance process.

Some Lebanese universities have established their own internal quality process, some with the help of EU Tempus projects, others chose accreditation by internationally recognized agencies or decided to follow some standards in line with those of the external bodies. In other terms, quality assurance efforts (whether official or internal) in the HE sector in Lebanon, when present, only come from the individual willingness of some

Institutions to follow certain standards in order to demonstrate quality and accountability to their stakeholders.

### 3.2.3.1 Quality assurance attempts

As already mentioned, it wasn't up until recently that the government as well as the Institutions of HE came to realize that it was critical to regulate quality within the sector in order for their graduates to remain competitive and to ensure a decent quality level among HE Institutions. Efforts were mobilized to update the Lebanese HE law – from its 1961 version – and to draft a new law (law 285/2014) that would establish a strategic framework that would hold private and public Institutions accountable for the services they provide to the public (Hana Addam El-Ghali, 2015). The new law intended to 1) regulate the HE in Lebanon and govern the private HE Institutions, 2) take into consideration the increase in the number of private HE Institutions (from less than 10 to more than 40), 3) provide the public with more transparency and protection from fraud and 4) get more compliance from private Institutions by tightening the HE rules and instilling more control (through more committees and field visits). Since the previous law was 49 years old, the new law was also intended to be in harmony with the present HE provision with its new structures, programs, curricula, etc.

In other terms, the main aim of the new framework was to protect the status and quality of academic degrees, to ensure that private HE Institutions are meeting the minimum criteria with regards to facilities and faculty members' qualifications, and to ensure that the provision of HE is meeting appropriate standards. Some of the legislation also aimed to protect students from providers who cease to be financially solvent. Unfortunately, none of those commended objectives were actually reached. Instead, heavy bureaucratic audits and reports are being required with the sole purpose of controlling private Institutions (by requiring copies of confidential contracts with faculty members and internal minutes of meetings of various councils, etc.) and finding gaps related to some input resources (green area space, square meters per student, full-time faculty ratio, CVs of all faculty members, etc.). Lately, private HE Institutions were forced to provide a bank guaranty (the MEHE being the beneficiary!) for an amount equivalent to the needed working capital to cover the duration of the new requested major, in order to get the official recognition!

As for the draft law that calls for the creation of an academically, administratively and financially independent and autonomous Lebanese Quality Assurance Agency (LQAA), it was approved by the Council of Ministers in 2012 before being presented to the Parliament for ratification. The draft law requires each Institution to start its own internal quality process and to prepare itself for external evaluation either by the future national quality assurance agency under creation or by international accreditation agencies (Mediterranean Network of National Information Centers on the Recognition of Qualifications, 2019). The aim of LQAA is to periodically evaluate all HE Institutions according to a transparent set of standards and criteria (that would have been set once the agency would start its activity). The agency itself would also be subject to an external evaluation by competent agencies. The evaluation process would be based on the internal self-assessment of the Institution and would cover fields like the mission and vision of the Institution, its governance and

management, human resources, academic programs, teaching staff, learning resources, students, services, infrastructures, financial resources, institutional integrity, scientific research, civic engagement and quality of its management system. The LQAA would have a Board of Trustees, an executive Council in addition to administrative and technical committees. Representation of the different HE stakeholders would be respected according to international standards.

The process of developing this draft law was lengthy and it was also delayed due to political and personal influences and the local political context. Although it was strongly supported by a number of policy-makers, experts and practitioners in the sector, the LU and some private HE Institutions used their political connections to attempt to modify the draft; the stakes were too high, particularly for some of the private Institutions that were owned by some politicians or controlled by some political parties. These personal interests in not passing the law or altering it were particularly stemming from the expected evaluation of quality at their Institutions. The LU also viewed this law as allowing an external entity to trespass its boundaries, for it has always been viewed as an independent Institution with its own rules and regulations. It is important to highlight that almost all of the actors (including the ministers at that time) involved in the drafting and discussions of this law were experts in HE in the purpose of ensuring more added-value to the process. Two key actors involved in the process were the Lebanese Association for Education Studies, a local think-tank, and the Higher Education Reform Experts (HERE), a group of local experts appointed by the European Union at the MEHE. This attempt to set-up a new framework for the reorganization and improvement of the HE sector was initiated in 2004. Up until 2017, very little was done as confirmed by the DGHE himself, Dr. Ahmad Jammal during a Roundtable on “Rethinking Lebanese higher education reform agenda: towards strategic needs and priorities” organized by HERE in the framework of the Erasmus+ activities (Jammal, 2017).

The most part of this strategy remains undone due to political, administrative (lack of legislation and human resources) and financial reasons. While we will not delve further into the myriad reasons behind the lethargy of the Lebanese HE policy-makers, we can confirm that till today (at the time of writing this thesis), there is no real, up-to-date national policy for quality assurance in the Lebanese HE sector. We found it nevertheless relevant to mention the intended orientations of the MEHE at that time, since it is in part the result of a study done a few years earlier that was the closest work to a quality system ever done. It is presented in appendix C along with our personal analysis of the proposed standards.

Throughout this chapter, we have emphasized the importance of understanding and considering the particular context and characteristics of the local HE Institutions whenever quality standards were proposed. In the following section, those characteristics will be presented as it is important to fully understand the environment in which those Institutions operate before proposing national accreditation standards and a new approach to assess the internal performance of a private HE Institution.

### **3.3 Private Higher Education Institutions in Lebanon**

Addressing the characteristics of Private HE Institutions in Lebanon (PHEI) is important to understand their context and the environment in which they operate. Although it is often argued by researchers that every HE Institution has its own individual context resulting from an individual mission statement and unique goals prioritization, the same researchers propose generic evaluation measures and PM systems to be used universally, based on universal quality standards. While many quality and performance measurement principles remain unchanged no matter the country and the context, some distinctive features related to the Lebanese system entail special consideration. The unique combination of various characteristics that are present in HE Institutions operating in Lebanon suggests particular risks and challenges associated with their evaluation and accreditation. It is therefore important that adequate consideration should be given to the special characteristics of those PHEIs when aiming to implement a quality assurance system.

PHEIs will be first defined in the general sense of the term before addressing the characteristics of those operating in Lebanon, while emphasizing the influence of each feature on performance measurement effectiveness and accreditation requirements.

#### **3.3.1 Definition of Private Higher Education Institutions**

The legal form of PHEIs is not conclusive to categorize an Institution as private. Depending on the country and local regulations, those Institutions can be owned by private corporations, associations, NGOs, religious congregations, foundations, commercial companies or even individual persons. The funding structure gives a better idea but cannot be considered decisive either. In general, PHEIs are funded by private funds (as opposed to public funds or funds obtained from the government). However, in some countries (the Netherlands, Norway or Germany for instance), some PHEI may be partially subsidized by the regional government, whereas in some others (like Austria), public funding is impossible (Dittrich & Weck-Hannemann, 2010). Private funds can include tuition fees, contributions from the industry, private money of the owners, sponsorship, etc. To simplify, we will refer in the present study as PHEI, every Institution that isn't established, nor governed nor subsidized by the government and that needs state recognition to operate (and in some cases requires external accreditation too).

The private HE sector shows a great variety in types of Institutions. Depending on the legal restrictions in the specific country, the multiplicity is more or less pronounced. PHEI may be in the form of universities, universities of applied sciences, colleges, schools or institutes. They can deliver one or more degrees (Associate, Bachelor, Master and Doctorate) and can be more or less involved in research or continuing education.

Shareholders or owners (this term will be used in the rest of this chapter to designate the physical or intangible entity that owns the Institution) can be more or less involved in the activities and governance of the PHEI, financial autonomy can also be more or less pronounced. Even when privately owned HE Institutions put in place a governance structure as instructed by the legal authorities, owners obviously can't leave the reigns entirely up to an academic head (the President in most cases) or an administrator. They have and should

be in a way or another, involved in its governance, important financial and strategic decisions. It gets even more complicated in the case of family-owned Institutions. In Lebanon, behind the legal entity often lies a family struggling with the founder's role, governance issues, succession concerns, and potential internal conflicts.

There are studies that have proven that in some countries, the level of the achieved learning outcomes and general education quality, turned out to be rather low in PHEI as compared to public Institutions. Other studies argue that public HE Institutions lack the required strictness, seriousness and appropriate infrastructure (Karl Dittrich, 2010). In our opinion, the national HE framework and governmental policies play a major role in defining the quality and level of public HE.

Many accreditation standards tackle topics that are rather sensitive in the context of private Institutions as will be detailed in the following section. Governments' reporting requirements may often seem intrusive too. Therefore, it is important to maintain a balance between the legitimate demand for information and public accountability on one hand, and the autonomy of the Institutions on the other. Moreover, it is crucial to stop using the same set of accreditation standards equally on public and private Institutions located in different countries and start taking into consideration the context of those Institutions under scrutiny.

### **3.3.2 Characteristics of Lebanese Private Higher Education Institutions**

PHEIs in Lebanon numerous and quite varied. They can be small, large (the largest comprises around 30 000 enrolled students), specialized, owned by associations, civil companies or congregations, they can be very prestigious, commercially-focused, regionally oriented or serving a local community or sect. As much as the sector can be diversified, there is a number of common characteristics that define PHEIs in Lebanon. An understanding of those characteristics is paramount before we can analyze their performance and appreciate the expected outcomes of a quality assurance and accreditation systems if properly implemented in Lebanon. Some of the features presented in this section might be indeed found in other countries, but it is the combination of all of them that makes the HE sector in Lebanon unique.

Some characteristics can be considered as strength points while some others might impede the quality of education and involve risks. In this part, we will go through the main factors that might influence the governance or the performance of the PHEIs operating in Lebanon before addressing in the subsequent section, the challenges that might arise from the application of an "imported" accreditation system and the implementation of generic performance measurements.

#### **3.3.2.1 Flexibility and Adaptability to market demand, Innovation**

PHEIs in Lebanon were established because of specific demands from the labor market and overall increase in the demand for HE. As PHEIs are generally smaller and more flexible than public ones, they can be more responsive, reactive and able to promptly adapt their provision to the new market demands (whether it is related to new fields of education,

new specializations or special programs and diplomas). HE is not limited to the 3 cycles of Bachelor, Master and Doctorate degrees anymore. Far from the traditional clientele profile, there are new educational demands; executive programs for professional public, part time students who work and study, continuing education and lifelong learning, etc. Many traditional large HE Institutions find it hard to adapt to this new wave which gives PHEIs a clear advantage (Horn & Dunagan, 2018).

It is often argued that accreditation is one main hindrance that is limiting innovation in HE (Horn & Dunagan, 2018). Many HE Institutions want to adapt to a changing environment using more technology or introducing new fields but they find it hard to implement out-of-the-box ideas into a rigid system embedded in long standing traditions. Some accreditation standards are not better; a full array of new educational delivery models (e-learning, blended learning, etc.) cannot be accredited in some countries, as is the case in Lebanon where e-learning is still legally unauthorized in the 21<sup>st</sup> century! In fact, an external body (accrediting agency or legal authority) has the right to block innovation just because it doesn't fit in any checkbox. This limit or stops the creativity and introduction of new ideas that can be generated from small flexible PHEI. The latter are known to be drivers for innovation, have more possibilities to quickly develop innovative ways of teaching and learning as well as new content since they are less burdened by complex long-standing procedures and bureaucracy (Dittrich & Weck-Hannemann, 2010).

Flexibility of medium to small-size PHEIs is an important asset that should be recognized and encouraged within the reasonable boundaries of quality assurance.

### **3.3.2.2 Consumerization and Customer-orientation**

Customer satisfaction is vital for the majority of PHEIs since their future existence depends on private funding and tuition fees (Dittrich & Weck-Hannemann, 2010). If customers (students and their parents) are dissatisfied, they can leave the Institution where they are studying incurring income losses to that Institution. Thus, PHEIs are more inclined to listen to the needs and complaints of their students and treat them as valuable customers. In Lebanon, this situation is even more pronounced because of the strong competition among Institutions operating in a relatively small market. The extent to which the PHEI is willing to go and the kind of compromises it is willing to offer to attract or retain students, rely solely on the owners' policy, quality perception, priorities and gain prospects. In other terms, the choice whether to sacrifice quality for quantity/income is taken every day at each and every decision and will most likely remain unnoticed by the common accreditation standards and performance measures.

While the precariousness of values of excellence in PHEIs is concerning and threatens the quality of education, smaller Institutions connote fewer staff and closer relationship with the students allowing them to deliver a better service. Such lean structure becomes an advantage as far as satisfying students' demands and monitoring their performance.

### **3.3.2.3 Retention, graduation and progress rates**

Retention, graduation and progression rates are some of the main indicators used by governments to assess the performance of their HE system, as they indicate efficiency and social and economic benefit (Chalmers, 2008). The social cost of students' underachievement has attracted scrutiny over the last years especially with the increased cutbacks on public funds. Such retrenchment often calls for closer examination of HE Institutions' performance and questioning to what extent they are providing value for money, thus creating pressure on those Institutions to prove their efficiency (Ball & Halwachi, 1987). While indicators such as progress and graduation rates are useful from a social and economic perspective, collecting information on students' satisfaction and skills is more instructive to the PHEI, faculty members and prospective students. In fact, PHEIs seem to be more efficient and effective than public HE Institutions when it comes to retaining students and to the level of academic success; both the number of students that get their degrees and the duration of their periods of study appear to be better in PHEI than those in the public ones (Dittrich & Weck-Hannemann, 2010). Some reasons might be the size of the classes, the availability of the faculty members, the customer-oriented attitude, the close supervision and follow-up, etc. Moreover, since PHEI have to efficiently manage their finances, it most likely leads to a more effective recruitment policy and consequently, to better teaching methods.

In Lebanon there are no national statistics regarding those rates and therefore, requiring them to assess (and compare) performance might be irrelevant. What is certain, is that all PHEIs do their utmost to retain students because they financially depend on the tuition fees paid by them. Graduation rate might be important for reputation, still, retention and drop-out rates are even more important and give better insight into an Institution's quality policy. Reasons for dropping-out can be financial (the students cannot afford to pay the tuition fees anymore so he/she transfers to another more affordable Institution or completely drops-out and discontinues his/her higher studies), academic (the students might not have the required academic level, so when they fail most of their courses they move to another academically less challenging Institution) or administrative (some administrative measures or regulations might displease the students and it is reason enough for some students to drop-out). In other words, in Lebanese PHEIs a high drop-out rate might be even considered as a sign of quality and high educational standards.

#### **3.3.2.4 International orientation**

PHEIs who orient their activities towards the international market, whether in their academic activities or in the employability of their alumni, clearly have to adapt the learning outcomes of their programs and add an international perspective. In a restrictive HE environment like Lebanon, some innovative or international approaches are not welcomed or cannot even be officially recognized by the government. As an example, any new major that a PHEI wants to introduce cannot get the official recognition and equivalency of the MEHE if it isn't offered at the LU (the term is "have an equivalence"). Moreover, any new curriculum related to a specific field of studies cannot be approved if it isn't to a certain extent, similar to other curricula offered at one of the prestigious universities already existing (this is actually a requirement while submitting new programs for official recognition). As a matter of fact, in order to be recognized, you have to be similar to the

others. To maintain the international orientation while dealing with this restriction, some Institutions are forced to come-up with creative solutions; they keep the required titles and terminology but change the content and objectives of the courses without officially introducing foreign labels. Moreover, double-degrees are not recognized in Lebanon. Only the Lebanese degree is recognized unless the student spends a certain residency time in that foreign partner Institution. Such arbitrary limitations push PHEI to resort to duplicitous solutions and impede improvement.

### **3.3.2.5 Governance and Strategic Management**

Traditionally, HE Institutions have been governed and managed by academic people with a very limited authority given to administrators. But with the rise of PHEI and the need for owners to secure their investment, several mixed forms of governance were formed. In Lebanon, the highest governing instance in a PHEI is the Board of Trustees, understandably formed of members nominated by the owners or the members are mostly the owners themselves.

Private ownership leads to the corporatization of HE in which faculty and academia have lost long time control over administrators (Manning, 2018). Erosion of faculty authority that traditionally is known to favor greater investments on academic priorities, cannot have the same say nowadays. Budget-driven choices are now favored by administrators whose principle mission is to safeguard the investment of the owners that is overseen by the Board of Trustees. This international trend (with the exception of some countries) is very present among PHEI in Lebanon and has altered the rules of traditional HE governance. With this reduced responsibility and authority, the role of faculty members (in governance and in accreditation) has completely changed and should reflected in accreditation standards.

As for the topic of strategic planning, strategic management and monitoring within Lebanese PHEI, there is a clear lack of formal and systematic strategic efforts. While strategic planning and monitoring are viewed as important key elements for their future development, many HE Institutions in Lebanon – and worldwide – are unable to implement an effective planning process. Many external and internal constraints generate operational and managerial uncertainty and impede the strategic planning efforts of HE Institutions.

External factors include:

- Legal and constitutional constraints that limit autonomy and flexibility, thus preventing institutions from developing their own independent operation and planning (Taylor & Miroiu, 2002);
- Political influence;
- Political and economic instability.

In order to cope with the effects of such “environmental constraints”, HE Institutions must learn to be firm enough when embarking on strategy elaboration and flexible and fast enough during uncertainties. Unfortunately, their skills and readiness to face these circumstances are rather limited, being influenced by the ways internal processes are carried out.



Internal factors affecting the process of strategic management within Lebanese PHEI include:

- Too many goals set by different stakeholders, that are often vague and conflicting at the institutional level;
- As many academics are engaged in multiple employment for financial reasons, it makes it difficult not only to reach consensus on strategy points but also to avoid latent conflicts of interest. Their frequent unavailability can also cause confusion and delays (Taylor & Miroiu, 2002);
- An absent sense of urgency in the Lebanese culture often coupled with periodic elections within the Institution. This frequent management change (especially in religious Institutions) interrupts strategic planning and induces inertia. Agendas are permanently changed as newcomers bring new ideas and new staff nominations. Incorporating all of these in a normal flow of work requires time and leads to considerable delays;
- Institutional incentives are more linked to individual performances and less to a better functioning of the whole Institution. Institutional fragmentation is so large and the actions of academics so divergent, that the elaboration of a strategy is often postponed;
- Culture of short-term and reactive approach where change is not anticipated but reacted to.

Those external and internal factors reinforce each other and inevitably lead to either delays in the elaboration of plans for strategic management or more often to their complete avoidance (Taylor & Miroiu, 2002).

As those issues of governance and strategic planning hold an important role in quality assurance and accreditation standards, it is important to understand the critical situation that PHEIs face with regards to those matters.

### **3.3.2.6 Financial policy**

In PHEIs, the financial policy and all related matters are always a sensitive topic. Budget restrictions and high dependability on tuition fees are on one side, sponsorship and investment policy of the owners are on another side (in some cases there is a high dependability on donations as well), and both sides define and influence academic decisions. Budget decisions regarding revenues and expenses' allocation, especially in the case of Institutions exclusively financed with private funds, heavily depend on the above factors and not (only) on academic considerations (Dittrich & Weck-Hannemann, 2010). To present just a few examples, the number of full-time faculty and staff members for instance, might be reduced for departments with a low number of students (which means not generating enough income from tuition fees), thus affecting the students/faculty ratio (more on recruitment strategies in the following section). The same goes for the research budget, laboratories equipment or development budget. Another extreme yet common example is that of PHEIs with entrepreneurial goals where concessions on the quality of the faculty members (qualifications, degrees, experience) might be done because their salaries are more

affordable than qualified faculty members. Moreover, Institutions might also reduce the number of contact (teaching) hours with the part-time faculty member for the same purpose of reducing the salaries' budget. Another direct consequence especially in the case of medium to small PHEIs is the overall number of full-time faculty members; the budget-driven financial decisions favor the recruitment of part-time or adjunct faculty members because they involve less financial burden and shorter-term commitment. However, this doesn't necessarily suggest a poor quality of education although it contradicts most accreditation standards. In fact, the required efficiency of full-time faculty members and advisors is greater in a private Institution as performance is necessary and closely monitored (Arokiasamy, Ismail, Ahmad, & Othman, 2009). This increased efficiency limits duplication of positions like it happens in some large and public structures and allows the containment of the students/full-timers ratio.

The endowments topic is a very dear matter to some old and large PHEIs in Lebanon. The most common form is when a university receives donations for a particular project or research activity, the related funds should in that case be invested in that particular activity or project. While endowments are an important source of income for some Institutions, academic decisions and quality assurance considerations don't necessarily profit in that case. In Lebanon, several PHEIs have a large and influential alumnus who are at the same time big sponsors of their alma mater. They request in some cases the erection of a particular faculty, laboratory or auditorium, etc. The request has to be fulfilled even if there might be other more pressing needs that are academically related.

On another level, even when the HE Institution is owned/founded/funded by a non-profit NGO, it still needs to demonstrate that it is profitable and allocating funds efficiently. Any Institution is expected to have financial sustainability even if publicly funded. In other terms, aiming for profitability is a universal goal; aiming for personal gains or profit sharing is another side of the same coin; there is a big difference whether profit generated from operations will be reinvested in the Institution for its improvement, or entirely distributed to the owners and consequently harming the Institution's development.

To note that budget constraints can be enforced without compromising the quality of teaching and research. With the increased scarcity of resources, PHEIs in Lebanon even with the greatest intentions to implement quality assurance and accreditation standards, were forced to cut some corners to remain financially sustainable. Some were able to find the right balance between having financial constraints and providing an adequate academic quality (tightening the full-timers/ students ratio, the research budget, or the infrastructure budget are some examples). When compared to international quality assurance standards, international benchmarks or universities' rankings indicators, those Institutions will however fall behind in terms of numbers, ratios and indicators even if their teaching quality can be considered as meeting the required level.

The cost of accreditation versus its benefits is another complex topic: a quality assurance process or accreditation is only worthwhile if its benefits exceed its costs (Mark Schneider, 2018). Knowing how long and costly the accreditation process can be, PHEIs (not only in Lebanon) have to think twice before engaging in that road, especially when it

is a voluntary process. Costs and resources involved include time devoted by top management, faculty and staff, cost of additional recruitments, cost of infrastructure and last but not least, the actual fees to be paid to the agency (that can go up to one million euros in some countries). When funds are provided by the government, it is easier to have top management on-board and engage in accreditation, but when it isn't the case (like PHEIs operating in Lebanon), the gains in internal improvement, reputation enhancement and marketing impact should be expected to counterbalance the invested resources. In a small country like Lebanon with prejudices already in place, the accreditation label could be very positive to the reputation of the Institution (if coming from a reputable foreign accreditation agency) but it doesn't necessarily mean that this image upgrading will generate enough additional income – through increased enrollments – to compensate the cost of accreditation. Over the past 10 years, around half a dozen PHEI in Lebanon went through the accreditation process by foreign (American or German) agencies and they are all Institutions who already enjoy a good reputation and who have relatively a large number of students. They underwent this process without a clear positive financial outcome.

Decisions about the financial aid budget and eligibility requirements are sometimes defined by accreditation agencies. This type of requirements doesn't fit PHEIs' characteristics. In fact, they should have the full autonomy to decide whether they want to allocate a budget for financial aid or not, and how much this budget should be and how it should be distributed as long as a clear, fair and transparent procedure is applied and shared with the public.

### **3.3.2.7 Recruitment strategy**

The overall constraints on PHEIs' funding have created issues affecting recruitment patterns and strategy as introduced in the previous section. One general response has been to meet faculty needs with part-time or temporary appointments. While practice varies greatly across countries and types of HE Institutions, financial considerations are a major reason that large numbers of part-time and temporary appointments are being made. Increasingly, PHEIs in Lebanon resort to part-time positions to cover a significant proportion of their teaching needs, and do so for pragmatic financially-related reasons; such positions avoid the commitment to regular, permanent positions and may allow lower salaries or fewer benefits to be offered. It also increases institutional flexibility in matching the demands of varying enrollments; when registrations drop in certain departments, the number of part-time faculty are easily adjusted by not renewing contracts. In Lebanon as is the case in many countries, such part-time positions are undertaken by persons who take-up these roles in several Institutions at the same time and sometimes over and above a regular employment in the industry. It is a way for part-timers to generate additional income while accommodating fluctuating needs of Institutions. In some cases, individuals may accept part-time positions at several different Institutions after failing to secure a full-time university position. Most countries have witnessed an expansion in part-time teaching positions in which qualified individuals receive contracts on a term-to-term basis, according to the Institution's needs (El-Khawas, 2010). Individuals in these positions typically teach a specific course or a certain number of hours but have few other duties, and may not have

offices. Traditionally, such part-time or adjunct positions were used occasionally in response to specific needs or opportunities, and were justified as a way to bring specialized or real-world knowledge to teaching (e.g., artists, writers, or businesspersons). Nowadays, such models are becoming more and more the norm especially in small-sized PHEIs. While financially efficient, this behavior may generate teaching quality problems. From personal experience, part-timers are not fully-integrated in the faculty life and culture, they are usually unable to assist and advise students outside the limited scope of the course(s) they give, they might not be up-to-date with the latest teaching methodologies and their teaching quality might be questionable, although there are no conclusive findings regarding those assumptions.

Another trend in the increased practice of full-time temporary appointments, contracted for a year or other limited term. Persons in these positions take on the full range of academic duties – teaching, research, and advising – but the Institution does not incur long-term employment obligations to limit long term financial commitments. In settings where short-term appointments are not renewed, considerable institutional effort is sometimes needed to find and hire suitable individuals. When decisions are based on enrollments' level, sometimes decisions are made last-minute incurring compromises on the quality and skills that are sought. In other settings, individuals on temporary appointments provide good service and have their appointments renewed several times, raising questions of why they are kept in temporary arrangements. These appointments may fill short-term needs and offer cost savings for PHEIs; however, academic departments must balance the benefits of substantial reliance on this type of recruitment strategy with the need to maintain sufficient stability and long-term expertise.

While recruitment processes tend to be faster and more efficient in PHEIs, trends towards greater use of part-time and temporary appointments raise many quality and efficiency questions especially on the long term. The critical issue for PHEIs is how to determine the right profile mix (between full time, part time and temporary appointments) and how to avoid the negative consequences of such a recruitment strategy.

Another general trend affecting academic work has been a shift towards managerial responsibilities in the administration of HE Institutions or “corporatization” of HE Institutions. Human resource issues have become focused on discussions of efficiency, measuring outcomes, and strategic planning. In some settings, deans are expected to raise funds and generate revenue sources. In other settings, entrepreneurial actions are expected, sometimes to improve partnerships with businesses or develop new educational offerings specifically designed to yield net income. The combined effect of restricted funding and managerial perspectives has undoubtedly led to change how academics work (El-Khawas, 2010). In many countries, the traditional bundle of academic tasks – teaching, research, and service – has become not enough. Faculty members are teaching more hours, and more students – in response to increased enrolments – and are asked to commit more time to administrative and committee assignments. Administrative tasks include evaluations of operations, reorganization or introduction of new structures or programs, external reporting and assessment, maintaining critical partnerships, etc. This model suggests that an

increasingly smaller permanent academic team is offering continuity by designing, evaluating, and implementing academic programs but with little time left to engage in research. Teaching and administration-only positions have therefore emerged where PHEIs impose heavy teaching and administrative requirements and give no systematic support for research, creating positions that are, in effect, teaching only (El-Khawwas, 2010).

### **3.3.2.8 Public disclosure**

Transparency and public disclosure play an important role in HE quality assurance as well as in performance reporting and funding. They are important because it is believed that when information is transparent and available, it protects the public from fraudulent claims and misinformation and helps the students in their choice (Dill, 2007). However, in a HE environment like Lebanon where there is a race to attract and recruit students, public information can and will be used by some Institutions to harm and disgrace other competitors that have published not-so-great numbers related to some sensitive topics. Moreover, when disclosure of information is controlled by the Institution, the latter will obviously tend to hide or disguise the data that is made public. Realistically, many Institutions have shortages. If documented and published to an immature and inexperienced public, the negative impact on the institution's reputation will be extreme. The Lebanese public has never been acquainted with accreditation concepts and public disclosure. Therefore, it is unlikely to judge the real idea behind lacking a standard (an adequate ratio for example) and the importance of this specific standard and what the Institution did to correct it. The public will jump into conclusions that can be far from correct. PHEIs in Lebanon already struggle to attract students, honest public disclosure of sensitive information will definitely harm the Institution. Let's take the example of graduation rates; in some Institutions with strict academic regulations, many students might fail several courses, drop-out or get dismissed because their academic level didn't meet the Institutions' standards. Those dismissed or dropped-out students will affect the graduation rate. An uninformed prospective student (or parent) will consider a low graduation rate as negative, when in reality it is a sign of academic strictness. The same applies to retention rates where reasons of dropping-out might be academic or financial, which has nothing to do with the quality standards of the Institution.

The validity of public information on academic quality has become a controversial issue in HE. In some countries like the US, publishing reports is often withheld to avoid institutional embarrassment, to minimize any incentive to withhold information in future accreditation rounds, and to avoid adversarial second guessing. The US institutional accreditation agencies have traditionally opposed full disclosure, but critics increasingly argue that disclosure is necessary because confidentiality undermines public accountability and prevents an Institution's leadership from holding up informed public sentiment as a reason for improvement (Massy, 1996). Quality rankings by commercial publications often rely upon public information gathered from reputational surveys, input measures (such as student test scores or financial resources), and indicators of research quality all of which have questionable validity as predictors of effective student learning (Dill, 2007). These rankings have become highly influential on academic behavior, often encouraging

Institutions to invest time, resources, and effort in improving their rated reputations rather than actually improving their academic standards. While some countries have tried to find ways to increase the validity and usefulness of HE public information and rankings by involving non-profit entities (such as the Center for Higher Education Development (CHE) in Germany, the NSSE and National Research Council's (NRC) in the US or the Australian Graduate Survey), a critical determinant of the legitimacy of academic quality information remains the government policy which may (or may not) support the development and provision of more valid quality information (Dill, 2007). In Lebanon, the lack of trust in the government and the nature of the competition make it impossible to risk disclosing sensitive information.

### **3.3.2.9 Competition and competitiveness**

The current landscape of HE demands that Institutions strive to be competitive across various levels. Meeting the needs of a changing population of students with diverse backgrounds and priorities is an increasingly complicated process that extends well beyond initial enrollment; since today's incoming students have more choices and challenges than ever when it comes to defining their HE experience, dropping-out or transferring has become commonplace. Because of this, PHEIs are finding it increasingly necessary to prioritize student retention efforts and to seek strategies that serve students more effectively. They need to work to ensure that the programs and services they offer are relevant to what today's students require. The latter have become more difficult to satisfy and bring more complex backgrounds. In fact, today's students are more likely to be balancing work, family and finances alongside their education. Thus, waiting in long lines, or discovering that classes aren't available can be very discouraging and deceptive. If PHEIs aren't meeting their expectations, today's HE market will allow those "customers" to easily find another Institution to transfer to. (Sousa, 2015).

While increased competition implies even greater measures undertaken to attract and retain "customers", it also implies a smaller piece of the cake. Decreasing or stagnating numbers of students mean less revenue by Institution. PHEIs in Lebanon have a high tuition dependence, a situation that emphasizes revenue generation and cost reductions. Those two constraints coupled with a highly competitive market, can put academic quality under pressure. When aiming for revenue maximization, some admission requirements, retention measures and compromises could be imposed by the owners (through the top management) on academics and administrators. This can result in a decrease in the quality of the students, which in turn will affect sooner or later the reputation of the Institution and the employability of its students. Budgetary restrictions on another side, can involve cutting down on some academic and logistic expenses (less faculty members, less lab equipment, etc.) as presented in above section.

All Institutions operate in a micro-environment, with which they frequently interact and that impacts their organization. HE Institutions are no exception:

- Competition for customers. Attracting students (or their parents) impacts profitability and commands sustainability;

- Competition for suppliers. The relative power of faculty and staff can determine the cost structure and quality of service;
- Competition for resources when external funding is involved.

If students are considered as “buyers” of HE, their bargaining power (Porter’s five forces framework) in a competitive market becomes quite important. Powerful “customers” can obtain more value by forcing down prices (tuition fees), demanding better quality, more services or even in some cases looser education standards (except for elite programs that enroll a limited number of students and where demand is greater than supply) (Mahat & Goedegebuure, 2016). In this context one can only question, how does periodical accreditation efforts guaranty the quality of education?

### **3.3.2.10      Autonomy and sovereignty**

The autonomy of HE Institutions is advocated by all HE experts and researchers. There are many forms of institutional autonomy: financial autonomy (deciding on funds’ allocation), governance autonomy (taking strategic decision, administrative decisions, recruitment decisions, etc.), research and academic autonomy (designing innovative curricula, introducing new fields, deciding on research topics), autonomy in information disclosure (not having to disclose intrusive information), etc. However, the autonomy of HE Institutions is often threatened when topics like accountability and transparency arise, although there is heightened awareness among Institutions’ leaders and policy makers that HE Institutions’ autonomy is the keystone for an effective and efficient HE sector (Erçetin & Fındık, 2016). In Lebanon, audit reports including sensitive and confidential financial data, faculty members’ contracts and minutes of meetings (of various academic and administrative councils) are often required by the MEHE. PHEI with powerful (political or religious) positions can afford to send some superficial data, others fake data and the rest has to abide. This invasion of Institutions’ autonomy and breach of sovereignty is an important trait of the environment in which Lebanese PHEIs operate.

### **3.3.2.11      Sectarian and Political influence**

The Lebanese education system in general has always been based on sectarian divisions and social inequalities influenced by the Lebanese society. Through history, this segregation has not lessened, but quite the opposite, the divisions have been repeated and reinforced; the sects consider general education as a mean of preserving and reproducing group identity (Frayha, 2009). The HE setting is no exception. On the contrary, it has been an instrument to reproduce, and very often reinforce social and sectarian divisions, translated into the HE system and more noticeably in PHEIs.

The political influence is embedded in the Lebanese society and it is manifested in HE through:

- Political intrusion in the students’ learning path or meddling in the Institution’s governance, either because politicians are directly or indirectly the owners, or because they can influence the owners or the top management by politically pressuring them;

- Political interference in the students' representation (clubs, unions, etc.) during voting or nominations;
- Political intervention with the MEHE to overlook some deficiencies in the conditions or required standards or to prioritize Institutions over others during authorizations procedures.

### **3.3.2.12 Independence and impartiality of peer-review**

As already presented in chapter two (2.2.3), an essential step in the accreditation process is the peer-review; the study of the documentation presented by the Institution followed by an on-site visit. A peer is presumably an independent expert in HE with extensive knowledge in academics and in quality assurance who can bring valuable input to the council that is studying the Institution. When the HE environment is characterized by geographical proximity between highly competing PHEIs, such as the Lebanese market, independence, impartiality and objectivity expected of peers seem impossible. One can only assume there will be some sort of biased opinion. Peer-reviewers have in most cases a conflict of interest. If they are faculty members, they can be pressured to be kind to certain Institutions they are reviewing in the hope of implicit mutual agreement that the peers in this Institution will be similarly kind. Or, on the contrary – which is mostly the case –, peer-reviewers might tend to be harsh on certain Institutions because academia is a fiercely competitive world. Nobody wants to admit that the other Institution is better than its own. If the peer-reviewer is an expert (whether from the MEHE or another Institution), political concerns or influence will likely arise.

Also, confidentiality of information can be hardly safeguarded in Lebanon. As much as the peer-reviewer would want to keep the information he was entrusted confidential, pressure from politicians, owners, or top management to know the strengths and weaknesses of the competitor will make him yield. In such a small and politicized country like Lebanon, discretion can be unattainable.

### **3.3.2.13 Students' engagement**

Students' engagement has become the center of quality assurance talks in HE since the last decade. Involving students in quality assurance processes is today a central topic considered by educational leaders around the globe. During the last ten years, there has been a sector-wide shift in the perception of students' roles. Many writings demonstrated that students' engagement is even more important to academic success than the social and economic background of the students (Tanaka, 2019). Many HE Institutions started including student engagement in their daily activities or in their improvement plan not only in the purpose of assuring quality but also aiming to improve their students' learning experience. Instead of the traditional surveys and questionnaires where students' opinions are collected, studied and more or less worked-upon, the focus today is towards a more anticipative, preventive or proactive approach that will allow HE Institutions to plan ahead and implement enhancement activities, rather than retrospectively correct and improve or just collect data. In view of the growing importance given to this subject in accreditation and quality assurance worldwide, we detailed this topic in appendix D as well as its



particular place in Lebanese PHEIs pertaining to several challenges that impede a genuine and beneficial implementation of a student engagement strategy. To summarize: political interference and activism, social context, background and perception of faculty members, profile of the students and considering them as customers and not as partners.

### **3.3.3 Accreditation and evaluation challenges of Private Higher Education Institutions in Lebanon**

In view of what has been presented in the above section, one can conclude that the strengths and risks that characterize PHEIs operating in Lebanon will affect the process and nature of the evaluation and accreditation of those Institutions. It will also affect the rationale behind PM systems and behind the choice and application of PIs. As a matter of fact, what might be important or relevant for a HE Institution operating in Europe or the US might be inappropriate for the Lebanese environment and vice versa.

In the following section the challenges that might face PHEIs in Lebanon will be presented, in particular those with regards to the accreditation process, evaluation methods and standards as a consequence of their characteristics. Those critical elements should be taken into consideration particularly when assessing medium to small PHEIs in Lebanon.

#### **3.3.3.1 Financial planning**

Financial planning and budgeting should be – according to most accreditation standards – the collective work of all departments at the Institution. However, in a privately owned Institution, some areas are better kept confidential. Also, some priorities set by faculty members and researchers for teaching and research activities, might not be in the top priorities of the owners. In other terms, financial planning segregated by departments might be inappropriate if priorities are not well-defined by the top management according to the owners' vision. In most PHEIs, a conflict in financial management will arise because the concerns of the owners are unknown and different from that of the academics. At the end of the day, a decision will be reached based on the owners' priorities which can promote either quality or profit maximization. In this context, how can academic integrity be safeguarded by a financial plan written to check a box out of a list of input-oriented standards? How can owners protect their investment? How can quality be assured while taking into consideration both concerns?

#### **3.3.3.2 Intrusiveness of audits and peer-reviews**

The depth, objectivity and openness required during the self-evaluation step in the accreditation process is very important if the purpose is getting the maximum benefit out of the exercise (Meek & Harman, 2000). Benefits are very convincing until the Institution has to share the information with the auditors or the peer-reviewers. This point is a consequence of the risks presented in sections 3.3.2.11 and 3.3.2.12 related to political influence and impartiality and independence of external auditors, which makes the accreditation process delicate and results unreliable. In Lebanon, the MEHE regularly requires a “mountain of documentation” for quality audit purposes. According to various reports, this procedure has

had many unintended consequences, such as generating suspicion about the integrity of data submitted by some universities to fit certain minimal standards or to “check boxes” or having confidential information made public. Moreover, the absence of consequential follow-up on those audits pushes faculty members and involved administrators not to take the procedure seriously resulting in more doubtful reports.

### **3.3.3.3 Students’ learning outcome**

Based on our analysis of PHEIs’ risks and characteristics, the topic of students’ learning outcome holds an important place. On one hand, students’ learning outcomes is a topic present in almost all accreditation standards and is therefore an important evaluation point, on another hand, vast divergences in the level of students’ learning outcomes exist among PHEIs operating in Lebanon, special attention to this topic is therefore essential. While students’ outcome is particularly difficult to measure and its level difficult to guaranty (refer to appendix E), it is even more difficult to assess and control it in the context of Lebanese PHEIs. Our focus is understanding the causes of low levels of learning outcome in those Institutions in order to identify appropriate means and structures to ensure an adequate level.

Low levels of learning outcome might have a number of reasons directly or indirectly related to the financial policy and budgetary restrictions in the Institution. One of the possible consequences of budgetary restrictions on students’ learning outcome might be the quality and quantity of faculty members (as detailed in section 3.3.3.4) and the absence or lack of research activities. Another reason might be the Institution’s policy to retain students. Because tuition fees are vital to the continuity of the PHEI, too much emphasis and attention is given to the satisfaction of the students (for retention). While stakeholders’ satisfaction is obviously important in a demand-driven market, it holds inherent risks to quality in HE. In fact, only aiming for the satisfaction of the students might compromise education quality as described earlier. Paradoxically, graduating low-quality students will backfire and hurt students’ enrollments and retention. Employers’ satisfaction is another concern since graduates’ employability is an important representation of the learning outcome level. In Lebanon however, employers’ feedback doesn’t seem to interest those Institutions and students don’t seem to care. Fortunately, there is an explanation to this peculiar carelessness. Employers’ satisfaction surveys are considered not very reliable as they might reveal a biased reality and thus, will not help to identify or solve quality problems. In fact, it is somehow true because 1) not all employers have the awareness about the necessary academic knowledge for a level of bachelor or master to be able to adeptly fill the questionnaire, 2) the employer might be satisfied with the skills and attitude of the student and therefore won’t pay enough attention to the knowledge-part, and 3) assessing the opinion of employers should be followed by adequate corrective actions, which is rarely the case (Dittrich & Weck-Hannemann, 2010). Another reason behind the fluctuating levels of learning outcome is the admissions’ requirements. It might be tampered due to several reasons (political influence, financial, etc.) and will undoubtedly lead to a classroom with a very diverse public (weak students) which makes it hard to achieve the intended learning outcomes.

#### 3.3.3.4 Faculty members

According to most accreditation manuals, the quantity of faculty members is important for inputs' adequacy. While a high number might not always guaranty the quality of education, their qualifications play a vital role in assuring academic quality. This topic requires special considerations in the local context. Some PHEIs in Lebanon might cut some corners through:

- The initial qualifications of faculty members. The profile of the faculty members should prove they are qualified by appropriate education (the right degree) and experience (both professional and academic). A lack in theoretical knowledge is sometimes thought to be compensated by a knowledge of the professional field (depending on the field), which can lead to the recruitment of underqualified or under-experienced faculty members in some Lebanese PHEI. Moreover, some faculty members' degrees are acquired from questionable Institutions. A proper procedure should therefore be put in place to identify diploma mills and verify credentials;
- The status. Part-time or adjunct faculty members have a limited responsibility devoted to supervision and coordination. The low number of full-timers can affect the overall coherence of a program and the good follow-up and advising of students, especially that full-time faculty members will have to cater to the needs of a larger number of students. Budgetary restrictions force some PHEIs to recruit less full-timers and more part-timers as they constitute a lighter financial burden and give the Institution more flexibility (in case of small departments or when closing some courses). The ratios of full-time versus part-time are not always clearly reported by PHEIs. Moreover, accreditation standards don't differentiate between disciplines that require a higher number of full-timers and those that don't. Standards only set general ratios for the overall Institution letting the Institution itself decide on the best and most efficient distribution. This assignment cannot be expected to be properly applied by Lebanese PHEIs.
- Personal development and research. Following the same reasoning, faculty members will have neither the time nor the budget for personal development, research and publication. According to accreditation standards, faculty members should have an adequate workload dedicated to research and personal development. In some Lebanese PHEI, most of the workload is dedicated to teaching and administrative duties leaving no time for other activities.

Where do we draw the line between acceptable adjustments and quality threatening decisions?

#### 3.3.3.5 Marketing strategies

Due to the marketization of HE and the highly competitive HE market, more and more Institutions are making potentially misleading marketing claims about their programs, services and even international rankings in order to attract students. An article in The Independent claimed that *"More universities may do this to boost chances of acquiring*

*more students and money*” and presented cases of several universities in the UK (Busby, 2018). As it is often the case in Lebanon, PHEIs might advertise unaccredited majors or attractive and appealing study conditions that can be untrue and undermine the Institution’s integrity and transparency (Dittrich & Weck-Hannemann, 2010). As those two traits hold an important place in accreditation standards, many PHEIs in Lebanon will have to revise their advertising speeches and strategy as they often recourse to such dishonest promotion, and accreditation should stress more on standards that help to safeguard the topics of integrity and transparency.

### **3.3.3.6 Physical Resources and students’ services**

Another consequence of budgetary restrictions is the quality level of the services provided to students (career placement, orientation, technical support, extra-curricular activities, sports activities, etc.) and the quality of the infrastructure and logistics (library, IT, green areas, laboratories, spaces, etc.). For several years, some (recognized) PHEIs have been operating from a small residential-like building in the middle of a busy city, with inadequate physical resources. One of the biggest challenges that might arise when carrying out an accreditation in Lebanon is what to do with these Institutions; will they be asked to “move” to another location since they don’t meet the standards? Or will they be asked to close?

### **3.3.3.7 Owners’ vision**

In Lebanon, the profile of PHEIs’ owners can range from large religious congregations to an individual politician. The balance between the Institution’s managerial goals and academic performance lies in their sole hands. In cases where owners have only commercial intentions, their lack of interest in academic performance can alter the whole concept behind the social purpose of HE and quality of education will deeply suffer. Development projects and research activities will be condemned because they don’t generate income and academic freedom might be threatened for commercial reasons, religious or ideological considerations. In such a context, where does the role of quality assurance lie? How can it safeguard the owner’s leadership and vision while preserving the quality and integrity of the teaching and research activities?

### **3.3.3.8 Academic culture**

In the case of small-sized PHEIs with a reduced number of faculty members and staff, academic culture is difficult to maintain. Part-time faculty members who make-up the most of the academic team, usually teach at several Institutions to be able to maintain a certain level of income, and consequently don’t engage in academic culture. They are called “flying faculty” because they are not tied or engaged to one Institution. Top management won’t be keen on developing academic culture either, because they don’t really have a say in decision-making and they only transmit what the owners are interested in. Although the quality of education of such Institutions might be valid, their size forms an extra risk, which should be taken into account during evaluation and accreditation (Dittrich & Weck-Hannemann, 2010).

### 3.3.3.9 Culture of “Franchised branches”

Although franchising is a well-established commercial practice, its extension to HE becomes problematic, especially in Lebanon in the absence of proper regulations and control. In Lebanon, an academic franchise is a business partnership or alliance with another “investor” to open a “teaching-branch” of the HE Institution (main branch) in a different geographical area. It is a means to gain increased income for the main branch (franchisor) and a business opportunity for the investor in the branch (franchisee). The sought benefits or purpose of such alliances are usually financial which directly affects the quality of education given at both campuses. Moreover, there are no clear operating standards and no restrictions to guaranty quality; teaching becomes purely a commercial activity. There are around 20 geographical branches in Lebanon, most of them are franchised.

## 3.4 Conclusion

In this chapter, an overview of the Lebanese HE sector and the state of its quality assurance was presented. In appendix C, the only quality assurance initiative and accreditation efforts done by Lebanese HE experts were introduced and analyzed while emphasizing their inadequacy with regards to the context of PHEIs operating in Lebanon. Then, the context of those Institutions was presented followed by a description of their characteristics, main strengths but most importantly main risks that might affect the quality standards of a PHEI operating in Lebanon. Next, were addressed the potential risks and challenges of implementing “imported” quality assurance and accreditation systems as a consequence of the inherent characteristics of the Lebanese environment coupled with the profile of the PHEIs. It isn’t in any case generalized to all PHEIs operating in Lebanon. Some might be concerned with certain issues and not all of them. However, it was important to highlight those characteristics in order to stress on the importance of taking into consideration several factors (overall context, size, type, location, ownership, etc.) if we are to implement a meaningful accreditation system in Lebanon. It was concluded that the context and characteristics shared by most local PHEIs make it difficult to import “ready-made” standards and apply a “one size fits all” approach. In order not to compromise the purpose of an accreditation – being the verification and recognition that an Institution of HE (or one of its programs) meets the minimum quality standards – standards should be contextualized. In fact, it would create a framework of protection against any abuse or manipulation of the system on one hand, and guaranty a fair and equitable evaluation on another. Therefore, the accreditation process and the manual of standards that will be proposed in this study, have been carefully designed while taking into account those challenges. Consequently, PM and measurements will have to follow the same rationale as it will be presented in chapter five as well.

Till today, HE in Lebanon has been shifting between periods of self-regulation by Institutions and periods of attempted tight external statutory regulations by the MEHE especially when a story of fraud or fake credentialing shakes the sector. The truth is that self-regulation should be the principal mode of assuring quality, external accreditation should come second. The question is, how can we shift from a culture of clever

games-playing and reports-tampering to a culture of genuinely and decently abiding by the rules of an external quality assurance body that will promote rigorous, honest and systematic self-regulation? This is what we will try to put forward in the following chapter.

# Chapter 4 – Proposal of Accreditation Standards for Private Higher Education Institutions in Lebanon

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## 4.1 Introduction

The growing importance of human capital to the economic and social development of today's societies resulted in the massification of HE and consequently, motivated a search for new methods of assuring and improving academic standards. All countries are experimenting or seeking an effective national framework for guaranteeing academic quality that will include efficient means of external assessment designed to assure that Institutions of HE have in place effective internal quality assurance processes. In fact, traditional quality control practices appear inadequate in the new environment of HE; centralized control of academic quality by state education ministries is impractical in mass systems. Professional practices such as voluntary institutional accreditation in the US and external examining in the UK have noted limitations and academic audits of internal quality assurance in a number of countries have clearly revealed that these institutional practices can be improved (El-Khawas, 2010).

As stated in chapter three, the Lebanese MEHE has failed to implement national evaluation standards and create a quality assurance framework that will help assess the quality of HE Institutions in Lebanon and provide an adequate model for assuring quality and accountability. The Directorate General was working on a draft law to propose a quality assurance framework (and a project to create a quality assurance agency) that was never passed for several reasons presented in chapter three as well. The proposed law (and project) was an imported amalgam of outdated foreign accreditation systems/standards as described in chapter three and appendix C. However, as previously argued, the environment and characteristics of the Lebanese PHEIs on one hand and the deficiencies of the proposed self-evaluation standards on another, made it vital to propose new national accreditation standards that would take into consideration the context of HE in Lebanon in general and the private HE environment in particular. In the second part of chapter 4, a new approach to Institutions' PM will be proposed for the purposes of self-assessment for internal improvement and monitoring, and external evaluation and accountability by an accreditation body.

Before presenting the proposal of national accreditation standards and their implementation process, it is important to firstly recap the accreditation principles of the agencies studied in chapter two, to identify common principles and vital areas covered in most accreditation standards that will serve as a foundation to our work. While there is considerable disparity between accrediting agencies, detailed guidelines generally focus on four main areas: Organizational and governance matters, resources available (including financial, human, and physical), curriculum, and institutional research showing relevant statistics and proof of monitoring.

This chapter gathers and compares the accreditation standards of the five agencies presented in chapter two, based on their considerations of various accreditation dimensions. Those agencies are considered to duly represent their relevant countries in terms of accreditation principles and orientations. Then, a framework of a Lebanese national accreditation system will be presented, with a personal view on its implementation process before concluding with the proposed standards for accreditation.



## 4.2 Synthesis of Accreditation principles

As diversified as accreditation systems are worldwide, there are clearly universal common grounds on the concept of assuring quality in HE. This is likely due to the tacit understanding or assumption that assuring a high quality of inputs and processes will probably lead to high-quality of outputs (and outcomes). General basic principles guide accreditation standards wherever you are in the world as they have some common rationale behind most of them, such as ensuring coherence in governance or stressing on the quality of teaching and learning. Other areas depend on the country's (or state's) priorities and HE context such as the sustainability or the integrity topics. They can be more or less prominent and create the differences that we find between countries or agencies.

### 4.2.1 Comparison of Accreditation principles

Table 1 summarizes the different accreditation dimensions as emphasized by each of the accreditation agencies presented in chapter two. This comparative table shows the existence or absence of a specific topic in their standards, as well as gives an indication on the weight or importance given to that topic. Three crosses indicate a highlighted topic that is straightforwardly and firmly expressed in the standards. Two crosses and one cross indicate that the standard was more or less clearly mentioned with relatively less emphasis as compared to three crosses.

To note that this table is a particular comparison between two countries (those with a unique national accreditation body) France and UK, and the selected agencies from the US, Germany and Japan since those countries have several accreditation agencies with more or less diverse standards that emphasize different dimensions.

*Table 1. Synthesis of common accreditation principles and dimensions*

Dimensions	NECHE	Hcéres	ZEVA	QAA	JUAA
<b>Mission and Purpose</b>					
Mission and Purpose	XXX	XXX		X	XXX
<b>Organization, Governance, Planning and Institutional Research</b>					
Planning (strategic, academic, financial and other)	XXX	XXX		XX	
Organization and Governance	XXX	XXX		XX	XX
Quality assurance and continuous improvement policy		XXX	XXX	XX	XXX
External examination/assessment				XXX	
University social responsibility		XX			XXX

Development of scientific, technical and research culture		XXX		X	
Performance evaluation and monitoring, institutional research		XXX		XX	
Sustainable development		XXX			
Partnerships (academic and non-academic)		XXX			XXX
Policies for external or joint teaching activities				XXX	
Evaluation and feedback	XXX	XX		XXX	
<b>Independence, Integrity and Transparency</b>					
Independence	XXX				
Accountability	XXX			XXX	
Ethical standards guide	XXX			XX	
Integrity in academic credit award – qualifications	XXX		XX	XXX	XX
Integrity in interactions with students	XXX			XXX	
Integrity in the management and decision-making	XXX			XXX	
Information publishing and public communication	XXX	XXX	XX	XXX	XX
Academic honesty	XXX		XX	XXX	
Transparency	XXX			XXX	
Public disclosure	XXX				
Participation of stakeholders in internal governance	XX	XXX		XXX	
<b>Teaching and Research</b>					
Academic programs (planning, design, provision, evaluation, improvement, learning objectives)	XXX	XXX	X	XXX	
Process for programs and qualifications’ approval, monitoring and assessment		X		XXX	
Review of academic programs	XXX	XX	XXX	XXX	
Structure of programs and degrees	XXX	X		XXX	

Quality of teaching and evaluation	XXX	XXX	XXX	XXX	
Teaching and learning policies		XXX		XXX	
Innovation in teaching		XXX			
Research development, monitoring and evaluation		XXX		XXX	
Research involvement in the community and transfer		XXX		XX	
Research policy and regulations		XXX		XXX	
Research activities or supervision by faculty members	XX	XX		XXX	
Continuing education		XXX			
Learning outcomes	XXX	X	XXX	XXX	XXX
Students' assessment (quality, transparency, evaluation, review)	XXX	X	XX	XXX	
Continuous evaluation of students' achievements	XXX		XX	XXX	XX
Use of external expertise for maintaining academic standards				XXX	
<b>Students</b>					
Students' diversity and equal opportunity	XXX	X		XX	XX
Retention policies	XXX				
Admission and orientation policies	XXX	XXX	XX	XXX	XXX
Appeals and complaints about recruitment, selection and admission				XXX	
Academic appeals procedures, accessibility and fairness				XXX	
Students' guidance, support and services	XXX		XX	XX	XXX
Students' advising	XXX		XXX	XX	
Financial Aid	XX				
Recreational and extra-curricular activities	XXX	XX			
Students' social responsibility		XX			

Professional reinsertion and placement		XX			XXX
Students Surveys			XXX	XX	
Students' participation		XXX		XXX	
<b>Resources – HR</b>					
Faculty members (qualifications, types, numbers)	XXX	X	XX	XX	XX
Professional development	XX	XXX	XXX	XX	XXX
Equal employment for faculty and staff	XXX	XXX	XXX		
Faculty handbook	XXX				
Faculty and staff evaluation	XXX	XXX			
Academic freedom	XXX				
Administrative staff (number, qualifications)	XXX	X			
<b>Resources – Financial</b>					
Financial resources allocation	XXX				XX
Financial stability	XXX				
Financial planning, budgeting and review	XXX	XXX			
Financial autonomy	XXX	XX			
Financial Integrity	XXX	XX			
Financial consultation with departments	XX	XXX			
<b>Resources – Physical and Technological</b>					
Physical resources	XXX	XX	XX	XX	
Technological resources	XXX	XXX		XX	
Data security	XX				
Documentation		XXX			
Education and research environment		XXX		XXX	XXX
International policies – Regional Framework		XXX		XXX	

From the table above one can conclude that no matter the country or the accreditation system, there are some topics that every agency stresses upon in its standards:

- Governance
- Information publishing and public communication
- Learning outcomes
- Admission and orientation policies
- Faculty members' qualifications, number and professional development

It was also noticed that even in Europe with the active implementation of the ESG, standards are quite diverse and emphasis is made on different topics. For example, the French Hcéres gives a lot of importance on governance and institutional planning, while the German ZEvA stresses more on students' surveys and learning outcomes.

#### **4.2.2 Common Accreditation principles**

In this section, based on the above comparative table, the principles or common areas that are behind the studied systems will be presented. However seemingly different, the below accreditation principles are recurrent and can be directly or indirectly found in any accreditation manual.

##### ***First Principle: Mission and purpose***

Since all standards stress on tasks and activities undertaken to achieve or accomplish or fulfill the mission and purposes of the Institution (and their eventual update), it is clear that the primary principle to any quality endeavor is to first define the mission and purpose of the Institution, second, to make it known by all stakeholders, and third, to make it the foundation of all institutional decisions and strategies.

##### ***Second Principle: Organization, governance, planning, and institutional research***

All quality and accreditation standards require a clear description of the flow of authority, governance, structure and decision-making process and stress on the active involvement of top management in any quality effort. The organizational and governance structures support the mission and purpose of the Institution, its autonomy and internal improvement. It is expected from the governing body to put in place an exhaustive strategic plan (academic, financial and physical) as well as make available and allocate the right resources to implement it. Effective institutional research should be in place to support planning and evaluate the achievement of the set objectives, in order to provide reliable data at all levels to support institutional improvement.

##### ***Third Principle: Resources (Human, financial, physical and technological resources)***

It is emphasized that the Institution should have adequate and sufficient human (in number and qualifications), financial (finances should be stable, well managed and sufficient to cover the future needs or any unforeseen events), technological (suitable technological assets with an emphasis on up-to-date, safe and secure information system that covers the needs to achieve the academic and administrative activities of the Institution) and physical resources (for the efficient delivery of theoretical and practical classes,

including buildings, labs, research centers, libraries). The Institution should also demonstrate its capability to sustain and develop those resources according to future needs. Emphasis is made on the availability of qualified faculty members (in the right number and distribution between full-time and part-time) and staff (in the right number for class and out-of-class support services) and on the importance of continuously updating their knowledge to ensure the quality of the academic experience as well as an effective students' support system.

***Fourth Principle: Students (admission, learning, progression, evaluation, and services)***

Recruitment and admission of new students are compatible with the Institution's mission and are based on clear and published procedures and conditions, fair and equitable selection, clear financial aid program, etc. During their studies, students are provided with appropriate advising, coaching and support services both academic and non-academic (placement and career offices, extra-curricular activities, etc.). Teaching, learning outcomes and assessment methods are clear and frequently evaluated and updated. Certification is based on the national qualifications framework.

***Fifth Principle: Independence, integrity, transparency and public information***

Integrity and ethics in the behavior and speech of all the Institution's stakeholders (whether in the programs' outcomes and delivery or in the interactions with and information given to current and prospective students, etc.). Transparency in any given public information (promotion and advertisement material, rules and regulations, manuals, statistics, results of accreditation, etc.) is important. Emphasis is also made on having the independence and autonomy from any sponsoring or political oversight, freedom of speech and freedom to manage the internal activities.

***Sixth Principle: Teaching and Research***

Student's teaching and learning fit institutional objectives. Academic programs have to be planned, supervised, evaluated and continuously improved based on an evaluation of students' success, progression and learning. Program outcomes and learning objectives should be published and frequently updated. The curricula should follow certain constructive sequence depending on the nature of the program, its level and the national law, and should reflect academic quality and integrity.

The role and place of research is central and the Institution should provide the necessary human and technical resources to develop impactful research activities.

***Seventh Principle: Review and update***

The watchword at all levels is the continuous review and update of mission, strategies, plans, objectives, practices, rules, regulations, procedures, curricula, programs, evaluation methods, etc. in the purpose of continuous improvement. Always questioning and reevaluating the processes, forms, practices and programs are essential to any quality assurance activity. This principle is directly related to the performance measurement and monitoring system whose aim is to uncover and locate areas for improvement and review.

***Eighth Principle: Students' engagement***

Although this principle might not be found as a stand-alone standard, students' engagement is essential and present in many aspects of the Institution's functions; from their participation in satisfaction surveys, the elaboration of programs or learning outcomes, to representation in the governing board or contribution to quality evaluation.

### 4.2.3 Shift in perspective

Quality assurance and accreditation systems are facing many challenges in various different ways; ever-changing educational landscape, continuous rise of educational cost (whether on the students or on the governments), technological advancement and innovation, need for greater transparency and information from the public, internationalization of education, considerable criticism with regard to the traditional system, increasing number of HE Institutions and provision, and the list goes on (Matthews, 2018). Up until recently, this mounting discontent was not accompanied by an adequate response and reaction.

Today, those challenges have pushed governments and accreditation agencies to shift their perspective and to question some traditional evaluation methods and processes that have been used for a long period of time. From input-based to output-based evaluation and performance-based parameters, from assuring the quality of the resources to assuring the quality of the teaching and learning processes. The idea is that instead of making sure an Institution has sufficient capacity and resources (for example number of books in the library or students/faculty ratio), agencies should evaluate the efficient utilization of those resources, the continuous improvement of the internal organization and governance and the will and commitment of the Institution to guaranty the quality of its programs. Quality shouldn't come from supervision and control, but from the improvement of the processes with auto-control paired with accountability (Matthews, 2018). HE in the US for instance, is undergoing a transformation from a system centered on Institutions, to one centered on students. This shift requires HE Institutions to rethink their processes, policies and priorities in light of their ability to facilitate student progress and completion, and to close attainment gaps. European countries had to change to a tiered structure of study programs and degrees according to the Bologna reforms because they couldn't base their quality systems on any previous experiences.

Accreditation is clearly a contested subject today. It is at the intersection between traditional HE accreditation methods and the increasing criticism from stakeholders. This criticism however, should be handled with caution. Although changes and innovation tend to be positive, not all innovations are good. Some hasty changes (such as new business models for HE Institutions, online adult-learning programs, etc.) could fail to make improvements over existing practice, thus, change and innovation should be handled with precaution as one attempted change could create problems elsewhere. Also, fully-formed new ideas are rarely realized from the first attempt and successful innovation requires Institutions to rethink their business model (Horn & Dunagan, 2018). This is where the new role of accreditation as supportive of innovation and gatekeeper at the same time starts.

This anticipated shift from bureaucratic checklists approaches emphasizing admission profile, quantity of resources, faculty credentials, seat time, etc. to focusing on attaining educational objectives and judging teaching effectiveness requires a parallel shift in accreditation manuals and policies, review approaches and performance measurement methods. This shift in perspective would allow accreditation to become a catalyst of institutional change and improvement rather than being just a costly procedural burden trapped in traditions. Our aim is to integrate this new accreditation trend into the local context.

### **4.3 Accreditation Framework for Private Higher Education Institutions in Lebanon**

While “borrowing” from or getting inspired by other international systems of HE is to be commended, it is important that adopted procedures and approaches fit well within the culture of the particular system/country or Institutions. Procedures need to be implemented and adapted with care and consideration if the quality assurance or accreditation system are not to be a new form of “cultural imperialism” (Meek & Harman, 2000). While quality assurance policies in most countries are currently in a process of rapid evolution and change, there is at the same time, an increasing convergence internationally in terms of approaches, under the pressure of international rankings for instance or with the increase international mobility of students.

In reviewing the international practice with regard to the management of quality assurance in several countries, one can only notice the vast variety in experimentation and implementation that has taken place in recent years, providing a rich source of models of evaluation, review, reporting and follow-up activities. In many countries, the main emphasis at the national level has been on academic audits, institutional evaluations, and reviews of disciplines and professional areas. This trend is likely to continue, especially with the effects of increased pressure towards globalization and increased economic competition between nations (Meek & Harman, 2000).

While several scandals involving academic dishonesty and fraud have led to question the system, many models appear to have produced positive benefits, including improvements in academic programs, closer links with the industry, and increased confidence among key stakeholders (Kinser & Phillips, 2018). On the other hand, questions are being asked about the financial and administrative costs of quality assurance mechanisms in relation to the benefits derived. As a result of the experimentation of the past two decades, there is now a growing body of experience and evidence available about how well different approaches are working in particular settings. Such valuable information proves to be useful to national HE systems interested in developing new quality assurance mechanisms or modifying existing ones. It is important to recognize the attention that should be paid in selecting mechanisms likely to enhance credibility both nationally and internationally and in estimating resource implications knowing that a number of commonly used methodologies are expensive to implement in terms of personnel time and financial resources (Meek & Harman, 2000).



The standards that will be proposed in this chapter were developed based on a **contextualized approach of internationally recognized systems**. They were adapted to the Lebanese HE environment taking into account the characteristics of the local PHEIs without losing sight of the wealth of information that can be gathered from the international experience in that area. The suggested accreditation guide can be the starting point of a more ambitious project, which is the development of the first Lebanese national accreditation agency endorsed by the MEHE, applying standards specifically established for the Lebanese private HE. In our opinion, the most significant reform that can happen in the HE sector in Lebanon is giving greater autonomy to HE Institutions and moving away from the “Interventionary State” towards a more “Facilitatory State” (to use the terminology of Guy Neave and Frans Van Vught from their book *Prometheus Bound: the changing relationship between government and higher education in Western Europe – 1991*). It entails a release from strict legislative control, by giving PHEIs more rights and more autonomy to organize their activities yet making them more accountable and responsible through the process. In Lebanon, HE quality and integrity can only be safeguarded through an independent non-governmental agency that would focus on substance instead of formalities, and on outcomes instead of inputs.

The proposed new quality assurance mechanism and HE initiative aims at strengthening public accountability, protecting academic standards and the reputation of Lebanese HE Institutions and degrees, and promoting good practice in HE. This new mechanism can be called the National Quality Assurance Agency (NQAA). It is important to note that only one agency should be commissioned the task of evaluating the PHEIs (hence the word national) to avoid cronyism; a non-intrusive and rationally conceived quality assurance agency involving both the public and the private sectors. It should also demonstrate 1) independence from any political affiliation, 2) have no conflict of interest, 3) be able to appoint independent, unbiased and qualified experts for peer-review who are not considered as competitors and 4) should autonomously be able to operate without the influence of the MEHE. Those conditions will lead to greater trust and confidence, and enhance professional judgments.

While it is not the subject of the present work, it is important to mention that some issues will need further considerations such as 1) the legal basis of this agency (that is independent and at arms’ length from both government and PHEIs), 2) the governance structure to be adopted (profile and serving time of the board members), and 3) its funding and accountability arrangements (under whose authority). NQAA’s main scope of work would be:

- Establish and review the mechanisms for quality assurance, monitoring performance and academic standards, and enhancing quality within the PHEIs in Lebanon;
- Conduct the evaluation process of PHEIs;
- Appoint the peer-reviewers;
- Publish the reviews’ results;

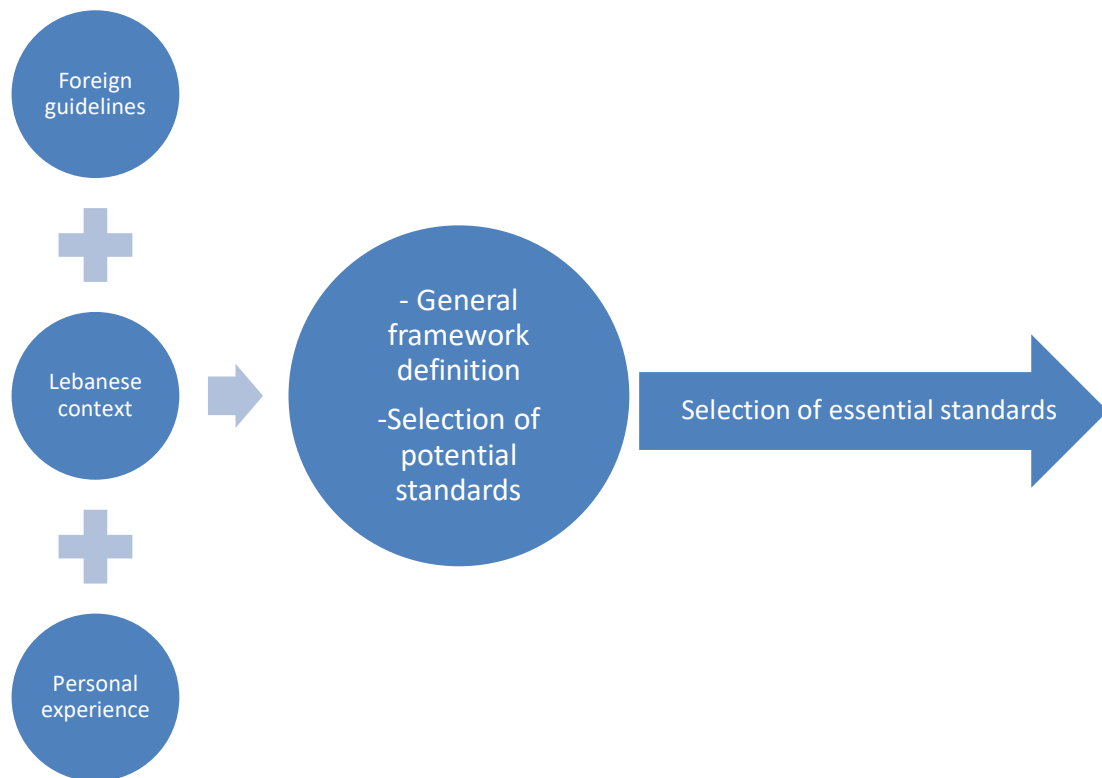
- Report publicly and frequently on the effectiveness of quality assurance procedures in participating Institutions, the extent to which procedures ensure academic standards and reflect good practice in maintaining and improving quality;
- Identify and disseminate good practice in quality assurance in HE;
- Undertake and sponsor studies related to effective quality assurance management practices and academic standards in HE;
- Review the appropriateness of quality assurance and improvement plans in relation to institutional contexts and missions;
- Review the rigor of the mechanisms employed to review programs, departments and faculties, and monitor performance against institutional plans;
- Review effectiveness in monitoring outcomes and in benchmarking, both nationally and internationally.

This model will be likely hard to implement in a country where corruption has reached every level of every sector (Lebanon is ranked 154 out of 180 countries as the least corrupted nation in 2021 by Transparency International). Nevertheless, the purpose of this study is to propose an ideal approach that will help safeguard HE in Lebanon and make sure that unworthy PHEI be forced out of the market.

At this stage, based on the proposed general framework, it is important to address the rationale behind the accreditation guide that will be presented in the following sections.

#### **4.4 Accreditation Rationale for Private Higher Education Institutions in Lebanon**

Before presenting the suggested accreditation process and related standards, it is important to detail the key foundational elements that motivated the choices taken when developing the standards and its framework. Figure 3 shows the rationale that led to the proposal.



*Figure 3: Process of the accreditation rationale for Lebanese HE Institutions*

- The European and American experiences and learning curve in quality assurance are an important source of information and constitute the foundation of the proposed standards. Evidently, they should be put into context and not be reproduced arbitrarily. New trends in American accreditation are to be taken into account as it is the result of decades of trials and errors. The same for the ESG guidelines, which are the result of years of combined European experience;
- The characteristics of PHEIs in Lebanon (as described in chapter 3.3.2) are taken into consideration and thus, the proposed standards are contextualized;
- My own individual experience in HE management, policies and law as well as quality management, allowed to add a personal contribution demonstrated in the choice and adaptation of certain standards and of the accreditation process;
- The traditional subjective model that considers resources/reputation as a base for assessing educational effectiveness is not valid anymore. Assuming that reputation ratings, financial resources and external funding make excellence in education is a much-contested subject nowadays (Volkwein J. , 2010). It increases costs and stresses on inputs rather than on outputs. Nice campuses and faculty members with the right degrees don't guaranty teaching quality. The same goes to the model centered on students and employers' satisfaction. As much as fulfilling students' needs and answering the job market's requirements should be at the heart of HE Institutions' concerns, counting on students' experiences and employers' feedback is not enough to evaluate education outcome and quality. A customer-centered Institution that provides close follow-up and attentiveness to students at a reasonable tuition fee would be meeting and satisfying the needs of their "clients" yet, would it be assuring educational effectiveness? A holistic approach with input, processes and outcome approaches, focusing on the "end product" is therefore essential if we are

to assess the real effectiveness and quality of education. “End product” is defined as the student at the end of a learning journey (whether a degree-granting one or just a short course) that has acquired adequate scientific knowledge, technical and personal skills, valued by employers and that appropriately respond to the job market needs. In other terms, the graduate will find a job at an acceptable salary following an investment (in money and time) to earn skills and knowledge deemed to be fair and matching the perceived added value.

- There should be emphasis on quality-process reviews that unlike direct assessment of inputs and outputs, do not evaluate quality itself. Instead, they focus on the processes that are believed to produce quality and the methods by which Institutions, faculties, and departments assure themselves that quality has been attained. Quality-process reviews are founded on the principle that good people working with sufficient resources and according to good processes will produce good results, but that faulty processes will prevent even good people and plentiful resources from producing optimal outcomes.
- The topics of “massification” of HE and the new non-traditional role of HE Institutions cannot be overlooked anymore. The concept of having HE Institutions from different quality levels or as “teaching universities” (focused on teaching where research is secondary) can be accepted as long as the information is fair and transparent to the public. This implies the likelihood of having several layers of quality and consequently, several ranks in accreditation (several grades);
- The “Franchise” model (refer to section 3.3.3.9) that is very popular in the Lebanese environment is not sustainable. Branches should be owned and managed by the main branch (or closed) and assessed the same way any independent Institution would be;
- The development of digital learning and the integration of new technology constitute an area to be specifically considered in the standards. With the increased reliance on online courses (especially during the COVID-19 pandemic), assuring the quality of digital educational offerings has become essential and should have specific standards in any accreditation manual;
- The internationalization of HE is gaining ground, accreditation standards are not following. Historically, accreditation agencies and quality assurance systems did not really focus on assessing imported/exported programs. However, with the increase of cross-border education (through students’ mobility, online courses, international branches), it has become crucial to ensure that the quality of educational programs meets local and international standards simultaneously. Cooperation between countries or agencies to contextualize accreditation is fundamental because standardization may jeopardize the integrity of some countries and don’t necessarily improve the quality of the programs. HE Institutions in developing countries could be at a disadvantage in cross-border education; cultural sensitivity and local regulations are the starting point of every fruitful talk about transnational quality assurance efforts ((PISG), 1999);
- The concept that higher spending per student leads to better education quality is not the norm. The cost of HE has increased on average by 25% in the last ten years without a matching increase in the quality of education or quality of graduates, as shown by the World development report of 2018 done by the World Bank (World

- Bank, 2018). This report shows a weak correlation between spending and learning outcomes especially when spending exceeds a certain annual amount. What matters most, is how and on what the money is spent.
- The differentiation that presently exists in Lebanon between “old” PHEIs and “new” ones (those created after the year 2000) should stop. Old PHEIs enjoy privileged conditions and treatment from the MEHE (less control, no monitoring, faster degrees' recognition, etc.) because it is assumed that “old” indicates quality, prestige and seriousness whereas “new” is usually more commercial and less prone to quality. The proposed accreditation framework treats all PHEIs through the same fair and equitable evaluation process. Only the results of the accreditation will set them apart;
  - Some common standards related to input measures (such as public spaces, number of books in the library, environmental actions, etc.) are not emphasized. While they certainly bring an added-value, they are not considered as fundamentally essential to safeguard the quality of teaching and research;
  - The Lebanese environment is quite particular regarding research activities. There are very few industries in Lebanon and Research and Development activities are uncommon. Research labs within HE Institutions are limited in number and in fields. Funded research (through grants, industry or international funds) is rare and monopolized by ten percent of PHEIs. In other terms, research possibilities are narrow and therefore, the impact of research – unless done with international partners – is quite limited. In the proposed standards, emphasis will therefore be done on teaching quality and learning outcomes rather than on the research dimension of HE Institutions. However, when present, research activities are to be in line with the Institution’s mission, their quality and impact should be consequently demonstrated.
  - Accreditation standards will be as concise as possible mentioning the fundamental points only and emphasizing only what is considered eventually problematic. **There is major emphasis on improvement and the application of “good practice” in order to detect/prevent possible malpractice or fraud.** The application and interpretation of the standards are individually developed by the Institutions to preserve diversity and autonomy. By not asking to specify any particular approach to the actual delivery of teaching and learning quality, emphasis will rather be on whether Institutions and faculty members have given careful thought to the quality of their provision and whether they can articulate and defend the choices made;
  - Criteria and guidelines used by peer-reviewers should be published, clear and transparent with regards to the responsibilities and duties of the group of experts, to avoid subjectivity and personal opinion and reduce biases. Judgements will be based on analysis of evidence and the procedures are fair to all parties involved. The accredited Institution should be aware of the proposed standards, the composition of the agency’s board, the members of the team of experts and the method of conducting reviews. It should also have all the rights to appeal and ask for a second review if the results are justifiably incorrect and unfair;

## 4.5 Accreditation Process in Private Higher Education Institutions in Lebanon

The accreditation process proposed in this study is quite similar to the internationally recognized procedure presented in chapter two (2.2.3). However, figure 4 presents a version with some variations in order to ensure the reliability of the steps.

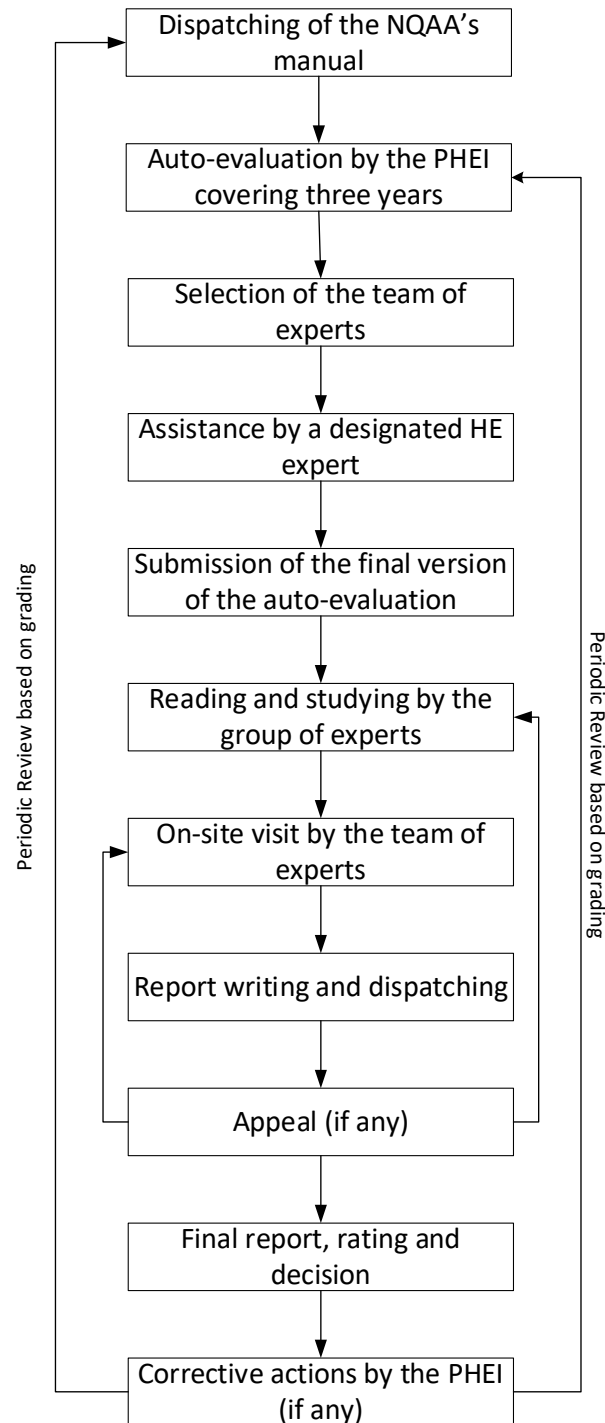


Figure 4: Block diagram of the proposed Accreditation process

- 1- The reason for requiring to cover the last three years in the auto-evaluation and required documentation, is that it is very common in Lebanon to forge reports and forms or stage procedures only to get through the inspection visit. It would be harder to put on the play for a period of three years.
- 2- Self-assessments have proved to be both effective and cost efficient, achieving a high degree of ownership (since key staff are deeply involved which increases the chances of improvements being achieved) (Meek & Harman, 2000). Therefore, self-evaluation remains an important step of the process. We however suggest that during this step, the Institution be assisted by an expert from the agency in order to ensure credibility of the information on one side, and help to avoid confusion in filling the information on another side.
- 3- Although it has its flaws, the peer-reviewed accreditation model is largely accepted by the academic community; it ensures that evaluation is taken seriously and that outside perspectives are included. However, some authors argue that the inherent subjectivity of the procedure makes it unacceptable to be the sole evaluation method where the future of an Institutions is at stake (Nel, 2018). The possibility of unfair evaluation is always real for many different reasons. Some authors from developing countries mainly, concluded following their studies that reviewers were even regarded as biased, unprofessional, lacking knowledge of the process and they tended to give standardized and prescriptive suggestions (Garwe, 2015). Lebanon is a small country plagued by patronage and political influence at all levels, where everybody practically knows everybody. Peer-review should therefore be adopted with caution and under strict conditions. In the US, accrediting agencies invest heavily in reviewers' training to ensure that each evaluation is less personality-driven and more evidence-based (Volkwein J. , 2010). Based on the above, and chapter three (3.3.2.12), the on-site visit should be performed by a team of five to seven independent HE experts with the following characteristics, in order to ensure the value and consistency of their work:
  - a. Carefully selected and not presently employed by any PHEI;
  - b. Have an appropriate and extensive academic and administrative experience in the parts they are responsible for;
  - c. Adequate knowledge in quality systems and quality assurance;
  - d. Foreign experts can be part of the team to add an international dimension, but shouldn't constitute more than 20% of the members;
  - e. Are supported by appropriate training on quality assessment and evaluation;
  - f. Possession of appropriate skills and competence to perform their functions, including, where appropriate, making national and international comparisons.

There should be clear and transparent criteria and processes for the selection of relevant experts to guaranty their independence. They should also ensure that the experts are adequately briefed about their responsibilities, duties, evaluation guidelines, and the context in which the accreditation is being undertaken.

- 4- The accreditation outcome grants several ratings. The purpose is to differentiate the remarkably performing PHEIs that conduct research and offer many academic and physical advantages to students, faculty and staff from the poorly performing ones, even if they meet the minimal standards required to pass the accreditation. In fact, accreditation doesn't mean excellence, it only means that a minimum level of quality and seriousness is assured, whereas ratings appreciate the occurrence of different layers of quality. This distinction is important as it provides more transparency for future students (and their parents) who will be able to base their decision accordingly and allows Institutions to justify variances in services and tuition fees. The following classification is suggested:
  - a. Fully accredited with a grade A is a research Institution with notable strength that has clearly defined purposes appropriate to HE; has the necessary resources to achieve its purposes; is achieving its purposes and will continue to do so. It meets most standards and has demonstrated its effectiveness in almost all areas;
  - b. Fully accredited with a grade B is an Institution that has clearly defined purposes appropriate to HE; has most of the necessary resources to achieve its purposes; is mostly achieving its purposes and will continue to do so. It meets most standards and has demonstrated its effectiveness in most areas;
  - c. Accredited under minor conditions with a grade C is an Institution whose policies, practices, or resources differ from those expected in the standards and have minor non-compliances. The Institution is accredited under condition of improvement in needed areas that must be fulfilled in a limited period of time before being awarded grade B accreditation in case they do. The length of this period varies, depending on the nature of the condition and suggestions for improvement;
  - d. Institutions with major defects in basic requirements and major non-compliances, that require drastic improvement to achieve their intended mission and purpose will get a "Pending" status and be given a limited period of time before being reviewed again and receiving either a grade D or a final rejection.
- 5- As presented in the previous point, should a review reveal serious weaknesses, the Institution will be given a deadline to correct its shortcomings prior to a second review. Failure to rectify weaknesses would be a matter for the MEHE and no longer the responsibility of the NQAA. This brings us to question what measures could be taken towards the failing PHEIs? Should they be stopped from operating? Should they be given a third chance? Should they be allowed to remain in the market and let the students knowingly decide if they want to enroll in an unaccredited Institution? One possible action would be to remove the name of the Institution from the list of accredited Institutions until the minimum standards are reached. While these sensitive concerns are not part of our study, it is however important to highlight the eventual roadblocks to the potential implementation of the system.
- 6- The review period should not exceed five years and a shorter review period should be set for low ratings (C and D) as it will force the PHEI to continuously do efforts



to improve its situation before the next evaluation. While long cycle times are consistent with quality certification and widely used in the US for example, they may be longer than optimal for stimulating improvement. Indeed, they may be hindering improvement. In fact, once accredited, an Institution may be relieved and content to continue the *status quo* until the next accreditation cycle (Massy, 1996).

- 7- An important decision regarding whether participation is voluntary or compulsory should also be taken. Knowing the Lebanese culture, morals and environment, voluntary accreditation will definitely lead to a very low level of participation. Therefore, it would be more appropriate to implement a compulsory quality assurance system.
- 8- HE Institutions should have the right to appeal or raise complaints in case of dissatisfaction with the outcome of the accreditation or its process. There should be a clear procedure to handle such issues as it is important to safeguard Institutions' rights to have a fair and transparent quality assessment and accreditation. Institutions should be able to demonstrate or prove any prejudice by showing specific evidence.

## 4.6 Accreditation Standards

David Dill identifies three approaches to quality in HE:

- 1- *The reputational approach*: The basic instrument of judgement in this approach is peer review. However, it bears many pitfalls as many researchers have demonstrated (Haddad-Adaimi, Abi Zeid Daou, & Ducq, 2022);
- 2- *The outcomes approach*: This approach relies on outcome indicators such as the proportion of students who pass, graduates' employability, drop-out rates, number of publications, etc. This approach has two main weaknesses. The first one is that many of the outcomes are difficult to interpret because of interrelations with reputational measures and differences in initial inputs. The second is the lack of clarity on how to link these outcomes to measures that improve quality;
- 3- *The total quality approach*: It stresses on values such as broad participation, continuous improvement, organizational learning and focuses on the needs of the customer. This approach is used mainly in industry, but is increasingly being promoted as a model for HE (Dill, 2007).

In this proposal of accreditation standards for the Lebanese HE sector, and in the absence of an effective national framework for quality assurance and related regulations, a combination of external and internal quality assurance practices based on inputs, outputs, processes and outcomes seemed to be the most adequate approach to assess and control quality within Lebanese PHEIs, while focusing on what really matters.

The following acronyms will be used to simplify the reading:

- GB = Governing Body of the HE Institution. It is the highest operational Council in the Institution. It is formed by the President of the Institution, the Vice-Presidents (if applicable), Deans of Faculties, the Administrative Head, the Registrar and one elected representative of the faculty members.

- BOA = Board of Administration. It is the Administrative Board of the organization that owns the HE Institution regardless of its legal status. The BOA has a say in the resources and budget allocation, the Administrative Head of the Institution participates in the meetings without voting.
- BOT = Board of Trustees.
- AH = Administrative Head. It is the senior officer who manages the administrative structure in collaboration with the academic body and the BOA, as to fulfill the Institution's mission, owner's vision and ensure quality.
- HOD = Head of Department. This is the full-time faculty member who chairs an academic department and who has certain administrative responsibilities too.
- SAO = Students Affaires Office.

Eight accreditation standards with related required documentation, are proposed in this research work, outlining the most important focus area for the Lebanese context.

### ***Standard one***

#### **Mission, Vision and Strategy**

The Institution's Mission, Vision, Values and Strategy are appropriate to HE and emphasize students' learning, research (when applicable), quality and continuous improvement. They are clearly and publicly stated, approved by the GB, understood and accepted by all stakeholders. The Institution should demonstrate its commitment to the stated mission/vision/strategy and show evidence of how it is being achieved and periodically reassessed. Quality assurance, internal monitoring and institutional research activities are embedded in the Institution's strategy and planning, they are encouraged and involve all stakeholders.

The Institution has a strategic plan consistent with its mission, divided by clear objectives and resources allocation over at least one academic year and another one for longer-term goals. The strategic plan should reflect strategies to overcome any financial emergencies. It is prepared by the GB, approved by the BOA, in collaboration with the different departments. The extent of the collaboration depends on the size of the Institution. For large Institutions, each faculty will be asked to present a general plan with suggested resources requirements. In smaller organizations, the plan and the requirements are reviewed with the AH who combines all the data gathered from relevant constituencies to submit it for final decision and budget allocation.

#### *Required documents:*

*Mission and vision statement*

*Strategic plan showing the contribution of the different departments*

*Quality assurance manual or Standard Operating Procedures (SOP)*

*Institutional research report and dashboard*

## ***Standard two***

### **Governance and management**

The Institution's governance (GB, BOA, AH, faculty members, staff), decision-making process and flow of responsibilities are clearly described in the bylaws and established procedures, and are consistent with the Institution's mission. The distribution of authority is particularly detailed as to clearly show the respective role of each constituent, division of responsibility and authority, allow a certain autonomy and avoid conflict between decisions-makers.

Governance of the HE Institution is done through councils and committees that have a clear description of tasks and decision-flow with an equally important role given to academic and administrative staff that assist the GB in various topics. When needed, students' representatives are asked to attend meetings as part of students' engagement and participation efforts.

Crucial academic and financial procedures (such as graduation clearance, degree award, grades management, transfer of credits, purchasing, recruitment, payroll, etc.) have a clear, multi-layered decision-flowchart to ensure cross-checks, avoid errors, fraud or diploma mills.

#### *Required documents:*

*Internal bylaws, rules and regulation manual*

*Minutes of meeting of BOA and GB*

*Councils' description, tasks and minutes of meeting*

*SOP for crucial topics*

*Sample of a diploma and transcript with security features*

*Human resources bylaws*

## ***Standard three***

### **Teaching and Research**

Teaching is student-centered, characterized by rigor, and focuses on personal development and growth. Teaching methods and effectiveness are appropriate to the degree-level awarded and are monitored and periodically evaluated to improve and assure academic quality. Degrees and academic programs' structure follow an international system (European or American) recognized by local authorities and respond to market needs (whether local or regional). Curricula are innovative, regularly updated with clear learning objectives developed by a committee of experts. Each course has a corresponding syllabus containing learning objectives and outcomes, assessment methods, course content and class rules consistent with the level of the degree (undergraduate or graduate levels). Reviews are done periodically based on a semestrial evaluation (done by students or faculty members).

Proper procedures are in place to ensure the correct delivery of the courses, syllabi and learning outcome fulfillment.

Students' assessment is an important topic in Lebanese HE. It should be varied to ensure a fair and adequate evaluation (quizzes, participation, attendance, assignments, presentations, projects, midterm exams and final exams); attendance to the courses is mandatory, particular attention to students' absences is important. Exams' design and grading methods are closely monitored to make sure it follows the Institution's guidelines and avoid independent subjective decisions done by faculty members. HODs make sure the exams cover all the intended learning outcomes of the course and have an adequate difficulty level. The achievement of courses' learning outcomes is closely monitored. Any gap is measured, interpreted and corrected. Students' grades are analyzed as their distribution gives a good indication of the academic level and teaching effectiveness.

Special monitoring of Continuing Education Programs is put in place when applicable to assure quality in the provision of non-traditional education too.

Research is governed by a Research Council that gets the approval from the GB for policy, subjects' orientation, objectives and budget. Research impact and productivity is monitored. The absence of research is not necessarily condemning for Institutions/faculties delivering only undergraduate studies.

At this point we would like to point out that most accreditation standards emphasize research productivity of faculty members, and that performance evaluation in academia is and has always been biased towards research indicators. In fact, HE Institutions value research more than teaching and place increasing weight on research PIs for promotion, tenure, compensation and performance evaluation (Arnold, 2008). HE Institutions also support this research-based culture since it attracts research grants and looks well in rankings. It is believed to be a sign of teaching quality (it denotes a high qualification of faculty members) and a proof of community engagement (by knowledge production and dissemination). However, not enough emphasis is made on the quality and impact of that research (rather than its amount) and on the quality of actual teaching. In fact, many studies have warned that research-based performance evaluation in academia is detrimental to quality teaching (Cadez, Dimovski , & Groff, 2017). It negatively affects creativity and innovation in teaching since faculty members will tend to economize on teaching efforts and focus more on producing research to improve their career prospects. Some studies have argued that research productivity is not related to teaching quality, whereas research quality is positively related with teaching quality (Cadez, Dimovski , & Groff, 2017).

*Required documents:*

*Proof of curricula and syllabi update*

*Peer-review of teaching methodology*

*Sample of a course syllabus*

*Curriculum of all offered majors*

*Samples of learning outcomes fulfillment report*

*Guidelines for students' assessment with samples*

*Sample of students' attendance report*

*Course questionnaire: sample and report*

*Research Council code of ethics and minutes of meeting*

*Report on students' academic achievements (students on probation or honor list, average GPA, average failures per course, average academic withdrawals, etc.)*

*Courses' schedule and distribution of hours*

*Exams' proctoring rules*

## ***Standard four***

### **Students**

Students' admission is based on clear and published information, ethical standards, and equal opportunity without discrimination. Public information pertaining to programs' conditions, admission requirements, financial aid, recognition of prior qualifications and information about the Institution, its programs, its services and extra-curricular activities is clear transparent and reflects the reality.

Students benefit from an adequate and fair service and support in academic advising, job placement, career guidance, campus life and students' affairs. Their academic progress is closely monitored by the departments, the SAO follow-ups on administrative and financial matters.

Students have a detailed guidebook containing all academic and administrative internal rules and regulations, code of conduct, duties and rights. They are allowed to safely express their needs/complaints, opinions, dissatisfaction or disapproval on any topic, and have the right to receive clear, fair, impartial and objective answers in an adequate period of time using appropriate forms and procedures put at their disposal. Measures are in place to ensure students know about them, and know how to use them. Control mechanisms are in place to avoid any favoritism or discrimination.

Students' retention and completion efforts should not compromise academic integrity and level.

*Required documents:*

*Marketing and promotional content*

*Regulations of students' admission*

*Report on students' progress and academic achievement*

*SOP for job placement, internship placement and dealing with students' appeals and petitions*

*Financial regulations*

*Students' guidebook*

*Students' forms (petitions and non-conformity forms, financial aid application, withdrawal form, absence form, graduation clearance, etc.)*

*Report on drop-outs (reason, financial status, academic status)*

*Report on academic “forcing” or exceptions made*

### ***Standard five***

#### **Resources**

The Institution’s resources are adequate to support its mission and respond effectively to opportunities and challenges.

##### *Human resources*

The number and qualifications (relevant degrees and experience to the subject matter) of human resources (faculty and staff) are adequate to allow the HE Institution fulfill its mission. The number of faculty members and their distribution between full timers and part timers depend on the nature and level of the program as well as on the number of students enrolled. The workload of the faculty member (including teaching, training supervision, clinical work, advising, administration and research) as well as the working conditions are clearly stated in the appointment contract. It translates a distribution of tasks based on the needs of each department while ensuring the quality of instruction and student support.

The appointment of faculty members and staff follows an ethical and impartial selection and recruitment process and their qualifications and experience are verified. Their training on internal rules and regulations, as well as on the use of information technology is well-documented. Their professional development is encouraged and their performance (including teaching, effectiveness in advising and administrative tasks, research and professional development) is evaluated at least once yearly.

Human resources’ bylaws, policies and regulations are detailed in a handbook for each category alone.

##### *Financial resources*

The HE Institution should have sufficient financial resources – distinct from its owner – to support the sovereign mission of the Institution and face any unforeseen circumstances. Personal arrangements that compromise the integrity of the Institution are not tolerated.

Financial resources and future investments are allocated as approved in the budget as part of the strategic plan (see standard one) and ensure a fair and adequate distribution of resources between teaching, research (if applicable), infrastructure and development projects. Periodically revised and improved. Unforeseen expenses (emergencies, deviations, reviews) are submitted to the BOA for approval following an official request done by the GB.

There is an appropriate internal control mechanism for managing finances. All financial statements should be audited by a recognized external auditor.

##### *Technical and infrastructure resources*

The HE Institution has appropriate (adequate, reliable and safe) information, physical and technological resources to support the Institution's mission. It affects enough budget for the maintenance and constant improvement of those resources. The Information system is adequate, reliable and secure. The campus, laboratories, recreational areas, library and equipment are sufficient to support the teaching and research while providing a pleasant environment to the students, faculty and staff. In the absence of appropriate infrastructure for certain activities, the Institution has to provide an adequate alternative.

*Required documents:*

*Faculty members' credentials (qualifications and experience)*

*Distribution of faculty-members workload*

*Recruitment policy and SOP*

*Orientation and training guidebook for HR*

*Performance evaluation form and report*

*Sample of a faculty member contract or terms of employment*

*HR bylaws and handbook*

*Budgeting SOP*

*Decision-flow for financial matters*

*List of physical and software resources*

*Proof of outsourcing if applicable (for some labs or sports courts)*

### ***Standard six***

#### **Integrity, Ethics and Social Responsibility**

The HE Institution advocates high ethical standards and shows integrity and fairness in its management (including financial and fiscal management), in honoring commitments, in dealing with and recruiting students, faculty and staff and towards the public. It shows compliance with all national policies and regulations. The content of its communication and advertisement is also honest and transparent. Misleading or untrue information are severely penalized.

Academic integrity in teaching and research plays an important part. Plagiarism, fraud, fake data, research misconduct, and essay mills are severely penalized.

The Institution is involved in its community through social, economic and environmental contributions, involving management, staff, faculty, research projects and students and fosters an environment built on respect and tolerance.

Freedom of expression is encouraged. Political influence and interference are not allowed.

*Required documents;*

*Proof of plagiarism checks*

*Research code of ethics*

## *List of activities with a community engagement*

### ***Standard seven***

#### ***Students' engagement***

Students are engaged in internal quality and improvement activities related to their learning experience through representation in strategic committees, participation to surveys and events, declarations of non-conformities, satisfaction polls on various matters, etc.

There is evidence that students' voice and opinion are taken seriously.

Students' involvement in community service and various associations is encouraged and taken into account as it demonstrates the Institution's efforts in preparing engaged future citizens who will be involved in their community. This civic coaching would also help reduce the brain drain that Lebanon is experiencing.

#### *Required documents:*

*Minutes of strategic meetings involving students*

*Students' surveys (sample and report)*

*Proof of students' engagement and its validation by the Institution*

### ***Standard eight***

#### **Digital learning**

Appendix F presents the context of standard eight.

Digital learning requires performant information systems and advanced technological resources as a sine qua non condition to proper delivery of online courses and online assessments. With the expansion of digital learning whether for continuing education or as an alternative educational method, it has become crucial to devise specific standards that could guaranty the quality of education delivered online. However, the Lebanese environment doesn't provide a suitable setting for digital learning. While HE Institutions might be technically equipped, most Lebanese households are certainly not. In fact, the COVID-19 pandemic clearly proved that the internet infrastructure in Lebanon is not suitable for online education. Nevertheless, the standards that we propose below should serve as a guideline to preserve a minimal level of academic oversight and quality taking into account the limited technological resources:

- Digital learning is consistent with the Institution's mission, vision and strategy and fits within its regular planning and evaluation process;
- Curricula of the Institution's online learning offerings are coherent, cohesive, and comparable in academic rigor to programs offered in traditional formats;



- Achieving the students' learning outcomes are of utmost importance. They are clearly articulated, updated and evaluated with the same importance as for traditional courses. Adapted equivalent quality control mechanisms should be demonstrated.
- Educational effectiveness is assessed at the levels of form of course delivery, learning methods and the extent to which the online learning goals are achieved. It is regularly evaluated to promote improvements;
- Practical and lab courses cannot be delivered online;
- Technological infrastructures (hardware and software) should be suitable for the appropriate delivery of distance learning courses and for controlling academic dishonesty (mainly during exams, attendance and participation);
- Proper control procedures are in place to make sure that the enrolled student is the same one who is participating in the course and performing the examination;
- The Institution provides suitable academic and technical support to students and faculty members. Adapted and specific rules should be defined in case of technical difficulties or problems;
- Continuous interaction between students/faculty members and students/students is demonstrated through evidence;
- Same decision making, academic rules, integrity and academic rules, policies and procedures are applied to students learning online with additional emphasis on online student behavior;
- Faculty members are required to do the extra work, have the adequate expertise and are trained to provide support remotely. They are also trained to adapt their courses for online synchronous and asynchronous teaching, online assessments and building "online education community" (Mast & Gambescia, 2013);
- The methodology for courses' delivery is clearly stated and adequate for online. Teaching tools and interactive course activities are varied and specific for digital learning (including visual aids, reading clusters, streaming, simulation, group works, virtual discussion boards, etc.);
- Proper control mechanisms for online assessments of students are in place otherwise on-campus examination is required.

*Required documents:*

*Software description and proof of secure and safe application*

*Proof of a sufficient internet connection (at campus, faculty member and students' place)*

*Specific rules and SOP for online courses*

## **4.7 Conclusion**

In this chapter, eight standards for the accreditation of PHEIs in Lebanon were proposed. Those were firstly based on the study of the common and fundamental accreditation principles of five major HE systems in the world. Secondly, the standards were adapted to the context of HE in Lebanon based on its particular characteristics and personal experience. Some topics were emphasized because it is believed they represent the foundation for quality teaching in the Lebanese context. While the others constitute an

important added-value to quality teaching, they are believed to be an accessory and not a principal element that conditions teaching quality.

In the next chapter, the main performance measurements commonly used in HE worldwide will be presented before proposing a practical and innovative method for evaluating the performance of HE Institutions on two levels: external performance for accreditation and internal monitoring. Although primarily developed for Lebanon, the proposed model can be used by private or public HE Institutions worldwide.

# Chapter 5 – Proposal of a Performance Management System for Higher Education Institutions

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## 5.1 Introduction

The main issues in the quality debate about HE in many countries are the maintenance and improvement of levels of teaching, learning and research, improvements in the quality and adaptability of graduates, defining and measuring quality, setting management approaches likely to improve outcomes from HE Institutions, using benchmarking and performance management and convincing stakeholders that Institutions and systems are doing a competent job in ensuring quality and credible outputs (Hénard, 2008). Worldwide, HE systems and Institutions have undergone massive reform over the past two decades with the aim of improving quality following increased pressure by stakeholders for greater efficiency and accountability. A significant feature of this change has been the implementation of more systematic and formalized quality assurance processes and the drive to produce systematic evidence of effectiveness and efficiency (Chalmers, 2008). PIs provide a fair way of demonstrating the results of these efforts whether at the institutional or at the national levels and can also act as a benchmark. In order to do so, HE Institutions were forced to implement measurement and monitoring tools for both external assessments and internal improvement and many countries (especially OECD countries) developed an interest in PIs for the management and assessment of their HE system. At the institutional level, assessing performance for external purposes is best done through accreditation as it guarantees an Institution's compliance with minimal quality standards. However, most accreditation agencies put forward standards and guidance for documentation without explicitly elaborating on the PIs on which Institutions can rely for evaluating their activities and providing evidence of their conformity. Moreover, even when HE Institutions invest time and effort in self-evaluation for internal improvement (and not to please stakeholders or fill reports), they often find themselves using PM systems and tools imported from the literature or from the industry using generic PIs, understood and adequately used by few; there is a scarcity of studies on performance measurement at the institutional level and, in particular, how to develop PIs that reflect the unique context of a HE Institutions (Asif & Searcy, 2014).

In an attempt to answer those needs, the second objective of this thesis is to propose a PM system carefully curated and adapted to HE Institutions' context that aims to improve their performance and allow results-based internal monitoring using a set of industry-specific PIs.

## 5.2 Performance Management system for Higher Education

According to (Neely, Adams, & Kennerley, 2002) a PM system should be a *balanced and dynamic system that enables support of the decision-making process by gathering, elaborating and analyzing information*. It uses different measures and perspectives in order to give a holistic view of the organization. In the past few decades, the topic of strategic PM in HE has attracted much interest from both academics and practitioners. While practitioners were primarily concerned with the implementation of strategic PM systems, academics have been studying whether their use leads to specific benefits (de Waal, Kourtit, & Nijkamp, 2009). A study done by those authors on the advantages and disadvantages of strategic PM

as described in the literature, showed that PM have more benefits than disadvantages. Other studies confirm that properly designed, implemented and used strategic PM systems are positively associated with improvements in organizational results (Aguinis, 2014).

Chapter two introduced the general indicators used and published by HE Institutions as part of their performance measurements for accreditation. Those PIs are usually publicly disclosed and contain rather superficial and limited-scope information. In the following section, deeper layers of institutional performance – that Institutions, more often than not, keep to themselves – will be tackled.

### **5.2.1 Commonly used Performance Indicators**

Performance measurements using PIs have emerged in the context of increased awareness of the importance of analyzing performance in HE. Reasons are numerous; at the institutional level, there is a growing awareness for collecting data to inform rational decision-making coupled with a greater scrutiny from governments to verify Institutions' performance especially now that they enjoy more autonomy. At the national level, governments face an increasing need to inform stakeholders on the state of the HE system, international comparisons and benchmarking have become a priority and indicators are more and more used to measure progress and take funding decisions (Martin & Sauvageot, 2011). This increased autonomy of HE Institutions is reflected in new monitoring tools, such as external quality assurance models (commonly used models are audits, evaluations, rankings and accreditation) and PM. They provide a means of monitoring quality and relate to the notions of self-regulation and autonomy.

Over the years, many qualitative and quantitative indicators were developed by Institutions and governments and have been used for external reporting or internal monitoring and decision-making. The emphasis of our study being institutional performance, we will start by listing and briefly commenting on the most commonly used PIs in HE with the objective of 1) showing what kind of indicators are currently used by HE Institutions worldwide, 2) determining how some of these measures can be altered (or replaced) to better serve the purpose of internal monitoring and continuous improvement, and 3) identifying which indicators provide evidence of quality in teaching and research or only serve to show the social and civic dimension of HE.

WHAT MEASURES DO INSTITUTIONS TRACK?	
MEASURE	%
GRANT FUNDING	41
FACULTY SALARIES	36
RESEARCH EXPENDITURES	36
RANKINGS	23
PATENTS	18
RESEARCH OUTPUT	18
GRADUATION RATES	14
PRIVATE GIFTS	14
ENROLLMENT GROWTH	9
FACULTY REPUTATION	9

Figure 5: Common performance measures tracked by HE <sup>2</sup>

Indicators listed in the figure 5 are the result of a study conducted by Thomson Reuters on the measures that HE Institutions track the most (Thomson Reuters, 2008). It is obvious that Institutions tend to monitor measures mainly related to income from grants and to their main cost centers (direct cost of teaching and research). Both are input measures and do not directly relate to the quality of education. A study of the literature also showed that the following indicators are often used. Their definition can be found in appendix E:

- 1- Learning outcome;
- 2- Access;
- 3- Progression or progress rate;
- 4- Completion;
- 5- Engagement;
- 6- Employability;
- 7- Starting salaries;
- 8- Learning efficiency;
- 9- FTE;
- 10- Research impact and productivity;
- 11- Bibliometrics;
- 12- Patents and industry contracts.

While those indicators are more or less used by HE Institutions as common metrics to show evidence of performance towards stakeholders, it is important to mention that performance priorities and objectives vary according to the Institution's profile and between each category of stakeholders. Taking the example of a PHEI, the main interests of each stakeholder is listed below to demonstrate the divergence of points of view and to emphasize that Institutions need to identify the users of those indicators before defining and using them:

<sup>2</sup> <http://researchanalytics.thomsonreuters.com/essays/>

- The owners aim for good reputation, profitability and cost control;
- The government prioritizes graduation rate, equity and access to education, as well as ensuring a minimal quality of teaching;
- The funding organizations worry about funds allocation, and the relevance of research;
- The senior management and governors of the Institution prioritize students' learning outcome, financial effectiveness, owners' satisfaction, image and reputation and effectiveness of processes;
- The faculty members and researchers aim for more research funds and better students' outcome;
- The employers and professional bodies want students better prepared for the labor market with up-to-date knowledge and skills;
- The prospective students and their parents aim for the best value / fees ratio, employability of graduates and reputation;
- The current students may prioritize offered services, tuition fees and employability prospects;
- The alumni if they are invested in the Institution, they want good reputation and effective resources allocations (in case they also provide donations);
- The accreditation agencies will insist on the quality of teaching and research, governance, the clarity of and adhesion to the vision and mission of the Institution.

### **5.2.2 Prerequisites for a successful implementation of Performance Indicators in Higher Education**

It was briefly established in chapter two (2.4.5) the kind of challenges and risks the application and implementation of performance measurements could engender. Nevertheless, with some preparation, HE Institutions will improve their chances of overcoming those difficulties and make the most out of the exercise. By understanding the potential challenges and barriers, Institutions are in a better position to anticipate and solve the problems which may arise in the future. Mohammad Asif and Cory Searcy addressed in their study on creating a composite index for measuring performance in HE Institutions, the requirements for an effective development of PIs. The authors gathered the data from the literature and wrote that the PIs should be developed based on the input of the relevant stakeholders and that the process should be transparent, consensus-based, integrate diverse points of view while promoting the learning of all participants (Asif & Searcy, 2014).

First and foremost, one thinks about the technical challenges associated with the implementation of PIs; excessive bureaucratic and paper work, bad timing of reports, false interpretations, misalignment with the Institution's goals, excessive number of indicators, bad choice of indicators, imbalance in the distribution of indicators (emphasis on only one dimension of HE), etc. are all common mistakes faced by HE staff involved in the task of developing, operating and interpreting performance measurements.

Another common challenge is when gathering data to produce PIs, too often than not, the information is not readily available as is. It generally needs to be adapted and collected from several sources unless a methodical and efficient data collection procedure

is implemented. A typical illustration of a mismatch between needed data and available data is the multiple outputs issue. For example, the output of research and teaching needs expenditure input data on teaching separated from expenditure data on research. However, in the majority of cases, expenditure data do not split between faculty members who are involved in teaching or research or both, and how much of their workload/time is divided between those two activities. But when there is a clear upstream vision that a particular data needs to be calculated in a specific way, data collection can be adapted to those needs. Another related barrier is the lack of benchmarking. Although Institutions could base their targets and objectives on past measures or through departmental comparison, the absence of national benchmarks could reduce the potential benefits of such an exercise. Moreover, benchmarking helps Institutions identify their strengths and weaknesses compared to the best in their class. In the absence of such a target, Institutions will be inclined to set unrealistic targets or very easy ones.

The information system plays an (if not the most) important role in facilitating the implementation and calculation of PIs, it is in fact a prerequisite to possess a functioning information system that contains basic information reliable enough to develop the indicators (Martin & Sauvageot, 2011). Some adaptation work on the information system might be necessary to 1) make available any missing data, 2) segregate the data as needed and 3) automatically produce reports in the required forms.

Another typical challenge is the choice of inputs that an Institution chooses to include when measuring a certain indicator, especially those related to efficiency. For example, when calculating the cost of “producing a graduate”, many expenses are taken into account (cost of teaching, cost of students’ services, cost of physical resources, etc.). However, some costs are difficult or impossible to measure and/or outside the control of the Institution (cost of students’ loans, community service, international partnerships, etc.). In this case, a clear and consistent calculation or cost allocation should be applied throughout the Institution (by excluding those costs, using an estimation, etc.). It is by comparing the results (calculated according to the same norm) that valuable information will be gained.

In specific cases when the data needed ought to be collected over a long period of time, PIs might be unsuited to measure certain related performances. For example, the ROI in HE for students or for society is expected to be returned over the working life of graduates. The statistics of graduates’ earnings should at least cover a period of 15 to 20 years after graduation. This means that calculating this PI today gives an indication about the performance of the Institution that dates 20 years back. While this data might be useful for sector-wide policy-making, it doesn’t constitute a PI that can be useful today.

Regarding the risks related to management commitment, proper feedback, transparency and trust, we believe that a lack is directly related to the leadership style and to the actual quantity of work involved or perceived for such an exercise. While it isn’t an inherent problem to the implementation of performance measurements, mentioning those prerequisites are important if we are to maximize the effects of such an endeavor. Moreover, such topics are an important aspect of organizational behavior that any leader should be focusing on, with or without the performance evaluation exercise.



Other potential barriers can be employee's resistance to change. Employee resistance can be overcome by proper training and by involving them in the planning and implementation phases of PM. In a study conducted by White, Samson, Rowland-Jones, & Thomas in 2009, they found that the most significant barrier in implementing Total Quality Management was employees' resistance to change and management preparedness (White, Samson, Rowland-Jones, & Thomas, 2009).

The literature on PIs suggests that their introduction may not always facilitate, but could rather hinder the progress of the management of an Institution towards its efficiency frontier (Taylor J. , 2001). It has not yet been proven that the application of PIs has had a positive impact on teaching and research. Although their application when linked to a reward system (e.g., funding and promotion) is anticipated to prompt an improvement in academic efforts, they could also lead to negative consequences. Their application may for example increase pressure in faculty members to reorganize their work to suit the indicators as they may decide to focus on the activities that are measured by the PIs and neglect other activities which are not measured but that are equally or even more important to the Institution. Also, in an effort to get good scores on the indicators, a faculty member may behave in ways that can harm the Institution (Meek & Lee, 2005). Despite the wide literature on PIs, empirical evidence of their effects on the work of academics is scarce. In this case, emphasis should be made that indicators are not the basis of faculty performance appraisal. It is merely one indication among many others.

### **5.3 Compound Monitoring by Objectives**

When the importance of HE Institutions' context is emphasized, the environmental situation of the Institution reflects not simply the external environment of competitors and economic conditions; it also reflects the internal environment that is partially defined by the Institution's current mission, historical development, culture, management style and hierarchical relation between staff, management and faculty (Hinton K. E., 2012). Therefore, there is an urgent need to have an adaptable and customized PM model that each Institution can use and adjust according to its unique environment and priorities.

#### **5.3.1 Framework**

*One of the many definitions of quality in the context of HE is that quality is a judgement about the level of goal achievement and the value and worth of that achievement. It is also a judgement about the degree to which activities or outputs have desirable characteristics, according to some norm or against particular specified criteria or objectives (Harvey & Green, 2006). This particular definition of quality written by Lee Harvey and Diana Green, is mentioned here as it clearly portrays the relation between the quality journey and the use of performance measurements. At the same time, "the inherent complexity of HE Institutions suggests an urgent need for establishing appropriate measurement systems for monitoring and controlling the performance of these Institutions,*

*especially those with limited resources*” (Mati, 2018). This second quote advocates the urgent need to develop systems that are suitable and adapted to HE.

In response to growing concerns from stakeholders about the quality and performance of HE, and due to increased pressure for more accountability and efficiency, many HE Institutions started seeking ways to improve education quality, evaluate those improvements and provide evidence of quality. Moreover, HE Institutions are operating in an increasingly turbulent environment characterized by difficult economic conditions, decreased (private or public) funding, constraints on employment opportunities, and fluctuating student demand. Top management at HE Institutions faces the same strategic planning challenges as the top managers in a corporate organization. They are like corporate executives, responsible for the allocation and alignment of limited resources so that the Institution serves its mission and meets its objectives (Voloshina, 2014).

Faced with these challenges, Institutions have begun to adapt and use strategic management tools imported from the industry in order to facilitate continuous adjustment to those environmental challenges, monitor progress of internal improvement efforts and provide evidence of quality to stakeholders. Literature suggests that PM seems to be the most efficient way to do it, through the use of PIs and other strategic PM tools. While those tools provide Institutions with a clear and meaningful competitive advantage, blindly applying industry-imported strategy models could have perverse effects. In fact, concepts of strategy in HE are contested issues due to the nature and complexity of the sector. Strategy, in the business sense, does not apply to public or institutionalized sectors and it cannot be easily applied in regulated contexts like HE (Mahat & Goedegebuure, 2016). Only limited research was done by authors who tested PM tools imported from the industry, and provided evidence and feedback on their implementation in HE. In our opinion, and in order to grasp the true complexity of HE with all its dimensions, an industry-specific model is essential.

Organizations in the public and private sectors around the world are struggling with their performance measurement systems. In particular they are finding it difficult to develop cost-effective, meaningful measures that drive performance improvement without leading to undesired negative consequences (Moullin, 2007). The Jarrat Report (a report published by the Committee of Vice-Chancellors and Principals on the efficiency of HE in UK in 1985) stated that “there is a recognized need for reliable and consistent PIs. These need to be developed urgently for universities as a whole and for individual universities as an integral part of the planning and resources allocation process” and that quantitative performance measures play an important part in supplementing qualitative judgements. Moreover, the Green Report (a tentative government report and consultation document of policy proposals for debate and discussion issued regularly by several countries) supports the case for the adoption of PIs stating that “*sound management is based not only on efficient use of resources (inputs) but also on the effectiveness of results achieved (outputs) and maintaining the need to develop and use measures of performance*” (Ball & Halwachi, 1987). Although more than 30 years passed since these statements, the situation today doesn’t seem to have significantly changed. The PIs used in HE Institutions today are

usually financial in origin (such as expenditure per student, expenditure per member of staff, research income per faculty member), and may offer a valuable tool to assist in understanding in which areas an Institution is performing relatively well or relatively poorly. However, failure to achieve targets whilst achieving financial balance requires further consideration just as much as an activity which is not meeting financial targets. Consequently, it emphasizes the need to consider several aspects when assessing an Institution, a department, an activity or a function.

At the time of writing this thesis the world was going through the COVID-19 pandemic that changed the way companies of all sectors do business and transformed the definition of success and performance. The HE landscape was shaken by the sudden shift to online education to which neither professors nor students were ready to handle. These new challenges are yet another reason for HE Institutions to rethink their management model and work on becoming more efficient, lenient and flexible.

The aim of this chapter is precisely to propose an innovative strategic PM model to be used by HE Institutions (whether public or private) for accreditation purposes and more importantly, for internal performance measurement and monitoring. This method is inspired by several management tools – presented below – and curated to meet the specific needs of HE. It combines the advantages of each model, while adapting it to the context of HE. It can be tailored to cater the specific objectives and strategic priorities of any HE Institution and is intended for the immediate use by a large scale of Institutions. Using this solution saves months spent on developing customized PM systems prone to implementation and interpretation challenges. It also recognizes and preserves the diversity of HE Institutions: diversity of mission, type, context, provision and objectives. As PM systems can be designed and implemented to support or hinder the promotion of mission diversity within HE systems (Melo & Figueiredo, 2019), the proposed scheme suggests that instead of applying universal performance metrics and associated performance standards, both will be linked to the particular Institution's objectives and judgments.

This chapter starts with a presentation on the business theories behind the proposed model before introducing its name, concept, advantages and application methodology. The chapter will be followed by a practical application of the model to serve as a case study.

## **5.3.2 Business Models**

### **5.3.2.1 Adapted Balanced Scorecard**

The first business tool to keep in mind is the BSC. As presented in chapter two (2.4.2.2), the BSC developed by Kaplan and Norton is a PM system that enables organizations look at their business from four different but complementary perspectives. It aims at minimizing information overload by limiting the number of measures used, improving decision-making, while allowing to combine the following perspectives: financial, customer, internal process and innovation and learning. It is based on the underlying concept that no single measure can provide a clear performance target or focus attention on the critical areas of the business

(Kaplan & Norton, 1992). While some researchers proposed applications of the BSC to the HE sector, we believe that none covered all the functions of HE and approached it at the same time through:

- Both academic and administrative points of view;
- Private ownership;
- Equal importance given to all dimensions of HE in the sense that efforts that should be given to enhance the performance;
- All stakeholders' perspectives.

As already argued, establishing a PM system specifically intended for HE has many advantages, the main one being the coverage with equal attention, of all dimensions of HE. Based on this statement we propose the following new five BSC perspectives applied to HE needs:

- **Stakeholders** including shareholders, students, parents, government, employers, alumni, faculty and staff, instead of the customer perspective only;
- **Teaching, research and services** are the functions or the internal operations in which the Institution should equally excel (support processes such as HR, IT, maintenance, administration, and main activity such as teaching and research);
- **Learning and growth** because one of the missions of HE is continuous innovation and value creation;
- **Finance**. The financial perspective is important in both public and private HE Institutions. However, it is always a sensitive subject in private Institutions as on one hand, the Institution's financial health is important for its sustainability and towards its shareholders, and on another hand, HE Institutions should demonstrate stability, the capacity to allocate enough resources for an adequate delivery of educational services as well as the ability to face any unforeseen financial challenges;
- **Environment and community**. This dimension of HE is of utmost importance and has never been considered as an independent dimension in itself. Some authors considered it as part of the customers (or students) dimension (Sudirman, 2012) or stakeholders (Brown C. , 2012). The involvement of the Institution with its environment and community is valuable on multiple levels; research impact and knowledge sharing, environmental and social impact, economic growth, job market skilled workforce, reputation, social responsibility, etc.

### 5.3.2.2 Critical Success Factors as performance drivers

The second management theory that inspired this new PM model is the Critical Success Factors (CSF) methodology. It is a method used in management that attempts to make explicit some few key areas that dictate managerial or organizational success. CSF are the limited number of areas in which results, if they are satisfactory, will ensure successful competitive performance for the organization. Those are the areas of activity that should receive constant and careful management attention. In order to be meaningful, the performance of the organization in each area should be continually measured and that

information should be made available to concerned persons. In other terms, a CSF provides a qualitative description of an element of the strategy in which the organization has to excel in order to be successful.

According to David Parmenter, CSFs identify “*the issues that determine an organization’s health and vitality*” (Parmenter, 2007). Joel Leidecker and Albert Bruno define CSFs as “*those characteristics, conditions or variables that, when properly sustained, maintained, or managed, can have a significant impact on the success of a firm competing in particular industry*” (Leidecker & Bruno, 1984). CSF was also used in defining the information needs of academic department heads at the University of Sheffield in 1993 and, more recently in 2001, for total quality management (Zwikael, 2006).

CSFs are a very powerful tool if correctly implemented. To be genuinely effective, CSFs need to be part of the strategic planning process of an organization and focus on organizational effectiveness. Once it is clear which factors are critical to its success, top performance of these factors should be ensured and progress measured and adjusted when needed. Often, when implementing performance measurement systems within their organizations, managers make the mistake of not aligning measurements to strategy. They fail to identify the processes that are essential for driving up business performance. In other words, they fail to identify those processes that must be performed exceptionally well for the organization’s strategy to succeed.

CSFs should also have the following characteristics:

- Easy for employees to understand and deduce what is expected of them;
- Apply to and impact more than one BSC perspective (e.g. an improvement in students’ satisfaction will have a positive impact on profitability or recruitment);
- Have a great influence on other success factors and a positive influence on the whole organization;
- Have the commitment and involvement of the top management;
- Focus on a specific area of the business as opposed to being broad statements that lack any form of clarity such as increased profitability, cost reduction, increased students’ engagement, faculty retention or supporting the community (Chisambara, 2014).

When working on identifying the CSFs, one might find more than 30 ideas that can be proven to be critical for the sustained health of the Institution. The next important step is choosing the most relevant and vital ones that have the broader influence on strategic objectives and BSC perspectives. Better practice suggests that there should be between five and eight CSFs. Once this subjective exercise is done, KRIs, PIs, and KPIs will naturally flow from these CSFs (Parmenter, 2007), which brings us to the third model: Performance measurements.

### **5.3.2.3 Performance measurements**

According to a Thomson Reuters report, HE Institutions find that measurement is central to their responsibilities whether they are “*meeting compliance regulations, identifying strategic needs and opportunities, or scanning a data dashboard to track progress*” and

what determines the type of metrics to be used for strategic planning are three constants: accountability, competition and strategic use of resources (Thomson Reuters, 2008). As discussed in chapter two (2.4.2.1), PIs help organizations provide evidence of quality to external stakeholders and most importantly, help in internal monitoring and continuous improvement.

With this in mind, this tool is restated here as a confirmation of its importance and relevance in how it is one of the business theories behind the proposed model.

Though Peter Drucker's famous quote "*what gets measured gets managed*" received criticism by numerous authors, we assert that "measuring" allows better understanding and monitoring of organizations than "not measuring". The observations that 1) not everything that gets measured is important and 2) not everything is actually measurable, are quite relevant. However, when linking measures to strategic objectives and CSFs, Institutions will focus their efforts on what really matters (instead of measuring something only because it is easily measured). The fact that there are things that are unmeasurable is actually one of the biggest challenges of PM in HE, since no consensus has been reached yet as to how educational effectiveness and learning outcomes can be measured. The proposed model intends to give an acceptable alternative to measuring such abstract and conceptual multi-faceted outcomes.

It is important to emphasize enough the need to select the right PIs that will affect most of the core CSFs and more than one BSC perspective because then, management and staff would focus on performing well on those PIs, and the Institution would score goals in all directions. As an example of this flow-on effect, an improvement in a key measure within the CSF of customer satisfaction would have a positive impact on many other measures (sales, profitability, staff retention, etc.).

The numerous methods and processes of creating and reporting successful and meaningful PIs and KPIs will not be delved into, as it is not the purpose of this study. The book of David Parmenter "Developing, Implementing and Using Winning KPIs" can however be used as an effective step-by-step guide for identifying, applying and monitoring the right PIs, KPIs and KRIs for any type of business within 16 weeks. Peter Chisambara noted that most organizations might have a list of outcome measures (KRIs or lag indicators) of what they want to achieve (for example improved market share, improved employee retention or increased students' satisfaction), but they do not have a strategy to achieve those measures (Chisambara, 2014). The key is to having a right mix of outcome measures and performance drivers to help identify and evaluate whether the current strategy is being implemented successfully and give an indication on what should be corrected in case it isn't. The CSF is quantified or made measurable by using PIs that reflect the level of success. Combined together, CSFs and PIs allow measurements and thus, control of strategic objectives (Waal, 2013). This brings us to the fourth and last managerial theory backing our proposal: Strategic planning.

#### 5.3.2.4 Strategic planning

Strategic planning is the process of defining an organization's plans for achieving its mission. An organizational strategy is a derived approach to achieving that mission. The product of a strategic planning effort is typically a document (the strategic plan) that elaborates a high-level strategy and articulates the elements that influence it. It is a full description of the organizational environment and intentions. A well-documented strategic plan is critically important for organizing thinking and communicating thoughts, it includes elements that describe an organization's present state, aspirations, intentions for the future, and approach for going forward (Gates, 2010). Strategic planning is a major part of the standards required by accrediting agencies to assess the Institution's ability to meet its mission. This requirement is rightly justified. The costs of not engaging at all or engaging in a poor planning process, range from disillusioned faculty, staff, and students, to poor use of resources, failed accreditation reviews which, in turn, cause an Institution to lose funding and prestige (Hinton K. , 2012). A well designed and implemented strategic planning process can provide an Institution with a platform for campus-wide conversations about important decisions, to make assessment, resources allocation, and be a source of information about progress and achievement. Appendix G summarizes the parts of a strategic plan and the attributes that a meaningful and practical strategic objective should have.

While some authors have questioned the benefits and effectiveness of strategic planning, many have concluded that planning, if properly implemented, can have a powerful impact on advancing and transforming colleges and universities (Dooris, Kelley, & Trainer, 2002). In all cases, having clear well-thought-out strategic objectives goes hand in hand with quality assurance and education effectiveness and is closely related to internal monitoring and performance measurement. A common problem often encountered in HE is that much effort is deployed in the development of plans and strategies, much less in ensuring their effective implementation (Taylor & Miroiu, 2002). Apart from effective leadership and awareness of institutional culture, the success of strategic planning is contingent on efficient 1) planning (doing research on and analyzing strategy and plans, and generating ideas and choices), 2) documentation and dissemination (preparing the plan and making it available to all concerned parties), 3) implementation (taking action to achieve the agreed aims) and last but not least, 3) monitoring (assessment of achievement or non-achievement, in order to influence and shape future strategy). HE Institutions have often developed plans without seeing through, sometimes developing resource allocation models which run counter to the priorities identified in the plan, by failures to communicate the plans effectively to those expected to deliver required outputs or by inadequate monitoring (Taylor & Miroiu, 2002).

The final stage in the planning process is monitoring by measuring the performance and identifying eventual gaps. Ultimately, the aim is to assess progress made towards achievement of the targets put forward, and consequently to inform the updating and revision of plans, including the introduction of new or amended targets. Monitoring will also take into account changing circumstances and environment. The monitoring of one activity is intended to highlight progress or the lack of it towards the achievement of targets.

In itself, however, this action is not sufficient. An effective monitoring report will propose corrective action or will feed into a future planning exercise. Accordingly, performance measures are meaningless unless they are linked to the organization's current CSFs, the BSC perspectives, and the current strategic objectives. Since a well-chosen PI should affect several CSFs and more than one BSC perspective to measure the level of objectives' achievement, one can conclude that in order to achieve a holistic and congruent PM system, those four models should work in synergy in the following order: Strategic objectives of the Institution are first clarified as part of the official process of strategic planning, communicated to all concerned stakeholders and then linked to CSFs and BSC perspectives. Rational targets, performance drivers and control variables are then allocated to each objective. Next, a mix of PIs is associated to each objective, to allow multidimensional evaluation (more details in the following section). Their combined results are then compared with the expected target. Corrective actions are consequently launched based on the identified gaps between expectations and achievements. Identifying gaps without actually correcting and improving is a waste of time and energy.

The proposed PM model in this study will be described in the following section. Whether the PM is part of quality assurance efforts or an accreditation exercise, it aims at structuring and bringing together all those steps and aspects in the purpose of:

- Facilitating the exercise of implementing a PM system;
- Speeding the process of implementing a PM system;
- Limiting the challenges and resources involved with such endeavor;
- Automating a big part of the process;
- Helping management in decision-making and interpretation of results;
- Providing multi-dimensional measures to minimize biases and subjectivity;
- Maximizing the benefits of PM.

### 5.3.3 Concept and methodology of CMBO

#### 5.3.3.1 Concept

*While performance indicators produce a set of empirical data that can help inform management and policy decisions, those working in the area often caution that no one indicator paints a true picture of the [research] performance of a particular department or unit, and that the data should be approached with caution and supplemented with more qualitative type information (Meek & Lee, 2005).* This citation perfectly expresses the same rationale that should be followed when monitoring any type of performance and that is the underlying principle of the proposed model "Compound Monitoring by Objectives".

Compound Monitoring by Objectives – CMBO is the name of the new suggested performance model that links performance measurements to related objectives and CSFs in the purpose of monitoring the overall performance of a HE Institution through different angles and according to its priorities. While this framework could be adapted to various sectors and industries, public and private, our focus here is PHEI.



This model can also be used for accreditation purposes whereby the HE Institution can choose objectives and CSFs based on accreditation standards/ministry of education requirements or outcomes/values they want to reach. In our study we consider that aiming to answer accreditation requirements is part of an Institution's strategic objectives whose priorities and mission are to deliver quality education.

CMBO is an innovative automated and computerized PM tool that allows the integration of a large amount of data, its aggregation, normalization and sorting into understandable and easy-to-interpret-and-compare results, through the use of technology. It is established on the following rationales:

- Every Institution is unique with its own mission, internal and external environments and strategic objectives;
- All dimensions of HE and functions of HE Institutions need to be equally assessed if we hope to attain a comprehensive understanding of the Institution's performance;
- Performance measurements are linked to objectives and CSFs (which inspired the choice of the name). A measure without a purpose and a target is pointless;
- PIs "*provide mutually reinforcing measures that only together provide an accurate picture*" (Ewell & Jones, 1996). In other words, one measure cannot define the shape of an Institution on a particular topic. Several measures are necessary to allow valuable judgement, hence the use of the word "Compound";
- Not all measures have the same impact or weight when combined with other measures. And some measures can have different weights based on the Institution's priorities. A large public Institution would put more emphasis (weight) on students' diversity or progression when assessing recruitment, while a private Institution would give more importance to marketing strategies or retention;
- Some qualitative measures might suggest divergent interpretations or lack objectivity. Minimizing their invalidity or bias and enhancing their credibility, transparency and rigor is done by integrating several, sometimes overlapping measures.
- A database of generic and industry-specific PIs is provided with the tool. Part of it is gathered from a wide range of literature on performance metrics in HE and the rest was suggested based on practice and experience. Evidently any HE Institution can choose to add any PI it deems meaningful and with time, this database could be developed and expanded. However, we believe that the proposed list covers most of the aspects needed to understand and evaluate a HE Institution through several dimensions. It facilitates the process of implementation of a PM system as the arduous work of identifying, selecting and calculating indicators would be spared. Institutions usually seek data and indicators from a broad and varied array of sources (including data generated in-house, external databases or generic performance indicators traditionally used). But data are often too global and too general and don't take into account the individuality of Institutions. Moreover, the data required is often unavailable in a way that allows an easy retrieval or manipulation which forces Institutions to gather it and sort it manually (Ewell & Jones, Indicators of "Good Practice" in Undergraduate Education: A Handbook for Development and

Implementation, 1996). The suggested database allows each Institution to identify and extract the needed data upstream, after having selected the most appropriate and relevant indicators to its priorities.

- Given a reliable and efficient information system is available, this model helps HE Institutions implement a PM system with minimal challenges and resources. It is mainly addressed to PHEIs who are keen on maintaining a virtuous cycle of internal improvement.

CMBO links strategic objectives (whether institutional, departmental or functional) and CSFs to a mix of tactically weighed PIs. When objectives are determined, necessary or critical actions or drivers to support the fulfillment of the objectives should be also identified. The CMBO makes the objectives quantifiable and measures the degree of their fulfillment. When several PIs are combined to assess one objective, results would be more comprehensive and congruent with the complexity of those objectives. When adding different weights to each indicator reflecting the criticality of each related factor, results would be more precise, customized, and would allow sounder judgement. Appropriately linking CSFs to objectives is an important step because the only way to reach the set target is by identifying the factors that mostly influence the objective. Now that we identified “What we must do successfully (CSFs)” and “What indicates that we are winning (PIs)” we can understand the *cause* of our success (CSFs), and the effects/results of our actions (PIs). The model aims to basically answer the following questions proposed by Fredericks Volkwein:

- Are you doing the right things, those that are most important in order to achieve your Institution’s goals?
- Are you doing things right, effectively, efficiently, in ways that truly satisfy the needs of those you serve (i.e. stakeholders)? (Volkwein J. , 2010)

Two additional questions are put forward: when what you are doing seems not (right) enough, do you know the reasons and what action means need to be triggered in order to move closer to your targets? Quantitatively speaking, what are the consequences of our decisions/actions on various important levels?

Although there are some methods available in the literature that tackle the idea of a composite index, they each have their own limitations (Asif & Searcy, 2014), (Grygoryev & Karapetrovic, 2005). They either cover only one dimension of HE (like research or finance), or they are only intended to solve problems or produce decision alternatives against options that are evaluated. The CMBO model aims to cover all dimensions of HE in the dual purpose of achieving an institutional climate of continuing development and improvement on one hand, and evaluating institutional effectiveness to demonstrate accountability to stakeholders on another hand.

### 5.3.3.2 Methodology

Figure 6 summarizes the CMBO methodology.

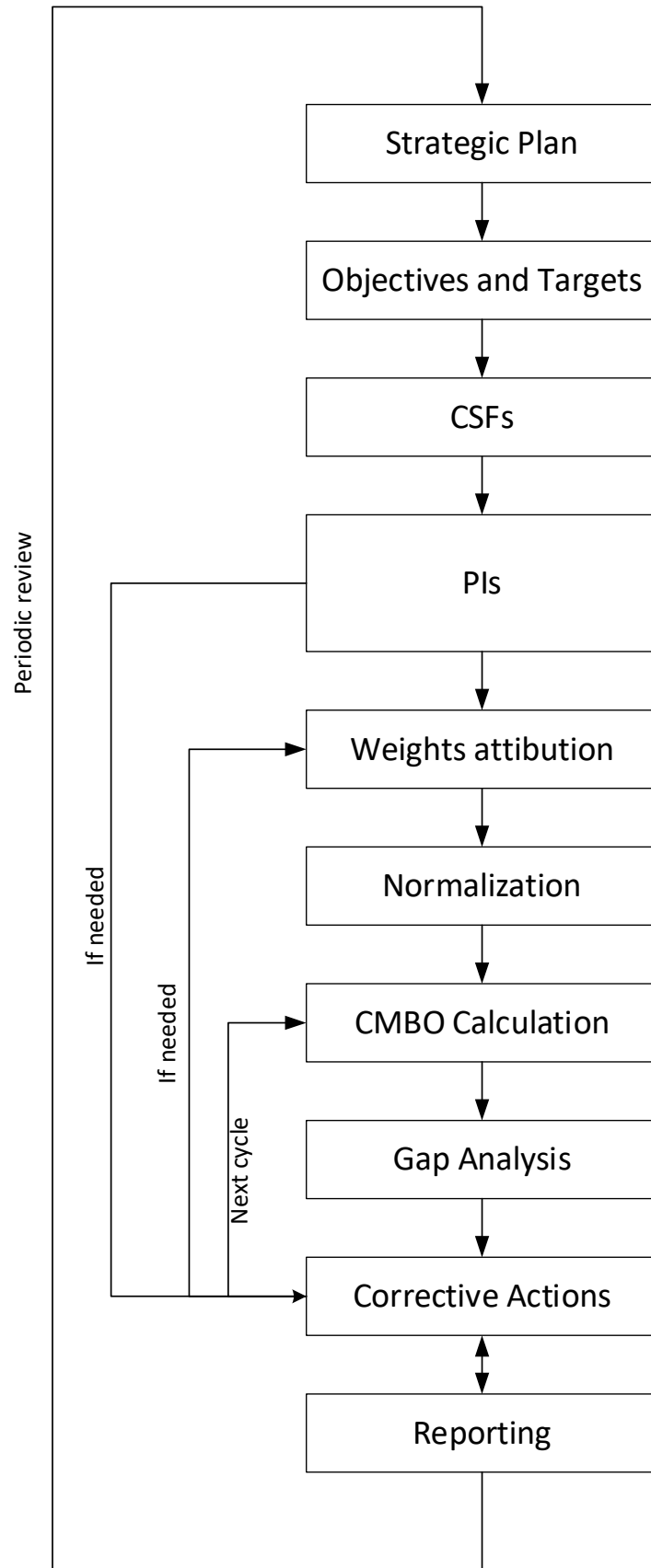


Figure 6: Block diagram of the CMBO methodology

## *CMBO steps*

**The first step is to define a list of objectives** or desired high-level goals – deriving from the strategic plan – that would answer the following backward and forward-focused questions: 1) How did we perform / how effective were we at some specific levels during a certain period? 2) What actions should we undertake to obtain the desired results during the following period? Those questions imply that one not only needs to know today's performance, strengths and weaknesses, but also be able to estimate tomorrow's performance by predicting the impact of strategic actions taken today. Desired results should be defined as well, for the purpose of comparing actual performance with those targets.

**The second step is to link each objective to its CSF and performance drivers** by answering the following question: What critical actions should be well performed in order to achieve the desired objective? What matters most to the attainment of the objective? For each objective, two to six critical action means or CSFs should be identified. One CSF can be used for different objectives.

**The third step is to link an adequate mix of PIs for each CSF.** Moreover, each Institution can develop for the same objective, an adapted mix of PIs with their respective weight depending on its priorities, individual needs, availability of data and the decision of the management. As different strategic themes will have different strategic targets and different PIs (Chen, Wang, & Yang, 2009), different CSFs (depending on the Institution's strategic goals), will have different mix of PIs (in number and nature).

**The fourth step is weight attribution to each indicator.** One indicator can be linked to several objectives/CSFs and have different weight attribution depending on its importance vis-à-vis the objective in the same Institution. Weight attribution and scale are defined and set by the Institution's management the same way the strategic plan is built. In our study we set the scale between a range of 1 to 3. When a PI has a weight of 3, it means that its influence on that particular CSF is high (or worth three times the influence of an indicator with a weight of 1) for that particular Institution.

**The fifth step is data normalization** in order to obtain values of PIs in the same scale. In fact, PIs can represent a percentage, a number of students, a money value or any other numerical result. To be able to aggregate such diverse data, it should be standardized before compounding. Normalization is the process of converting the data to a specific range between 0 and 1 (or between -1 and +1), it is required when there are big differences in the ranges of different results. This scaling method is useful when the data set is heterogenous which is the case in the model we propose. There are three normalization techniques: Z-score Normalization, Min-Max Normalization, and Normalization by decimal scaling (Muhammad Ali & Faraj, 2014). In our study we will apply the Min-Max Normalization by using a dataset through four consecutive years. The formula is:

$$x' = (x - \min(x)) / (\max(x) - \min(x))$$

where:

- $x'$ : is the value after normalization
- $x$ : is the value before normalization

- $\min(x)$ : is the minimum value in the dataset
- $\max(x)$ : is the maximum value in the dataset

To note that there are values – called cost criteria – that are desired when they decrease (for example cost per student or debt ratio), and other values that reflect a better performance when they increase – called benefit criteria – (such as profitability) (Vafaei, Ribeiro, & Camarinha-Matos, 2016). Therefore, the minimum/maximum values used in the normalization formula will rather reflect worst/best values. In other words, for cost criteria, the lower value will be the best value and replace the maximum value in the calculation.

**The sixth step is calculating one weighed value for each CSF: the CMBO.** These composite values hold information gathered from dozens of indicators, but instead of scrutinizing large numbers of PIs – which can be time-consuming, confusing and counterproductive –, this model allows a broad monitoring using just a few (but aggregate) measures.

**The last steps are gap analysis, reporting and corrective actions.** Gap analysis is the assessment of the current performance in order to identify differences (gaps) between the current results and the targeted ones. It helps to focus the resources and efforts on those identified areas in order to improve them. When analyzing those gaps, it is important to question the reasons of those gaps and identify the root causes before devising a plan to respond, improve and prevent; which brings us to reporting and implementation of corrective actions. Reporting is an important step in any PM system and yet, very few emphasize its importance and even less actually do it. While it is common for the top management or heads of units to receive a report or dashboard presenting the results of the PIs that are relevant to their position, other stakeholders are often left in the dark having only access to the data that can be found in public published reports. Students never know the results of the numerous surveys they are asked to fill. The same goes for faculty members (especially part timers), staff and employers. HE Institutions hardly publish the results of satisfaction surveys with a report stating what actions were taken following the study. It is crucial to demonstrate to stakeholders that corrective or preventive actions are taken in response to complaints or negative results and that the questionnaires and measurement system are used to truly help instill a culture of improvement and not only because they are required by some entity. The reporting framework must take into consideration the requirements of different levels in the Institution and the reporting frequency that supports timely decision making (daily, weekly, monthly, quarterly or annually). Moreover, since there are quite diverging perspectives among stakeholders, different backgrounds and knowledge, special attention is needed when communicating indicators' results. In fact, they can be easily misinterpreted or taken out of context. Therefore, additional data that provide just enough contextualized interpretation is important in order to minimize the risk of misinterpretation, confusion or unfounded comparisons. In fact, in the absence of a visible and understandable reference point for judging an indicator, different stakeholders will apply different standards. Any reporting framework should therefore clearly indicate the points for reference, targets, standards or thresholds to be considered. As for the presentation

format, many tools are available and their choice should be appropriate based on the complexity of the indicators, their nature, their frequency and the audience.

Figure 6 highlights the notion of a cycle in the CMBO steps. It is a continuous sequence that starts with objectives' definition (as a result of strategic planning), followed by CSFs identification, PIs allocation and calculation, comparison with defined targets or benchmarks, gaps evaluation, and ends with reporting and ensuing actions before updating objectives. To note that reporting can be done before or after corrective actions depending on the purpose of reporting. If it is to inform stakeholders for decision making, reporting comes before taking corrective actions. If it is to give feedback on any improvement undertaken or decision made following a performance assessment, reporting then comes after corrective actions.

### *Generic Example*

Taking the example of students' number as it is the epitome of PHEIs' objectives to have a continuous increase in the number of students, traditionally, students' number is thought to be related to the marketing and promotional activities undertaken by the Institution to attract new students. In case of insufficient recruitment, Institutions would try to correct the situation by investing a higher budget in marketing. If we look deeper, things are much more complicated.

In the CMBO approach, the first step is to properly define the objective. In this case it is to "increase students' number" and the target is by "x" points. Then, we move on to the second step that is to link the objective with the CSFs or performance drivers. To increase students' number the Institution should perform satisfactorily in two areas: recruitment and retention. In other words, students' number is directly related to the number of newly recruited and existing students or to the Institution's performance in both recruitment and retention. This performance is in turn, contingent to several factors that can be assessed through various indicators - with unequal importance - towards achieving the goal. Once the (normalized) indicators and their calculation period are selected by the Institution, the next step is weight attribution to each chosen indicator based on the Institution's own perception of importance and relevance. Following the calculation of the compounded indicator, corrective actions are to be launched based on the achieved results and the analysis of the gap vis-à-vis the predefined target.

It is important to point out that students' number is a CSF to other objectives for instance the profitability objective.

Below is a demonstration of the calculation. In chapter six, we will present an example based on a real case study:

Table 2. Generic example of a CMBO calculation

Strategic objective	CSF	Performance Indicators	Weight	
Increase students' number	Increase new students' recruitment	Marketing budget	3	
		Orientation and promotional activities	3	
		Academic partnerships	2	
		Satisfaction of faculty members	1	
		Community reach events	1	
		Alumni engagement	1	
		Applications to walk-in rate	2	
		Students' employability	3	
		Athletic success rate	1	
		Reputational survey score	3	
	Students' retention	Students' satisfaction survey score	3	
		Students' engagement	2	
		Drop-out rate	3	
		Returning rate	1	
		Referral of family and friends	2	
		Graduate pursuance	1	
		Students' absenteeism rate	2	
	CMBO	Score by (normalized) indicator x weight/Sum of weights		

It is indeed natural that a higher marketing budget and a higher number of orientation and promotional activities would likely attract more new students but when digging deeper, we notice that many other factors could play a major role in increasing students' number. Satisfied students tend to refer the Institution to family and friends, drop-out less, and enroll in graduate programs at the same Institution. Athletic success attracts a specific population, high employability rate and reputational surveys' score are the best marketing tool. The Institution might be successful at attracting students to walk-in and get information, but if the applications to walk-in rate is very low, it would suggest a problem in the admission office who is unable to convince students (or their parents) to take a step further and apply.

The result obtained for each indicator is multiplied by its weight and their total is then divided by the sum of weights. This is the CMBO of a particular Institution on a particular objective. The ensuing step is results appreciation, comparison with predefined targets (increase of "x" points) and interpretation. The closer the results are to the targets (meaning the fulfillment of the objective), the better the performance. The target can be past results, results of different departments, averages, or a rationally defined value (based on acceptable results or improvement percentages). Periods can vary according to the measure. It can cover a whole academic year, a term or a full three-year-cycle but it should be the same for all indicators related to the same objective. To note that in the case of CMBO, it is not possible to compare results to national or international benchmarks since the results are a compounded value that was customized by each individual Institution based on its priorities.

In case of undesirable gaps, corrective actions should be initiated in the areas where it is most needed based on the indicators' results. With time and experience, each Institution will develop a learning curve and gather historical values that will help in predicting the level of objectives' achievement. Institutions would be able to state that in order to have this level of increase in students' number, we should perform this well on those factors and achieve this level of results on the indicators.

### ***Updating CMBO***

It is advised to review some steps on a regular basis to adapt and update the objectives / CSFs on one hand and to adjust and revise the selection and weight of the PIs on another. In fact, after using the designed scheme, some users might feel the need to change, adapt or add components. In general, the following maintenance steps should be performed throughout the cycle:

- Reexamine the purpose of the performance measurement system regularly;
- Reexamine the effectiveness of the selected indicators (choice and weight) when interpreting the data after six or 12 months;
- Determine whether the exercise allowed a better understanding of the effectiveness of the Institution through different aspects, if not, adjust objectives, CSFs and PIs;
- Determine whether the environment or context (internal and / or external) have changed. Any effect on objectives or CSF, are reflected in a new set of indicators;
- Repeat this process at least once a year or whenever needed.



### 5.3.4 Originality of CMBO

The difference between the CMBO and other management and monitoring tools is that while they all start by setting objectives and end with related actions, the measures are often limited to one or two indicators related to one perspective. For instance, the KPIs report is a management tool that consists in a list of unrelated measures that help track one activity or one side of an activity. The BSC strategy on another hand, suggests that objectives are developed for each of the four perspectives, and PIs related to the same perspective are measured to assess how the Institution is doing on that level. According to Kaplan and Norton, each BSC perspective must have at least one target and no more than 15 indicators (Kaplan & Norton, 1992). Another example is the OKR (objectives and key results) framework, popularized by its use at Google. This critical thinking framework is designed to help organizations *create value through focus, alignment, and better communication* (Niven & Lamorte, 2016). It is used to define and track objectives and their outcomes. One objective with one to three key results. This performance tool sets, communicates, and monitors goals in an Institution, so that all employees are focused in the same direction, but it doesn't give an indication on the overall performance of the Institution as objectives cannot be complex, they should be short, simple and limited.

The novelty of the CMBO concept, is that management could set as many objectives or desired results as needed, then each objective is measured through a strategic mix of indicators measuring only what matters based on data previously gathered. If taken each one alone, each indicator would give a very narrow and limited knowledge, but when compounded, they can give a thorough multi-perspective information about where the Institution stands with regards to that objective or desired result. In this concept, the performance measures are already designed and linked to a target and the gap between those two figures indicates how far or close is the Institution from reaching the desired result. While all the PM systems advocate to limit the number of indicators used, CMBO supports the idea that the more there is a variety of (relevant) indicators, the more holistic, multidimensional and complete the evaluation would be, and consequently, the more accurate and contextualized the assessment would be. In fact, with the CMBO concept, the management can create as many combinations as needed with all available indicators, as long as it's meaningful and relates to the objective. For example, the indicator of class utilization is relevant when assessing the effectiveness of physical resources allocation, or when considering some financial aspects, but is irrelevant when assessing students' satisfaction or learning outcomes. The indicator of students' attendance can be relevant when assessing students' completion, satisfaction, engagement, learning, or even instructor's teaching performance but it doesn't relate to financial or research performance. Where and how an indicator will be used, is a reflection of the Institution's strategy, priorities and context. Also, depending on the type and size of the Institution, some measures are more important than others. For example, a public HE Institution might worry about graduation rate, students' diversity or access to underprivileged population while private HE Institution will be more concerned by students' retention or financial profitability.

In line with the purpose of demonstrating performance, accountability and transparency to stakeholders, the CMBO can be developed for each group of stakeholders alone, as the objectives of each group and sometimes even the desired targets can be quite different (refer to chapter five). Different stakeholders will regard different objectives or different indicators as particularly important. The Institution could develop for each stakeholder, its own set of objectives with corresponding PIs mix.

Each Institution makes its own judgements, defines its own mission, goals, objectives, CSFs, performance drivers, priorities and plans its own course of action. The proposed framework assists Institutions in evaluating the achievement of their own objectives and in assessing what matters most to them. It gives a useful structure and step-by-step procedures to implement a meaningful internal monitoring model while avoiding the most common risks associated with PM systems implementation (refer to chapter five 5.2.2) and enhancing the chance of its success.

Another useful outcome of the CMBO, is the possibility to directly evaluate the consequence of an implemented decision or action. Let us take the example of a central requirement imposed by the MEHE in Lebanon: Full-timers to students' ratio. This indicator is in fact used in assessing various CSFs (most probably as part of an accreditation standard), such as students' satisfaction or students' academic support. However, when the full-timers ratio is studied alone as an objective in itself (increasing the number of full-timers), the related CMBO is able to provide a deep knowledge of the impact of such an increase (or decrease) and give a better understanding of the consequences of implementing that decision. Increasing the number of full-timers would affect several topics and its impact can be monitored through dozens of indicators. To name a few: salaries ratio, research activity, cost per student, cost of teaching and research, students' academic support, profitability, faculty turnover, faculty absenteeism rate, gender distribution, academic qualification of full-time faculty members, rate of senior faculty members, full-timers satisfaction, etc. and the list goes on.

As far as reporting is concerned, it is also up to each and every Institution to choose the most suitable reporting forms and reporting periods from the options entered on the platform. Some objectives need constant monitoring and some others can be checked once a year. For example, registration and retention numbers would need to be monitored daily during registration period, whereas students' learning outcomes can be assessed yearly.

## **5.4 The database**

A list of PIs was gathered from the literature. They can be used in HE as tools for academic management, internal improvement and accountability. Some are commonly used by HEI Institutions and some others were retrieved from the literature, to name a few references: (Mati, 2018), (OECD, 2010), (Asif & Searcy, 2014), (Koorts, 2005), (Tee, 2016), (Ball & Halwachi, 1987), (Barker K. C., 2003), (Chen, Wang, & Yang, 2009), (Ballard, 2013), (Meek & Lee, 2005), (Ewell & Jones, 1996). We have also added several other indicators that are thought to be relevant in assessing additional aspects of a HE Institution's activities whether related to finance, administration, teaching, research or

external relations. These PIs constitute a databank of input, process, output and outcome measures that can be used by any HE Institution to assess or monitor its performance for internal improvement or for accreditation purposes. While it has been developed to be used as a catalog of indicators linked to the calculation of CMBO, it is totally possible to serve as a reference or guide for establishing an appropriate monitoring system using indicators all listed in one place with their calculation method.

For reading facility, the PIs are listed by category, although this classification doesn't matter when calculating the CMBO and some indicators could be considered appropriate to more than one category:

- Finance
- Operations
- Students
- Human resources
- Physical resources
- Teaching and learning
- Research
- Reputation and external relations
- Alumni

Table 3 below lists the indicators along with their calculation method. The database in appendix H includes a description and purpose for each indicator as well as its possible variation. The variation column specifies a different grouping method such as subject area, degree level, faculty, department, etc. depending on the need of the Institution, its size, as well as the meaning and scope given to the indicator.

It was recommended by David Parmenter that Institutions mention several details for each PI, according to their individual needs. Based on his list, we propose the below information:

- Name of the Performance Indicator
- Use/utility of the PI
- Calculation and unit of measurement
- Type of PI (KRI, PI or KPI)
- Nature of PI (financial. Non-financial, strategic, operational, etc.)
- Person responsible of the PI's calculation and interpretation. Multiple actors can be asked to report on the same variable to lessen subjectivity
- Source of information
- Recommended display
- Frequency of measurement
- Linkage to the CSF/linked objectives
- Suggested target/benchmark
- Previous result
- Gap actual versus target
- Constraints/limits
- Corrective actions / control variables (Parmenter, 2007)

The 290 proposed indicators are ready to be used, cover all dimensions of HE, which makes them practical to be adopted by a large scale of Institutions, and can be automated.

*Table 3. List of performance indicators and calculation formula*

<b>Indicator</b>	<b>Calculation</b>
<b><u>Financial Indicators</u></b>	
Profitability	Net profit/Total income
Operational profitability	Operational result or EBITDA/Total income
Return on Investment	Net profit/Cost of investment
Net return on equity	Net profit/Total equity
Salaries ratio	Total salaries + benefits/Total income
Academic salaries ratio	Total salaries of faculty members + benefits/Total income
Full-timers salaries ratio	Total salaries of full-time faculty members + benefits/Total income
Part-timers salaries ratio	Total salaries of part-time faculty members /Total income
Reserves	Total amount of reserves/Total assets
Financial Aid or scholarship grants ratio	Total financial aid value/Total income ----- Number of students benefiting from financial aid/Total number of students
Revenue diversity	Number of income categories with a share above the minimal threshold (to be specified by the Institution, for e.g.,10%)
Income from tuition fees	Total income from tuition fees/ Total income
Income from research projects	Total income from research/Total income
ROI from research projects	Total income from research/Total research investment
Income from consultancy work/patents (with the industry or the government)	Total income from consultancy and patents/Total income

<b>Indicator</b>	<b>Calculation</b>
Donations or Fundraising income	Total income from donations and or fundraising/ Total income
Non-academic expenditures	Total non-academic expenditures/Total expenditures
Maintenance expenditures	Total maintenance expenditures/ Total expenditures
Library, IT expenditure, students' services	Total cost of library, IT and students' services/Total income
Expenditures gap / budget	(Total actual expenditures – Total budgeted expenditures)/Total budgeted expenditures
FTE (Full Time Equivalent)	Total number of credits sold/Maximum credits allowed for full-time load
Total spending per full-time student or Cost per graduate	Total expenditures/ FTE
Administrative spending per full-time student	Total administrative expenditures/ FTE
Total teaching and research cost per student	Total teaching and research cost/FTE
Recruitment cost per student (cost of enrollment)	Total recruitment cost (orientation, admission, advertising, marketing, schools visits) /Number of new students enrolled in a particular semester
Cost of walk-in	Total recruitment cost (admissions, orientation, advertising, marketing, schools visits, etc.)/Number of walk-in students prior to a particular semester
Students' payment ageing (in days)	Total students' balances (due and undue)/total tuition fees x 360
Unpaid balances to revenues	Total students' unpaid balances/Total tuition fees
Average academic salary	Sum of full-time faculty members' salaries/Number of faculty members
Average staff salary	Sum of staff salaries/Number of staff
Tuition fees to median family income	Average tuition fees of the Institution/ Country median income

<b>Indicator</b>	<b>Calculation</b>
Average tuition fees per student	Total income from tuition fees/FTE -----
Average credit fee	Total income from tuition fees /Total number of credits sold
Liabilities to assets ratio or Debt ratio	Total amount of liabilities/Total assets
Debt to equity ratio	Total amount of liabilities/Net equity
Interest Coverage Ratio	Operating income (or EBIT) / Interest expense
Liquidity	Current ratio = Current assets (cash, accounts receivable, and inventories)/ Current liabilities ----- Quick ratio = (Current assets – Inventories) / Current liabilities ----- Cash and cash equivalent/ Current liabilities
Working capital ratio	Current assets – Current liabilities
Research budget	Total research budget/Total budget
Community service budget	Total community service budget/Total budget
<b><u>Operational Indicators</u></b>	
Classroom time utilization	Total hours a classroom is scheduled/Total hours the classroom is available
Seat utilization	Number of seats occupied in the classroom when the class is in use / Total number of seats ----- Total number of students/Total number of classrooms
Average number of students per course	Total number of students/Total number of courses
Space utilization to course capacity rate	Number of students enrolled in a course/ Course capacity
Small classes ratio	Number of small classes (under x students)/Total number of classes

<b>Indicator</b>	<b>Calculation</b>
Large classes ratio	Number of large classes (over x students)/Total number of classes
Staff turnover	Total number of staff leavers per year/ Number of staff in that year
Full-time faculty members' turnover	Total number of Full-timers leavers per year/ Number of Full-timers in that year
Part-timer faculty members' turnover	Total number of Part-timers leavers per year/ Number of Part-timers in that year
Average registered credits per student	Total number of credits sold/Total number of students
Average number of courses per student	Total number of courses sold/Total number of students
Non-conformities rate	Number of non-conformities recorded during a period of time
Petitions rate	Number of petitions recorded during a period of time
Outcome of petitions	Number of positive decisions taken/Total number of petitions
Outcome of Exams' re-correction	Number of exams that get a higher grade when corrected a second time following an appeal/Number of appeals
Reoccurrence of non-conformities	Number of recurrent non-conformities/ Total number of non-conformities
Retention rate	Number of students from a given Fall semester who remain enrolled in the following Fall semester/ Number of students in the previous Fall semester
Retention rate 1 <sup>st</sup> year to third	Number of students from year 1 who remain enrolled in year 3/Number of students in year 1
Enrollment per accepted rate	Number of students who enroll/Number of students who were accepted
Accepted per applications rate	Number of admitted (accepted) students/ Number of applications

<b>Indicator</b>	<b>Calculation</b>
Applications to Walk-ins rate	Number of students who applied/Number of walk-in students
Market share of undergrad applications (by program)	Number of undergrad enrollments in a particular program/Total number of undergrads enrolled in the same program at the national level
Dropout rate (or wastage rate in UK)	Number of “leavers” during a period of time/Total number of students who are still enrolled
Returning rate	Number of students who returned after dropping-out/Total number of new students who enrolled OR Total number of drop-outs
Transfer rate	Number of students who transferred from another HE Institution/Total number of new students who enrolled
Walk-in to number of visited schools	Number of walk-in students from visited schools/Number of visited schools
Walk-in from visited schools	Number of walk-in students from visited schools/Total number of walk-ins
Unavailability of courses or number of closed courses	Number of unavailable courses/Total number of courses in the course offering  ----- Number of closed courses/Total number of courses in the course offering
Missed deadlines	Number of missed deadlines by staff or faculty members over a period of time
<b><u>Students Indicators</u></b>	
Students’ satisfaction with non-academic services	Total questionnaires points on non-academic services/Total number of points of non-academic services
Students’ satisfaction with teaching and learning	Total questionnaires points on academic services/Total number of points of academic nature
Overall students’ satisfaction	Total questionnaires points /Maximum number of points
Average course rating	Sum of courses’ ratings/Maximum number of points in courses’ ratings



<b>Indicator</b>	<b>Calculation</b>
Referral of siblings and friends	Number of new students referred by (current or graduate) students/Total number of new students
Average admission scores	Sum of admission scores/Total number of students who sat for the admission exam
Admission basis or entry qualifications	Number of students admitted on the same basis/Total number of admitted students
Type of school	Number of students admitted from public schools/Total number of admitted students ----- Number of students admitted from private schools/Total number of admitted students
School region	Number of admitted students from a specific region/Total number of admitted students
International students	Number of international students enrolled in a specific semester/Total number of enrolled students in that semester
Average petitions process time	Total time needed to process all the petitions/ Total number of petitions
Students' participation rate (by event)	Number of students who participated in a given event/Total number of students
Students' representation	Number of students who participated in councils, curriculum development and quality efforts/Total number of students
Students' social responsibility	Participation rate in socially responsible activities and endeavors
Incident forms rate	Number of incident forms filled during a recorded period of time
Students' absenteeism/ attendance rate	Average number of absences recorded on all sessions / Number of students enrolled ----- Average number of attendances recorded on all sessions / Number of students enrolled
Students' class participation	Sum of participation grades for all students in a particular class/Total number of students enrolled in that class

<b>Indicator</b>	<b>Calculation</b>
	----- Average participation grades for the whole Institution
Students' diversity	Number of enrolled students from a minority group/Total number of students enrolled
Faculty's diversity	Number of employed faculty members from a minority group/Total number of faculty members
Students' access from underprivileged groups	Number of students from underprivileged groups/Total number of students
Students' completion or graduation rate	Number of students who completed their program within a normal time to completion/(Adjusted) Number of students in the same cohort (adjusted = excluding part-time, non-degree and transfer students)
Students' administrative support	Actual hours of encounter with the SAO/Total presence hours of SAO
Students' academic support	Actual hours of encounter with the academic advisor/Total presence hours of advisor
<b><u>Human Resources</u></b>	
Professional qualifications of Full-Timers	Sum of years of relevant professional experience for all full timers/Total number of full timers
Professional qualifications of Part-Timers	Sum of years of relevant professional experience for all part timers/Total number of part timers
Academic qualifications of Full-Timers	Sum of years of relevant academic experience for all full timers/Total number of full timers
Academic qualifications of Part-Timers	Sum of years of relevant academic experience for all part timers/Total number of part timers
Academic level of faculty members	Number of PhD holders among all faculty members/Total number of faculty members  ----- Number of faculty members holding the highest degree in their field/ Total number of faculty members

<b>Indicator</b>	<b>Calculation</b>
Academic level of Full-Timers	Number of PhD holders among full-time faculty members/Total number of full-time faculty members
Academic level of Part-Timers	Number of PhD holders among part time faculty members/Total number of part time faculty members
Gender distribution	Number of female faculty members and staff/Total number of faculty members and staff
Memberships, prizes, medals of learned societies	Number of faculty members who are members/who earned a prize from a learned society/Total number of faculty members
Faculty teaching workload	Sum of faculty teaching workload/Total faculty workload (by hours or by credits)
Faculty research workload	Sum of faculty research workload/Total faculty workload (by hours or credits)
Rate of senior faculty members	Number of senior faculty members/ Total number of faculty members
Average working years of faculty members within the Institution	Sum of working years of all faculty members within the Institution/Total number of faculty members
Staff average working years within the Institution	Sum of working years of all staff within the Institution/Total number of staff
Faculty retention rate	Number of faculty members who remained employed during a period / Total number of faculty members at the end of the period
Staff retention rate	Number of staff who remained employed during a period / Total number of staff at the end of the period
ROI on mobility programs	Value of benefits – Cost of program (Design + development + duplication + delivery + support)/Cost of program
Full time faculty members' engagement	Number of participations to optional projects (conferences, events, development endeavors, etc.)/Total number of full-timers
Staff engagement	Same as above

<b>Indicator</b>	<b>Calculation</b>
Students to faculty members (full time and part time)	Number of students/Total number of faculty members
Students to full-timers	Number of students/Total number of full-time faculty members
Students to staff ratio	Number of students/Total number of staff
Average hours spent with students outside class	Total number of office hours spent in contact with a student/Total number of available office hours
Full time faculty members' satisfaction	Customer satisfaction score = Sum of satisfaction points /Total number of questionnaires filled by full time faculty members  ----- Actual total score value / Maximum possible value
Part time faculty members' satisfaction	Same as above
Staff satisfaction	Same as above
Professional development of full-time faculty members	Participation* to professional development programs/Total number of full-time faculty members  *By number of programs or number of training hours
Professional development of part-time faculty members	Participation to professional development programs/Total number of part time faculty members
Professional development of staff	Participation to professional development programs/Total number of staff
Reward and recognition system for faculty members	Number of rewards delivered during a specific period/Total number of faculty members
<b><u>Physical Resources Indicators</u></b>	
Sufficiency of Library resources	Number of library resources  -----
Books to students ratio	Number of resources/Total number of students
Diversity of library resources	Number of subject areas covered

<b>Indicator</b>	<b>Calculation</b>
	----- Number of resources by subject area
Age of library resources	Sum of publishing dates of all resources/Total number of resources
Library budget	Library budget/Total Institutional budget
Use of library resources by Full-Timers	Number of borrowed resources by full time faculty members/Total number of full- time faculty members
Use of library resources by Part-Timers	Number of borrowed resources by part-time faculty members/Total number of part time faculty members
Use of library resources by students	Number of borrowed resources by students/Total number of students
Time spent at the library by students	Sum of hours spent at the library by students/Total number of students
Renewal rate of resources	Number of new resources purchased every year/Total number of resources
Satisfaction rate of students with campus facilities	Sum of questionnaires points on campus facilities/Maximum number of points related to campus facilities
Satisfaction rate of faculty members and staff with campus facilities	Sum of questionnaires points on campus facilities/Maximum number of points related to campus facilities
OHS hazards	Number of OHS incidents in a recorded period of time
Assets depreciation rate	Net value of fixed assets/Total gross value of fixed assets  ----- Accumulated depreciation/Total gross value of fixed assets
Average space per student	Total students' space in sqm/Total number of students
Average office space per staff and faculty members	Total office space in sqm/Total number of faculty and staff

<b>Indicator</b>	<b>Calculation</b>
Classrooms to students' ratio ----- Laboratories to students' ratio ----- Computers to students' ratio	Number of classrooms/laboratories/Computers/Number of students
<b><u>Teaching and learning Indicators</u></b>	
Average GPA by program	Sum of all students' GPA enrolled in a specific program/Total number of students in that program
Average grades by Faculty member	Sum of students' grades given by a faculty member during a given period /Total number of those students
AW rate by course	Number of AW grades given on a particular course/Total number of students enrolled in that course
AW rate by student	Number of AW grades obtained by a student till date/Total number of courses taken till date
AW rate by Faculty member	Number of AW grades by faculty member / Number of students taught by the faculty member
W rate by course	Number of W grades given on a particular course/Number of students enrolled in that course
W rate by student	Number of W grades obtained by a student till date/ Total number of courses taken till date
W rate by Faculty member	Number of W grades awarded by a faculty member / Number of students taught
Fail rate by course	Number of students with a failing grade on a particular course/Number of students in that course
Fail rate by student	Number of failing grades obtained by a student till date/ Total number of courses taken till date
Fail rate by program	Sum of fail rate by course for all courses of a specific program/Total number of courses in that program
Fail rate by faculty member	Sum of failing grades awarded by a faculty member/Number of students taught

<b>Indicator</b>	<b>Calculation</b>
Average grades by course	Sum of all grades of a certain course/Total number of students enrolled in that course
Average grades by program	Sum of all averages of courses related to a program/Total number of courses in that program
Average grades by Faculty member	Sum of all grades awarded by a faculty member/Total number of students taught by that faculty member
Probation rate by program	Number of students on probation in a certain program at a certain time/Total number of students enrolled in that program
Overall probation rate	Number of students on probation at a specific time/Total number of students
Dismissal rate by program	Number of dismissed students enrolled in a specific program during an academic year /Total number of students enrolled in that program
Overall dismissal rate	Number of students dismissed during an academic year/Total number of students
Course evaluation grade	Sum of the evaluation points/Maximum evaluation points
Faculty member evaluation grade	Sum of the evaluation points related to the faculty member/Maximum number of related points
Approaches to Teaching Inventory	Variance between student-oriented approach and teacher-oriented approach
Licensure exams passing rate	Number of students who succeeded in licensure exams/Total number of students who sat for the exams
Average graduation time by program	Sum of elapsed time (number of semesters) between first enrollment to graduation for a graduating cohort in a specific program/Total number of students in that cohort
Overall average graduation time or time-to-graduation	Sum of elapsed time (number of semesters) between first enrollment to graduation for a graduating cohort/Total number of students in that cohort

<b>Indicator</b>	<b>Calculation</b>
Learning objectives completion rate by course	Completed learning objectives of the course/Intended learning objectives of the course
Program evaluation	Sum of exit questionnaire points filled by graduating students/Maximum number of points
Students' assessment methods	Sum of assessment methods for all courses/Total number of courses
Average out-of-class workload by course	Sum of hours of out-of-class work for students enrolled in a particular course/Total number of students enrolled in that course
Weight of major courses in the program	Total number of credits related to major courses/Total number of credits in the program
Weight of practical courses in the program	Total number of credits related to lab and internships/Total number of credits in the program
Internship learning outcomes completion by internship	Completed learning objectives of the internship/Intended learning objectives of the internship
Students' assessment conformity	Number of conform assessments/ Total number of assessments
Cheating and plagiarism rate	Number of cheating and plagiarism attempts during an academic year
Curricula development frequency	Number of meaningful changes brought to the Institution's curricula during an academic year ----- Number of changes done to a curriculum over the last five years
Courses review	Number of courses that underwent meaningful changes during an academic year
<b><u>Research Indicators</u></b>	
Research productivity by Faculty member	Number of publications done by a faculty member during three academic years -----
Average research productivity of faculty members	Sum of research productivity of all faculty members/Total number of faculty members



<b>Indicator</b>	<b>Calculation</b>
Bibliometrics	<p>Number of citations per faculty member (over a five-year period)</p> <p>-----</p> <p>Number of faculty members with an h-index of x (to be determined by the Institution)</p> <p>-----</p> <p>Total number of citations received by all papers produced by the Institution across a five-year period / Number of faculty members at that Institution</p> <p>-----</p> <p>Number of citations that meet or exceed field world average / Total number of citations</p> <p>-----</p> <p>Number of faculty members cited in the top percentile publications</p> <p>-----</p> <p>Number of faculty members who published in journals with a high impact factor (to be determined by the Institution)</p>
Peer review accuracy	Gap between peer review feedback and post-funding citation output using Boolean output (where 1 refers to a positive peer-review and adequate citation output OR negative peer-review and inadequate citation output)
Research contracts	Number of research contracts signed by the Institution over a set period of time
Research grants	Number of grants received over a set period of time
Research income	Amount of research funds received
University research activity	Total number of publications during three academic years
Patents/spin-offs	Number of approved patents/spin-offs during three academic years
Honors and distinctions	Number of honors awarded to faculty members during a recorded period

<b>Indicator</b>	<b>Calculation</b>
Editorship of journals or peer-review	Number of faculty members who edit or review journal articles ----- Number of faculty members who edit or review journals/Total number of faculty members
Altmetrics	Altmetric Attention Score by faculty member
Joint research projects	Number of joint projects initiated during a specific time frame
Reward and recognition system for quality research	Number of faculty members who were rewarded during a recorded period of time
Master Research students	Number of students enrolled in a Master of research program
PhD Research students	Number of students enrolled in a PhD program -----
PhD degrees completion rate	Number of students who were awarded the degree/Total number of enrolled students
Students' publications or students involved in faculty research	Number of students who published during or at the end of their studies
Dispersal of research	Number of PIs related to research with a positive return/Total number of PIs related to research
Attendance to conferences, scientific meetings, workshops and seminars	Total attendance of faculty members to scientific conferences and seminars during a specific period of time
<b><u>External and reputation Indicators</u></b>	
Students' employability or First destination of graduates	Number of students who find an "adequate" job within six months from graduation in a related field/Total number of graduating students
Corrected employability rate	Number of students who are effectively looking for a full-time job and who have found one within six months from graduation/Total number of students who graduated
Employment resulting from an internship	Number of students who were hired following an internship/Total number of students who attended an internship

<b>Indicator</b>	<b>Calculation</b>
Average starting salary	Sum of salaries of first-time employed graduates/Total number of first-time employed graduates
Reputational survey	Sum of surveys' points/Maximum number of points
Employers' satisfaction rate	Sum of employers' satisfaction points /Maximum number of points
Internship fields satisfaction rate	Sum of internship fields' satisfaction points /Maximum number of points
Athletic success rate	Number of meaningful athletic successes/ Total number of attempts
University Social responsibility	<p>Number of activities that promote and sustain culture during a specific period</p> <p>-----</p> <p>Number of social involvements that provide access for all social categories</p> <p>-----</p> <p>Number of activities that promote health and health education</p> <p>-----</p> <p>Number of activities that promote knowledge-transfer to less fortunate communities</p> <p>-----</p> <p>Number of activities related to human rights</p> <p>-----</p> <p>Number of development and continuing education programs addressed to the public (involvement in regional skills)</p>
Community perception	Sum of points of the community perception survey/Maximum number of points
Community services	Number of outreach programs with the community
Partnerships with the industry	Number of effective partnerships with the industry
Involvement of employers in curriculum development	Number of changes brought to a curriculum following an employer's suggestion during a period of time

<b>Indicator</b>	<b>Calculation</b>
Academic partnerships	Number of effective academic partnerships ----- Number of joint research programs with partner Institutions ----- Number of international exchange students – incoming ----- Number of international exchange students – outgoing ----- Number of international faculty exchange – incoming ----- Number of international faculty exchange – outgoing
Partnerships with professional bodies	Number of effective partnerships with professional bodies ----- Number of programs or trainings offered in partnership with professional bodies
Partnership with councils for scientific research	Number of partnerships with councils for scientific research
Continuing Education Programs	Number of CEPs held during an academic year
CEPs participation rate	Total number of participants in CEPs/Total number of CEPs held
ROI of the degree	Total financial benefits of the degree over 20 years/Cost of earning a degree
Alumni participation rate	Number of graduates who joined the alumni/Total number of (living) graduates
Alumni diversity	Number of alumni members who are part of a minority group/Total number of alumni members
Alumni engagement	Number of interactions done by alumni members over a period of time

Indicator	Calculation
Alumni donations	<p>Amount of alumni donations per academic year</p> <p>-----</p> <p>Amount of alumni donations per academic year/Total income of the year</p> <p>-----</p> <p>Amount of alumni donations per academic year/Total budget of the year</p>
Alumni satisfaction	Sum of satisfaction questionnaire points/Maximum number of points
Alumni average salaries	Sum of alumni salaries/Total number of alumni
Alumni employers' profile	Number of alumni members employed by leaders in a major company or leader in the field/Total number of alumni members
Alumni entrepreneurship	Number of alumni who are entrepreneurs/ Total number of alumni members
Alumni positions by level	Number of alumni by job level / Total number of alumni members
Litigations and lawsuits	Number of ongoing litigations and lawsuits during an academic year
Sustainable development	<p>Institutions' environmental impact (waste and energy consumption, recycling activities) = Number of actions that limit ecological damage and green campus building during a recorded period of time</p> <p>-----</p> <p>Institutions' carbon footprint during a recorded period of time</p> <p>-----</p> <p>Number of times where the campus facilities were made available for local communities during a recorded period of time</p> <p>-----</p> <p>Number of SD actions and awareness campaigns during a recorded period of time</p> <p>-----</p>

Indicator	Calculation
	<p>Number of actions that reduce development disparities during a recorded period of time</p> <p>-----</p> <p>Number of public health-related actions during a recorded period of time</p> <p>-----</p> <p>Institutional budget dedicated to SD efforts/Total institutional budget</p> <p>-----</p> <p>Number of outreach programs and trainings engaging the community, surrounding schools, and underprivileged groups that promote sustainability during a recorded period of time</p> <p>-----</p> <p>Number of joint research programs with other Institutions on SD</p> <p>-----</p> <p>Number of faculty members, staff, students trained on environmental issues</p> <p>-----</p> <p>Number of programs or courses in the curriculum, covering the topic of SD</p> <p>-----</p> <p>Number of research projects dealing with SD issues</p>
Economic development and engagement	<p>Number of rewards and incentive programs delivered to faculty members and staff that encourage innovative teaching; community-engaged research; patenting and commercialization of discoveries; any form of innovation in solving economic, policy, or social problems; creative works</p> <p>-----</p> <p>Implementation of newly developed ecosystems</p> <p>-----</p> <p>Number of adapted courses or programs based on community needs</p> <p>-----</p>

Indicator	Calculation
	Number of health-related endeavors ----- Number of lifelong-learning programs ----- Number of lifelong learners enrolled in programs during a recorded period of time ----- <u>Amount of scholarships given to students</u>
Media Favorability Index (MFI)	Number of positive messages / Number of negative messages
Media budget	Media budget/Total institutional budget
Media mentions	Number of media mentions during a period of time
Share of Voice	Institution's number of publications / Total number of publications in the HE market ----- Number of mentions of the Institution's name/Total number of HE Institutions' mentions ----- Institution's impressions / Total eligible impressions
Web traffic	Report from the web analytics report
Search Engine Optimization ROI	$(\text{Value of Conversions} - \text{Cost of Investment}) / \text{Cost of Investment}$
Backlinks	Number of backlinks during a period of time
Conversion rate	Number of targeted events that have been successfully completed / Total number of such events
Net Promoter Score	Percentage of promoters - percentage of detractors
Social Media Engagement	Number of fans "talking about" retrieved from the social media account
Community growth	Number of followers or fans -----

Indicator	Calculation
	Number of followers or fans at end of period - Number of followers or fans at beginning of period/ Number of followers or fans at beginning of period
Impressions / Reach	Impressions/Frequency  Both values can be retrieved from the reports of online marketing
Click-through rate	Total number of clicks /Total number of impressions x 100

## 5.5 Conclusion

In this chapter it was established that PM systems used in HE are mainly industry-imported systems and that the main PIs used in HE are limited and do not reflect a comprehensive image of an Institution's performance. Based on the need to have an adapted context-related system, an innovative PM system was proposed, taking into consideration the HE Institution's mission, strategic objectives, priorities and context. It can be used for both internal monitoring and accreditation efforts. The four business models that shaped the proposed system were presented followed by a step-by-step process on how to implement and use CMBO in HE. The novelty of the CMBO was presented, emphasizing on the adaptability and flexibility of the system on one hand, and its broadness on another hand. Next, a database of 290 PIs was proposed, covering input, output, process and outcome measures, along with their calculation method, ready to be used within the CMBO system or alone.



# Chapter 6 – Application of the Performance Evaluation scheme to a Lebanese Private Higher Education Institution

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## 6.1 Introduction

The final part of this work is the validation of the proposed method by application on a PHEI in Lebanon: the Lebanese German University (LGU). After presenting the CMBO method and framework and providing an extensive list of possible PIs to be used in HE, we will attempt to provide a practical application of the system in order to validate its viability and utility.

This chapter starts with an overview of LGU before applying the CMBO system on several objectives set by the Institution. In order to demonstrate the dual value of the method in assessing performance and serving as a monitoring tool for accreditation, the CMBO was calculated for one strategic objective based on the Institution's strategic plan as well as for four selected accreditation standards retrieved from various accreditation bodies; the American NECHE, French Hcéres and British QAA. The chosen standards were set according to the strategic plan, priorities and needs of the Institution.

It is important to note that this exercise would bring the most benefit when performed over several years in the purpose of creating a virtuous cycle that starts with identifying trends, setting targets, followed by monitoring gaps, proposing corrective actions and ending with assessing the outcome of those actions before starting the cycle all over again. The COVID-19 pandemic years that marked my PhD journey greatly affected the foundation of teaching, learning and research worldwide and profoundly disrupted the HE environment (Purcell & Lumbreras, 2021). In fact, priorities shifted for both Institutions and students, budgets and standards are challenged, even the concept of quality took a whole other dimension. While everyone was discussing the impact of COVID-19 on health, society and economy, drastic changes were also taking place in the HE sector. These transformations (and innovations) have unequally disturbed the leadership, strategies, financials, operations and performance of HE Institutions.

LGU was not spared by these changes and responded to the crisis by shifting to online and later-on to blended learning, relying more on social networks, limiting research activities and focusing more on students' support and personalized assistance. However, in Lebanon, the pandemic was coupled with an unprecedented economic and financial crisis that left people and Institutions on the verge of collapse. Since end of 2019, Lebanon is enduring a humanitarian catastrophe created by a financial meltdown. The World Bank has called it one of the worst financial crises in centuries. The local currency lost 20 times its value against the US dollar, poverty rate hit 82% of the population end of 2021 (ESCWA, 2021).

In view of the situation, it was deemed irrelevant to collect data over two or more years in order to establish a trend, assess the outcome of the decisions taken, and create an improvement cycle. Moreover, most values were not available after year 2019-2020, the last academic year before the pandemic and Lebanese crisis set in. Historical values couldn't be compared to present values and performance criteria changed drastically. Therefore, we were only able to measure the CMBO for one objective over four consecutive years, knowing that values after 2019-2020 don't fully reflect a normal activity.

## 6.2 Overview of the Lebanese German University

The Lebanese German University is a HE Institution operating in Lebanon and promoting German methods, discipline, openness, and integrity at all levels. LGU is a small size university, founded in 2008 by the Lebanese-German Association for the promotion of Culture (ALAC), a non-profit NGO. LGU was created on the bases of German example of relentless endeavor to advocate first-class learning in its three faculties: Faculty of Public Health, Faculty of Business and Insurance and Faculty of Arts and Education. LGU delivers Bachelor and Master degrees as well as one doctorate degree in Physical Therapy. Some majors are unique in Lebanon (such as the Bachelor of Science in Insurance) and some others are one of the oldest in Lebanon (such as the physical therapy and nursing) making LGU a reference in those fields.

### 6.2.1 Mission Statement

The mission of LGU is to uphold economic, social, cultural, and environmental progress for the Lebanese community. This mission is achieved by producing graduates competitive in the global economy, supporting a continuous search for new knowledge and solutions, and maintaining a rigorous focus on academic and research excellence. LGU aims to:

- Promote an environment that welcomes women and men of all races, religions, nationalities, beliefs, and cultures;
- Advance an atmosphere that values intellectual curiosity, the pursuit of knowledge, and academic freedom and integrity;
- Uphold a professional education that enables graduates to compete in a diverse world market;
- Foster interaction among faculty and students characterized by critical thinking, ethics, and values;
- Offer a wide variety of off-campus educational and training programs to individuals and groups as part of a life-long learning process;
- Partner with different communities to provide educational, technical, and cultural support to boost the well-being of those communities;
- Partner with the business world and governmental agencies to improve the quality of the workplace and serve as an engine for economic and cultural development;
- Contribute to improving the Lebanese quality of life, protecting the environment, promoting the well-being of families, and conserving natural resource;

### 6.2.2 History

Back in the 1970s, a group of Germans residing in Lebanon founded a non-profit NGO with the help of Lebanese friends in view of promoting and developing cultural and educational exchange between Europe and the Middle East – more particularly between Germany or other German-speaking countries and Lebanon, which is the heart of higher education in the region. Today the Lebanese German University is the outcome of a 35-year

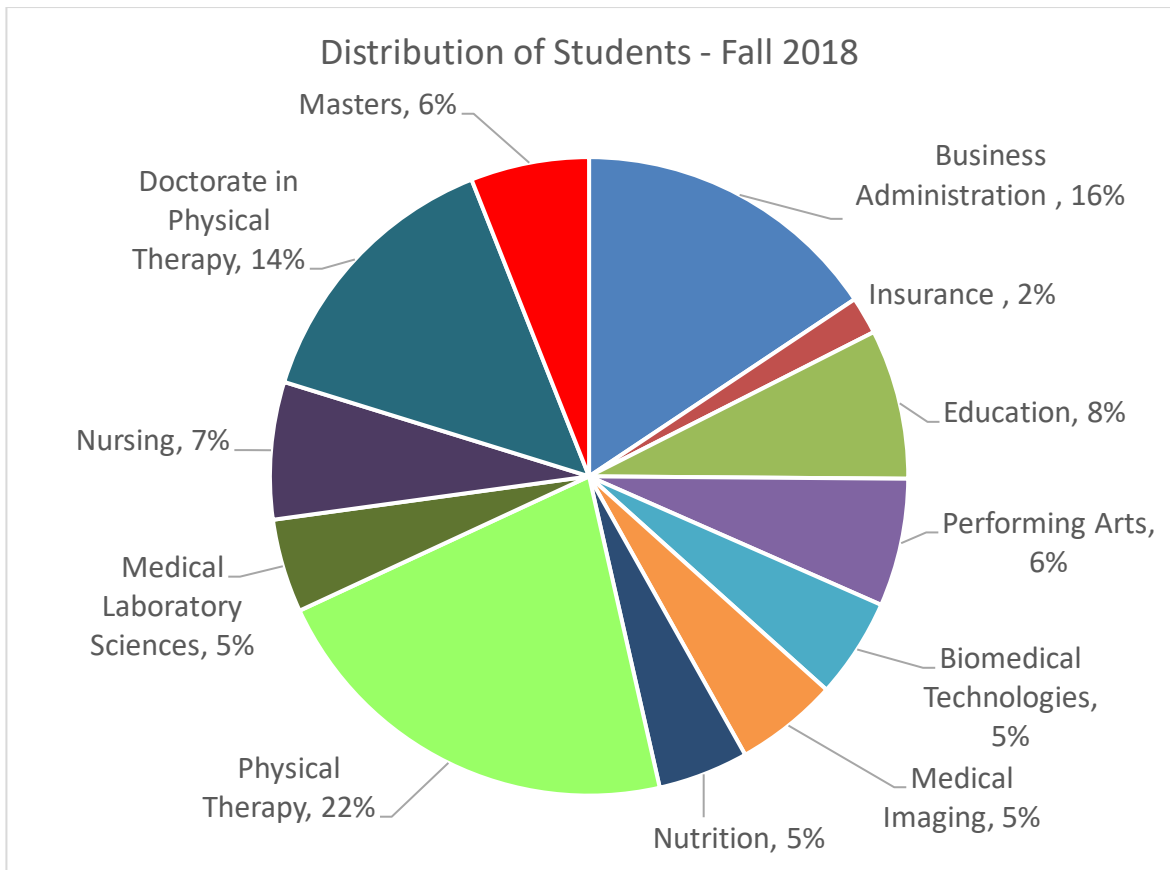
journey in education that started when the Association and its Chairman, Doctor Faouzi ADAIMI, set out on their long mission:

- In 1974, the Association founded the Technical Institute of Paramedical Sciences (TIPS). As an institute of higher education, TIPS has graduated more than 2500 students in the field of healthcare and is renowned for being one of the most acknowledged institutions of higher education in Lebanon and one of the oldest teaching healthcare at this level;
- In 1986, despite the difficult warfare conditions Lebanon was going through, the German School was established for primary up to high school levels. This reputable establishment has since witnessed growing popularity in view of its multi-linguistic approach which has offered all its students the advantage of mastering 3 languages (German, French, and English) besides their native Arabic. All students have to sit for the Lebanese Baccalaureate as well as the French one in addition to Sprachdiplom I and II for the mastery of the German language. Another appealing feature of the German School was the emphasis the administration lays on individual potential and the development of artistic and technical talents among all its students;
- The German Cultural House followed in 1988 (Kulturzentrum) and has since been active organizing concerts, conferences, art exhibitions to help promote German culture, language, and art in Lebanon. The annual Kulturzentrum Festival is recognized by the Ministry of Tourism as an International Festival.

The Lebanese German University is another proof of the Lebanese German cooperation that has flourished over three decades in a most rewarding manner. The close academic links that are constantly woven with German and European counterparts, the fruitful cultural exchange that is building up, and the unrelenting endeavor to offer high quality education are once more exemplified in this academic establishment.

### **6.2.3 Organization**

In the fall semester of academic year 2018-2019, LGU employed 203 faculty members (35 of which are full-timers), 26 staff members and had 733 enrolled students distributed as shown in figure 7 below:



*Figure 7: Distribution of the number of students at LGU in Fall 2018*

Students' drop-out rate is around 7% and its students' employability rate is around 85%. Compared to its peers, LGU is considered small in number of students and relatively new. Though its origins date back to the 1970s, it only gained the status of full university in 2007. However, it is respected among its peers who acknowledge the quality of its teaching and seriousness of its research. The level of its tuition fees is medium to low and it targets medium to low class. One of its core missions is to provide high level education for deserving students regardless of their financial means. Therefore, it has adopted an extensive financial aid policy since its first year (an average of 28% of total revenues) with some scholarships reaching 100% for students with a high GPA.

While LGU is officially accredited by the MEHE, it never underwent an external accreditation by an accreditation agency. However, LGU governing body has always adopted an active approach to implement processes and procedures based on quality standards and centered around common quality principles such as but not limited to: transparency, integrity, governance, equality, stakeholders' satisfaction, continuous feedback and evaluation, documentation, qualifications of faculty members, students' support, participation and engagement, etc.

## 6.2.4 Governance

LGU is officially governed by a BOT, a University Council, a President and his Vice-Presidents. LGU organizational chart can be found on the website. The BOT has a strategic oversight, is involved in long-term and strategic decisions, ensures that the public's trust is maintained and that the mission of the university is being appropriately, legally and ethically implemented. The University Council oversees the operations of the university, studies the performance of the faculties' deans and key faculty members, plans general educational guidelines and submits any important changes/decisions to the Board of Trustees for approval. Financial integrity and solvency are ensured by the ALAC's Board of Administration (the legal owner of the university). There are other committees and councils that deal with various subjects and take joint decisions. They are important because they ensure a participative management system that aims to build commitment and develop initiative among members. Members of those councils are faculty and staff members who are nominated or elected for a one-year period.

## 6.2.5 Strategic plan

LGU complete strategic plan for the period 2017-2022 is in appendix I. the highlights of the plan are the following:

- At the heart of LGU mission, is its commitment to sustainability and a strong sense of social engagement and responsibility. Through various partnerships, activities and trainings, LGU strives to educate and involve both students and employees in high impact social actions;
- Its commitment to excellence and education quality requires a close oversight of academic activities and teaching and assessment quality. The main drivers of good teaching, learning and research are the faculty members on one hand, and staying abreast of the latest industries trends and job market requirements. Therefore, it was only natural to focus on those topics in the strategic plan;
- Being a private small university, it is crucial to closely follow-up the financial situation of the Institution to make sure it is and remains profitable, has the ability to sustain, develop and face any potential financial threats;
- Students' satisfaction is at the center of every decision at LGU. It is satisfied students who are more likely to succeed academically and attract more students, less likely to drop-out, and ensure financial stability as they constitute the main source of revenue. Some important pillars of students' satisfaction are their entitlement to give an opinion, right to appeal and present complaints and most importantly for a small university, a personalized service.

## 6.3 Application of the Performance Evaluation scheme

Based on LGU's strategic plan and its highlights, and in order to demonstrate the use of CMBO in both accreditation and internal monitoring, five objectives were selected

for which the CMBO methodology will be applied as per the described method. As previously stated, the lack of most data during the past three years and the inaccuracy of the existing data, have made it impossible to apply the complete CMBO method, including normalization and comparison over time for all five objectives. In order to remedy this limitation, one of the selected objectives was chosen based on the availability of data for the past few years while covering at the same time, an important topic in the strategic plan. The most reliable figures that allowed to gather numbers for seven consecutive years are the financial data collected from audited financial statements and reports. The other four objectives were chosen from several accreditation manuals (Hcéres, NECHE and QAA, refer to chapter two and appendix A) and they cover at the same time, areas from the strategic plan.

First, Critical Success Factors for each objective (or accreditation standard) were identified and relevant PIs selected (from the proposed database in chapter five 5.4). Second, weights were assigned to those PIs derived from the university's mission, size and environment. These steps were performed in cooperation with the university's governing body who supports this endeavor. The third and fourth step were only performed on objective number three; normalization and weighed calculation in order to obtain one CMBO for each objective. To note that some chosen indicators require data that is presently unavailable. They were highlighted in the case study and kept in the list as a reference. However, the university administration took note to start gathering the missing data to be able to use it in the future.

## Objective One

Domaine 1 : Le positionnement et la stratégie institutionnels de l'établissement

Sous-domaine 1.2 : La stratégie institutionnelle

Référence 2 : l'établissement porte une stratégie institutionnelle au regard de ses missions, de son positionnement et de ses engagements

- La stratégie institutionnelle intègre un modèle économique soutenable.
- La stratégie institutionnelle prend en considération les problématiques de responsabilité sociétale, notamment en matière d'éthique et de parité H/F, et celles de développement durable, notamment en matière de gestion environnementale (Hcéres -France).

*Translated as:*

*1<sup>st</sup> dimension: Institutional positioning and strategy of the institution*

*Part 1.2: Institutional strategy*

*Reference 2: The Institution adopts an institutional strategy regarding its missions, positioning and engagements.*

- *A sustainable economic model is embedded in the Institutional strategy*

- *The Institutional strategy takes into consideration matters of social responsibility, mainly in terms of ethic and gender parity, sustainable development mainly in terms of environmental management.*

*Table 4: Indicators' value of academic year 2017-2018 related to Objective 1*

<b>CSF1: Factors with internal impact</b>	<b>Weight</b>	<b>Value</b>	<b>CSF2: Factors with external impact</b>	<b>Weight</b>	<b>Value</b>
Number of actions that limit ecological damage and green campus building	2	2	Number of activities that promote and sustain culture during a specific period	2	6
Financial Reserves	3	32%	Number of social involvements that provide access for all social categories, irrespective of their financial resources	3	5
Profitability	3	28%	Number of activities that promote health and health education	3	10
Institutional budget dedicated to SD efforts	2	2.3%	Number of activities that promote knowledge transfer to less fortunate communities	2	4
Number of faculty members/staff/students trained on environmental issues	1	80	Number of outreach programs with the community/surrounding schools/underprivileged groups, and promoting sustainability/number of trainings and workshops	3	2
Number of programs /courses in curriculum, covering the topic of SD	1	2	Number of times where the campus facilities were made available for local communities	2	6
Number of research dealing with SD issues	1	2	Number of SD actions and awareness campaigns	3	5
Gender distribution (female)	2	61%	Number of joint research programs with other Institutions on SD	1	1
			Number of development and CEPs addressed to the public (involvement in regional skills strategies)	2	3



## Objective Two

<p>Standard Four</p> <p>The Academic Program – Assuring Academic Quality</p> <p>4.5 Through its system of academic administration and faculty participation, the institution demonstrates an effective system of academic oversight, assuring the quality of the academic program wherever and however it is offered (NECHE - US).</p>
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Table 5: Indicators' value of academic year 2017-2018 related to Objective 2

<i>CSF1; Performance/participation of faculty members</i>	<i>Weight</i>	<i>Value</i>	<i>CSF2: Students' success</i>	<i>Weight</i>	<i>Value</i>
Absenteeism rate of faculty members	2	3%	Absenteeism rate of students	2	12.5%
Satisfaction of faculty members			Drop-out rate	2	7%
Full time Faculty turnover	3	19%	Withdrawal rate	3	3%
Faculty ratio (students to FT)	2	31	Graduation time	1	9 semesters
Faculty workload (teaching)	2	20%	Average GPA	3	2.6
Average employment of faculty	3	4 years	Employability of students	3	85%
Academic level of faculty (PhD holders)	1	50%	Academic Petitions rate	2	81%
Average course rating	2	94%			
Average hours spent with students outside class					
University research activity	1	43 publications			
Learning objectives completion					
Curriculum review	2	61%			

Faculty participation to meetings (governance meetings, planning, etc)	3	80%
Employers feedback on curriculum		

*To note that the highlighted indicators are not available. We decided however to keep them for the sake of completeness.*

### Objective Three

<p>Standard Seven</p> <p>Institutional Resources</p> <p>Financial Resources</p> <p>7.4 The institution preserves and enhances available financial resources sufficient to support its mission. It manages its financial resources and allocates them in a way that reflects its mission and purposes. It demonstrates the ability to respond to financial emergencies and unforeseen circumstances (NECHE - US)</p>
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*Table 6: Indicators' value of academic years 2014-2015, 2015-2016, 2016-2017, 2017-2018, 2018-2019 and 2020-2021 related to Objective 3*

	<i>Weight</i>	<i>2014-2015</i>	<i>2015-2016</i>	<i>2016-2017</i>	<i>2017-2018</i>	<i>2018-2019</i>	<i>2019-2020</i>	<i>2020-2021</i>
<b><i>CSF1: Financial health</i></b>								
Profitability	3	4.8%	7.7%	6.8%	30%	28%	38%	30%
Debt ratio	2	204%	184%	133%	54%	21%	13%	0
Reserves	2	0%	3.3%	3.7%	25%	32%	46%	54%
<b><i>CSF2: Cost allocation</i></b>								
Research budget	1	1%	1%	1%	1%	1%	0%	0%
Maintenance budget	2	3.7%	4.5%	6.1%	6.3%	5%	6%	5%
Cost of recruitment (in USD)	3	808	594	925	1303	1440	794	1188

Marketing budget	3	2.7%	2%	5%	5.8%	8.4%	3%	4%
<b>CSF 3: Revenues increase</b>								
Increase in students' numbers	3	4%	13%	11%	8%	14%	-2%	-10%
Income of tuition fees	3	76.8%	78.4%	85%	81%	89%	99%	99%
Income from research projects	1	0.4%	0.1%	0.1%	0.1%	0.3%	0%	0%
Donations	1	1.2%	0.8%	3%	3.7%	1.7%	0%	0%
FTE (Full-Time Equivalent)	3	329 stds	356 stds	380 stds	428 stds	441 stds	502 stds	440 stds
Average number of credits registered per student	2	22	22	23	23	23	23	24
<b>CSF 4: Cost control</b>								
Salaries ratio	2	53%	55%	50%	40%	42%	35%	32%
Financial aid ratio	2	30.9%	34.2%	37.3%	28%	27.8%	24.4%	21.8%
Average cost per student (in USD)	3	5896	5307	5051	5039	4482	3962	4667
Classroom utilization	1	25%	28%	33%	34%	35%	0%	0%
Average class sizes	2	17 stds	17 stds	18 stds	19 stds	18 stds	19 stds	22 stds

CMBO calculation (example covering year 2017-2018):

- First the minimum (or worst) and maximum (or best) values are calculated for each indicator (related to the selected objective). Then the normalization formula (refer to section 5.3.3.2) is applied for the academic year 2017-2018 before multiplying it by the indicator's weight.

Table 7: Calculation of the weighed normalized value of the indicators of year 2017-2018

Indicator name	Indicator weigh	Indicator value for 2017-2018	Minimum or worst value of the last 4 years	Maximum or best value of the last 4 years	Normalized value for 2017-2018	Weighed normalized value for 2017-2018
Profitability	3	0.3	0.048	0.300	1.00	3.00
Debt ratio	2	0.54	2.040	0.540	1.00	2.00
Reserves	2	0.25	0	0.250	1.00	2.00
Research budget	1	0.01	0.010	0.010	1.00	1.00
Maintenance budget	2	0.063	0.037	0.063	1.00	2.00
Cost of recruitment	3	1303	1,303	594	0	0
Marketing budget	3	0.058	0.020	0.058	1.00	3.00
Increase in students' numbers	3	0.08	0.040	0.130	0.44	1.33
Income of tuition fees	3	0.81	0.768	0.850	0.51	1.54
Income from research projects	1	0.001	0.001	0.004	0	0
Donations	1	0.037	0.008	0.037	1.00	1.00
FTE	3	428	329	428	1.00	3.00
Average credits registered per student	2	23	22	23	1.00	2.00
Salaries ratio	2	0.4	0.550	0.400	1.00	2.00
Financial aid ratio	2	0.28	0.373	0.280	1.00	2.00
Average cost per student	3	5039	5,896	5,039	1.00	3.00
Classroom utilization	1	0.34	0.250	0.340	1.00	1.00
Average class sizes	2	19	17	19	1.00	2.00

- The next step is to sum the weighed normalized indicators and divide them by the sum of weights.

*Table 8: Calculation of the CMBO for academic year 2017-2018 related to Objective 3*

Sum of weighed normalized indicators for 2017-2018	31.87	Sum of weights	39
<b>CMBO (17-18): 31.87 / 39 = 0.8172</b>			

Following the calculation of the CMBO for the fours mentioned periods (academic years 2017-2018, 2018-2019, 2019-2020 and 2020-2021), the obtained results are the following:

*Table 9: CMBO values and their variation for academic years 2017-2018, 2018-2019, 2019-2020 and 2020-2021 related to Objective 3*

Academic year	CMBO	Variation
2017-2018	0.8172	
2018-2019	0.8292	+ 1.4%
2019-2020	0.706	- 14.8%
2020-2021	0.483	- 31.5%

As previously mentioned, the data gathered after year 2018-2019 doesn't accurately illustrate LGU financial situation, as "normal" activities were disrupted by the financial crisis and COVID-19 repercussions. However, in order to have enough data to apply normalization over four years and at the same time, obtain several consecutive CMBO values, it was necessary to cover the period between 2014 and 2021, knowing that results after 2018-2019 were biased.

In a regular situation, CMBO values should be compared over a longer period of time, and a deep analysis and interpretation should be done at the end of each year in order to come-up with corrective actions whose impact would be assessed the following year.

By only studying the evolution of one CMBO over four years, one could understand and notice a wealth of data. LGU could have taken some measures earlier or adopted a different strategy regarding some budget or costs allocation. Below are a few corrective /preventive actions that could have benefited the university, if the CMBO had been implemented earlier:

- When comparing the overall CMBO values, one can conclude that following a steady progress, years 2019-2020 and 2020-2021 were marked by a steep decline. Obviously during the pandemic years and the Lebanese unprecedented financial crisis, many indicators were at their lowest point (increase in numbers, marketing or research budget, classroom utilization, etc.). **Looking at the CMBO is important because it shows a general trend and a holistic picture that otherwise, decision-makers would have missed.** For instance, looking at the profitability and reserves ratio alone would have shown that the Institution is still doing very good. Even by looking at the average number of credits registered per student, one could conclude that the external situation didn't affect the university. However, the compounded measure that is the CMBO, allowed to identify underlying issues that will become critical if not corrected immediately.
- A profitable HE Institution with a decreasing debt and increasing reserves ratio, is an Institution that is financially comfortable enough to allocate (or increase) a budget to improve academic or logistic services such as research, IT or maintenance. A higher budget for research would have profited its image as a research university. Although it is not its core mission, it is beneficial for reputation. Moreover, a higher maintenance budget would have ensured a more pleasant and better equipped campus for students, thus, increasing their satisfaction with non-academic services, an indicator that was not particularly high-performing as shown below in objective five where the indicator of students' satisfaction with non-academic services only got 61%.
- The cost of recruitment is excessively high and constantly growing, meaning although more students are enrolling (increase in students' number and FTE before 2020), it costs the university more money to attract and enroll one student. A deeper examination of this indicator (main cost driver) should be done as well as a review of the entire recruitment strategy and marketing campaign. While the marketing budget increased, this growth is not compensated by a greater increase in the students' numbers.
- The share of donations is low because the university is relatively young, meaning it cannot count on its alumni for endowments. Also, it is an independent non-profit NGO, not backed by the clergy or some political party to expect grants, and contrary to public opinion, it doesn't receive any contribution from Germany.
- The salaries ratios are closely monitored with a slight decrease over time, which is a good trend. The first reason is the actual increase of income while maintaining the same number of faculty members and staff. Second, there has been some salaries cuts during lockdown. However, the cost per student and the average class size are in a bad shape. A detailed cost analysis would help understand the reasons behind the high cost per student. One possible explanation is the overall low number of students. In fact, nearly the same organizational structure is required when there are 100 or 1000 students enrolled. Knowing that on average a student's yearly tuition fee is around USD 6 000, an average cost per student reaching 75% of the tuition fees is excessively high.

- Financial aid ratios are decreasing steadily over time. There are two explanations for this trend. First, the university is granting less financial aid because tuition fees remained unchanged despite the currency devaluation and cost upsurge that pushed several PHEIs to increase their tuition fees. Second, LGU had adopted an aggressive financial aid scheme during the first years after its establishment. With time, those rates decreased.
- Regarding the average class sizes, while it has somewhat increased over time, it remains low. The reason is the obligation to open specialized advanced courses for senior students with a very low number (as little as two students per class sometimes). It is partly compensated by some common general requirement courses, but the general average remains low. It would be an interesting exercise to compare faculties to try and delimit the source of this weak performance and include additional indicators that better describe the situation such as small classes ratio and large classes ratio. After 2019, class sizes and the average number of registered credits increased with online education. In fact, students were able to register more courses because learning from home was easier for them and they had more time with the lock-down. Another reason was the increase of the class capacity. With online education, classes that could hold 40 or 50 students, were actually reaching 70 and 80 registered students.
- Classroom utilization is low, reflecting a large unused capacity to accommodate more students but also, a high cost of maintenance not supported by a proportional income. It is a waste of space and resources that a proper performance management system would have identified earlier. Obviously during lockdown, classrooms were not utilized. This factor affected the overall value of the CMBO for 2019 and 2020.

#### Objective Four

At the heart of the university's mission, is the satisfaction of its students. It should be regularly monitored in several different ways (LGU strategic plan and mission statement).

Table 10: Indicators' value of academic year 2017-2018 related to Objective 4

<i>CSF 1: Academic performance</i>	<i>Academic</i>	<i>Weight</i>	<i>Value</i>	<i>CSF 2: Students' engagement</i>	<i>Weight</i>	<i>Value</i>
Absenteeism rate		2	12.5%	Students' participation	3	8%
AW rate		3	1.8%	Referrals of family and friends	3	13%
GPA average		2	2.6	Retention rate (sophomore to junior year)	3	93%
Average course rating		3	94%	Alumni engagement	2	0

Average graduation time	2	9 semesters*	Incident forms rate	2	18
Graduation rate	3	77%	Students' administrative support	2	70%
Employability of students	2	85%	Non-conformities rate	2	31
W rate	2	3%	Petition process time	1	4 days
Probation rate	1	9.7%			

\*To note that the minimum residency before graduation is four semesters for two-year programs, six semesters for three-year programs and eight semesters for four-year programs. Knowing that at LGU 22% of students are enrolled in a four-year-program, it inflates graduation time which might seem detrimental. It would be more appropriate in the future to measure graduation time for programs of the same duration.

### Objective Five

Higher education providers have procedures for handling academic appeals and student complaints about the quality of learning opportunities; these procedures are fair, accessible and timely, and enable enhancement (QAA – UK - Part B, chapter 9).

*Table 11: Indicators' value of academic year 2017-2018 related to Objective 5*

<b>CSF 1: Outcome of appeals</b>	<b>Weight</b>	<b>Value</b>	<b>CSF 2: Quality of the process</b>	<b>Weight</b>	<b>Value</b>
Outcome of petitions (positive)	3	91%	Petitions' rate	1	326
Exams second correction	3	11%	Average petitions process time	1	4 days
Number of newly implemented preventive actions (following a non-conformity)	2	9	Students' administrative support	3	70%
Students' satisfaction with non-academic services (result of 12 items)	2	61%	Non-conformities rate (filled by students of which are anonymous)	2	66



## 6.4 Conclusion

In this chapter an application of the proposed model was done on a Lebanese PHEI in order to test and validate it. Based on the university's strategic plan, five objectives were selected, related CSFs and PIs were assigned before calculating the CMBO. As mentioned, it was only feasible to calculate the CMBO for objective number three over a period of four years. This objective addresses the Institution's financial resources, mainly their sufficiency to support its mission. It requires the Institution to demonstrate how well it manages and allocates its financial resources in a way that reflects its mission and purposes, as well as its ability to respond to financial crises and unforeseen circumstances. The study of one CMBO with its related indicators, offered so many different paths to analyze and issues to tackle even if it covers a previous period. This wealth of information summarized in one figure, allows decision-makers to oversee dozens of data without getting drowned by an excessive number of indicators. With a full CMBO implementation, the Management would be able to identify problematic areas early-on, and dedicate specific attention and follow-up to those areas. Moreover, with time and experience, there will be a learning curve. The consequences of corrective actions would be possible to quantify. The more the system is fed with data and measures, the more it goes into deep learning mode and starts becoming artificially intelligent. It would be able to tell how much each indicator should be, what actions should be taken, based on realistic assumptions and historical data, to obtain a certain level of CMBO. It could help the Management focus the efforts and allocate the budget where needed.

In a normal situation, the CMBO should have been calculated over several years backwards to detect a trend and be able to eventually set a target value (if not available) and analyze the present value. Based on this study, the next step would be to proceed with a gap analysis. Reporting and corrective actions follow before calculating a new CMBO the following year, and assessing the results of those actions and their impact on the new CMBO value. In this study, it was unfeasible to follow this procedure and therefore, study the impact of corrective actions. Despite the numerous limitations, the invaluable knowledge gained by calculating the CMBOs was truly informative and eye-opening. Even if actions couldn't be implemented in the past, there is now a clear vision for the future.

# Conclusion

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This study was founded on two ancillary research questions about critical issues in the Higher Education sector pertaining to quality assurance and performance management. The need originated among Lebanese Private Higher Education Institutions indeed, however, our study showed that many common challenges exist in all parts of the world. With the increased pressure on Higher Education Institutions to demonstrate accountability and efficient use of public funds coupled with more restrictions on resources and the need for profitability, Higher Education Institutions have to navigate between maximizing inputs and processes in order to get the best possible outcomes and outputs, and succeeding in a competitive market. At the same time each Institution has its own mission, context, priorities, provision, strengths and weaknesses. It is only fair to expect an evaluation that takes these characteristics into consideration. An overview of the state of quality assurance around the globe showed that accreditation systems have proved to be rather unsuccessful in justly ensuring quality. Instead, the accreditation seal holds the role of a marketing and reputational tool. When it comes to Performance Management systems used to demonstrate and prove quality to various stakeholders, a literature review showed that Higher Education Institutions had to adopt models from the business industry, and that feedback was not positive. We explored the role of Institutional research that tends to measure and evaluate rather superficial matters and Performance Indicators used in that perspective only reveal the attractive side of the Institution.

In this research work, information on the Higher Education systems of five of the most successful systems worldwide was gathered, in order to learn from their experience and identify common topics that guide accreditation activities in those countries. This comparison allowed to reference eight main accreditation principles in order to use them in the proposal for a national accreditation framework in Lebanon. Following an overview of the Higher Education sector in Lebanon and a description of its characteristics, eight contextualized accreditation standards were proposed along with a quality assurance framework that could serve as roadmap to the Ministry of Education and Higher Education in Lebanon, (hopefully) the day there will be a real intention of implementing and demanding quality in the Higher Education sector, away from political and influential roadblocks.

An analysis of the most used performance measures in Higher Education showed that Institutions use a number of input and output measures to demonstrate the adherence to some accreditation requirements or as a way to publish positive data about the Institution. However, those rates and numbers don't make quality, don't prove it and certainly don't impose it. We argued that a real performance management endeavor targets deeper layers of institutional knowledge and more sensitive information that would allow Institutions identify problematic areas, whether for internal monitoring or accreditation purposes. Therefore, as an answer to the second research question, we proposed a Performance Management system carefully curated and adapted to Higher Education Institutions that aims to monitor and improve their performance while using a set of industry-specific

Performance Indicators. A database of 290 indicators along with an innovative Performance Management model called “Compound Monitoring by Objectives – CMBO” were presented with a comprehensive methodology, calculation method and validation. What separates CMBO from other methods is that it challenges the conventional approach to measure performance. While it advocates the use of a large number of “weighed” indicators in order to grasp a holistic, multidimensional view of a Higher Education Institution’s performance with its unique set of features, it is still easy to use and allows quick interpretation, reporting, corrective actions and follow-up.

Unfortunately, the pandemic didn’t allow a full application of the proposed model over several years, we were however able to demonstrate its validity on a small scope and show how one compounded measure could hold a wealth of strategic information. Specifically designed for Higher Education needs, using a database of Performance Indicators that cover all dimensions of Higher Education, the CMBO model offers valuable advantages to any Institution whether public or private, small or large.

**Future works:**

- In the future, it is important to test the proposed model over several consecutive years by applying the full cycle as described in chapter five. It will assist users in taking corrective actions based on quantified evidence, and in studying the impact and consequences of those actions;
- Exploring the application of the proposed model to other Higher Education Institutions, both public and private, would allow for a more comprehensive understanding of how it can be tailored to suit the Institutions' profile and needs;
- When automated, CMBO advantages would increase exponentially. In fact, it would allow quicker and earlier results, better data correlation, extrapolation, automatic problems identification, impact analysis of corrective actions, etc. in order to reach deep learning mode and start predicting the consequences of future actions.

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## Appendices

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### APPENDIX A

#### WORLDWIDE ACCREDITATION SYSTEMS

#### ACCREDITATION IN THE US

#### New England Commission of Higher Education

The New England Commission of Higher Education (NECHE) is one of seven regional HE accrediting bodies in the US. NECHE is a voluntary, non-profit, self-governing organization having as its primary purpose the accreditation of educational Institutions. It is the regional accreditation agency for colleges and universities located in the six New England states: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. It has also accredited three Institutions in Greece, three in Switzerland, two in Lebanon (hence the choice), and one in Bulgaria, Bermuda, and Morocco, respectively. The Commission consists of faculty, administrators, and trustees from affiliated Institutions and public members and is recognized by both the USED and CHEA (Education N. E., 2016).

In its “Standards for Accreditation”, each of the standards articulates a dimension of institutional quality. In applying the “Standards”, the agency assesses and makes a determination about the effectiveness of the HE Institution as a whole. The Institution that meets the Standards:

- Has clearly defined purposes appropriate to an institution of higher learning;
- Has assembled and organized those resources necessary to achieve its purposes;
- Is achieving its purposes;
- Has the ability to continue to achieve its purposes.

NECHE Standards - Summary

### ***Standard one: Mission and Purposes***

The Institution's mission and purposes are appropriate to HE, consistent with its charter and implemented in a manner that complies with the Standards of the Commission on Institutions of HE. The Institution's mission gives direction to its activities and provides a basis for the assessment and enhancement of the Institution's effectiveness.

### ***Standard two: Planning and Evaluation***

The Institution undertakes planning and evaluation to accomplish and improve the achievement of its mission and purposes. It identifies its planning and evaluation priorities and pursues them effectively. The Institution demonstrates its success in strategic, academic, financial, and other resource planning and the evaluation of its educational effectiveness.

### ***Standard three: Organization and Governance***

The Institution has a system of governance that facilitates the accomplishment of its mission and purposes and supports institutional effectiveness and integrity. Through its organizational design and governance structure, the Institution creates and sustains an environment that encourages teaching, learning, service, scholarship, and where appropriate, research and creative activity. It demonstrates administrative capacity by assuring provision of support adequate for the appropriate functioning of each organizational component. The Institution has sufficient independence from any other entity.

### ***Standard four: Academic Program***

The Institution's academic programs are consistent with and serve to fulfill its mission and purposes. The institution works systematically and effectively to plan, provide, oversee, evaluate, improve, and assure the academic quality and integrity of its academic programs and the credits and degrees awarded. The institution develops the systematic means to understand how and what students are learning and to use the evidence obtained to improve the academic program.

### ***Standard five: Students***

Consistent with its mission, the Institution sets and achieves realistic goals for the achievement of diversity among its students and provides a safe environment that fosters the intellectual and personal development of its students. It endeavors to ensure the success of its students, offering the adequate resources and services while interacting with students and prospective students with integrity.

### ***Standard six: Teaching, Learning and Scholarship***

The Institution supports teaching and learning through a well-qualified faculty and academic staff, who ensure the quality of instruction and support for student learning. Scholarship and research activities receive support appropriate to the Institution's mission.

***Standard seven: Institutional Resources***

The Institution has sufficient human, financial, information, physical, and technological resources and capacity to support its mission. Through periodic evaluation, the Institution demonstrates that its resources are sufficient to sustain the quality of its educational program and to support institutional improvement now and in the foreseeable future and that they are administered in an ethical manner and assure effective systems of enterprise risk management, regulatory compliance, internal controls, and contingency management.

***Standard eight: Educational Effectiveness***

The Institution demonstrates its effectiveness by ensuring satisfactory levels of student achievement that can be evaluated and verified to be used for planning and improvement, resource allocation, and to inform the public about the Institution.

***Standard nine: Integrity, Transparency and Public Disclosure***

The Institution advocates high ethical standards in the management of its affairs and in its dealings with students, prospective students, faculty, staff, its governing board, external agencies and organizations, and the general public. It provides information that is complete, accurate, timely, readily accessible, clear, and sufficient for intended audiences to make informed decisions about the institution.

## ACCREDITATION IN FRANCE

### Haut Conseil de l'évaluation de la recherche et de l'enseignement supérieur

The Haut Conseil de l'évaluation de la recherche et de l'enseignement supérieur – Hcéres is an independent organization created by Law and operating under a defined decree that aims at evaluating all the HE and research bodies in France (universities, schools, institutes, research units, doctoral schools, programs of all levels) (Hcéres, 2019-2020). It also validates the evaluation procedures designed by other bodies (whether in France or abroad) as described above. Another purpose is to provide national and international data, benchmarks and indicators to be analyzed and help in defining national policies (mainly for what is related to scientific integrity).

Hcéres provides independent, transparent, impartial and fair evaluations and recommendations that can be used by HE stakeholders to improve the HE and research sector, based on the Bologna Process and the international standards and European Standards and Guidelines (ESG) adopted in 2005 (ref. chapter two - 2.5). Evaluation reports are all accessible to the public as well as the evaluation methods and procedures that are used to ensure total transparency. It has a budget of 17.8 million euros and is a full member of ENQA (the European Association for Quality Assurance in Higher Education) and EQAR-Register (European Quality Assurance Register for Higher Education). With this European exposure, Hcéres' contribution to the evaluation of foreign Institutions is rapidly rising.

It is worth noting that ENQA is an umbrella organization which represents its members at the European level and internationally, especially in political decision-making processes and in cooperation with stakeholder organizations. It contributes by promoting European cooperation in the field of quality assurance in HE and disseminating information and expertise among its members and towards stakeholders in order to develop and share good practice and to foster the European dimension of quality assurance (European Association for Quality Assurance in Higher Education (ENQA), 2015).

Hcéres operates through 230 administrative and scientific support staff, including 120 scientific advisors, researchers and professors working full or part time who are responsible of the scientific organization of the evaluations. They form the experts' committees (around 4,500 French and foreign experts per year chosen depending on the

nature of the mission) to help with conducting the evaluations. The evaluation is mainly carried out by peers (researchers or professors) and experts from various backgrounds (students, professionals from the corporate sector or governmental departments, etc.). The evaluation process covers a specific period of time (typically 4 to 6 years). It is based on a list of evaluation standards divided into sub-standards used by the accrediting committee to evaluate all the activities of the Institution, including governance, research policy, strategy, development, students' life, resources management and more importantly the quality policy. The procedure starts with an auto-evaluation conducted by the Institution of HE itself, followed by a visit of the experts committee (peer-review) with several meetings held with different key persons aiming at evaluating the Institutions' maturity in terms of self-evaluation as well as the implementation of its strategy. The procedure ends with the evaluation report.

### Hcéres Standards – Summary

Hcéres evaluation standards define the scope of the evaluation, the requirements relating to the content of the self-evaluation report and the criteria that the panel of expert peers will use to evaluate the Institution's feedback. We will summarize those standards to be able to fully understand how the accreditation works in France based on the European Standards Guidelines (ESG) (Hcéres, 2018). The standards cover the following key dimensions:

- Institutional positioning: The Institution identifies its positioning in view of its mission and values in the topic of HE, research, innovation, dissemination of scientific culture, with an international and mainly European perspective;
- Institutional strategy: It is defined in relation to the Institution's mission and corresponds to its national and international positioning. It is divided into operations for each activity;
- Internal organization: It ensures the performance of the Institution related to the fulfillment of its missions and the implementation of its strategy;
- Governance: This includes all bodies, procedures, regulations and decision-making structures dedicated to the development and implementation of the Institution's strategy and its quality policy;
- Management: It covers the management tools and methods used by the Institution for the operational implementation of its strategy, the monitoring activities through performance parameters and the efficient deployment of its human, financial and material resources;
- Learning and research activities: It includes all learning (initial education and continuous education), teaching and research activities that translate the Institution's positioning and strategy along with the monitoring activities that ensure the implementation of its operational policy. Learning and research are closely linked and backed by an adequate documentation policy;

- Students: Students' learning experience, success and professional integration are at the heart of the Institution's policy that emphasizes also students' campus life and students' engagement (more on this topic in appendix D);
- The Institution's place in the community: The development, transfer and use of the research results by the public and the progress in scientific culture should be at the heart of the Institution's strategies.

The requirements of the self-evaluation report can be summarized as below:

- Explanation of the method used and stakeholders involved in the implementation of the self-evaluation;
- Presentation – per activity – of the institutional strategy implemented during the reference period being evaluated, and of the schemes deployed for each activity;
- Explanation of the management indicators chosen by the cluster for each activity;
- Explanation, for each activity, of the data that the Institution considers relevant to its external evaluation;
- A report focusing on the critical analysis dimension and limiting descriptive approaches to the strict minimum required to understand how the activities are organized.



## ACCREDITATION IN GERMANY

### Central Evaluation and Accreditation Agency Hanover

We will present below a summary of topics included in the manuals for accreditation of the Central Evaluation and Accreditation Agency Hanover (*ZEvA – Zentrale Evaluations und Akkreditierungsagentur Hannover*). Since 1995, ZEvA has been a major actor in the field of evaluation and quality assurance of teaching and learning both nationally and internationally. ZEvA is a founding member of the ENQA and of the European Consortium for Accreditation (ECA). It is also listed in the EQAR (ZevA, 2017). Accordingly, the methods and criteria of evaluation applied by ZEvA are fundamentally rooted in the common ESG for Quality Assurance in Higher Education (ESG) (European Association for Quality Assurance in Higher Education (ENQA), 2015).

ZEvA carries out different types of external quality reviews in Germany, in Europe and beyond. The focus may be on study programs or on the entire HE Institution and its internal quality management system. Regardless of the applied method, all of the agency's activities are centered on teaching and learning.

#### ZEvA Standards – Summary

The standards emphasize the below areas (ZevA, 2017):

- Institutional profile and strategy: The Institution should demonstrate that its strategies are compatible with its mission, internationally accepted, and adequate to reach its objectives;
- Governance: The governance structure should be transparent, well organized and adequate to support the mission and strategies of the Institution. This point also emphasizes the role of academics within the Institution; their participation in strategic decisions, the scope of academic responsibility, their hiring and tenure procedure as well as the extent of academic freedom;
- Resources: Adequate funding and financial management should be demonstrated. Adequate human resources – in numbers and qualifications – should be able to support the Institution's strategies, as well as the physical resources that should be in accordance with the institutional mission;
- Teaching and learning: Study programs should be in compliance with national regulations and have certain academic standards with a student-centered approach. There should be a clear assessment of learning outcomes;
- Research: The research profile of the Institution should fit its strategy and meet certain academic standards. Evaluation of the research activities and training of young researchers have an important place;
- Institution and society: The Institution's strategy and activities should serve the needs of the society;

- Quality assurance: The Institution should implement and develop a quality assurance and quality improvement culture and have clear indicators to monitor the achievement of quality objectives based on relevant information that has been collected and analyzed.

## ACCREDITATION IN THE UK

### Quality Assurance Agency for Higher Education

The Quality Code of the Quality Assurance Agency for Higher Education – QAA sets out the Expectations which HE providers are required to meet to ensure that processes for the approval of programs are rigorous and include the involvement of subject specialists external to the provider. It also ensures those processes contribute to the effective monitoring of comparability of academic standards, including fair and transparent setting and marking of assessment tasks, the robust use of external examiners and regular monitoring and review of programs. This enables students and the general public to have confidence that the achievement represented by a HE qualification will be broadly comparable with others in similar subject areas (Quality Assurance Agency for Higher Education, 2019). The primary values of the Quality Code describe the characteristics that UK HE providers are expected to demonstrate. They can be summarized as following:

- Every student is treated fairly and with dignity, courtesy and respect;
- Every student has the opportunity to contribute to the shaping of their learning experience;
- Every student is properly and actively informed at appropriate times of matters relevant to their programs of study;
- All policies and processes relating to study and programs are clear and transparent;
- Strategic oversight of academic standards and academic quality is at the highest level of academic governance of the provider;
- All policies and processes are regularly and effectively monitored, reviewed and improved;
- Sufficient and appropriate external involvement exists for the maintenance of academic standards and the quality of learning opportunities. All staff are supported, enabling them in turn to support students' learning experiences.

Indicators describe activities and reflect sound practice through which HE providers can demonstrate that they are meeting the relevant “Expectation”. Indicators are not designed to be used as a checklist; they are intended to help providers reflect on and develop their regulations, procedures and practices to demonstrate that the Expectations in the Quality Code are being met. The indicators are grouped into clusters under a heading. Expectations and indicators are supported by explanatory notes that give more information, together with examples of how the Expectation or indicator may be interpreted in practice. The application of any examples given will depend on the circumstances of a particular provider.

#### Quality Code Expectations – Summary

In this section we will summarize the expectations and indicators of the Quality Code since it is the sole body responsible for setting and monitoring the standards of UK HE. The

Quality Code has three Parts subdivided into Chapters (Quality Assurance Agency for Higher Education, 2019):

- Part A: Setting and maintaining academic standards
  - A1: UK and European reference points for academic standards
  - A2: Degree-awarding bodies' reference points for academic standards
  - A3: Securing academic standards and an outcomes-based approach to academic awards
- Part B: Assuring and enhancing academic quality
  - B1: Program design, development and approval
  - B2: Recruitment, selection and admission to higher education
  - B3: Learning and teaching
  - B4: Enabling student development and achievement
  - B5: Student engagement
  - B6: Assessment of students and the recognition of prior learning
  - B7: External examining
  - B8: Program monitoring and review
  - B9: Academic appeals and student complaints
  - B10: Managing HE provision with others
  - B11: Research degrees
- Part C: Information about HE provision.

## ACCREDITATION IN JAPAN

### Japan University Accreditation Association

Japan University Accreditation Association (JUAA) is a voluntary organization of HE Institutions. Taking several US accreditation agencies as a model, it was established in 1947 with 46 initial member Institutions which include national, local public and private universities. In terms of memberships, it is the oldest and largest quality assurance and accrediting authority authorized by the Minister of MEXT (JUAA, 2018). It carries out certified evaluation and accreditation in seven fields: Accreditation of universities, junior colleges, law schools, business schools, public policy schools, schools of public health, and intellectual property studies. Its mission is to promote the qualitative improvement and advancement of HE Institutions in Japan through the voluntary efforts and mutual assistance of member Institutions and to contribute to international cooperation in educational and research activities. It also performs programmatic and institutional undergraduate and graduate accreditation since 1951, establishes standards for HE Institutions, conducts research on HE, provides advice and support for quality enhancement of HE Institutions, cooperates with overseas quality assurance agencies and finally publishes materials about quality assurance in HE.

Another important accreditation agency is JABEE (Japan Accreditation Board for Engineering Education), established to conduct quality assurance and accredit the science and engineering technology faculties of Japanese universities (and colleges), with the aim of improving engineering education, guaranteeing the international reference of engineering education and realizing the mutual accreditation of engineering-related licenses with foreign organizations.

The evaluation emphasizes educational purposes, educational results, current status of educational results, admission policy, educational methods and curriculum, educational systems, and educational environments.

#### JUAA Standards – Summary

We will present in this section the standards set by JUAA for the accreditation of universities that we took as an example since agencies use different standards for each type of HE Institution (JUAA, 2018).

1. **Mission and Purpose:** The university has appropriate purposes in education, research and human resource development based on its mission, which are made public in an appropriate manner. The university has clearly defined mid to long-term plans or other strategies to realize this mission;
2. **Internal Quality Assurance:** The university has a clearly defined internal quality assurance system to realize its mission and purpose, based on which the university continues to regularly maintain and improve the quality of education it offers;
3. **Education and Research Organization:** The university provides an appropriate education and research organization to realize its mission and purpose;

4. Educational Program and Outcome: The university has degree award, curriculum design and implementation policies to realize its mission and purpose, which are made public in an appropriate manner. Following its curriculum design and implementation policies, the university establishes a coherent curriculum that produces appropriate educational outcome, implements measures for effective education and grants degrees appropriately. The university assesses and evaluates learning outcomes against those identified in the degree award policies;
5. Student Enrollment: The university has admission policies to realize its mission and purpose that are publicized appropriately. The university conducts an orderly and ethical screening process based on these policies;
6. Faculty and Faculty Organization: There are clearly defined qualifications and qualities to be sought in its faculty members and in the policies for the formation of its faculty organization, to realize its mission and purpose. The university implements this policy appropriately and constantly enhances faculty potential;
7. Student Support: the university has a clearly defined policy for student support to realize its mission and purpose. Based on this policy, the university provides support to enable students to devote their time to study in a stable environment, with appropriate support for students learning and campus life, as well as guidance in placement;
8. Education and Research Environment: The university has a clear policy for maintaining its environment for education, research and other purposes to realize its mission and purpose that allows students to learn adequately and faculty to conduct substantive education and research activities. The university appropriately establishes, manages and maintains its education and research environment following this policy;
9. Social Cooperation and Contribution: The university has an appropriate social cooperation and contribution policy to realize its mission and purpose. The university partners with the regional or global community to advance the public good with its educational and academic resources;
10. University Management and Finance: The university defines its management policy to realize its mission and purpose and administers the school in accordance with this policy to fulfill its role effectively. There are appropriate offices to support, maintain and improve its education and research activities, while staffers are constantly trained to enhance their potential. The necessary financial resources are secured for appropriate management.

## APPENDIX B

## TRENDS AFFECTING PERFORMANCE MANAGEMENT AND PLANNING IN HIGHER EDUCATION

- Increased competition: Most Institutions of HE now operate in a highly competitive environment for student recruitment, research funds, and for the best staff. Under these circumstances, Institutions need to assess their range of activity and to determine relative priorities. Strategic planning forces a systematic analysis of the Institution and its environment. A strategic plan provides a statement of what the organization intends to do or avoid. Effective planning helps Institutions to identify what makes them distinctive and what they have in common with other Institutions, and therefore it helps them to maintain their individuality and create a competitive advantage. PM helps in monitoring the achievement of that plan;
- Pressure on resources: Across the world, HE faces pressure on resources and the need to justify expenditure. Scarcity of resources, increasing emphasis on operational efficiency and value for money have placed a new weight on the selective allocation of resources within every HE Institution. Therefore, the need to develop effective planning procedures in order to coordinate resource allocation and to achieve the optimum use of scarce resources (including human resources and capital) has become vital. The strategic plan should provide an agreed source of authority and justification for subsequent decision- making. Without such a plan, resource allocation will tend to be ad-hoc and short-term in nature, rather than considering the best long-term interests of the Institution;
- Accountability and assessment: There is a continuing move towards increased accountability in HE at the institutional level. This trend reflects the need to account for the use of public funds and the attention now focuses on quality of provision. Such accountability has required the development of plans in order to provide benchmarks and targets against which performance can be measured and assessed;
- External interaction: A strategic plan may form the basis for a formal relationship with outside bodies (including government and funding bodies, local community and organizations with which the Institution interacts), a PM system constitutes proof of merit;
- Internal management: Most HE Institutions are large, complex organizations. A strategic plan is a means to the creation of a corporate identity with a sense of common purpose bringing together all staff and students. By setting future direction and goals, it generates a sense of unity and ambition within an Institution. It provides a method of communicating its aims and objectives, and of establishing overall institutional targets with which all staff will become familiar. At a lower level in the planning structure, departmental, group, and individual plans will provide a focus for activities with which all staff should be able to identify (Taylor & Miroiu, 2002).

## APPENDIX C

## PROJECT ON QUALITY ASSURANCE FOR HIGHER EDUCATION IN LEBANON

In 2008, four Lebanese education experts including the General Director of Higher Education at the MEHE, proposed as part of a Tempus project, three guides pertaining to Quality Assurance for Higher Education in Lebanon. We will briefly introduce each guide before analyzing the content of guide II that is of interest to our study.

Guide I, entitled “Introduction to Quality Management in Higher Education” was written by Dr. Bassem Kaissi (faculty member at MECAT a Lebanese PHEI), Dr. Ahmad Jammal (Director of DGHE), Dr. Mohamed Loutfi (faculty member at University of Sunderland – UK) and Dr. Sobhi Abou Chahine (faculty member at BAU a Lebanese PHEI). The guide covers the topic of quality, quality management and total quality management in general and its application in HE. It also presents the ISO certification and the different quality awards. Finally it enumerates the quality tools that are applicable to HE before ending with some international success stories and an introduction on change management (Kaissi, Al Jammal, Loutfi, & Abou Chahine, 2008).

In guide II written by the same Lebanese experts in addition to Dr. Alfredo Moscardini (from the University of Sunderland – UK) is entitled “Self-evaluation in Higher Education Institutions”. After defining and presenting models of self-evaluation, processes and reports, the authors suggest guidelines and recommendations for the self-evaluation of HE Institutions in Lebanon. The guide proposes standards and areas to be evaluated with corresponding points of reference they called indicators (Abi Chahine, Al Jammal, Moscardini, & Kaissi, 2008). They based the proposal on the accreditation standards applied in the US and in Europe using references up until 2007. This project was the starting point or the foundation of the draft law proposed in 2012 aiming at regulating the quality of HE in Lebanon (as mentioned in chapter three).

Guide III entitled “Quality audits and accreditation” was written by the same Dr. Kaissi, Dr. Abou Chahine and Dr. Moscardini with Dr. Pierre Khoury (Hariri Canadian University, a Lebanese PHEI owned by a politician). In this guide the authors describe the audit principles, objectives and process (Khoury, Abi Chahine, Moscardini, & Kaissi, 2008). They then explain how the audit reports are written and approved. In the second part of the guide, they cover the topic of accreditation (definition, trends, challenges, success factors and regulations).

### Analysis of the proposed Standards for Self-evaluation

In this section, we will review the suggested standards and indicators of guide II because they can help us understand the rationale and the intentions of the DGHE regarding the LQAA standards. It is the only available and published information that portrays the perception of the MEHE pertaining to the project of implementing a quality assurance framework for Lebanese HE. They provide an outlook and a strategic direction on the dimensions of quality to be required by all Lebanese PHEI. The purpose of reviewing and analyzing those standards is to identify the areas that in our opinion, appear to be inapplicable to the local context, irrelevant or outdated, in order to propose later on in this



study, a list of standards that seem more relevant to the HE context in Lebanon taking into account the characteristics of the local private HE Institutions (as described in section 3.3.2).

First, it is worth noting that many reforms happened in the quality assurance world since 2008, the year when the guides were written (the ESG were reviewed in 2015, the North American system underwent several reforms since then). It is therefore only natural to reconsider and update certain aspects more than ten years later. Second, the study implies that HE Institutions in Lebanon should get accredited by a foreign accrediting agency or have their institutional performance assessed based on international codes of best practice in HE quality assurance. This is where the biggest oversight of guide II lies. While drawing on international experience is obviously the right starting point (one cannot pretend to reinvent the basics of HE quality assurance and accreditation), one cannot overlook the crucial role that the local environment plays; the size, type, geographical proximity, ownership profile of the Institutions as well as the socio-demographic context, are few of many significant aspects that should be taken into consideration when evaluating a PHEI in Lebanon or when writing evaluation standards. The distinctive characteristics of those PHEI operating in Lebanon and the ensuing accreditation risks and challenges, cannot be overlooked. They are depicted in sections 3.3.2 and 3.3.3.

The list of self-evaluation standards and indicators suggested in guide II are analyzed below along with the main deficiencies, weaknesses or shortages based on personal interpretations and experience.

### ***Area 1, Management of the Institution - part A. Leadership and Organization:***

The authors mention under the strategic/department plans standard that the Institution of HE should have a strategic plan by department and for the whole Institution, to plan and allocate priorities and corresponding resources for the future. As mid to long term planning in Lebanon is clearly difficult due to the unstable and insecure political, financial and economic situation, it would have been more appropriate to emphasize more on having a plan that proves the flexibility and the ability to quickly adapt to changes or face crisis whether political, financial or economic, in a way to ensure the sustainability of the Institution and the quality of its offer regardless of the circumstances. How does planning protect you from a national crisis? How does it help in maintaining a culture of quality when it has to be revised and adapted so many times? It is the ability to adjust to changes that should be emphasized.

End of 2019, at the time of writing the thesis, the banking sector in Lebanon collapsed and the Lebanese pound's value was divided by six within a period of two months and by 26 after two years! Overnight, people were forbidden to withdraw their own money from the bank and the US Dollar (the most used currency in Lebanon) disappeared. Nobody predicted this would happen and so fast. What did PHEIs do then? They cut down on salaries, dismissed many faculty members and staff and relied mostly on full-time faculty members to give the majority of the offered courses in order to reduce cost. Those who had a nicely devised plan were not protected. Those who had financial stability and contingency

plans were able to subsist, at least until today. Years 2020 and 2021 are years of unprecedented uncertainty where successful leadership and management has become more about fast response and flexibility than planning and writing down long term objectives.

It seems HE is quite enamored with five-year plans. Yet unlike operational priorities, strategy is not time bound. Most strategic plans tend to adopt an artificial focus of five years (the bold ones aim for 10 years or more). What is magical about 60 months? Why should time matter more than other variables that might define strategy and its direction? (For some, the answer is simply five years of reprieve before they have to go through the painful planning process again). The environment for most HE Institutions is volatile and variable, not static and predictable; it is challenge-dependent and not time-dependent. Yet, most plans are time bound. Therefore, Institutions either 1) revise their plans and priorities as the world evolves during that five-year window or 2) ignore some (or most) of what is in their plans as they respond to new challenges and pursue emergent opportunities (Eckel & Trower, 2019). The result for most Institutions is that faculty members, administrators, trustees, etc. spend a lot of time and energy developing a document that gives incomplete directions instead of keeping an eye on the horizon and preparing to embrace change or overcome obstacles.

According to several sources, one of the keys to effective planning is flexibility. It may seem like a paradox, given the need for priorities and decision-making, but an important aspect of planning, at least in the field of HE, is keeping options open. It must be recognized that the long-term objectives of the Institution may not be achieved exactly as stated, because unforeseen changes in the internal and external environments are inevitable and may require the objectives to be revised. There is no virtue in sticking persistently to a plan that has been overtaken by events. All Institutions must retain the flexibility to adjust as circumstances change, so that they can exploit unexpected opportunities that arise and respond to unforeseen threats. Consequently, there needs to be frequent review of the overall direction to take account of and adjust to actual and potential changes to the organization or its environment (Taylor & Miroiu, 2002). And that is what should be focused on in the quality standards.

Moreover, for smaller HE Institutions, one can argue the efficiency of segregating the planning activity by faculty. In smaller organizations, centralization of certain processes and tasks are even essential for the continuity of the Institution. Not only for financial reasons, but because it would create unnecessary duplication and complexity in the processes and in serving students' needs. On another level, during the planning process, the number of new ideas will typically far outweigh the resources likely to be available. In one sense this surplus is to be welcomed and indicates a healthy, vigorous Institution. However, it can also cause difficulties. There is a danger of "wish-lists" with no realistic chance of success and of creating expectations which are then unfulfilled. Such disappointment can be destructive to staff morale and participation. It is therefore important that the process of innovation and the generation of ideas be managed, working within a known framework and context. This is a difficult balance to strike and it depends on the size and culture of the Institution.

Under the standard about Governance and decision-making, the authors didn't mention at all the presence and participation of the "owners" in the governance and leadership. The whole emphasis is that faculty members should decide about academic and research topics. As much as this might sound obvious, one cannot ignore that all decisions related to any topic in any Institution have direct repercussions on the budget and the finances. So how can we require from a PHEI not to take into account the considerations of its owners and sponsors? In a country where the entirety of HE Institutions is privately funded, it is crucial to think of a model that safeguards the interests of the owners without compromising academic quality. And this approach should be reflected in the standards.

In the same standard, transparency and participatory principles are stressed. However, in private Institutions, the owners would want to keep some data private; mostly financial figures as it would affect the image of the Institution, the motivation of its staff or the business process. Some critical data is sometimes better kept confidential. The participation of faculty and staff in decision-making is a good and empowering principle, but it is a very delicate undertaking in a privately-owned Institution. On one hand, staff and faculty need to have enough maturity to understand and weigh situations, they need to be trusted in keeping information confidential and be objective when giving their input. Any head of department will tend to demand more resources to be allocated to his/her department, human, financial and technical resources. It is natural because it simply facilitates the work. Maturity and objectivity are therefore essential but hard to find or nurture among employees. On another hand, staff and faculty turnover is frequent in a competitive market. Many employees are recruited by competitors, which makes it even harder to ensure confidentiality of information. Therefore, a balance between engagement/involvement and over-participation should be attained. Participative management is always commended but there is a thin line separating it from intrusion. That is why faculty and staff across the Institution should be encouraged to participate in the development of the strategic plan, but their contribution should be limited in depth, span and access to sensitive information.

### ***Area 1, Management of the Institution - part C. Financial Management***

This topic might be the most critical to address in a context of private ownership where institutional funding is completely private. It is understandable that accreditation and quality assurance principles emphasize a sound financial policy and adequate financial resources to serve the Institution, its development and ensure its continuity. Nevertheless, some conditions or standards mentioned in the self-evaluation guide don't seem to be inherent to quality and yet required. For instance, how can publishing financial documents and disseminating information and resources' allocation be essential to assure quality, considering of course that enough means (inputs) are deployed? Many opinions converge that it can backfire in case of over-spending in one area/department and not another, in case the Institution has generated a high profit (should it all be reinvested? Why and where?) or in the opposite case when there is a loss (a bad financial situation can start a panic and snowball effect).

Is it immoral or unhealthy for an Institution of HE to aim for profit? Is for-profit so at odds with the HE mission? The American model of for-profit and publicly traded HE Institutions has proven that it can be done when adequate oversight exists. Cases of frauds and abuse (refer to chapter two - 2.2.1.3) were to a great extent the result of accreditation agencies' shortcomings (Barmak Nassirian, 2018). Although for-profit Institutions pose a specific type of threat to academic quality (in the form of profit maximization), public and non-profit Institutions are not exempt of such behavior. Even non-profit or religious Institutions should be able to sustain their activities and generate profit to be able to survive, develop their activities and fill the gap resulting from potential losses; non-profit doesn't mean not aiming to make profit, it only means that the generated profit will be used to grow and develop the Institution to further support its mission as opposed to being distributed to shareholders or owners. Public funds are not unlimited and waste of public funds due to inefficient governance is equally dangerous as a restrictive budget. It is worth mentioning that in the case of private ownership, shareholders can and will inject fresh funds when needed and they will be keener on cleverly and effectively allocating the resources, maximizing efficiency and satisfying students. Managing unlimited or unrestricted budget is clearly much easier than a tight and constraining one, but it doesn't in any case guaranty quality, rather it encourages nonchalance.

### ***Area 2, Partnerships and Cooperation***

Undoubtedly, it is quite beneficial for Institutions of HE to develop collaborations and research cooperation with their environment (other universities, industry, employers, research centers, government, etc.) as indicated in the five standards listed under this area (environment, collaboration policy, cooperation with institutions, international mobility and cooperation with stakeholders). Yet, some clarifications or additions might be useful to put some things in perspective. In a highly competitive market – as the Lebanese HE market – universities cannot be required to cooperate with other local universities knowing they compete for the same things (more students, best faculty members, funds from foreign programs, etc.). Moreover, the size of the country in comparison to the number of HE Institutions operating on its soil is very small, and consequently doesn't provide large and varied opportunities for Institutions in terms of local cooperation. In fact, all HE Institutions will find themselves striving to collaborate with the same companies, to apply for the same research programs, etc. when the market is already divided between the big players.

Studying the employability of students (mentioned under the environment standard) is good; what would be better is studying their first destination, their employment profile and their average starting salary. In Lebanon, many graduates are often overqualified for their job, forced to work in a demeaning position, or in a different field from the one they majored in. Analyzing their employment profile is a real indication about the employability of an Institution's graduates.

Mobility of faculty and staff (topic repeated in Area six, Faculty and Staff) is acclaimed in the academic community as it develops the human capital of a society (Barker K. C., 2003). However, its financial implications are often ignored. The absence of faculty

and staff because of their international mission is an expense (or investment depending on how one views it) for the Institution. Therefore, it is very important to study the added-value or the Return on Investment (ROI) of international mobility on teaching and research in comparison to its cost, by following-up on the implementation of the newly acquired knowledge at the service of the Institution. The faculty or staff who benefited from a mobility program should demonstrate improved competences, better performance (in teaching or administrative work), increased motivation, innovative methods, etc. knowing that international mobility programs organized and funded by international organizations, don't always cover subjects or assignments that meet the strategic needs of the Institution. Moreover, the selection criteria of who should participate and who should not, is an important aspect that was also overlooked in this study. It is known that the selection process can be more or less subjective or unfair and that sometimes personal favors or contacts can play a major role. A proper and transparent procedure for identifying the needs, selecting the right persons and monitoring the ROI should be required instead of just requiring mobility.

#### ***Area 4, Graduate Programs***

First of all, the authors separated the standards related to the graduate programs from the rest of the teaching activities as if certain quality norms don't need to be applied to undergraduate studies. Second, they limited the research aspect to graduate programs whereas research can be performed by faculty members even in the absence of graduate programs at the Institution.

In this area, emphasis is done on admission requirements. In a market governed by private Institutions, one can put tight admission conditions until the competition starts enrolling the candidates you rejected. The standard requires that the applicants to graduate studies fulfill certain admission requirements based on international and national norms. But what are those international standards pertaining to the admission requirements for master studies? How can a minimum GPA (Grade Point Average) be the sole admission basis when each country/university follows a different grading system and when there is a huge quality gap between HE Institutions? For example, a student could get a B grade in an Institution with high standards when the same student could have been given an A at another less demanding Institution. Since many grading and assessment gaps exist between Institutions (and countries), and since grades alone don't define the profile of an applicant, the focus to assure quality in graduate education should start somewhere else than simply "copying" other countries.

#### ***Area 5, Programs and Curricula***

Program and courses' outcome and objectives are a vital starting point to measure the overall academic performance of a HE Institution. This concept is clearly indicated in Area five of the guide. However, what should be stressed upon is the method to do so; 1) how can an Institution make sure that the stated outcome is correct, suitable and complete?

Standards should indicate the procedures put in place when creating and updating those objectives and outcomes, 2) how can the learning outcomes be objectively assessed? 3) how can the Institution make sure that the course's objectives were truly and exhaustively met?

The authors also address the idea of “copying” other programs from other universities ([...] *integrate with the existing range of programs of HE offered by universities [...] curricula are compatible with those offered by other universities in Lebanon in terms of content and requirements...*). In other terms, only foreign programs bring legitimacy, Institutions are prohibited to innovate, add a competitive edge or bring new insights into a field of study and let the market decide on which outcome is more valued. On the contrary, HE Institutions should be encouraged or required to bring new value in their programs and be forbidden to copy other curricula. They should base their curricula on a study of the demands of the job market and not on what the others in another country are doing.

### ***Area 6, Faculty and Staff***

In this area, the recruitment procedures, teaching loads and qualifications of faculty and staff are covered. Teaching load or workload is required to be adequate. However, it cannot be discussed independently from job description, size of department, size of Institution or total number of faculty members. A faculty member in a department with little research activities (for example audiovisual arts) cannot be required to have the same research load as one in a science department. Moreover, a small department with very few students cannot require time allocated for administrative or advising tasks like another department with a large number of students. Furthermore, a department requiring internships and trainings supervision necessitates a different distribution of workload among faculty members and higher number of full-timers, etc. Therefore, indications of good practice in each case would provide Institutions with a clearer roadmap as to how the workload of its faculty members should be distributed and not set a fixed and standard rate for all.

Another standard is the emphasis on the benefits that should be given to faculty members whether medical or for personal development. It is indeed important to motivate human resources and make them loyal for several reasons, but giving them incentives shouldn't be required from the Institution as a pre-condition for quality or as a standard assessing the performance of an Institution of HE. Whether to provide medical coverage or research assistance or not, should be a right strictly and exclusive exercised by the Institution's management. At the end of the day, even the HE market is ruled by demand and supply. Demand is what the Institution needs in terms of skills and competencies to fill a certain job. Supply is the profiles that are likely to be available (on the market or inside the Institution) that fit the required job. When a faculty member doesn't possess the right skills or doesn't update his/her skills by doing research or continuously updating his/her knowledge, he/she will be probably left out of the market. In other terms, research and personal development are the responsibility of the faculty member (or staff) to remain desired and fit for purpose. Also, if the employment conditions don't satisfy the faculty member, he/she can choose not to be employed by this Institution and look for another place

offering better conditions. The same rule of market demand and supply applies both ways. In other terms, the Institutions may in some cases (need for high profiles, specialized fields, scarcity of suitable candidates, etc.) have to offer a large array of incentives to attract the best and right people to fill a specific position. In competitive periods, Institutions will need to improve the work conditions of their own faculty members, as a way to preserve a stable environment. When systems are feeling competitive pressures for productivity, bidding wars can develop for certain high-performing academics. Institutions seeking rapid improvements in their rankings often offer large amounts of money to hire “stars” who can drive that uplift (Gilbertson, Moneer, Kam, & Twaddle, 2018).

As for the students to faculty ratio, the guide suggests 20/1 in total and a minimum of 30/1 for full-time faculty members and it doesn't indicate if the ratio is to be applied over the whole Institution or per department. While it is important to set guidelines or norms, we find it crucial to link this ratio to the nature of the department. Some departments require the presence of full-timers more than others – like the case of fields requiring internship supervision – and some others (such as business departments), don't require that much. Apart from the financial burden this condition entails, the second comment is that a high number of full-timers implies that a significant number of courses will be given by them as part of their teaching load. This would limit the diversity and richness of the curriculum provision in medium to small-size Institutions. On one hand, full-timers are academicians who are dedicated to teaching and research, and who have been most probably disconnected from the industry for a while, on another hand, the personal input and unique experience in the professional world of each faculty member is essential to provide students with a valuable and diverse learning experience. In that case, Institutions will have to decide between underutilizing their faculty members (and have part-timers teaching specialized courses) or sacrificing diversity and adequacy of teaching (and have the available full-timers teach most of the courses).

The third idea is that while some Institutions might respect the overall students to faculty ratio, they can have an imbalance in the distribution of the faculty members between departments. This standard therefore, doesn't guaranty a well-balanced distribution of faculty members.

Moreover, in this area it is also suggested that faculty members (and the course they teach) are assessed through evaluation forms filled by students. These forms should give a feedback on the faculty member's teaching and assessment methods, communication skills and general information about the course (its workload, difficulty and relevance to the major) as evaluated by the students. Students' surveys are very important, however, it has been proven that their reliability is questionable (Naylor, 2019). Satisfaction or evaluation surveys cannot be the ONLY basis for a real assessment of the overall performance of a faculty member and of his/her course. Even if we consider that the survey was well thought through and proof-tested (free of misleading or unavailable answer options) it still won't be enough. First of all, not all students might fill the survey, and if they do, they would probably just fill it without really taking the time and giving it the seriousness it deserves, because they are not encouraged to give accurate and honest answers. Also, if the students should

fill all the surveys at the same time at the end of the semester, they will experience burn-out, which will lead to surveys filled thoughtlessly or might lead to much lower or much higher scores in general. Furthermore, in many cases students may not be fully aware of their reasons for any given answer, either because they didn't totally understand the question or interpreted it in a different way, or for a lack of memory about a certain topic or simply out of boredom and disengagement (Bob Uttl, 2016). That is why the standards should emphasize more teaching performance assessment to evaluate the faculty members' teaching activity and use the students' survey as an additional evaluation method or to evaluate other areas.

### ***Area 7, Students and Student Infrastructure***

In this area, one of the standards is students' retention. As much as this topic is important from national and institutional perspectives, as it indicates efficiency and social and economic benefit, it is even more significant in the case of private Institutions. Unlike public HE Institutions where this ratio is used to demonstrate their effectiveness and deservedness of public funds, private Institutions need to ensure that the majority of their students remain enrolled from one semester to the other for continuity, sustainability and growth. Therefore, retention in the particular case of private for-profit HE Institutions doesn't really represent a quality indicator. What actually does represent quality in that case, are the favors or compromises that the HE Institution has to do to keep and retain students. In a competitive market with a transferrable system of credits, it has become very easy for students to change Institutions for sometimes less than reasonable motives. It could be as unconvincing as being rejected an academic appeal or an additional financial aid request. As soon as another HE Institution offers an advantage no matter how minor or deceitful it is, the student can have his/her courses transferred to the "fishing" Institution.

Another curious quality standard listed in area seven, is the necessity of having a clear distribution of the students' population by gender. It might be useful for statistics on education equality and access but it doesn't really give an idea of the academic performance of an Institution and it certainly doesn't guaranty the quality of its education.

Financial aid is a sensitive topic in private Institutions. The guide requires HE Institutions to offer financial aid to students. On one hand, Institutions would want to be price competitive and attract students, on another hand, they want to remain profitable. Also, an aggressive financial aid strategy might harm the image of the Institution or attract only a certain category. It can understandably increase the enrollment numbers but it definitely doesn't assure quality. In any cases, financial aid policy should remain the sole discretion of the Institution and not conditioned by accreditation standards as long as the policy is clear, equitable and clearly published.

On the point of integration of new students, the authors cited information sessions at secondary schools and contacts with the school teachers as two of the quality indicators. How is defining the recruitment tactics or public relations strategy with secondary schools a way to ensure quality at the HE Institution? On the contrary, those sessions with secondary



school students or their teachers might open the way for an inflated advertisement of the Institution's services, which might contradict the integrity and transparency topics that are at the heart of quality assurance.

### *Area 8, Services and Facilities*

Self-evaluation standards and consequently accreditation standards often focus on inputs and processes rather than on outcome. The rationale is that when minimum resources are ensured, it is safe to assume that the Institution has an acceptable level of quality or will have acceptable outputs and outcomes. This principle allows Institutions with great facilities but poor learning outcome, to be considered as ticking the box and having a good quality performance. Recently, the trend in accreditation and quality assurance is to shift the focus more towards outcome measures (learning, employment, etc.) than on only ensuring that a set of inputs (or enough resources) is existent and adequate (Chalmers, 2008). The number of books in the library or the number of printers in the offices don't guaranty the level of competencies and knowledge that the students will acquire nor the teaching quality of the faculty members. The most sophisticated and well-equipped classroom doesn't guaranty a good teaching methodology or good learning outcomes, they certainly do help but they do not constitute a pre-requisite, as long as minimum facilities are available.

Another standard is the number of students per class. The question whether class size has a significant effect on learning is a long-standing and controversial debate. Studies conducted by educational institutions (schools and HE Institutions) showed that class size had little to no impact on the ability of students to retain information or know-how to use this information during the exams (Hornsby & Osman, 2014). Also, it certainly depends on the type of the course. Some courses are better given in small groups while some others don't need to. When cost-effectiveness is an issue, class size becomes a sensitive matter as it greatly influences teaching cost. It is worth noting that at the LU, the university that should serve as example, some classes contain up to 300 students in very poorly maintained classrooms. Why imposing a condition on PHEI that the state university doesn't even fulfill?

In the campus standard, it is mentioned that Institutions should have an abundant green area and sports courts as well as accommodation for students. Abundant is a very vague term and generous green areas are unlikely to be found in the big cities where most of HE Institutions have their campus. Obviously newly founded Institutions will have more difficulties securing large recreational areas than those created many years ago, as spaces became scarcer through the years. While providing students with a space where they can spend their off-class time is very important, defining quality based on the surface of green area (sqm. per student) or the presence of an ATM or a bookshop on-campus, is almost futile.

The standard about career development and employment - career and alumni, points out to the career placement of graduates, the support of the alumni and the organization of a job fair on-campus. In our opinion, it would be more useful to stress on the profile of the graduates' employers (quality, size and adequacy of position to the field of study), the

starting or average salary earned by the graduates (that is a good indicator of the value employers have towards the degree of an Institution) and the feedback of the employer on the technical and soft skills of the graduates, instead of requiring job fairs. The authors proposed a survey to be filled by the employer, but it lacks essential components and it doesn't take into consideration the field of study nor the level of the position.

## APPENDIX D

### STUDENTS' ENGAGEMENT IN HIGHER EDUCATION

#### 1- Definition of students' engagement in Higher Education

Known to benefit both the student and the Institution, student engagement should not be confused with customer-service. While the latter aims for improving quality assurance processes and students' satisfaction – for financial and marketing purposes – highly engaged students are a real asset. They are active partners within their Institution and play an important role in its improvement efforts and even in the development of their community. Engaged students also develop communication and negotiation skills, analytical thinking and leadership skills. Dedicated and motivated students take-part in educationally purposeful activities, put effort and time in those activities, have a high sense of belonging, find meaning in what they are doing and have the needed persistence and perseverance to move forward (Tanaka, 2019). Students' engagement in HE holds many facets; it can be the result of an individual effort led by a faculty member and his students, an external quality assurance requirement, or a new government priority (as is the case in Sweden and Finland for example).

The meaning of the term “student engagement”, though used differently with a more or less broad signification, refers to students' representation, participation, voice, motivation, time and effort devoted to academically effective practices, partnership with faculty members, and much more. No matter how student engagement is actually demonstrated, the objective remains the same: students' engagement efforts aim to optimize the student learning experience and performance while contributing to the betterment of the Institution. Obviously, there are many degrees to students' engagement. Its extent can depend on the government's policy, the socio-cultural context, the Institution itself, the faculty members and more importantly, the students. It is worth noting that even when countries recognize in their legislation the relevance of student engagement, this recognition is hardly translated into effective practices by including students' voices in decision-making and governance structures. Students' engagement is express through one or more of the following concepts:

- Students' representation: It is the presence of one or more students on important councils and boards within the Institution. They have a seat at the table and their opinion can be more or less heard, valued or taken into consideration. In general students' representatives are those who have been elected by the students' union, association or activist clubs. They can bring added value to the councils and to quality assurance efforts because they provide new insight as they see the situations from the learner's perspective;
- Students' participation: It can range from simple feedback – through satisfaction questionnaires commenting on the cafeteria services – to course evaluation, participation in curriculum design and development, to ultimately participate in the internal or external quality assurance activities. The opinion of the learner is in this

- case placed at the center of quality efforts and is therefore, an essential component of quality assurance and quality improvement. Students can also participate in external evaluation panels (as part of governmental evaluation committees or accreditation peer-review councils);
- Students' partnership: A true student-faculty partnership changes the traditional role and equation between students and their professors but it doesn't mean that the professors would be less respected or their expertise less needed. By adopting a student-centeredness approach, students' learning conditions will be improved, their engagement increased and they will be held more responsible for their own learning (Chalmers , Lee, & Walker, 2008). Through this collaborative process, students can participate in the course design, and have the opportunity to contribute equally to the course, although not necessarily in the same way as the professor, and they will be challenged to work harder. Also, through partnership, there will be a conversation shift from discussing grades and attendance with professors to discussing career plans or participating in constructive academic topics. This new relationship between students and their professors can add a lot of value to students' academic success and reduce dropout and failures (Tanaka, 2019).

Masahiro Tanaka examines students' engagement over three levels (Tanaka, 2019):

- Micro: This level defines the level of students' engagement in their own learning and that of their peers. It aims at improving the students' learning experience which will result in an improvement of learning outcomes, sense of belonging and higher overall satisfaction in the academic experience. One can argue that the more satisfied, the better the academic results and the motivation of the student. This virtuous cycle will also result in a better students' retention, completion and graduation time, which in turn, will benefit the Institution;
- Meso: This level defines the engagement of students in quality assurance processes. Students' opinions and evaluation can help in the continuous improvement efforts of the Institutions. Whether directly (through direct contact and feedback given to faculty members or to the administration on a specific topic or through the participation of students in quality assurance activities and councils) or indirectly (through satisfaction questionnaires or surveys), students' engagement at the Meso level is an important asset in any successful quality assurance endeavor;
- Macro: This level is about the engagement or involvement of students in the strategy of the Institution. By having a seat at some or all senior-level boards and decision-making bodies in their Institution, students will be able to participate, contribute, and make their voice heard on a wide range of subjects. This co-governance makes students more responsible and aware of the complexity of the Institution's governance, and will contribute to a better communication with the rest of the students. In some countries, students are also represented in national councils and steering committees.

Success stories from countries like Sweden or Finland, prove that it can be possible to involve students in strategic decisions. However, there are some considerations that make full and authentic students' engagement difficult and challenging. It is unfortunately the case of PHEIs in Lebanon as will be detailed in the following paragraph.

## 2- Challenges of students' engagement in Lebanese Private Higher Education Institutions

In Lebanon (and many other countries like Brazil or Mozambique), several challenges impede the implementation of a genuine and beneficial student engagement:

- Political interference: In Lebanon, politics and political parties interfere in the students' life, affect students' representations and often end-up having their word to say at the universities' board. When clubs and students' associations are formed in a PHEI, politics interfere in the elections. Every major political party would want to have his partisans elected. Here starts some less than fair power and influence struggle using doubtful means. Once elected, those representatives actually represent their party rather than the students' community. In this case, the whole representation and engagement ideology becomes nothing more than an accessory to a higher purpose: representing the political party. Some clubs have so much influence that they can organize a strike and suspend courses if a certain decision doesn't fit their agenda. For a real students' engagement experience, PHEIs should as much as possible separate students' clubs and politics from the real academic representation that should serve all students regardless of their political affiliations;
- Political activism: It is a type of students' engagement that emerged in some countries characterized by social inequalities and authoritarian systems where students' voice is ignored. In this context, students had to resort to some sort of political pressure to be able to express their demands or discontent and to claim a fair and transparent representation. In some countries like Brazil or Lebanon, at a certain point in time, students have occupied the university's buildings, protested and revolted. In other countries – mainly on the African continent – students have engaged in radical and nationalist activism against the university governance and even against some political leaders. In some cases, this activism paid off, and students received some kind of recognition, even if it remains precarious and far from real partnership. In other cases, activism failed and resulted in the fragmentation of the students' organization by manipulating student leaders through influence and corruption;
- Social context: The social background of the students plays an important role in their perception of engagement, participation and motivation. Students who come from a low social status enroll in affordable PHEIs and usually come from high schools that don't really develop the sense of responsibility and community assistance. First, those students tend to be less mature and unable to get the big picture when it comes to giving their opinion or engaging in fruitful activities. Second, most of those students have to work during their studies in order to partly or fully pay for their

education and in some cases support their family. They will not have time nor energy to spend on-campus taking part in what seems for them luxurious, idealistic or abstract activities. Studies have shown that even their attendance to courses is in general weak. They miss class because their time is precious and they need to spend it on making money instead of participating in seemingly useless meetings or helping others when they are the ones who need help. They also have less time to study for their courses, therefore, their academic performance may not be satisfactory, which in turn, makes it even more difficult to get them involved. In a sense, student engagement seems to be only applicable to a happy minority of students who can afford the luxury of spending time outside the classroom to study, engage and assist others;

- Background and perception of faculty members: True and effective partnership between students and faculty members is a very sensitive subject. There is a very thin line between mutual respect, student-centeredness, active learning on one side, and invading the professor's leadership, blurring the roles or ending-up pampering the students and accommodating their wishes on another. Faculty members should have the qualifications needed to understand and adopt this approach without fear or weakness, backed by the administration of the Institution, whereas students should have enough sense of responsibility, maturity and discretion to not forget that professors cannot be replaced and that they have the ultimate responsibility and the last word when it comes to the course. Therefore, it is very important to have a clear understanding from both sides, what partnership means, what should be done and what should not, which is not the case in Lebanon from both sides. Most faculty members are not familiar with this modern concept and students lack maturity to understand it;
- Profile of the students: For a student to be able to represent his/her peers while having enough maturity and common sense to deal with institutional decision-makers and members of national committees, he/she should have an adequate profile that is sometimes hard to find; basic experience in quality assurance and representation, minimum residency time at the Institution, good communication skills, sense of responsibility and an understanding of the educational system. Finding such profiles is hard and short-term. When a suitable student is found and trained, he/she has to graduate soon, the Institution will have to train and coach another one with the same qualities, which brings it back to the starting point. Also, if the qualified student doesn't participate in quality assurance meetings or important institutional councils, they may lack the necessary tacit competencies to participate in quality assurance evaluations;
- Students as customers and not as partners: When Institutions ask students to fill-in surveys and questionnaires, this qualitative and quantitative data will be used by the Institution for improvement purposes, statistics, institutional research and planning. In other terms, students are considered as customers, and customer satisfaction should be a priority (as previously discussed). But this doesn't mean that students are involved at the macro-level even if they have a so-called seat at the table of some meaningful councils. More often, they are only there to fill a seat and their voice is

not always taken seriously or taken at all. They can participate in discussions but not in decision-making. In this case, students will tend to disengage. Partnership however, a real one, opens the door to a whole new level of engagement and drifts away from this consumer-oriented mindset. When faculty, staff and students join forces and become partners in learning, governance, quality assurance and decision-making, they create a fruitful and positive connection that will make a difference in the students' learning experience and even in their life and in the Institution's overall performance. The consumerization of HE in Lebanon (refer to section 3.3.2.2 in chapter three) and the students' profile and background, prevent the implementation of a real partnership in most PHEIs in Lebanon.

## APPENDIX E

### DESCRIPTION OF PERFORMANCE INDICATORS COMMONLY USED IN HIGHER EDUCATION

Performance Indicators commonly used in HE are described as below:

- 1- Learning outcome: It can be defined as the increase in understanding, knowledge and skills of students, achieved as a result of the period of study. While it is stressed upon in most accreditation standards, this subjective indicator is very difficult to measure. There are academicians who advocate the use of surveys based on self-reported measures and there are those who support the use of more objective test-based measurements. While grades remain the traditional and accepted way of measuring learning outcomes in HE, they are often criticized for their lack of reliability. Studies have shown that assessors disagree significantly in their grading and that there is a lack of common standards. The primary aim of grades and tests is to measure individual students' learning outcomes (or students' level of acquired knowledge and skills), while the aim of surveys and self-reported outcome measures is mainly to assess the quality of educational programs and their contribution to students' learning. However, self-reported results did not correlate well with test-based measures of similar constructs in cross-country comparisons. Low-achieving students tended to overestimate their achievement and high-achieving students tended to underestimate their achievement. Although those who advocate self-reported measures admit that these are somewhat biased, they claim that they are complementary supplements to test-based methods. It is recognized that self-reported measures do not measure actual outcomes, but rather students' perceptions and attitudes and their performance increases as they become more experienced. Others emphasize that students have a limited capacity to assess their cognitive outcome and that a close correlation exists between self-reported outcomes and students' overall satisfaction. Another trend in measuring learning outcomes is the performance of subject or profession-specific-assessments that focus on core competencies, including knowledge, skills and problem-solving. (Caspersen, Smeby, & Aamodt, 2016). Our point of view is that learning outcomes should be measured combining various approaches, meaningful results can only be reached in two conditions: 1) Having a clear statement of the intended learning outcomes expected from each course/program, 2) objectifying, standardizing and diversifying as much as possible the assessment methods. Moreover, outcomes of teaching and learning have to be set in the context of the educational and social backgrounds of the students (their entry qualifications) as well as the context of the Institution and its faculty members (Tremblay, Lalancette, & Roseveare, 2012). Some indirect ways of measuring students' learning outcomes are Teaching Quality Assessment and Course Experience Questionnaire (CEQ). The CEQ is the result of a previous work originally carried out by Lancaster University in the 1980s. It is used as a *measure*



*of perceived teaching quality in degree programs in national annual surveys of all graduates in the Australian HE system and is increasingly being employed as a measure of the quality of teaching in universities in the UK (Wilson , Lizzio, & Ramsden, 2006). While it is not an exact indicator of teaching performance, the CEQ is today an adapted assessment instrument that measures students' learning outcomes in several countries.*

- 2- Access: This indicator measures the under-representation of some social groups in HE. It is particularly important for Institutions who are public and need to demonstrate inclusiveness. This indicator is considered poor when the social distribution of students differs significantly from the population from which they are drawn. In general, judging the success of an Institution's policies regarding access of education by looking at this indicator alone is not enough. Institutions need to be able to recruit "non-traditional students" (e.g., mature, part-time students) with the potential to benefit from HE, and then to provide the support necessary to maximize their chances of success. To measure how under-represented a particular social group is, it is necessary to obtain estimates of both the student population and the population from which they are drawn. In general, it is not possible to provide these estimates with any degree of precision, which means that only a limited number of sector-wide measures are possible. However, from approximate estimates, it is possible to identify groups which are significantly under-represented, even if we cannot know exactly how much they are. Institution-level statistics can then be derived by comparing the proportion of entrants to the Institution from an under-represented group with the proportion entering across the sector. For PHEIs we consider that this indicator only defines the social trait of the Institution and not its educational quality.
- 3- Progression or progress rate: This indicator shows how students are successfully progressing towards gaining a qualification. It is the number of students from a given semester who get to their graduation date in a satisfactory progress rate. A satisfactory progress rate is when a student's projected date of graduation is on or before their latest graduation date. Comparing progression rate between different Institutions with different entrant profiles would be most misleading. In fact, the subject mix, entry qualification, age and social background of the entrants all need to be taken into account. For example, we know that students with a high level of previous educational achievement are more likely to complete their courses in an acceptable residency time, than students with non-traditional educational backgrounds, and this needs to be taken into account when producing and comparing progression indicators. The effects are most likely to be seen in the rates of progression from the year of entry to the second year of study. The progression from the year of entry is relatively easy to calculate, and is one of the most robust measures available. The progression of students after their year of entry, and the resumption of studies after a year of inactivity, are just two of the many progression routes taken during a course of study that can affect this indicator.
- 4- Completion: It is the percentage of students who actually complete their qualifications. They illustrate different aspects of the student's experience, as well

as an aspect of the relative efficiency of Institutions in providing for their students. It is however important to make a distinction between students that discontinue or fail to qualify for academic reasons, and those that discontinue for other reasons. The completion rate can be affected by the profile of entrants. A higher completion rate can be expected if significant numbers of students start their studies in the second or later years of the program of study. Indicator of non-completion is an important concern to funding bodies, students and government.

- 5- Engagement: Students' engagement relates to students' commitment and engagement with their own education. It is also important to include staff and faculty engagement that are often overlooked. While it is a relatively new quality requirement, its calculation is tricky. More details on students' engagement in HE can be found in appendix D.
- 6- Employability: This important indicator reveals how much the Institution's provision responds to the job market needs. It is the rate of students who get an employment following their graduation. While it also depends on the country's macroeconomic factors, it gives a good indication on the quality of teaching. The first destination survey collects extensive data on graduates six months after graduation. It would however be useful to separate graduates seeking employment from those who are undertaking further studies. The indicator should also provide an adjusted sector percentage, taking account of the fact that employment success is correlated with the previous educational experience of students and the subjects they study.
- 7- Starting salaries: Some Institutions have been providing very detailed descriptions of their graduates' destinations for decades. Typically, these were originally produced to inform their current students, and to make academic staff aware of degree course outcomes. In recent years such material – when appealing – has been made available to prospective students as a marketing tool.
- 8- Learning efficiency: It concerns statistics relating to input measures. It can be the amount of resource spent per student, such as the full-time equivalent faculty members per student, or expenditure (academic, administrative) per student. It is important to mention that results in one direction don't automatically suggest a good or bad outcome: more resources per student can mean less efficiency or a proxy for teaching quality. Interpretation here depends on the Institution's strategy.
- 9- FTE: Student's full-time equivalent indicate the real number of students if they were all enrolled on full-time basis.
- 10- Research impact and productivity: Measuring the extension of knowledge through research is particularly difficult because research activities cannot be counted as equivalent and therefore, cannot be added-up or compared. Paradoxically, research indicators are the most used indicators in HE; number of publications per faculty member, ratings of those publications or research income, are not an absolute indicator of research impact or productivity. For instance, Institutions allocating large amounts of resources for high quality research centers and for a high number of active researchers, tend to receive larger funding allocations and consequently invest more in research ((PISG), 1999). It is therefore advised to use several

complementary measures to assess research outputs (like PhD awards, research grants or industry contracts). Also, such indicators heavily depend on the nature of the Institution's programs as some of them tend to have more research possibilities than others and some others tend to be higher on the priority level and receive more funds.

- 11- Bibliometrics: It is a research output statistic based on articles published in academic journals and other publications, where data is already captured in an electronic form and where it is technically possible to derive publication and citation counts from these sources. It provides the opportunity for analysis of publications and citations and international comparisons. It may be technically possible to derive such statistics at an institutional level, but this is not, in any case, recommended. Although such a statistic can work well for large scale comparison, the results at an institutional level may not be meaningful. Papers and citations of papers could be counted and used to derive the following for broad-subject areas: Number of publications from HE Institutions or all researchers in a certain country, number of citations of publications from HE Institutions or all researchers in a certain country, etc., comparisons per countries (percentage of the country's research output and of world research output). The interpretation of these indicators would need a knowledge and understanding of the various factors, other than research output, that can influence the bibliometric statistics. Special attention to the time lags should be done as yearly comparisons might not show significant differences. While bibliometrics is widely used to assess research output, it is a poor reference in some fields (humanities, arts).
- 12- Patents and industry contracts: They include value of research projects commissioned by / in collaboration with the industry, consultancy work / income from licenses / patents, etc. It is believed to be a good indicator of an Institution's scientific impact on the community.

## APPENDIX F

### CURRENT CONTEXT OF DIGITAL LEARNING

One dramatic change in HE over the past two years was the rapid shift to online learning. While the last decade had witnessed a steady growth of distance and online learning, the forced lockdown during the pandemic compelled all educational Institutions to move their operations online, whether prepared or not. But even before COVID-19, technological progress had resulted in *unprecedented growth and easy access to sophisticated simulation, use of mobile devices, and virtual social structures that create unlimited potential to develop online class learning experiences for learners of all ages and experience levels* (Mast & Gambescia, 2013). While online learning was becoming well integrated into the HE environment worldwide (online learning doubled from 1.6 million in 2002 to 3.94 million in 2007 according to the annual Sloan Consortium (Sloan-C) survey of online learning (McCarthy & Samors, 2020)), Lebanon had barely joined the trend. Moreover, up until 2020, any form of distance learning was not even recognized by the MEHE. Nevertheless, we consider that it is important to address the issue of online education and propose specific standards to guaranty a minimal quality of online-delivered education.

Even before the pandemic, there were growing concerns worldwide about the quality of online learning. In the US for instance, a report in 2010 showed that 48% of faculty members rated online education as inferior to face-to-face education. Moreover, some fields do not accept graduates from online programs and some universities do not accept transfer students who studied online (Jung & Latchem, 2012). Critics of online education are urging the creation of quality assurance systems that would safeguard online teaching and learning standards. Some quality assurance agencies have responded to this new challenge and there is considerable dialogue about ensuring quality in distance education. Others think that quality assurance practices for distance education are essentially the same as those used for conventional education and they don't distinguish between on-campus and online programs with regard to key elements for accreditation. We agree with those who consider that distance education tests conventional assumptions and therefore, "*the present mechanisms of quality assurance are inadequate to ensure the quality of distance education*" (Stella & Gnanam , 2004). The curricula, teaching methodology, assessment methods and support mechanisms in online and distance learning call for special efforts and even special performance measures (Jung & Latchem, 2012). With the expansion of digital learning whether for continuing education or as an alternative educational method (following the COVID-19 pandemic), it has become crucial to devise specific standards that could guaranty the quality of education delivered online.

## APPENDIX G

### PARTS OF A STRATEGIC PLAN

A strategic plan elaborates a high-level strategy and articulates the elements that influence it. It is a full description of the organizational environment and intentions. A well-documented strategic plan is critically important for organizing thinking and communicating thoughts, it includes elements that describe an organization's present state, aspirations, intentions for the future, and approach for going forward. A strategic plan holds many parts, it includes:

- The mission of the organization. It is its primary business or purpose, it describes what an organization does, for whom, and its benefit. The mission of an organization is not a time-bound objective, it describes, in concise language, why the institution exists and what its operations are intended to achieve.
- The Vision. It is an ideal that an organization intends to pursue. It links the organization to the future by articulating instantiations of successful execution of the mission. An organization's vision is a source of inspiration and can be broader than the organization's capabilities. It might, in fact, describe what can be achieved in a broader environment if the organization and others are successful in achieving their individual missions.
- Goals and objectives. Although sometimes used interchangeably as they both describe desired outcomes and results, goals and objectives have major differences and significant implications. What sets goals and objectives apart is the timeframe, the level of concreteness, the way you measure them, and the effect they have on the organization. The term objective connotes specific achievement, a target reached, whereas the term goal is slightly more general in connotation. A goal helps set a course by giving a general direction, but it doesn't usually contain the specifics of its own completion. Goals are broad, long term, hard-to-measure aims that support the accomplishment of a mission, whereas objectives are the specific actions and measurable steps taken to reach the goals. They give a clear understanding of the specific tasks or projects that need to be completed in order to get closer to the primary goal. Objectives are specific, quantifiable, lower-level targets that indicate an accomplishment of a goal when associated with PIs and CSFs.
- Guiding principles are directive statements that articulate the constraints an organization chooses to place upon the way it achieves its goals. Guiding principles embrace core values and are used to shape an organization's strategy. Guiding principles reflect long-term intentions, but are not necessarily permanent.
- Enablers are external conditions or organizational strengths that facilitate an organization's ability to accomplish its goals or objectives.
- Barriers are external conditions or organizational (internal) weaknesses that hinder an organization's ability to accomplish a goal or objective.

A strategy supports the organizational vision, takes into account organizational enablers and barriers, and upholds its guiding principles. It is implemented through a specific set of actions to achieve a goal or objective. Actions typically have assigned staff and schedule constraints. PM describes performance targets relevant to each objective, track progress and creates elaborate metrics and PIs. Implementing strategic planning in HE Institutions is already a complex issue, the effectiveness of the exercise relies also on the capability of managers to determinate the right metrics for the right variables and performance drivers that affect objectives attaining.

It is useful to mention the attributes that strategic objectives should have in order to be useful, meaningful and practical. To use Arthur Lazarus' acronym, goals or organizational objectives should be SMART, meaning:

- **Specific:** goals should be well-defined, direct and focused;
- **Measurable:** goals should have a measurable outcome; they should be quantifiable to track progress;
- **Attainable:** goals should be realistic; they shouldn't be out of reach;
- **Relevant:** goals should be based on the current situation and environment of the business and be aligned with its mission;
- **Time-based:** a clear time-frame should be set during which the goal is to be attained (Lazarus, 2004).

APPENDIX H  
DATABASE OF PERFORMANCE INDICATORS

Indicator	Calculation	Variation	Use/Purpose
<b><u>Financial Indicators</u></b>	Financial PIs are the most widely used performance measurement among Institutions of any sector. They give an indication on the financial health, stability, solvency and sustainability of the Institution, on how well it can invest in the betterment of the resources and face any possible threats. As there are hundreds of financial ratios, we only cited the most relevant. Financial resources are essential for meeting the accreditation requirements of teaching and learning, by supporting research and community service activities, providing professional development for staff and research equipment for faculty members, offering adequate human resources that provide academic advising to students and support services.		
Profitability	Net profit/Total income		The excess of revenue after expenditure has been deducted, allows HE Institutions to calculate the profit they've generated for the period. This surplus enables them to establish reserves, invest in their facilities, infrastructure and teaching so that they can provide a better service.
Operational profitability	Operational result or EBITDA/Total income		This PI is designed to inform the operating efficiency and cost productivity of the Institution's core activities.
Return on Investment	Net profit/Cost of investment	Can be calculated for the whole Institution, by faculty or project	ROI is used to evaluate the efficiency of the Institution with regards to the capital invested. This ratio is important in the case of PHEI knowing that investments in HE are heavy and intended for a long period of time.
Net return on equity	Net profit/Total equity		ROE or return on assets measures the profitability of the business in relation to the shareholders' equity (Total assets minus liabilities). It is used for comparing the performance of companies in the same sector and to measure how effectively management is using a company's assets to create profits. This indicator is important in the case of PHEIs.
Salaries ratio	Total salaries + benefits/Total income	Can be calculated over the total income from	It is universally known that the biggest expenditure in any Institution of HE is the remuneration of its human resources (faculty members and staff) as teaching and related services are the main activity and salaries are the main direct cost to "produce" this activity. The percentage of teaching cost out of "teaching price" (tuition fees) gives

Indicator	Calculation	Variation	Use/Purpose
		tuition fees to have a more direct value	an idea about the adequacy of the pricing strategy or an indication about the presence of any waste or inefficiencies.
Academic salaries ratio	Total salaries of faculty members + benefits/Total income	Same as above	This indicator shows the weight of faculty members' remuneration (both full time and part time) in the total income. In PHEIs, this indicator is particularly important as it is directly affected by the number of students (critical indicator for income and profitability) and the number of faculty members (critical indicator in accreditation and quality assurance).
Full-timers salaries ratio	Total salaries of full-time faculty members + benefits/Total income	Same as above. Can also be calculated by faculty or department	This indicator shows the weight of full-time faculty members' remuneration to the total income. It indicates if the number and associated cost of full-time faculty members is coherent with the number of students and income generated from students' tuition fees.
Part-timers salaries ratio	Total salaries of part-time faculty members /Total income	Institution / faculty	This indicator shows the weight of part-time faculty members' salaries to the total income.
Reserves	Total amount of reserves/Total assets		Securing a financial budget for unforeseen events and emergencies is one of the most important requirements set by several accreditation agencies. The reason is to make sure that the Institution's financial resources are solid enough to face any unanticipated financial burden and consequently, not jeopardize the continuity and quality of its services.
Financial Aid or scholarship grants ratio	Total financial aid value/Total income ----- Number of students benefiting from financial aid/Total number of students	Can be calculated by faculty	This PI looks at the percentage of funds generated by HE Institutions that are being directed towards scholarships grants. HE Institutions are expected to maintain a percentage of their total revenue dedicated to scholarship grants as part of their social contribution.
Revenue diversity	Number of income categories with a		Institutions' income must be generated from various sources to minimize the risks of dependency on single-source funding. This indicator describes how much the



Indicator	Calculation	Variation	Use/Purpose
	share above the minimal threshold (to be specified by the Institution, for e.g.10%)		Institution's income has a diversified risk based on the percentage of each source of revenue (such as public funds, students' tuition and fees, international collaborations, research grants, donations, etc.) out of the total income.
Income from tuition fees	Total income from tuition fees/ Total income	Can be broken down by faculty or department	Particularly important for PHEIs, this indicator evaluates the dependency of the Institution on the students' tuition fees, being the main source of income.
Income from research projects	Total income from research/Total income	Can be broken down by fields	As many research projects might not yield income, this ratio gives an indication on the importance and effectiveness of revenue-generating-research in the Institutions' activities and how much the research income weights in the total income of the Institution.
ROI from research projects	Total income from research/Total research investment	Can be also calculated for each research project alone	This indicator compares the research income with the actual investment, as some projects might yield a high income but not enough to suitably cover its cost. It is important to mention that while income information can be easily retrieved, cost and investment data are harder to identify as often some costs are blended and separation or cost allocation can be tricky.
Income from consultancy work/patents (with the industry or the government)	Total income from consultancy and patents/Total income	Same as above	Consultancy works and patents perfectly exemplify the contribution of HE Institutions to the development of society. From another perspective, HE Institutions also rely on income generated from such activities. Identifying the weight of that income out of the Institution's total revenues clearly indicates the extent and success of such activities.
Donations or Fundraising income	Total income from donations and fundraising/ Total income	Can be segregated by country, type of donations, etc.	Donations or endowments are an integral part of the financial structure of many HE Institutions. Therefore, tracking the donations and the market value of endowments can provide a fairly good scale of the Institution's financial well-being and reputation. These additional income/assets provide Institutions with the ability to fund their operating costs with sources other than tuition fees and ensure a certain stability, by using them as a potential rainy-day fund.
Expenditures distribution	It is useful to monitor the weight of each expenditure category from the total expenditures amount. It informs about how the budget is allocated and what the largest cost-generators		

Indicator	Calculation	Variation	Use/Purpose
	are. It can depict trends or unusual variations. Below are the most common expenditures, but each Institution can choose to monitor what is the most important.		
Non-academic expenditures	Total non-academic expenditures/Total expenditures	Can be calculated over total expenditure / total income or total asset value	This indicator evaluates the weight of non-academic expenditure (from support services such as administration, maintenance, cleaning, marketing, etc.) out of the total expenditures amount (or out of the total income). It indicates how much it costs to assist and support academic services, it depicts trends and unusual variations.
Maintenance expenditures	Total maintenance expenditures/Total expenditures	Same as above	Large campuses need constant maintenance and reparation. The amount of maintenance cost from the total expenditures shows the weight of needed maintenance budget out of the total budget. When divided by the total income, it indicates how much income money is needed for maintenance, when divided by asset value, it indicates the depreciation state of the assets. High rates may indicate older assets or poor maintenance.
Library, IT expenditure, students' services	Total cost of library, IT and students' services/Total income	Can be segregated for each item alone	This indicator concentrates on the amount of money needed for the library (with books, periodicals and infrastructure), and measures the money allocated for improving the IT infrastructure (including software licenses, security, maintenance and distance learning platforms). It also measures the extent to which students are provided with support services (such as counseling and guidance, and professional advising) and tracks the sufficiency of money allocated to support social and extra-curricular activities. It is deemed important to highlight those expenditure items out of all expenditures as they are considered an essential support service for the delivery of quality education.
Expenditures gap / budget	(Total actual expenditures – Total budgeted expenditures)/Total budgeted expenditures	Can be divided by categories to identify those that have the largest gaps	This PI is used to evaluate the gaps between budgeted expenditures and real ones. It indicates how accurately the budgeting activity is being done and allows comparison over time. It also allows to reflect on the reasons behind those gaps and incites special attention on particular cost centers.
FTE (Full Time Equivalent)	Total number of credits sold/Maximum credits allowed for full-time load	Can be calculated by semester or by academic year, by	FTE is the equivalent number of students if all were enrolled on a full-time basis. It helps compare enrollments between faculties, departments or HE Institutions, normalize some ratios, allocate resources and monitor trends. Using the number of students alone gives inaccurate information because with the credit system, a students can

Indicator	Calculation	Variation	Use/Purpose
		faculty or for the whole Institution	choose to register any number of credits (within the minimum and maximum margins) and consequently biasing the statistics. This indicator can also be considered under the operational indicators.
Total spending per full-time student or Cost per graduate	Total expenditures/ FTE	Institutions may choose to include or exclude some cost categories (core education services, support services, etc.) for more specific ratios	This indicator is very important for comparison and benchmarking between HE Institutions and between countries for policy making. A higher spending per student is traditionally considered to be a sign of quality. However, a balance between quality of education, access to education or excess spending (inefficiency) should always be pursued. This indicator is heavily influenced by faculty members' salaries, facilities' cost and the number of students. To note that students enrolled on a part-time basis increase the spending.
Administrative spending per full-time student	Total administrative expenditures/ FTE		This PI measures the average amount of money Institutions spend on administrative services for each of their (FTE) students. Keeping an eye on per-student spending is crucial to ensure the balance of spending across essential services.
Total teaching and research cost per student	Total teaching and research cost/FTE		Same as above. The emphasis here is to measure per student, the average amount of money spent to deliver and improve the quality of teaching and learning processes as well as research.
Recruitment cost per student (cost of enrollment)	Total recruitment cost (orientation, admission, advertising, marketing, schools visits) /Number of new students enrolled in a particular semester	Can be broken down by faculty or department	This PI measures the amount of money invested to recruit one student. It gives an idea about the effectiveness of the recruitment policy and marketing strategy of the Institution. To note that enrolled student doesn't mean retained for following semesters. Retaining students involves different kinds of expenditures. This indicator can also be part of operational indicators.
Cost of walk-in	Total recruitment cost (admissions, orientation, advertising, marketing, schools visits, etc.)/Number of	Same as above	This variation of the previous indicator informs more about the effectiveness of the recruitment strategy as it doesn't take into account the last step of convincing the potential students which depends on the performance of the admissions' team and the pricing/financial aid strategy (measured in a different ratio). It actually shows if the

Indicator	Calculation	Variation	Use/Purpose
	walk-in students prior to a particular semester		marketing strategy was effective enough to interest students and make them visit the Institution's premises.
Students' payment ageing (in days)	Total students' balances (due and undue)/total tuition fees x 360	Can be distributed by faculty or cohort	This ratio indicates the average time it takes to collect students' fees. It is important to follow its trend over semesters and years. A lengthening in this ratio indicates longer delays in students' payments which will have an impact on the Institution's working capital and cash-flow. To note that many PHEIs divide semesters' fees over several installments to ease the financial burden on students.
Unpaid balances to revenues	Total students' unpaid balances/Total tuition fees		It is important to enroll and retain students, but it is as important to make sure those students pay their tuition fees and don't carry with them overdue balances from one semester to the other. If some do, their proportion should be kept under control below a certain threshold based on the cash-flow needs of the Institution. This ratio is different from the previous one. It is expressed as a percentage and uses unpaid balances that are already due for payment. A high ratio indicates a very lenient financial strategy and an increased risk of bad and doubtful debt.
Average academic salary	Sum of full-time faculty members' salaries/Number of faculty members	Can be segregated by faculties or academic level or degree	This ratio gives an idea about the average salary of a faculty members across the Institution. It is useful for internal and external (between HE Institution and countries) comparison and benchmarking and to normalize certain ratios.
Average staff salary	Sum of staff salaries/Number of staff	Can be segregated by office or degree	Same as above although this ratio would be more useful for internal comparisons only.
Tuition fees to median family income	Average tuition fees of the Institution/ Country median income	Family income data (if available) can be divided by geographical location/ social status/inco	This PI is important to understand the position of the PHEI with regards to the financial status of the population. It compares the tuition fees of the Institution with the median income of families to indicate how much the PHEI is accessible to the population or not. It can also be a tool to adjust the tuition fees or for the admission department to target the right group of people.

Indicator	Calculation	Variation	Use/Purpose
		me brackets	
Average tuition fees per student	Total income from tuition fees/FTE -----	Can be calculated by academic year or semester,	This indicator is about knowing how much is the average tuition fee paid by the students taking into account part time enrollments, financial aid, etc. It gives management a quick idea on how much income from tuition fees is expected (during the semester or the year) for budgeting and forecasting and can depict trends.
Average credit fee	Total income from tuition fees /Total number of credits sold	by faculty or for the whole Institution A variation could be the average credit fee	
Liabilities to assets ratio or Debt ratio	Total amount of liabilities/Total assets	Can be separated between long-term and short-term debt	This ratio measures the amount of leverage used in terms of total debt to total assets. It is a solvency ratio that examines how much of an Institution's assets are made of liabilities. A high liabilities-to-assets ratio can be harmful as it indicates a high financial risk. It also shows that the shareholder equity is low and points towards potential solvency issues. It may also indicate low borrowing capacity, which in turn will lower the Institution's financial flexibility. Like all financial ratios, the debt ratio should be compared with the industry average or other competing Institutions.
Debt to equity ratio	Total amount of liabilities/Net equity		This ratio is an important indicator that measures the degree to which an Institution is financing its operations through debt versus wholly-owned funds. More specifically, it reflects the ability of shareholders' equity to cover all outstanding debts in the event of a business downturn. It is a solvency ratio that includes both short-term and long-term debt. A rising debt-to-equity ratio implies higher interest expenses, and beyond a certain point, it may affect a company's credit rating, making it more expensive/difficult to raise more debt.
Interest Coverage Ratio	Operating income (or EBIT) / Interest expense	Interest expense can be compared to the operating income by	This ratio measures a company's ability to meet the interest expense on its liabilities. It measures how many times a company can cover its current interest payment with its available earnings before interest and taxes (EBIT). In other words, it measures the margin of safety a company has for paying interest on its debt during a given period.

Indicator	Calculation	Variation	Use/Purpose
		reversing the formula	The higher the ratio, the better the company's ability to cover its interest expense.
Liquidity	<p>Current ratio =  <math display="block">\frac{\text{Current assets (cash, accounts receivable, and inventories)}}{\text{Current liabilities}}</math></p> <p>Quick ratio =  <math display="block">\frac{\text{Current assets} - \text{Inventories}}{\text{Current liabilities}}</math></p> <p>Cash and cash equivalent/  <math display="block">\text{Current liabilities}</math></p>	There are 4 kinds of liquidity ratios: current ratio, acid test ratio (or quick ratio), cash ratio and working capital ratio (next row) depending on the kind of current assets considered in the calculation	Liquidity ratios measure the ability of a company to meet its short-term debt obligations or current liabilities with its current assets. The liquidity ratios are a result of dividing cash and other liquid assets by the short-term borrowings and current liabilities. They show the number of times the short-term debt obligations are covered by the cash and liquid assets. If the value is greater than 1, it means the short-term obligations are fully covered by the current assets. Generally, the higher the liquidity ratios are, the higher the margin of safety that the Institution possesses to meet its current liabilities. Liquidity ratios greater than 1 indicate good financial health and less likelihood to fall into financial difficulties.
Working capital ratio	$\frac{\text{Current assets} - \text{Current liabilities}}{\text{Current liabilities}}$		The working capital ratio is commonly used to assess a company's financial performance. Low working capital ratios can indicate serious financial problems. The working capital ratio reveals whether the company has enough short-term assets to pay off its short-term debt. It indicates the amount of current assets that is in excess of current liabilities. Working capital ratio is frequently used to measure an Institution's ability to meet current obligations with its current assets. It measures how much in liquid assets a company has available to operate its business.
Research budget	$\frac{\text{Total research budget}}{\text{Total budget}}$	It can be calculated by research field or by faculty. It can be calculated with the actual amount spent on research as opposed to	This ratio measures the amount of money allocated (or spent) in the budget, to support and promote research activities (such as research grants given to faculty members, travel funding, international collaborations, etc.) out of the total budgeted expenses. A high ratio indicates a higher amount allocated to (or spent on) research-related activities, which shows the commitment of the Institution to research. This ration can be part of the research category. While this ratio is often used to demonstrate a HE Institution's commitment to research, it doesn't inform on the performance of the research activities.

Indicator	Calculation	Variation	Use/Purpose
		the budgeted amount	
Community service budget	Total community service budget/Total budget	It can be calculated with the actual amount spent on community service as opposed to the budgeted amount	This ratio tracks the amount of money allocated (or spent) in the budget, for providing services to the local community with the aim of involving the Institution with the external stakeholders. These services include training courses, awareness campaigns, development and voluntary activities. A high ratio indicates a higher amount allocated to (or spent on) community services, which translates the extent of the civic commitment of the Institution. This ratio can be part of the external and reputation category as well.
<b><u>Operational Indicators</u></b>	Operational PIs are a quantifiable way to express the business performance in key operational areas in a short time-frame level. They are used in different industries to track organizational processes, improve efficiency and help businesses to understand and reflect on the outcomes. They offer important information about where systems, processes or people are falling behind or deviating off-course so that corrective action is taken quickly. It helps in real-time performance monitoring. By establishing clear operational indicators, companies have the advantage of knowing and using what is crucial to stay competitive in the market and examine the effects of intervention or change.		
Classroom time utilization	Total hours a classroom is scheduled/Total hours the classroom is available		Improving space utilization is increasingly a top priority at HE Institutions. This indicator and the next 2 are important to ensure good stewardship of limited classroom resources and to reduce overall costs. It helps identify classroom inventory requirements and improve efficiency of existing inventory. It is an indicator used to identify areas to improve efficiency of physical resources utilization and align classroom inventory with enrollment and curricular planning.
Seat utilization	Number of seats occupied in the classroom when the class is in use / Total number of seats  ----- Total number of students/Total number of classrooms	Can be calculated by faculty	This indicator shows the average utilization of classrooms by calculating how many students are occupying a seat in a classroom on average. A small number – though commended by academics – indicates that classrooms are too big and underutilized which may affect operational efficiency. While smaller classes are often perceived as allowing faculty members to focus more on the needs of individual students, contribute to a better learning environment for the students, and to improved working conditions for faculty, it also has a considerable impact on the level of current expenditure on education and efficiency in space utilization.

Indicator	Calculation	Variation	Use/Purpose
Average number of students per course	Total number of students/Total number of courses	Same as above	Same as above in terms of academic and financial perspectives of students' number in class, as opposed to the efficient use of physical resources as above.
Space utilization to course capacity rate	Number of students enrolled in a course/ Course capacity	Same as above. An institutional average (or faculty average) can be calculated	When compared to course capacity, the space utilization indicator gains an academic connotation as it compares actual class sizes to an academic standard, not in a space/profit-maximization approach. Course capacity is the maximum number of students allowed to register in a course, set according to academic considerations and the courses' type (practical courses or lab courses have a lower course capacity than a lecture course).
Small classes ratio	Number of small classes (under x students)/Total number of classes	Same as above	This ratio gives a quick idea on the weight of small classes out of all offered classes. The threshold that separates small classes from regular classes can be defined by each Institution depending on its point of view. A high percentage of small classes indicates a low number of students by major or bad advising and course offering management. While it can be advantageous for students and faculty members to have small classes, it is a sign of inefficiency and financial recklessness.
Large classes ratio	Number of large classes (over x students)/Total number of classes	Same as above	This ratio gives a quick idea on the weight of large classes out of all offered classes. The threshold that separates large classes from regular ones can be defined by each Institution depending on its point of view. The highest the number of classes with a registered number of students close to the maximum class/course capacity, the more efficient is the activity of the Institution.
Staff turnover	Total number of staff leavers per year/ Number of staff in that year	Calculation may be divided according to different types of turnover (such as involuntary and voluntary), or even more specific reasons	Staff turnover refers to the number or percentage of staff who leaves an organization and are replaced by new employees. Measuring employee turnover can be helpful to employers that want to examine reasons for turnover or estimate the cost-to-hire for budget purposes. Employment termination for poor job performance, absenteeism or violation of workplace policies is called involuntary turnover – also referred to as termination, firing or discharge. When an employee leaves the company of his/her own will, it's called voluntary termination. Turnover often has a negative connotation, yet it isn't always a negative event. Desirable turnover occurs when replacing employees infuses new talent and skills, which can give an organization a competitive advantage, whereas undesirable turnover means the company is losing



Indicator	Calculation	Variation	Use/Purpose
		why employees leave (poor performance, absenteeism or employees accepting new jobs elsewhere)	employees whose performance, skills and qualifications are valuable resources and has to invest time and money to train the newcomers. Turnover calculations are helpful to determine hiring costs, training requirements or estimating staff time devoted to recruitment activities. It is also a satisfaction indicator and can be listed under the HR category.
Full-time faculty members' turnover	Total number of Full-timers leavers per year/ Number of Full-timers in that year	Same as above	Same as above knowing that faculty members' turnover is much more problematic as it is directly related to the quality of teaching. Bad performers who are teachers and researchers might harm students' progress and negatively influence their satisfaction more than administrative staff do. The same applies to newcomers who need to deal with students before having the time to grasp their job.
Part-timer faculty members' turnover	Total number of Part-timers leavers per year/ Number of Part-timers in that year	Same as above	Part-timers' turnover is always an expected event that happens between semesters or academic years. While it involves fewer negative consequences and resources investments to replace a part-timer, excessive turnover provokes headaches and waste of time for coordinators, departments' chairs or deans who have to train and supervise the newcomer.
Average registered credits per student	Total number of credits sold/Total number of students	Can be calculated by semester, year, faculty or department	The average number of credits registered by students during a semester or a year, gives an indication of the number of credits students usually register on average. This indicator helps organize the course offering, identify hiring needs, as well as gives an idea of the expected income (when multiplied by the average credit fee, see above). This indicator informs on students' progress; a low number of registered credits shows that students are not taking the maximum credits allowed per semester, and therefore, will have their residency-time extended and graduation date delayed.
Average number of courses per student	Total number of courses sold/Total number of students	Same as above	This indicator is comparable to the previous one, but instead of using the number of credits, it uses the number of courses. In the ECTS courses' credits can range from one-credit-course to ten or 30 credit-course (generally used for senior projects).

Indicator	Calculation	Variation	Use/Purpose
Non-conformities rate	Number of non-conformities recorded during a period of time	Can be divided by subjects (administrative, academic, etc.), seriousness (major, minor) or source (filled by students, staff or other) as a ratio from the total number of non-conformities	A non-conformity is any failure to meet a certain standard or requirement recorded by any stakeholder. A requirement can be defined by customers, the Institution or a regulatory body and it can address various (major or minor) matters from academic issues, to administrative ones, communication, safety, disciplinary, financial, etc. When a non-conformity occurs, it should be studied, controlled and corrected. Then, the root cause(s) should be determined and eliminated so the non-conformity does not reoccur (preventive action). Any necessary corrective action should be immediately implemented. A high rate of non-conformities indicates that very often, there is a deviation from a standard or an expectation. With time, it can cause dissatisfaction and show that corrective or preventive measures are not appropriately applied.
Petitions rate	Number of petitions recorded during a period of time	Can be divided by subject (academic, administrative, etc.) or faculty/department	Students have the right to appeal or submit complaints against the HE Institution in case they feel there has been an unfair (or severe) decision in their regard or in case they want to provide additional evidence. Petitions can cover a whole range of subjects from accommodation to teaching, grade appeal or financial issues. Usually, such appeal grounds are based on complaints of procedural irregularity or maladministration, or the availability of new and relevant evidence – which had not been available at the time the Institution took the decision against the student. Observing the number, topics and outcome of those petitions helps the Institution identify the areas/persons responsible of frequent conflict or students’ dissatisfaction. When a considerable number of students remains dissatisfied with the outcome of appeals (Clements, 2021), studying this data can help Institutions monitor such cases to identify and prevent the topics that induce most dissatisfaction among students.
Outcome of petitions	Number of positive decisions taken/Total number of petitions	Same as above	The number of positive decisions taken mean that the appeal done by the student was studied and changed in favor of the student. Obviously, there will be irrational appeals that can never be taken into consideration. However, this indicator remains interesting in the sense that it gives an idea on the quality of the appeals done by the students and on the inclination of the Institution to

Indicator	Calculation	Variation	Use/Purpose
			provide a fair and accessible procedure to study the students' appeal and accommodate/satisfy them whenever they have valid evidence or they have been unfairly judged.
Outcome of Exams' re-correction	Number of exams that get a higher grade when corrected a second time following an appeal/Number of appeals	Can be segregated by faculty, department or faculty member	Students should be allowed to appeal if they feel they have been unfairly graded. Institutions are expected to have a transparent procedure in place to deal with such requests. When an exam is corrected a second time, and the student deserves a higher grade, it is a double-edged sword. On one hand it demonstrates transparency and fairness, on another hand – if it occurs often – it shows a lack of seriousness in exams correction and students' evaluation.
Reoccurrence of non-conformities	Number of recurrent non-conformities/ Total number of non-conformities	Can be divided by type or subject	Each non-conformity is an opportunity for improvement. Matters of any size should lead to corrective actions and potentially preventive actions. However, when the same (kind) non-conformity frequently reoccurs although corrective and preventive measures had been taken, it shows a lack of will to understand, acknowledge, measure, communicate, or improve the things that matter. Repeated similar failures are much more concerning than the actual number of non-conformities.
Retention rate	Number of students from a given Fall semester who remain enrolled in the following Fall semester/ Number of students in the previous Fall semester	Can be segregated by faculties or even departments or programs	Students' retention rate is an important gauge of any HE Institution's performance. It is affected by the <b>persistence</b> rate (term-to-term return rates) and by the <b>progression</b> rate (successful persistence). In other words, if students persist, progress, and return each fall semester, then they will “ <b>complete</b> ” (completion rate) their plan of study. Most studies conducted on student's progress through HE programs identify two main theories for students' persistence: 1) the student integration model and 2) the student attrition model. The first theory suggests that the more socially and academically integrated into a HE Institution a student is, the less likely he/she is to drop out. The key influences on a student's successful integration into the Institution include family background, personal characteristics, previous schooling, prior academic performance, and interactions between students and instructors. The student attrition model places more emphasis on the importance of factors external to the Institution for the decision to remain enrolled or to leave, such as opportunities in the labor market and financial aid. Although the two models are presented as alternatives, they are largely complementary, and various authors have shown that integrating the two theoretical frameworks provides a better understanding of students' behavior (Lassibille, 2011). Retention or progression rate is the

Indicator	Calculation	Variation	Use/Purpose
			number of cohort students in a given fall semester who remain enrolled in the following year's fall semester (retained) within the same HE Institution. Progression rate is one of the indicators used to measure the academic performance of HE Institutions. There are many reasons a student might drop-out and not make it from one year to the other. Generally, HE Institutions that don't have entry exams record a high number of drop-outs between the first and second year of study which constitutes a way of natural selection. A high student retention rate indicates how well an Institution ensures academic success and suggests higher students' motivation, satisfaction and engagement. Institutions are accustomed to investing in student's enrollment, however, improving student success and increasing student retention rates yield a higher financial benefit. It is more cost effective to keep students who are already enrolled than to invest in recruitment efforts to drive up enrollment numbers.
Retention rate 1 <sup>st</sup> year to third	Number of students from year 1 who remain enrolled in year 3/Number of students in year 1	Same as above. Can also be calculated between any two given semesters	This PI measures and reports the percentage of first-year students who complete 3 successive years of study within the same HE Institution. There are many reasons a student might drop out and not make it from the first year to the third. However, an Institution with low retention rates reveals that the Institution doesn't take good care of its first-year students (advising, follow-up, academic support, etc.) and will therefore have low graduation rates. Calculating the retention rate between subsequent semesters allows quicker corrective actions in case the trend is becoming negative.
Enrollment per accepted rate	Number of students who enroll/Number of students who were accepted	Can be calculated by faculty or department	For Institutions that have admissions conditions/entry exams, some accepted students may finally choose not to enroll at the Institution, either because they were accepted at another Institution higher on their priority list, or because of personal or financial reasons. Measuring the enrollment rate in comparison to the number of accepted students gives an idea on the desirability of the Institution, an information that can be acted upon by the admissions' office. The higher the ratio, the more attractive is the Institution.
Accepted per applications rate	Number of admitted (accepted) students/ Number of applications	Same as above	A HE Institution's overall quality and prestige is determined in part by its selectivity, of which acceptance rate is a main indicator. The acceptance rate measures and informs management of the percentage of those who applied to the university and who were offered acceptance to study. Prestigious universities have a low acceptance

Indicator	Calculation	Variation	Use/Purpose
			rate as the number of students who apply is way greater than that of those who get accepted. Acceptance rates per Institution are published and play a significant role in universities' ranking.
Applications to Walk-ins rate	Number of students who applied/Number of walk-in students	Applications can be replaced by enrollments (in case there are no entry requirements)	This ratio directly informs about the performance of the admissions department and the efficiency of its strategy. Walk-ins are the students who physically come to the Institution to enquire in details about its services, programs and financial scheme before deciding to apply. It means the student is serious and interested and it is up to the admissions' office to push the student from "interested" status to "applicant" by answering all his/her remaining concerns. A high applications-to-walk-ins rate indicates a good admissions strategy and is a sign of transparent and honest advertising content (as opposed to an alluring content that attracts walk-ins but who will only be disappointed when they discover the reality is different).
Market share of undergrad applications (by program)	Number of undergrad enrollments in a particular program/Total number of undergrads enrolled in the same program at the national level		Market share gives an idea of how large, impactful or important a particular program is within the sector. This metric also informs on how successful the program is and how effective was the marketing. It is useful to monitor the trend and identify the competitive advantages in order to maintain and develop them. This PI is mostly suited for traditional and general programs such as business or medical school.
Dropout rate (or wastage rate in UK)	Number of "leavers" during a period of time/Total number of students who are still enrolled	Can be calculated by faculty or department or for a specific cohort	<p>Dropping out, transferring to another Institution, or progressing slowly toward a HE degree have severe consequences for the individuals involved as well as for the society that finances HE (Santiago, Tremblay, Basri, &amp; Arnal, 2008). Having a better understanding of how students' enrollment decisions end is thus important in maximizing the use of resources allocated to education and in supporting the development of retention strategies that help to improve the education system's performance. For these reasons, measuring students' completion and dropout behavior is essential.</p> <p>Dropout rate refers to the percentage of students that do not complete their HE. There are many versions of this ratio. At the Institution's level, it can refer to the proportion of students who drop out in a single year without completing their studies or it can measure what happens to a single cohort of students over a period of time. This indicator doesn't make a distinction between students that</p>

Indicator	Calculation	Variation	Use/Purpose
			discontinue or fail to qualify for academic reasons, and those that discontinue because they are unsatisfied or for other reasons. Nor is any account taken of the reported academic standing of students at the time they discontinue. For example, in the event that a student forced to take a demanding job consequently neglects his studies and then fails his exams, is the reason for dropping-out financial or academic? The classification of dropouts and the manner in which they are calculated should be defined by the Institution and remain consistent, otherwise, comparisons will be difficult to make, and interpretations likely to be faulty.
Returning rate	Number of students who returned after dropping-out/Total number of new students who enrolled OR Total number of drop-outs	Same as above	Returning students are those who were once enrolled at the Institution, who left for some reasons, and who decided to reenroll. When comparing this ratio with the dropout rate, it gives a clearer indication about the motives for studies' discontinuity. If a job requirement or financial issue forced a student to dropout and if this same student returned at a later stage, it means he/she wasn't dissatisfied with the educational quality and that purely external reasons were involved.
Transfer rate	Number of students who transferred from another HE Institution/Total number of new students who enrolled	Same as above	Transfer students are students who have started their studies at another HE Institution and who chose to leave it and transfer their file to a receiving Institution. A high (incoming) transfer rate indicates that the Institution has a good reputation and can attract students from competitors.
Walk-in to number of visited schools	Number of walk-in students from visited schools/Number of visited schools	Can be calculated by type of schools (public/private) or geographic location	Throughout the academic year, the orientation team visits schools and colleges to promote the Institution and to participate in "open doors" days during which information about the various programs and services are presented. The number of potential students walking in the Institution and coming from a visited school gives an indication about the performance of the orientation team and the attractiveness of the Institution. The trends can inform the management about the expected number of walk-ins based on the number of schools visited and helps in setting a target for the number of schools to be visited during a year.
Walk-in from visited schools	Number of walk-in students from visited schools/Total	Same as above	Some walk-in students do not come from a visited school. They might have heard about the Institution from friends, the media, or other, etc. This indicator best describes the performance of the orientation team and gives feedback

Indicator	Calculation	Variation	Use/Purpose
	number of walk-ins		about the results of their visits. A high ratio means the orientation team is efficient, the strategy is effective and consequently, a proven need to put more resources in schools' visits. Paradoxically, a low ratio can indicate that the Institution enjoys a good reputation and is attractive to students who were not directly targeted.
Unavailability of courses or number of closed courses	Number of unavailable courses/Total number of courses in the course offering  Number of closed courses/Total number of courses in the course offering	Can be divided by faculty or department	Some students might need to register a certain course that is unavailable in the course offering. The availability of courses in the course offering is important for students' satisfaction and for a smooth academic journey. During advising, it is also easier for advisors to register students when there is a large availability of courses. However, when the number of students is limited, a large course offering is not cost effective. It can result in having too many small classes and it will continuously affect future offerings and courses' sequence. On another hand, a well-thought course offering can accommodate most of the students without having to excessively extend the list of offered courses. The indicator of courses' unavailability is important to measure and monitor, as it informs about a potential dissatisfaction problem or inefficient course offering process. Closed courses because of a low number of registered students also indicate that the course offering procedure was ineffective. It shows that the needs were not clearly identified and it provokes even more dissatisfaction among the few students who wanted the course.
Missed deadlines	Number of missed deadlines by staff or faculty members over a period of time		This is an operational and human resources indicator that informs about the administrative performance of staff and faculty members. Deadlines are important in a HE Institution, as many tasks are interrelated and time-bound. Frequently missing deadlines can result in resources waste, unnecessary delays and inefficiency. When employees frequently miss deadlines, it is a sign of bad performance, a need for more training or simply a lack of attention and seriousness. In all cases, it causes students' dissatisfaction and affects quality.
<b><u>Students Indicators</u></b>	Students are the driving force in HE Institutions since they are involved in all HE functions; teaching, research and community service activities. They are the client and the "end product" at the same time. HE Institutions should therefore ensure that students are satisfied, engaged and capable of contributing to the Institution's success.		
Students' satisfaction	Collecting student feedback plays a major role in delivering quality in HE Institutions. Feedback may include perceptions about the learning and teaching, support facilities, learning environment (lecture rooms, laboratories, social space and buildings), support services and external aspects of being a student (such as finance, transport infrastructure).		

Indicator	Calculation	Variation	Use/Purpose
	HE Institutions collect student feedback mainly for internal information to guide improvement and for external information for potential students and other stakeholders (including accountability and accreditation compliance requirements). Students feedback helps prospective students (and their parents) obtain information and choose the Institution where they want to study. Satisfaction questionnaires are a common practice in HE, they collect information and feedback from students on a variety of subjects and can take the following forms: institution-level satisfaction (rating the total student experience), faculty-level satisfaction, program-level satisfaction, module-level feedback or faculty member-level feedback.		
Students' satisfaction with non-academic services	Total questionnaires points on non-academic services/Total number of points of non-academic services	Can be divided by service (job placement, advising, students' affairs, support, campus life, IT, etc.)	Students' satisfaction involves current students and graduates. This specific indicator isolates the feedback of students regarding the availability and effectiveness of non-academic services and helps Institutions improve those services regardless of its performance on the academic level.
Students' satisfaction with teaching and learning	Total questionnaires points on academic services/Total number of points of academic nature	Can be divided by faculty or department	Students' satisfaction includes current students and graduates' satisfaction and perception of the level of education they received. This indicator focuses on the students' feedback and rating that is only related to their perception of the quality of teaching and their learning experience, regardless of other non-academic issues. It allows HE Institutions to assess and monitor the "perceived quality" of their academic services.
Overall students' satisfaction	Total questionnaires points /Maximum number of points	Same as above	This overall Institution-level survey helps Institutions understand the complexity of the student learning experience from the student's perspective. It can reveal important improvement paths and allows the Institution to take appropriate corrective actions where needed. It rates the overall students' satisfaction rate which is an important factor for students' retention, quality assurance and Institution's reputation.
Average course rating	Sum of courses' ratings/Maximum number of points in courses' ratings	Can be calculated by course, department, faculty or at institutional level	At the end of each course, a course experience questionnaire is filled by students who attended the course. It covers topics such as course load, teaching methodology, instructor's performance, etc. The average course rating gives a double indication on academic feedback. It rates the actual course and it allows a comparison with the global students' satisfaction rate in teaching and learning which



Indicator	Calculation	Variation	Use/Purpose
			will help spot contradictions. This indicator indirectly informs about the performance of faculty members as well.
Referral of siblings and friends	Number of new students referred by (current or graduate) students/Total number of new students		This indicator is an effective way to illustrate the satisfaction of students and their parents. When people are satisfied, they will more likely refer family and friends. Information can be gathered from the admissions office.
Average admission scores	Sum of admission scores/Total number of students who sat for the admission exam	Can be calculated by subject, faculty or department	The level of admission scores indicates the academic quality of the new students. A high average score means the university has a good reputation because it attracts a high level of students and it means a cohort that likely has the required academic level to succeed.
Admission basis or entry qualifications	Number of students admitted on the same basis/Total number of admitted students	To be calculated for each admission basis separately	<p>This indicator is relevant in Lebanon since there are 4 kinds of admission basis based on the type of baccalaureate degree students received (Lebanese, French, international or technical). The profile of students based on the type of baccalaureate they received gives valuable information to the admission department (by knowing the profile of the new entrants). Where relevant, this metric can be broadened to include an analysis of various entry qualifications too (high school grades, language proficiency, etc.).</p> <p>This indicator is relevant in the sense that Institutions should know the “net” effect of the learning outcomes by isolating the divergences in the background conditions in order to evaluate the real impact of the program (Tremblay, Lalancette, &amp; Roseveare, 2012). This may be seen as a net measure of learning gain regardless of the starting point (previous attainment) when the student enrolled. It assesses the net added value of the education. It can be applied to the type of school indicator too (see below).</p>
Type of school	Number of students admitted from public schools/Total number of admitted students -----	Can be calculated by faculty	This indicator is important to show from where the recruitment of new students is being mostly done, from private or public schools. It is an indicator of the attractiveness of the Institution to a certain category of students and it also gives an idea on their social and financial status.

Indicator	Calculation	Variation	Use/Purpose
	Number of students admitted from private schools/Total number of admitted students		The “net” effect of the learning outcomes is also relevant and interesting to be calculated for each schools’ category alone.
School region	Number of admitted students from a specific region/Total number of admitted students	Can be calculated by the number of students who enroll, apply or walk-in	Knowing the geographical distribution of the newly recruited students helps the orientation team know where to focus their attention. It could be towards the regions where the Institution receives the most or the least application forms. It also gives an indication on the reputation or awareness of the Institution in different geographical areas.
International students	Number of international students enrolled in a specific semester/Total number of enrolled students in that semester	Can be calculated by number of applications	The ratio of international students is an indicator of good worldwide status and presence and constitutes an important factor in universities’ rankings. Although not directly related to the quality of education, attractiveness to international students has to do with the reputation of quality.
Average petitions process time	Total time needed to process all the petitions/ Total number of petitions		Petitions process time is the elapsed time between the moment when a student fills in a petition form and the moment that student receives a final decision regarding his/her request. A shorter process time indicates a faster service, adequate follow-up and a higher satisfaction degree for students regardless of the decision.
Students’ engagement	Students’ engagement has become one of the main drivers of quality assurance within Institutions of HE (Tanaka, 2019). It shows the commitment and engagement of students with their own education and with their learning environment. While measuring engagement is as abstract as it is subjective, keeping track of students’ participation in engaging activities and of their academic involvement are an indirect way to evaluate their overall level of engagement.		
Students’ participation rate (by event)	Number of students who participated in a given event/Total number of students	An average rate can be calculated for all events during a year or by type of activities	Students’ voluntary participation whether in academic or recreational activities is important for their engagement and satisfaction, it improves their learning experience and shows a sense of belonging.

Indicator	Calculation	Variation	Use/Purpose
Students' representation	Number of students who participated in councils, curriculum development and quality efforts/Total number of students	Same as above	Students' representatives are those who have been elected by the students' union, association or clubs or nominated by the Institution to represent a group of students. They can bring added value to the councils and to quality assurance efforts because they provide new insight as they see the situations from the learner's perspective. The more they are represented, the more engaged and satisfied they will be and the more inclined to adhere to any decision taken by the Institution if they had a say in it.
Students' social responsibility	Participation rate in socially responsible activities and endeavors		Students' social responsibility is a reflection of the Institution's social mission and how it involves and engages students with their community. Calculating this indicator is obviously difficult and results tend to be subjective. However, measuring it allows Institutions to reflect on this topic and continuously monitor students' social interaction.
Incident forms rate	Number of incident forms filled during a recorded period of time	Can be calculated by faculty or type of incidents	Incident forms are filled whenever an incident happens on campus. It can be an academically-related incident (problem with an instructor, cheating, etc.) or a non-academic problem (such as disciplinary incidents, etc.). The higher the rate the more incidents or deviations are occurring – signaling a frequent non-adherence to the rules – and the less likely satisfied students and faculty members would be.
Students' absenteeism/attendance rate	Average number of absences recorded on all sessions / Number of students enrolled ----- Average number of attendances recorded on all sessions / Number of students enrolled	Can be calculated by student, course, department, faculty or faculty member	Students' attendance in the courses is a key prerequisite for effective education. This indicator compares the proportion of students present/absent in class, to the number of students enrolled in that class. By measuring how frequently students attend their classes, one can get an idea about students' satisfaction, motivation, engagement and most importantly academic outlook. A low attendance rate should raise alarms, and give enough reasons to investigate why students aren't attending class.
Students' class participation	Sum of participation grades for all students in a particular	Same as above	Students' participation is an assessment of a student's performance in a course outside of their academic assessments. Items that might be evaluated in student participation are engagement in class discussions, engagement in online discussions and student behavior in

Indicator	Calculation	Variation	Use/Purpose
	<p>class/Total number of students enrolled in that class</p> <p>-----</p> <p>Average participation grades for the whole Institution</p>		<p>group settings. Students' participation in class is an indicator of engagement, good instructor's performance and generally a higher success rate in that class. Students' class participation can be assessed through direct observation by the instructor or by self-assessment of students, though assessment criteria must be clearly explained to decrease subjectivity.</p>
Students' diversity	<p>Number of enrolled students from a minority group/Total number of students enrolled</p>		<p>Diversity in HE refers to ethnic, cultural, socioeconomic, students' talents and abilities diversity. It relates to quality of teaching by informing about the inclusion of underprivileged population and possible diversity of backgrounds within a class (Chalmers, 2008). Higher students' diversity has a large impact on students' achievement. In fact, studies suggest that diversity may contribute significantly to students' improvement on key learning outcomes associated with both academic development and the needed abilities to work in diverse settings (Hurtado, 2001).</p>
Faculty's diversity	<p>Number of employed faculty members from a minority group/Total number of faculty members</p>		<p>Same as above.</p>
Students' access from underprivileged groups	<p>Number of students from underprivileged groups/Total number of students</p>		<p>Disadvantaged students are those whose personal, social, or economic circumstances hinder their ability to pursue their HE. The focus of many governments – echoed by several accreditation agencies – is to increase the access, participation and success of students from underprivileged backgrounds as it is believed to be economically beneficial to individuals, governments and society and decreases social exclusion, discrimination and violence (Taylor &amp; Miroiu, 2002). Therefore, monitoring the ratio of disadvantaged groups whether at public or private HE Institutions, can inform about the progress made towards widening access to HE.</p>
Students' completion or	<p>Number of students who completed their program within a</p>	<p>Can be calculated by Institution,</p>	<p>Graduation rates are the calculated percentages of students who graduate or complete their program within a specified timeframe. Policymakers require these rates to evaluate legislation and programs and as performance metrics (for</p>

<b>Indicator</b>	<b>Calculation</b>	<b>Variation</b>	<b>Use/Purpose</b>
graduation rate	normal time to completion/(Adjusted) Number of students in the same cohort (adjusted = excluding part-time, non-degree and transfer students)	faculty or department	fund allocations), HE Institutions use them to drive organizational missions and priorities and for benchmarking purposes, consumers (students and parents) read them for decision making, and the media analyzes them to assess the education landscape. Although often debated, accreditation agencies consider graduation rates as a quality indicator (it is a measure of accountability and an indirect measure of the education quality that students get).
Students' administrative support	Actual hours of encounter with the SAO/Total presence hours of SAO	Can be calculated by officer or for the whole office. May be distributed by faculty too	It has been proven that constant interaction between students and the administration improves communication in both ways and allows HE Institutions to better understand the needs of its students and act upon them. Waiting for annual surveys to discover problems might often be too late. Therefore, monitoring the time spent by the SAO in direct contact with students is a useful way of appraising the extent of students/administration communication even if the quality of those exchanges cannot be measured.
Students' academic support	Actual hours of encounter with the academic advisor/Total presence hours of advisor	Can be calculated for the whole institution or by faculty/department	Same as above. Interaction with the academic advisor (or coordinator) is also very important for students' fruitful and smooth academic progress. Many students only sit with their advisor when registering their courses before a new semester. However, frequent exchanges may help solve academic setbacks as soon as they arise, maximizing students' chance to succeed and minimizing the risk of drop-outs or failures.
<b><u>Human Resources</u></b>	Faculty members are the main component responsible for carrying out the Institution's core activities. They have a major impact on students' learning and are considered the main strength in a HE Institution. Administrative and technical staff provide support services for faculty members and students to enhance the quality of the Institution's various activities and services. HR adequacy towards quality assurance entails several criteria: number sufficiency, qualifications, engagement and satisfaction.		
Professional qualifications of Full-Timers	Sum of years of relevant professional experience for all full timers/Total number of full timers	Can be calculated by faculty or department	Professional experience is as important as the academic experience for faculty members. When delivering practical information and up-to-date real cases during class, even for the most theoretical course, it brings a substantial added-value. Relevant and appropriate professional experience of full-time faculty members in an important aspect to be taken into consideration. The relevance of the experience (whether academic or professional) is with regards to the subjects taught. A wide experience in one area doesn't mean that the faculty member is able to add value to a

Indicator	Calculation	Variation	Use/Purpose
			course in a different area of expertise (except for certain purely academic fields where professional qualification would be irrelevant).
Professional qualifications of Part-Timers	Sum of years of relevant professional experience for all part timers/Total number of part timers	Same as above	Same as above. Part time faculty members who are practicing in a relevant sector offer students valuable real-life experience and case studies, provide business contacts and networking opportunities, and bring diversity to the Institution as a whole.
Academic qualifications of Full-Timers	Sum of years of relevant academic experience for all full timers/Total number of full timers	Same as above	Knowing the average number of years of teaching experience is an important indicator in HE Institutions. While some authors believe that teaching experience is directly linked to teaching quality, many others argue that this conclusion is too simplistic (Irvine, 2018). However, chances are that with more experience, teaching quality and effectiveness would more likely improve. Notwithstanding that teaching experience should be relevant and appropriate to the subject taught.
Academic qualifications of Part-Timers	Sum of years of relevant academic experience for all part timers/Total number of part timers	Same as above	Same as above
Academic level of faculty members	Number of PhD holders among all faculty members/Total number of faculty members ----- Number of faculty members holding the highest degree in their field/ Total number of faculty members	Same as above	Holding a PhD is one of the most important conditions to join HE Institutions as faculty member. PhD holders are people who have advanced their knowledge in an area of expertise and who have also added value to that knowledge. They are expected to do continuous research that advances the state of knowledge in their field. In some fields, like creative writing and studio art, a Master's degree is usually the highest degree a professor has. The presence of dedicated research faculty with PhD supports the academic mission of HE Institutions. It is a crucial item in accreditation standards, governments' recognition conditions and universities' rankings. A high ratio of faculty members holding a PhD "suggests" a higher quality of education.

<b>Indicator</b>	<b>Calculation</b>	<b>Variation</b>	<b>Use/Purpose</b>
Academic level of Full-Timers	Number of PhD holders among full-time faculty members/Total number of full-time faculty members	Same as above. Can take into consideration terminal degrees too	Same as above
Academic level of Part-Timers	Number of PhD holders among part time faculty members/Total number of part time faculty members	Same as above	Same as above
Gender distribution	Number of female faculty members and staff/Total number of faculty members and staff		Nowadays the topic of gender equality cannot be overlooked anymore. While gender diversity in the workplace brings many benefits and is publicly praised by all, gender indicators and relevant data can make visible the sustained gaps between the promises many Institutions (and governments) have made and hold them accountable for their commitments on gender equality. Gender distribution describes women's and men's role in the society and in the country's economy. When measured, evidence will be gathered and it is more likely to be prioritized and help make the case that gender issues should be taken seriously.
Memberships, prizes, medals of learned societies	Number of faculty members who are members/who earned a prize from a learned society/Total number of faculty members		A learned society is an organization that aims to promote an academic discipline or profession. Having faculty members who are members of such organizations or who have earned a highly prestigious national or international award or prize is a clear demonstration of their outstanding accomplishments and superior qualifications which reflects positively on the Institution's reputation of quality.
Faculty teaching workload	Sum of faculty teaching workload/Total faculty workload (by hours or by credits)	Same as above	Faculty workload refers to all faculty activities that contribute to the accomplishment of department-related activities and responsibilities: research/creative activity, teaching, training supervision, advising, outreach projects, service on committees or leadership role, service to the discipline, continuing education, and administrative responsibilities. The specified division or distribution among these tasks is critical and accreditation standards give it a lot of importance since it affects the quality of

Indicator	Calculation	Variation	Use/Purpose
			teaching, research quality and productivity, personal development and assistance to students.
Faculty research workload	Sum of faculty research workload/Total faculty workload (by hours or credits)	Same as above	Same as above.
Rate of senior faculty members	Number of senior faculty members/ Total number of faculty members	Same as above	Senior faculty are faculty members with higher academic positions and longer experience. They are considered as being the most productive faculty in any Institution because a full professor or research fellow generally demonstrates greater research productivity. A high rate of senior faculty members implies higher education standards.
Average working years of faculty members within the Institution	Sum of working years of all faculty members within the Institution/Total number of faculty members	Same as above	Faculty members who have been working in the same Institution for several years constitute an advantage and an added value. They are already aware of all academic and administrative regulations, know their colleagues and students very well, make less mistakes, and work faster. It is also an indication of satisfaction and engagement.
Staff average working years within the Institution	Sum of working years of all staff within the Institution/Total number of staff	Same as above	Same as above.
Faculty retention rate	Number of faculty members who remained employed during a period / Total number of faculty members at the end of the period	Same as above	Recruitment and retention of the best available faculty (and staff) is vital if the Institution is to achieve its overall goals efficiently. Due to increased employment opportunities in HE, the retention of competent faculty members has become crucial. Institutions that are not successful in retaining their faculty members may even suffer financially. Research shows that higher retention rates save time and money – related to staffing and training of new members – that could be spent on employee performance improvement measures (Soomro & Ahmad, 2017). A high employee turnover also results in low efficiency, lower employee performance and lower morale. The main factors affecting employees' turnover are compensation, training, development and promotion.



Indicator	Calculation	Variation	Use/Purpose
Staff retention rate	Number of staff who remained employed during a period / Total number of staff at the end of the period	Same as above	Same as above. This indicator shows the extent to which an Institution is successful in retaining the current staff.
ROI on mobility programs	Value of benefits – Cost of program (Design + development + duplication + delivery + support)/Cost of program	Can be calculated for students and for faculty members	<p>Return on Investment is a financial indicator that compares the costs and benefits of an endeavor or enterprise by converting all costs and benefits to measurable data. In some cases, it can be also used to include intangible costs and benefits, as is the case when the endeavor is within the education environment. ROI is linked to a large number of concepts including human resources development, productivity measurement, quality management, trainings, and learning, etc. International mobility in HE relates to students and faculty exchange, collaborative research projects, contract training, recruitment of international students, internationalization of curriculum and Institutions. Expected return for HE Institutions include employability and global citizenship skills for students, personal and professional development and increased experience and knowledge for faculty members.</p> <p>ROI on mobility programs analyses the costs and benefits resulting from faculty and /or students' mobility. Mobility allows every candidate to gain an invaluable new experience, to learn foreign languages and to develop interpersonal skills in culturally diverse environments. The study of mobility programs' ROI include both tangible and intangible measures, and focuses on seeking monetary measures while respecting the importance of non-monetary costs and returns which should be subjectively evaluated. Costs and benefits can be tangible and intangible, long term and short term, positive and negative, of equal value or prioritized value, essential or optional, planned or unintended, one-time, per participant or per offering (Barker K. C., 2003).</p>
Full time faculty members' engagement	Number of participations to optional projects (conferences, events, development endeavors, etc.)/Total	By project or an average by Institution, Faculty, Department or at the	An engaged faculty member will actively contribute to achieving the Institution's mission and positively influence students' engagement and attitude. A satisfied member will not necessarily go the extra mile and eagerly engage in extra activities and projects. Monitoring faculty engagement alone emphasizes the importance and positive returns of engaged faculty and allows comparison with the overall level of satisfaction.

Indicator	Calculation	Variation	Use/Purpose
	number of full-timers	individual level	
Staff engagement	Same as above	Same as above	Same as above
Students to faculty members (full time and part time)	Number of students/Total number of faculty members	Can be used in the opposite way: faculty members to students' ratio. Can be calculated for the whole Institution, by faculty or department	Teaching quality is difficult to measure, therefore, the HE environment, quality standards and ranking metrics have been using the teacher/student ratio as an effective proxy metric to evaluate teaching quality. The idea is that it assesses the extent to which Institutions are able to provide students with meaningful access to faculty members and tutors, and recognizes that a high number of faculty members per student will reduce the teaching burden on each individual academic. The ratio of students to faculty members is thus considered an important indicator of the resources devoted to education. This PI measures how many enrolled students are handled per one faculty member. A low student to teacher ratio indicates smaller classes where there is the best opportunity to give each student the attention they need. This is something that can be a unique selling point when attracting prospective staff and students, as it indicates that plenty of contact time and support will be available. However, it also indicates high academic cost or can be a sign of inefficiency. PHEIs give a high importance to this ratio as it echoes its profitability status, whereas accreditation agencies consider it as an indirect measure of education quality.
Students to full-timers	Number of students/Total number of full-time faculty members	Same as above	This variation of the previous indicator gives more precision about the type of available faculty members. While the distinction doesn't influence class-sizes, full-timers are more available than part-timers for advising and counselling outside classes and they are more aware of the internal regulations of the Institution and can therefore, be of better assistance.
Students to staff ratio	Number of students/Total number of staff	Same as above	Same as above but related to the availability and quality of support services provided by staff.
Average hours spent with students outside class	Total number of office hours spent in contact with a student/Total number of	Can be calculated by faculty member or by program	This is an indirect measure of faculty effort, engagement and commitment to providing timely and frequent feedback or performance evaluation to their students and be available for any assistance/advising on academic or personal matters. Faculty members interacting with students outside the class increases students' satisfaction

Indicator	Calculation	Variation	Use/Purpose
	available office hours		and decreases drop-outs as potential problems could be identified and solved early on.
Full time faculty members' satisfaction	Customer satisfaction score = Sum of satisfaction points / Total number of questionnaires filled by full time faculty members ----- Actual total score value / Maximum possible value	Can be calculated by faculty or department too	While students' satisfaction is a common subject in HE, faculty members' satisfaction is less explored, when it is as important as students' satisfaction. Faculty members' satisfaction is directly linked to their motivation and performance and consequently, to the quality of the education and to the relation with the students. Factors influencing faculty satisfaction can be various; possibility of creativity and innovation in teaching, support in research activities, administration and management, compensation and promotion schemes, professional development opportunities, overall working environment, and decision-making processes. Monitoring the satisfaction of faculty members as being an internal customer allows HE Institutions to take corrective actions immediately when needed.
Part time faculty members' satisfaction	Same as above	Same as above	Same as above.
Staff satisfaction	Same as above	Same as above	Same as above.
Professional development of full-time faculty members	Participation* to professional development programs/Total number of full-time faculty members  *By number of programs or number of training hours	Same as above	The topic of professional development of faculty members in HE has recently gained a lot of attention especially as part of quality assurance efforts. Professional development takes many forms, from self-directed activities to organized programs of learning with the purpose of enhancing teaching and research quality as well as students' learning experience. Professional development programs are crucial to develop academic excellence in HE teaching and research but participation in general is not satisfactory. Programs are either considered as an avoidable cost by HE management or as a waste of time by faculty members especially when those trainings are not directly linked to any reward or incentive.
Professional development of part-time faculty members	Participation to professional development programs/Total number of part time faculty members	Same as above	Same as above although less crucial.

Indicator	Calculation	Variation	Use/Purpose
Professional development of staff	Participation to professional development programs/Total number of staff	Same as above	Same as above although more directed to the quality of services than to excellence in teaching.
Reward and recognition system for faculty members	Number of rewards delivered during a specific period/Total number of faculty members	Same as above	This indicator assumes the existence of a reward and recognition scheme and aims at evaluating its real implementation at the Institution. There are several models of performance-based reward systems; Merit-pay (individual monetary awards based on students' performance, and classroom observation), knowledge and skill-based compensation (linked to faculty members' proficiency, generally involves individual monetary rewards for acquired qualifications and demonstrated knowledge and skills believed to increase student performance), and school-based compensation (group-based pecuniary rewards, typically based on student performance within a school/department). While there are many obvious advantages of having performance-based rewards (motivation, increased teaching quality and students' performance, improved governance), many find it difficult to implement fair, accurate and objective evaluation. In some cases, it is likely to adversely affect collaboration between colleagues or may generate unwanted outcome (Harvey-Beavis, 2003). Many HE Institutions don't have a clear and transparent performance-based scheme and when they do, it is often ink on paper just to check some quality and accreditation boxes.
<b><u>Physical Resources Indicators</u></b>	HE Institutions rely on a number of physical resources (classrooms, laboratories, libraries, recreation areas and offices) to perform their three main activities (teaching, research and support services). Resource analysis may show areas where present resources are being underutilized or under maintained. Accreditation standards emphasize sufficiency and adequacy of resources as they play a major role in the academic success of students.		
Sufficiency of Library resources  Books to students ratio	Number of library resources  ----- Number of resources/Total number of students	Physical and online. Overall number or distributed between books, articles, periodicals, electronic, etc.	Libraries are partner in the educational mission of HE Institutions to develop and support information-literate learners who can discover, access, and use information effectively for academic success, research, and lifelong learning. Libraries must demonstrate their value and document their contributions to overall institutional effectiveness and be prepared to address changes in HE, including accreditation and other accountability measures (ALA, 2021). Libraries should provide access to collections, sufficient in quality, depth, diversity and format to support the research and teaching missions of the

Indicator	Calculation	Variation	Use/Purpose
			Institution. This indicator analyses the quantity of available sources.
Diversity of library resources	Number of subject areas covered ----- Number of resources by subject area		Library resources should be diverse and more importantly, cover the subject matters taught at the Institution and areas of research.
Age of library resources	Sum of publishing dates of all resources/Total number of resources		Apart from archives with historical value, libraries should hold recent resources and be frequently updated. The average age of resources allows to observe the aging trend and assess the adequacy of the library resources.
Library budget	Library budget/Total Institutional budget		Institutions should allocate sufficient human and financial resources to its library(ies) in order to effectively and efficiently advance its mission. Adequate budget allocation is a way to monitor if sufficient resources are provided to meet the reasonable expectations of library users when balanced against other institutional needs.
Use of library resources by Full-Timers	Number of borrowed resources by full time faculty members/Total number of full-time faculty members	Online sources' use can be tracked electronically. Can be calculated by faculty	Having sufficient and adequate library resources doesn't necessarily imply that faculty members are using them. Monitoring the use of library resources by members who teach and do research is a direct approach to make sure library resources are in fact useful and utilized.
Use of library resources by Part-Timers	Number of borrowed resources by part-time faculty members/Total number of part time faculty members	Same as above	Same as above.
Use of library resources by students	Number of borrowed resources by students/Total	Same as above	It has been shown that library resources impact the teaching and learning activity and enhance research achievement of students. Therefore, it is pertinent to watch

Indicator	Calculation	Variation	Use/Purpose
	number of students		if and to which extent do students use the library resources put at their disposal.
Time spent at the library by students	Sum of hours spent at the library by students/Total number of students	Same as above	This indicator can inform about the use of library resources by students and time spent studying on-campus. When the library space is used, it means that it provides inviting and adequate space favorable to study and research.
Renewal rate of resources	Number of new resources purchased every year/Total number of resources	Can be calculated by subject	This indicator is linked to the age of available resources. A steady renewal rate suggests that the library resources will remain current.
Satisfaction rate of students with campus facilities	Sum of questionnaires points on campus facilities/Maximum number of points related to campus facilities	Can be separated by type of facility (library, IT services, Internet, recreational , cafeteria, labs, etc.)	Measuring overall students' satisfaction is, as already mentioned, a common practice. Segregating the surveys' topics may provide deep and unexpected information about various services that otherwise would have been overlooked. Students' satisfaction with the campus facilities plays an important part in their overall satisfaction. Therefore, understanding their needs and considering their opinion is the first step before taking appropriate actions.
Satisfaction rate of faculty members and staff with campus facilities	Sum of questionnaires points on campus facilities/Maximum number of points related to campus facilities	Same as above	Same as above as satisfaction with campus facilities improves overall satisfaction of faculty and staff and consequently improves their performance.
OHS hazards	Number of OHS incidents in a recorded period of time	Can be calculated by type of hazard	Occupational health and safety (OHS) practices in both production and service industries are important for the quality assurance of those products/services. Poor workplace safety and health place a substantial economic burden on individuals, employers, and society. The HE sector can involve high risk exposures in some disciplines. Despite its risk and complexity, little has been written – and even less has been done – about the OHS needs of this sector (K M Venables & S Allender, 2006). In fact, not only information about hazard and risk is almost unavailable, but also information relevant to planning occupational health provision in HE Institutions is non-existent. As the quality of education is affected by OHS

Indicator	Calculation	Variation	Use/Purpose
			measures too, monitoring the number of incidents related to OHS allows to evaluate the quality of OHS practices implemented at the Institution and the adequacy of its facilities.
Assets depreciation rate	$\frac{\text{Net value of fixed assets} - \text{Total gross value of fixed assets}}{\text{Accumulated depreciation} / \text{Total gross value of fixed assets}}$	Can be calculated by campus or by faculty	This ratio estimates the current obsolescence of fixed assets. The quality of campus facilities is directly related to their age and depreciation state. A low rate (in the first formula or high rate in the second) means that most of the assets are close to the end of their useful life and will soon need to be renewed. Generally, this ratio is a financial ratio (calculated from the balance sheet), however it was featured under this category because it informs about the state of the campus' physical facilities, the accrued need for maintenance and it allows planning ahead the renewal of fixed assets.
Average space per student	$\frac{\text{Total students' space in sqm}}{\text{Total number of students}}$	Can be calculated for classroom alone, laboratories and recreational areas	The physical environment of a campus provides the context for learning and social interactions. When meaningful, these interactions lead to involved students, which help build community, increase students' retention and academic success. While not directly related to the quality of teaching, physical structures, outdoor spaces, spatial organization, accessibility, navigational flow, and cleanliness are all factors that convey messages and have an impact on students' attraction and long-term satisfaction (Harrington, 2014). Space is one important factor that majorly influences all others and can be easily measured.
Average office space per staff and faculty members	$\frac{\text{Total office space in sqm}}{\text{Total number of faculty and staff}}$		Having sufficient space for offices of faculty members and staff is an important factor in their satisfaction and productivity. It is often assumed that employees who are more satisfied with the physical environment of their workplace are more likely to produce better work outcomes and have higher performance (N.Kamarulzaman, A.A. Saleh, S.Z. Hashim, & A.A. Abdul-Ghani, 2011). Although many indoor environment factors affect employees' productivity (temperature, water quality, lighting, noise, air quality, layout of individual workspaces, colors, interior plants, dust levels, etc.), space is considered to be a major aspect and an easy-to-measure factor.
Classrooms to students' ratio	$\frac{\text{Number of classrooms/laboratories/Computers}}{\text{Number of students}}$		Measuring the number of classrooms, laboratories or computers and comparing them to the number of students is a way to evaluate the availability and effectiveness of those facilities as they impact the management process of courses' scheduling and class sizes.

Indicator	Calculation	Variation	Use/Purpose
Laboratories to students' ratio ----- -- Computers to students' ratio			
<b><u>Teaching and learning Indicators</u></b>	Assessment of teaching effectiveness and students' learning outcomes should be built on solid and diversified measures. With growing attention being given to intended learning outcomes in HE, it has become clear that the development of adequate measurements of achieved learning outcomes is needed. The systematic assessment and reporting of teaching performance and students' learning may be used to assess the quality and effectiveness of HE Institutions and their programs. However, with the extensive literature found on both topics and the plethora of different points of view, identifying good teaching or measuring students' learning outcomes are easier said than done (more on this topic in appendix E).		
Average GPA by program	Sum of all students' GPA enrolled in a specific program/Total number of students in that program	Can be grouped by faculty	Calculating the average GPA by major or program gives an indication on the program's performance as a whole and constitutes a powerful determinant of completion and dropout. When students' GPAs are satisfactory, it means that the program and the students are meeting the expected learning outcomes. It would also be insightful to measure the standard deviation for a better understanding of how students' level is distributed.
Average grades by Faculty member	Sum of students' grades given by a faculty member during a given period /Total number of those students	Can be calculated by course or for all courses taught by the faculty member	The average grades given by a particular faculty member informs about the assessment and grading methods of that faculty member. Big gaps between faculty members especially in the same faculty or department should raise doubts about the fairness and objectivity of the evaluation methods. This ratio can be compared with the overall GPA of the same group of students to detect potential large gaps between the overall students' level and the faculty member's grading average.
AW rate by course	Number of AW grades given on a particular course/Total number of students enrolled in that course	An average can be calculated for a whole faculty or by department /program	The number of students who are academically withdrawn from a course, whether for disciplinary reasons or excessive absenteeism, give an indication on the motivation and satisfaction of those students in that course or with the instructor teaching it. High rates of AWs indicate a lack of engagement resulting from poor teaching performance or lack of interest in the course that will most likely result in poor academic results. A high AW rate in a particular program/department (when compared to other departments) should raise doubts about the performance of the whole program/department as the problem is no longer



Indicator	Calculation	Variation	Use/Purpose
			about a particular course (its content or the instructor teaching it), but rather about the overall performance of the program.
AW rate by student	Number of AW grades obtained by a student till date/Total number of courses taken till date		The number of academic withdrawals calculated by student reveals a lot about the students' individual level of commitment, motivation and seriousness which affects his/her academic success. Closely monitoring the rate of AWs per student gives an early indication on the likelihood of him/her dropping-out. An interesting approach is to study the correlation between the AW rate and the student's GPA
AW rate by Faculty member	Number of AW grades by faculty member / Number of students taught by the faculty member		The higher the number of AWs the lower is the interest of the students in the course given by this particular instructor. Repetitive high AW rates by the same faculty member suggests an unsatisfactory quality of teaching or poor methodology.
W rate by course	Number of W grades given on a particular course/Number of students enrolled in that course	Same as above	Withdrawals happen when students feel they won't be able to succeed in the course or that they cannot continue taking the course and they prefer to withdraw from it. Depending on the reason behind it, the withdrawal rate can inform about the students and the instructors' performance. Withdrawing because of personal or financial reasons may have nothing to do with the instructors' teaching skills, but rather with the students' background. Whereas withdrawals because of the risk of failure in the course or lack of interest might inform about the instructor's methodology of course delivery and evaluation. A high rate should raise alarms and combined rates per program or faculty are an interesting way to evaluate and compare programs or faculties.
W rate by student	Number of W grades obtained by a student till date/ Total number of courses taken till date		The withdrawal rate per student informs about his/her academic level when it is unrelated to personal reasons. A high W rate per student suggests a lack of engagement, poor academic results and delayed graduation.
W rate by Faculty member	Number of W grades awarded by a faculty member /		For a student to drop out of a course while still having to pay for it, suggests that his/her situation is very critical (very low grades on previous assessments, negative feedback on the instructor or personal issues). A faculty

Indicator	Calculation	Variation	Use/Purpose
	Number of students taught		member with a high number of students withdrawing from his/her course should raise red flags.
Fail rate by course	Number of students with a failing grade on a particular course/Number of students in that course	Same as above	Measuring the number of failures in a course informs about whether the intended learning outcomes of that course have been achieved or not. A high failure rate suggests that most students didn't reach the minimum level of knowledge required to pass the course. While the students' level and background play a major role in their success, it is the instructor's duty to make sure they acquire the necessary knowledge to succeed.
Fail rate by student	Number of failing grades obtained by a student till date/ Total number of courses taken till date		This indicator informs about the overall performance of a student on the academic, engagement and motivation levels. Students with high failure rates decrease the quality of the program graduation time and negatively reflect on the Institution. Monitoring those students helps Institutions to keep them under close supervision and take appropriate decisions when needed.
Fail rate by program	Sum of fail rate by course for all courses of a specific program/Total number of courses in that program		Programs with a high failure rate may be considered as highly selective and very demanding on the academic level. But it could also mean that the learning outcomes are not being met by most students and that a root-cause analysis should be done to determine the real reason behind the failures (inappropriate expectations, inadequate faculty members or loose admissions criteria).
Fail rate by faculty member	Sum of failing grades awarded by a faculty member/Number of students taught		If quality were measured by the level of difficulty and firmness that students experience in the classrooms, then a high failure rate will definitely be a sign of quality teaching. While many instructors blame the students when asked to explain large failure rates, new teaching practices suggest otherwise. Instructors with high failure rates are often instructors who failed to deliver the required course value (Altbach, Reisberg, & Rumbley, 2009).
Average grades by course	Sum of all grades of a certain course/Total number of students enrolled in that course	Can be calculated for the final grade or by assessment	Monitoring the grades' average by course is a means to depict any abnormalities over time, especially when a new instructor is delivering the course. It informs on the difficulty level of the course and the required workload. Students hitting their highest potential grades implies a good balance of materials, facilities, workload, and teaching. High averages positively reflect on the success of the Institution; however, excessively high grades can suggest easy and lenient assessment methods.

<b>Indicator</b>	<b>Calculation</b>	<b>Variation</b>	<b>Use/Purpose</b>
Average grades by program	Sum of all averages of courses related to a program/Total number of courses in that program	Same as above	Measuring the total average of students' grades related to a specific program helps in evaluating the overall performance of that program and comparing it to other programs and over time. High grades suggest that high standards are not being enforced and that grade inflation might be taking place.
Average grades by Faculty member	Sum of all grades awarded by a faculty member/Total number of students taught by that faculty member	Same as above. Can be calculated for full-timers and part-timers.	The average of grades given by faculty members informs about their grading style, allows comparison between faculty members, with program average and over time.
Probation rate by program	Number of students on probation in a certain program at a certain time/Total number of students enrolled in that program	Can be calculated for first, second and third probation alone	Academic probation is a period of time in which students – who don't meet the required standards - must improve their academic standing by meeting or making evident progress in their grades. There are many reasons students might struggle academically; lack of academic preparedness or adjustment to tertiary education, weak academic skills, dissatisfaction with instruction, low motivation, unmet high expectations, personal issues, bad advising, etc. Monitoring the number of students under probation informs about the overall students' level of success in the program, the overall program performance and the likelihood of having students voluntarily dropping out. In fact, probation and voluntary dropout rates are linked. Students with academic difficulties are less integrated, not engaged, demotivated and are inclined to drop-out more often than those who are not (Tinto, 1975).
Overall probation rate	Number of students on probation at a specific time/Total number of students	Same as above	Same as above. This indicator can serve as a benchmark for comparison between programs.
Dismissal rate by program	Number of dismissed students enrolled in a specific program during an academic year		Dismissal occurs when students who were put under probation for several semesters (in general after three consecutive semesters), fail to improve their academic status. What distinguishes voluntary withdrawal from an academically dismissed student is a lower level of commitment to the Institution and to the goal of education

Indicator	Calculation	Variation	Use/Purpose
	/Total number of students enrolled in that program		completion in the first case. Measuring dismissals is a way to assess the overall achievement of the programs' academic goals. High dismissal rates suggest a generally low academic performance of enrolled students and consequently raises doubts on the program's performance and admission criteria.
Overall dismissal rate	Number of students dismissed during an academic year/Total number of students		Same as above. This indicator can serve as a benchmark for comparison between programs.
Course evaluation grade	Sum of the evaluation points/Maximum evaluation points	Can be calculated by faculty or department /program	At the end of each course, students are expected to fill a course experience questionnaire that includes information about the quality of the course content, required workload, material, delivery method and teaching skills of the faculty member. While taking into consideration the inaccuracy of the collected data (biased or unexperienced students), this indicator gives an idea about the overall rating of the course as perceived by the students. When examined in combination with other relevant measures (grades average, GPA, absenteeism, etc.), this indicator becomes more meaningful.
Faculty member evaluation grade	Sum of the evaluation points related to the faculty member/Maximum number of related points		When isolating questions related to rating the faculty member, this indicator separates students' opinion in the course from their opinion towards the faculty member alone (a course can be difficult and negatively rated with high ratings given to the faculty member or vice-versa).
Approaches to Teaching Inventory	Variance between student-oriented approach and teacher-oriented approach		<p>The Approaches to Teaching Inventory (ATI) was developed to explore the relationship between students' approaches to learning, and instructors' approaches to teaching. ATI is now being widely used as an instrument for formally monitoring approaches to teaching in HE and sometimes as a stimulant for discussion among groups of instructors to raise awareness of the various approaches to teaching and on how variation in this practice might be related to their students' approaches to learning.</p> <p>ATI assumes that 1) the characteristics and behavior of instructors, departments, Institutions, and educational systems, in both the current and past experience of students, have significant effects on how students of any</p>

Indicator	Calculation	Variation	Use/Purpose
			age learn; 2) changing teaching practices to improve learning quality is both desirable and feasible; and 3) improvements in teaching and learning processes require teachers to have both a theoretical and practical understanding of how students learn and how they can be encouraged to learn in more effective ways. When students adopt a deep approach to learning they intend to engage with what is being learnt in a way that leads to a personal and meaningful understanding. (Trigwell, Prosser, & Ginns, 2005)
Licensure exams passing rate	Number of students who succeeded in licensure exams/Total number of students who sat for the exams	Can be calculated by discipline	In some countries and for some disciplines, governments hold national licensure exams for the purpose of regulating a specific profession and guaranteeing certain standards. It is safe to say that a HE Institution with a high passing rate in licensure exams is an Institution that meets the minimum standards of quality in education.
Average graduation time by program	Sum of elapsed time (number of semesters) between first enrollment to graduation for a graduating cohort in a specific program/Total number of students in that cohort		The elapsed time between a student's first enrollment and his/her graduation date depends on several factors. While the nature of the sought degree plays a major role, other factors highly influence graduation time too; socio-demographic, financial, academic and organizational factors. In all cases, high graduation time is seen as a sign of inefficiency and resources' waste and negatively influences potential students' decision of enrollment.
Overall average graduation time or time-to-graduation	Sum of elapsed time (number of semesters) between first enrollment to graduation for a graduating cohort/Total number of students in that cohort		Same as above.
Learning objectives	Completed learning	Can be calculated	At the end of each course, the instructor should assess the fulfillment of the intended learning outcomes of the course.

<b>Indicator</b>	<b>Calculation</b>	<b>Variation</b>	<b>Use/Purpose</b>
completion rate by course	objectives of the course/Intended learning objectives of the course	for the whole program	It can be calculated following the exams result or direct observation. Although the assessment might be subjective, reflecting on the completion of the learning objectives is an interesting approach to assess the performance of the students and that of the teaching and provide an opportunity to take eventual corrective measures.
Program evaluation	Sum of exit questionnaire points filled by graduating students/Maximum number of points		This evaluation after graduation determines whether or not a program has been successfully attaining its objectives from the graduates' point of view.
Students' assessment methods	Sum of assessment methods for all courses/Total number of courses	Can be calculated for the whole Institution, faculty or program	It has been often argued that diverse assessment methods allow better evaluation of student's learning outcomes (Coates, 2015). The average number of assessment methods used by course demonstrates the diversity in the types of assessment methods used by instructors. A higher variety indicates a better and impartial overall assessment method.
Average out-of-class workload by course	Sum of hours of out-of-class work for students enrolled in a particular course/Total number of students enrolled in that course	Can be calculated by program or by student	It is believed that out-of-class workload (readings, assignments, projects, library search, etc.) is directly related to the student's overall academic achievement and indirectly reflects the quality of learning (Ewell & Jones, 1996). While it doesn't inform about the content of the course nor the teaching quality, time spent studying for a course is directly correlated with the effort required to pass the class and thus, is an indicator of academic quality. It is a useful benchmark for comparing courses and programs.
Weight of major courses in the program	Total number of credits related to major courses/Total number of credits in the program		This indicator measures the importance given to the major/specialized courses out of the whole program. Depending on the type of the program (general or specialized), this metric helps the Institution monitor the distribution of credits between general and specialized education. Some accreditation agencies require a minimum threshold of major courses in a program.
Weight of practical courses in the program	Total number of credits related to lab and internships/Total number of credits in the program		This metric measures the opportunity that students have to engage in activities designed to develop practical and hands-on learning. For some disciplines, practical learning is the cornerstone of quality teaching.

Indicator	Calculation	Variation	Use/Purpose
Internship learning outcomes completion by internship	Completed learning objectives of the internship/Intended learning objectives of the internship	Can be calculated by programs in case there are several internship periods	Internships have a growing presence on the HE landscape in response to pressure for career-ready graduates and as a result of research on effective practices for deep learning. Some researchers have proposed internship assessment methods involving coordination with the industry, self-evaluation or peer assessment. Unlike other theoretical courses, students or trainees are often in diverse settings, away from the university, with little or no direct oversight. Assessment in this case has to accommodate a wider range of activities than that of campus-based courses. Designing effective assessment practices remains one of the most challenging issues that HE Institutions face when implementing work integrated learning. Practicing workplace activities only are not sufficient to ensure effective learning, clear learning outcomes and completion information are vital to guaranty the added-value of internships. Haddad-Adaimi <i>et al.</i> have proposed a multidimensional and practical approach using performance measurements, to assess students' outcomes following an internship and deduce corrective measures accordingly (Haddad-Adaimi, Abi Zeid Daou, & Ducq, 2022).
Students' assessment conformity	Number of conform assessments/ Total number of assessments	Can be calculated by program, faculty or Institution	Students' assessment is the most direct measure of students' learning, it doesn't only inform about students' achievements, it also plays a vital role in quality learning (Coates, 2015). This PI informs about the good practice in assessment (methods, explicit learning outcomes, diversity, design, delivery, continuous feedback, review) by measuring the number of assessments that are conform to the preset standards.
Cheating and plagiarism rate	Number of cheating and plagiarism attempts during an academic year	Same as above or by exam session	Cheating and plagiarism are two academic misconducts that deserve some particular attention. Many findings support that there is a reluctance from faculty members to bring dishonest academic behavior, like cheating, before the administration in order to avoid the stress, discomfort and penalties that will result (Mikaela Bjoerklund & Claes-Goeran Wenestam, 1999). Students who cheat on an exam and get caught should indeed be penalized, however, tracking the number of cheating and plagiarism attempts can give indications on the students' attitudes towards their education and about their academic integrity, all of which have an impact on the Institutions' reputation and quality of education.

Indicator	Calculation	Variation	Use/Purpose
Curricula development frequency	Number of meaningful changes brought to the Institution's curricula during an academic year ----- Number of changes done to a curriculum over the last five years	Same as above	Most accreditation standards insist on the importance of frequent curricula update and development in collaboration with industry experts. This indicator gives a prompt and concise idea on how often programs' content are updated. While it doesn't directly inform about the quality and feedback of those changes, frequently reflecting on curricula and learning outcomes, discussing feedbacks and adjusting contents undeniably leads to improvements. To note that prior to calculating this indicator, each Institution should define what is considered as a "meaningful change".
Courses review	Number of courses that underwent meaningful changes during an academic year		Same as above but on courses' level.
<b><u>Research Indicators</u></b>	Indicators under this category provide information regarding the performance of HE Institutions in providing relevant and valued research to the community they serve. While research productivity is still an influential indicator in many settings (accreditation, benchmarking, ranking, etc.), assessing the impact of research is gaining more importance especially for making an evidence-based case to governments and research funders for increased financial support. In fact, they want to know the contribution of research to the areas of knowledge production, capacity-building, informing policy or product development, health and health sector benefits, and broader social and economic benefits (Donovan, 2011). The UK's Research Excellence Framework (REF) describes HE research impact as " <i>an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia</i> ". Through its teaching, research, outreach programs and campus experiences, HE Institutions directly impact their environment and the quality of the workforce, improve cultural dialogue, enable innovations that bring solutions to current issues, etc. Indirectly, they promote economic growth, change of societal and business practices, social cohesion, contribution to climate change, urban development, etc. Research outputs and impact are typically measured by the research income, research quality (REF stars rating), allocated infrastructure and resources, degree provision and impact (dissemination, citations, sustainability, influence, etc.). While research outputs might be easily quantified, the effect or impact that research has or will have on the broader environmental, economic, socio-cultural and technological contexts is harder to grasp. Moreover, many authors argue that metrics-only approaches to assess research impact and quality are behind the times, and that 'state of the art' evaluations combine narratives with relevant qualitative and quantitative indicators. They also mention the problems that result from using common metrics for the assessment (Donovan, 2011). Also, research impact and productivity are determined by the Institution' size, a criterion that is often overlooked in rankings and public facts and figures. It is therefore useful to combine several indicators to		



Indicator	Calculation	Variation	Use/Purpose
	be able to judge its societal return, and correlate productivity ratios to the number of faculty members or students.		
<p>Research productivity by Faculty member</p> <p>Average research productivity of faculty members</p>	<p>Number of publications done by a faculty member during three academic years</p> <p>-----</p> <p>Sum of research productivity of all faculty members/Total number of faculty members</p>	<p>Can be calculated for full-time or part-time faculty members (who publish under the Institution's name)</p>	<p>The number of publications in reputable refereed journals is one indicator that measures the research output of a HE Institution. While the number of published articles, papers, conferences and books is very important, the quality and the pertinence of those publications is an even more important assessment factor. The period of three years is set because it is an accepted time frame during which a faculty member would have had time to publish several works, one year being not enough. Measuring the average productivity of faculty members is useful for benchmarking and for comparing the productivity of a faculty member with the average at the Institution (for performance appraisal or other research-related evaluation).</p>
<p>Bibliometrics</p>	<p>Number of citations per faculty member (over a five-year period)</p> <p>-----</p> <p>Number of faculty members with an h-index of x (to be determined by the Institution)</p> <p>-----</p> <p>Total number of citations received by all papers produced by the Institution across a five-year period / Number of faculty members at that Institution</p> <p>-----</p> <p>Number of citations that meet or exceed field world</p>	<p>Same as above</p>	<p>Bibliometrics analyze the impact of research outputs using quantitative measures. It complements other indicators of research impact such as peer review, funding received, and the number of patents or awards granted. Together they assess the quality and impact of research. Some common bibliometrics measures are: 1) Citation per faculty counts: the number of times a research output appears in the reference lists of other documents (articles, books, reviews, conference proceedings etc.). To account for the fact that different fields have very different publishing cultures, citations can be normalized (a citation received for a paper in philosophy is measured differently to one received for a paper on anatomy and physiology), ensuring that, in evaluating an Institution's true research impact, both citations are given equal weight. 2) H-index: designed to measure an author's productivity and impact. It is the number of an author's publications (h) that have h or more citations to them. 3) Field-weighted citation impact: the ratio of citations received relative to the expected world average for the subject field, publication type and publication year. It can apply to a research output or group of research outputs. 4) Outputs in top percentiles: the percentage of research outputs in the top most-cited publications in the world. 5) Journal Impact Factor: based on the average number of citations received per paper published in that journal in the preceding two years. 6) CiteScore: the average number of citations received in a calendar year by all items published in that journal in the preceding three years. 7) SCImago Journal Rank: places a higher value on citations from more prestigious journals.</p>

Indicator	Calculation	Variation	Use/Purpose
	<p>average / Total number of citations</p> <p>-----</p> <p>Number of faculty members cited in the top percentile publications</p> <p>-----</p> <p>Number of faculty members who published in journals with a high impact factor (to be determined by the Institution)</p>		<p>8) Scopus SNIP: a ratio of a journal's citation count per paper and the citation potential in its subject field. The Scopus SNIP normalizes citation rate subject differences.</p> <p>Although bibliometrics are widely used to measure research impact, there are some considerations to take into account:</p> <p>Quality: high citation counts may not indicate quality.</p> <p>Disciplinary patterns: some research areas cite papers more than others. For example, in medicine and health there is a strong culture of citing and using other articles to validate findings.</p> <p>Level of researcher experience: some metrics are higher for experienced researchers than early-career researchers. It is important not to compare researchers who are at different stages of their career.</p> <p>Database coverage: the sources used to gather publication data may index different journals. The results will vary depending on which database is used.</p>
Peer review accuracy	Gap between peer review feedback and post-funding citation output using Boolean output (where 1 refers to a positive peer-review and adequate citation output OR negative peer-review and inadequate citation output)		Some form of peer review is used at most research-granting organizations to determine the worthiest applications to consider for funding. As such, peer review makes a significant contribution to how billions of dollars in research grants are awarded, influencing the very direction of science itself. However, this process has been increasingly questioned, particularly with regard to how well peer review results predict the ultimate impact of the funded research. While several studies suggest that the process of peer review of scientific manuscripts has some success in identifying what will later become highly cited-high-impact publications, only a handful of publications have dealt with the predictive accuracy of the outcomes of peer review of grant applications. This indicator helps in identifying whether the peer review scores correlate with the bibliometric data of the research output (Gallo, et al., 2014).
Research contracts	Number of research contracts signed by the Institution over a set period of time	By discipline, faculty or for the whole Institution	This indicator includes contracts with the industry, government and professional societies and might be the most direct way to assess the impact of research on socio-economic development.

Indicator	Calculation	Variation	Use/Purpose
Research grants	Number of grants received over a set period of time	Same as above	This indicator provides a measure of the success of researchers and or the Institution in attracting funds over and above those allocated by the Institution or funding bodies.
Research income	Amount of research funds received	Same as above	Research funds earned by an Institution provide an indication of its effectiveness in conducting relevant and valued research, while also informing the community about how the Institution funds its efforts towards the advancement of knowledge. An Institution's share of research income is a proxy measure of research relevance and competitiveness.
University research activity	Total number of publications during three academic years		Including books, books chapters, journal articles, reference work, review article, conference published under the Institution's name.
Patents/spin-offs	Number of approved patents/spin-offs during three academic years		The importance of patenting is not only advantageous for the author of the patent or the HE Institution, but also for the whole society and knowledge-based economy. Some universities' rankings use the number of international patents applications as a quality indicator (Al Kassiri & Corejova, 2015). Approved patents and spin-offs suggest that the Institution plays a major role in developing scientific knowledge and fostering industry's R&D activities and has a close relation with the industry.
Honors and distinctions	Number of honors awarded to faculty members during a recorded period		Honors awarded to faculty members by reputable organizations is an indication of public appreciation and approval which positively reflects on the HE Institution and its ability to attract top researchers and funds.
Editorship of journals or peer-review	Number of faculty members who edit or review journal articles ----- Number of faculty members who edit or review journals/Total number of faculty members		A faculty member who is a journal editor or peer-reviewer means that the journal acknowledges the fact that this faculty member is an expert in his/her field. Monitoring their number is an indirect method of assessing the perceived qualifications and experts' appreciation of an Institution's faculty members. It also shows how invested and up-to-date they are in their fields. However, this indicator is more meaningful when it is correlated with the actual number of faculty members.

Indicator	Calculation	Variation	Use/Purpose
Altmetrics	Altmetric Attention Score by faculty member		Altmetrics are based on the number of times an article is shared, downloaded or mentioned on social media, blogs or in newspapers. Altmetrics should be considered alongside traditional bibliometric measures such as citation counts, h-index or journal impact factors. It gives a wider picture of how a piece of research is being read and discussed. Altmetrics also give a more immediate indication of how an article is received than citations in publications. To note that a high number of shares or social media mentions does not necessarily mean that an article is of high quality and the numbers might not reflect the actual level of public interest in a piece of work. An article may be mentioned on social media because it contains amusing or unusual material.
Joint research projects	Number of joint projects initiated during a specific time frame		Organizing research projects with other HE Institutions, professional bodies or the government demonstrates how well an Institution communicates and creates synergies with its community.
Reward and recognition system for quality research	Number of faculty members who were rewarded during a recorded period of time		Rewarding research of faculty members is important. Rewarding quality research – through a structured and transparent reward system – is even more important. It is central though not to mix research rewards with teaching or incite faculty members to focus on research only (academic overproduction) and forsake teaching.
Master Research students	Number of students enrolled in a Master of research program	Can be calculated by faculty or by Institution	The number of students enrolled in a master of research program provides a measure of the likelihood of having PhD candidates enrolled at the Institution.
PhD Research students	Number of students enrolled in a PhD program	Same as above	The number of students enrolled in doctoral degrees provides a measure of the vitality of the Institution in educating new researchers and as a proxy for the level of attractiveness towards PhD candidates. However, the completion rate gives a real indication of the Institution's performance in graduating researchers. It informs about the effectiveness of its research programs and quality of follow-up. A low completion rate in doctoral studies highlight an important lack of efficiency in fostering advanced researchers. Dropout can occur at various stages of the process and has negative consequences for the individuals, Institutions and the society as a whole.
PhD degrees completion rate	Number of students who were awarded the degree/Total number of enrolled students		

Indicator	Calculation	Variation	Use/Purpose
Students' publications or students involved in faculty research	Number of students who published during or at the end of their studies	Can be calculated for undergraduates and graduates	Having a number of students who actively participate in writing publishable articles indicates high academic expectations and appropriate initiation to research. It is a direct measure of an effective practice for synthesizing education and demonstrating general writing and analytical skills.
Dispersal of research	Number of PIs related to research with a positive return/Total number of PIs related to research		Evaluating the dissemination of research is like evaluating its impact in the horizontal reachability sense of the term. The particularity of this indicator is measuring how many stakeholders have been positively impacted by the research findings. In other terms, it assesses the quantitative impact of research rather than the qualitative one.
Attendance to conferences, scientific meetings, workshops and seminars	Total attendance of faculty members to scientific conferences and seminars during a specific period of time	Can be calculated for all faculty members or by faculty	Attending conferences and seminars by faculty members enriches their scientific knowledge and technical experience, encourages innovative research and curricula, enables faculty members to exchange knowledge and ideas in international forums and promotes scientific collaboration with fellow experts. It also implies that the Institution is active within the scientific community and that it seeks continuous update and exchange of knowledge, all of which enhances the quality of its teaching and research.
<b><u>External and reputation Indicators</u></b>	The reputation of any HE Institution is a very subjective and versatile topic. It is influenced by the value of its interaction and connectedness with the external environment and by the public's perception. At the same time, it is a crucial topic to HE Institutions as rankings often use reputational surveys of academic peers, students or industry experts, to assess how major stakeholders view HE Institutions (Marope, Wells, & Hazelkorn, 2013). To objectify and measure reputation, several direct and indirect indicators should be combined to be able to reach a realistic picture; when students or employers are satisfied, it is safe to say that the Institution produces a valuable workforce and that its educational level is satisfactory. When the Institution is active within its community, it will likely build a positive public perception and good reputation (Haddad-Adami, Abi Zeid Daou, & Ducq, 2022).		
Students' employability or First destination of graduates	Number of students who find an "adequate" job within six months from graduation in a related field/Total number of	Can be calculated by faculty, department or program and for postgraduates too	Employment or rather unemployment rates are often used to measure the performance of HE learning. The idea is that different courses or different teaching make graduates more or less "employable". While the chance of being unemployed would be affected by such an attribute, it will also depend on a number of other factors such as the state of the local labor markets, the attractiveness of the subject discipline, age, gender, ethnicity, student's personality, etc. Furthermore, even if the approximation of unemployment rates is accepted as a measure of employability, it would be

Indicator	Calculation	Variation	Use/Purpose
	graduating students		wrong to assume that employability is wholly dependent on the education undertaken. In fact, there is evidence that the reputation of an Institution, which may be based on the learning and teaching 10 or more years earlier, is a major consideration for many employers in their graduate recruitment (Pollard, et al., 2015). Meaning, neither the achievements of students, nor the relevance of the course to the requirements of employers, can fully account for differences in employability. Nevertheless, HE Institutions with a high students' employability rate evoke high standards of teaching that meet the market needs and inspires good reputation. Moreover, it is an important indicator in universities' rankings.
Corrected employability rate	Number of students who are effectively looking for a full-time job and who have found one within six months from graduation/Total number of students who graduated	Same as above	Any consideration of post-higher education destinations must take account of the fact that there are at least four major sets of outcomes: employment, unemployment, voluntary unemployment and further study. Different approaches of these multiple outcomes have given rise to different claims to be at the "top" of the graduate employment league table. Treating further study as equivalent to being unemployed does not seem defensible; and to track students through their postgraduate study to employment would be confusing as well as difficult. With students pursuing their post-graduate studies at a different Institution and those who work and study at the same time, HE Institutions should calculate a corrected employability ratio if they are to genuinely measure their students' employability.
Employment resulting from an internship	Number of students who were hired following an internship/Total number of students who attended an internship	Same as above	Another measure that reflects students' employability and adequacy of their acquired skills is when the training venue offers an employment following an internship. Employers who are able to test and supervise students and accordingly offer them a job constitute the best proof of students' knowledge and skills' adequacy.
Average starting salary	Sum of salaries of first-time employed graduates/Total number of first-time employed graduates	Same as above	The average starting salary informs about the appropriateness of the obtained jobs with regards to the degree and field of study. It also indicates how much graduates/or degrees from a specific HE Institution are actually valued. It would be useful to compare it with graduates from other Institutions.

Indicator	Calculation	Variation	Use/Purpose
Reputational survey	Sum of surveys' points/Maximum number of points	Can be separated by group of stakeholders	Reputational surveys are surveys filled by external HE stakeholders assessing an Institution's overall impression of excellence or quality. It is commonly used by ranking agencies as it constitutes an important metric in worldwide rankings calculations; it gathers the opinions of thousands of HE leaders, experts, employers, etc. on teaching and research quality at HE Institutions. Individual Institutions can develop their own reputational surveys and use the results as an internal indicator.
Employers' satisfaction rate	Sum of employers' satisfaction points /Maximum number of points	Can be calculated by faculty, department	Those surveys give an idea about the employers' level of satisfaction as to the graduates' knowledge, skills, qualifications and attitudes, and whether they match the job market needs or not. Employers' satisfaction is important for the Institution's reputation and graduates' employment.
Internship fields satisfaction rate	Sum of internship fields' satisfaction points /Maximum number of points	By major or overall	Same as above.
Athletic success rate	Number of meaningful athletic successes/ Total number of attempts	Can be calculated by athletic events or by students	In some countries, sports have a big impact on the culture and influence far beyond the playing field. A sport provides its athletes with many benefits. Not only can sports provide athletes with popularity, authority and money, sports can also provide athletes with a sense of internal achievement and success. Athletic success serves as a powerful marketing tool for HE Institutions with regards to its reputation and appeal to attract new students (Rishe , 2003), (Forster, 2012).
University Social responsibility	Number of activities that promote and sustain culture during a specific period  ----- Number of social involvements that provide access for all social categories		Social responsibility is increasingly considered as an intrinsic aspect of HE. Today, it goes far beyond the "philanthropy" of the past. It is about the business contribution to sustainable development and about proactive solutions to societal and environmental challenges. Considering that HE Institutions are an important pillar of society, their social dimension should be properly acknowledged. Nowadays HE Institutions' function is more about training for various vocations in order to have social relevance than about simply issuing diplomas, more about helping students find their sense of direction and think beyond individual interest to societal interest (Vasilescu, Barna, Epure, & Baicu, 2010). University Social Responsibility (USR) can be defined as

Indicator	Calculation	Variation	Use/Purpose
	<p>-----</p> <p>Number of activities that promote health and health education</p> <p>-----</p> <p>Number of activities that promote knowledge-transfer to less fortunate communities</p> <p>-----</p> <p>Number of activities related to human rights</p> <p>-----</p> <p>Number of development and continuing education programs addressed to the public (involvement in regional skills)</p>		<p>a philosophy of a university as an ethical approach to develop and engage with the local and global community in order to sustain the social, ecological, environmental, technical, and economic development (Chen, Nasongkhla, &amp; Donaldson, 2015).</p> <p>An Institution’s social responsibility is not a quantifiable concept. However, recording all the activities that contribute to and develop this civic commitment can help in measuring the extent of the responsibility.</p> <p>Environmental and economic impact are covered by a different indicator.</p>
Community perception	Sum of points of the community perception survey/Maximum number of points		Monitoring community perception through frequent surveys allows Institutions to get feedback on the quality of their efforts with regards to social programs (regardless of academic reputation) as perceived by the community. It also provides insights into the public’s expectations, helping Institutions to set strategies accordingly.
Community services	Number of outreach programs with the community	Can be separated by type of programs	The role of HE in developing students’ knowledge and key skills is well known, but it isn’t enough anymore. Now, it is important to influence also the character and morals and help them build their social foundations. Many HE Institutions have increasingly allocated resources and attention towards student development in areas such as personal and social responsibility, moral formation, service leading and responsible judgment. HE Institutions should help their respective local communities through funding



Indicator	Calculation	Variation	Use/Purpose
			activities and facilities to achieve sustainability. The social and economic implications of upholding a relationship between Institutions and local communities increase its importance beyond education. It presents a great opportunity for those Institutions to influence societal progress.
Partnerships with the industry	Number of effective partnerships with the industry		The interdependent relationship between HE Institutions and companies enable both entities to sustain growth in their areas and benefit the society as well. While companies rely on university researchers for product innovations and employees' recruitment, Institutions gain prestige through increased external research funds, access to cutting-edge equipment, curriculum updating and increased graduates' employment possibilities. The number of effective partnerships that a HE Institution sustains with the industry implies research quality and relevance as well as the likelihood of having curricula and learning outcomes that meet the job market needs. Various programs already require an internship period at a company. The breakthrough is having Institutions incorporate real-world business experience and professional training, into courses that have traditionally been exclusively academic.
Involvement of employers in curriculum development	Number of changes brought to a curriculum following an employer's suggestion during a period of time	Can be separated by faculty or department	Actively involving employers in the development of the curricula is an effective approach towards closing the gap between education and job market. Measuring the changes brought to curricula following an employer's suggestion is a way to prove and document their involvement and participation.
Academic partnerships	Number of effective academic partnerships ----- Number of joint research programs with partner Institutions ----- Number of international exchange	Can be separated by continent, by the countries' income level or by discipline	The term academic partnership describes a variable set of experiences among a number of different HE Institutions. There is abundant evidence that research partnerships and academic collaboration have become the norm in modern academia. It can be between two geographically-distanced and culturally-diversified Institutions, the opposite, or between high-income and low-income countries. For low-income countries, opportunities arise to tap into the greater resources and capacity in Institutions in high-income countries. For high-income countries, partnerships create opportunities to learn about, conduct research and to develop experience in various fields, unavailable back home. The ability to analyze, debate, and share experience is essential for academic and scientific accomplishment and is one aspect of academic partnerships. Constructively

Indicator	Calculation	Variation	Use/Purpose
	students incoming ----- Number of international exchange students outgoing ----- Number of international faculty exchange – incoming ----- Number of international faculty exchange – outgoing		<p>challenging accepted opinions and ideas, is central to their development, and international collaborations help to facilitate this. Such partnerships have contributed endlessly to academic and scientific progress. A highly international HE Institution confers a number of advantages. It demonstrates an ability to attract faculty and students from across the world, which in turn suggests that it possesses a strong international brand. It implies a highly global outlook and provides both students and faculty with a multinational environment, facilitating exchange of best practices and beliefs. Consequently, it provides students with international understandings and global awareness, skills that are increasingly valuable to employers. For domestic students, it offers the opportunity to travel internationally and vice versa for students at partnered Institutions. It also enables HE Institutions to better understand the culture of other nations, thereby facilitating their international marketing success there. International collaborations help by providing students with the ability to study, work, and travel in an international capacity. For faculty members, it provides the opportunity to conduct joint research, gain international exposure and gain valuable experience. Those indicators allow to better understand and assess the Institution’s academic exposure and involvement with partner Institutions.</p>
Partnerships with professional bodies	Number of effective partnerships with professional bodies ----- Number of programs or trainings offered in partnership with professional bodies	Can be calculated by discipline	<p>With students seeking out degrees that set them apart from their competitors in a crowded graduate job market, HE Institutions came to recognize the value of curricula and courses oriented towards the industry’s needs. Embracing a tighter integration between the job market and HE is one way to meet this demand. Another approach is the creation of links with professional bodies and not only individual companies. What is meant by professional bodies is professional syndicates, foundations, organizations, federations, alliances, and institutes that award professional certifications. A growing number of HE Institutions are implementing partnerships with professional bodies, integrating professional certification into traditional degrees, launching courses that incorporate qualifications from a trusted professional body and setting-up joint councils of experts to develop new courses and enhance current programs. Forging effective, productive links with the industry can be difficult for HE Institutions, however, with their close knowledge of the demands of their sector, representability and established range of</p>

Indicator	Calculation	Variation	Use/Purpose
			qualifications, professional bodies are ideally placed to assist HE Institutions looking for a structured, manageable and efficient way to offer their students a competitive advantage.
Partnership with councils for scientific research	Number of partnerships with councils for scientific research	Same as above	In the academic world, researchers depend on their extensive collaborations with colleagues. Sharing techniques and expertise speeds up their projects, and gives life to new ideas and scientific breakthroughs. The presence of established channels that allow effective communication and provide large networks between academics enables the flow of critical information among them. Such networking and cooperation are extremely valuable for sharing information on new approaches and resources but also acquiring specialized and new expertise. Those networks take place through national or international scientific research councils that enhance links between researchers and implement regional projects. They are a reliable partner to HE Institutions committed to local, regional and international progress and evolution in science and research. Moreover, with the increased shrinking in government funding, Institutions of HE would call for every potential source for financial support. Their most valuable assets, the faculty members and their research work, can be very beneficial and play a vital role in receiving grants from other sources such as national or international councils for scientific research.
Continuing Education Programs	Number of CEPs held during an academic year	By field or overall or by client (for corporate trainings)	Continuing Education Programs (CEPs) are courses, workshops and certificate programs that impart relevant and up-to-date knowledge and skills in an array of fields, serving a wide variety of adult learners who seek professional advancement. The presence and involvement of HE Institutions with the industry on one hand, and with its community on another, is partly exemplified by the scope of its CEPs. Nowadays, HE Institutions around the world have been making considerable efforts to expand their provision to accommodate the regular-age cohorts, as well as to deal with the rising numbers of non-traditional and lifelong learners. Moreover, many companies now rely on HE Institutions to conduct their corporate trainings in various fields. While this presence brings prestige and good reputation to the Institution, it also generates an important source of income.
CEPs participation rate	Total number of participants in CEPs/Total	Same as above	Measuring the average number of participants in the CEPs held by the Institution is an indirect means to evaluate the

Indicator	Calculation	Variation	Use/Purpose
	number of CEPs held		success of those programs as well as their potential sustainability.
ROI of the degree	Total financial benefits of the degree over 20 years/Cost of earning a degree	Can be calculated by field of studies	Calculating the Return on Investment of an Institution's degree is a proxy way of assessing the value of the degrees it delivers. Although it is very difficult to measure and results are often uncertain, we consider that it is important to mention that this indicator exists. It basically compares the amount invested in HE (cost of a degree) with the return from attending a HE Institution (main financial benefit or sum of expected future income usually calculated over 20 years).
Alumni	Creating an engaged, supportive alumni network is crucial to an Institution's success. If communication stops once graduates leave, their understanding of the Institution will become obsolete. Instead, they should be kept informed so they can remain engaged and keep abreast on the progress of the Institution. Good alumni relationships bring many benefits to both the Institution and the alumni. As graduates of the Institution, alumni have a special connection with their alma mater and as a result are likely to be some of its most loyal supporters and best ambassadors. An engaged alumni network allows the Institution to benefit from their skills and experience by offering support to current students, to the Institution and to each other, and by offering invaluable marketing and promotion across their personal and professional networks. Talented alumni probably have a wealth of experience and skills to share with current students through talks, newsletters and in certain cases, by offering to practically support students in work placements, work shadowing, professional networking opportunities or help them launch their careers. In some cases, alumni are in a position to become international ambassadors to the Institution by helping to provide prospective foreign students with real insight into the country and the Institution. Moreover, alumni are often generous with fundraising efforts used by the Institution to offer scholarships or establish advanced facilities and equipment for teaching and research.		
Alumni participation rate	Number of graduates who joined the alumni/Total number of (living) graduates	Can be calculated by cohort	One of the first indicators of the Institution's success in engaging and connecting with the alumni, is the rate of graduates who officially join the association.
Alumni diversity	Number of alumni members who are part of a minority group/Total number of alumni members	Can be calculated by generations or age groups	Alumni diversity is just as important as students' diversity. A diverse alumnus gives access to a greater range of talents, enriches current students' experience, promotes growth and strengthens inclusion and community ties. Diversity can be categorized by gender, nationality, culture, employment location and number of years after graduation. The mentioned indicator is one example. Institutions can measure the category(ies) that best demonstrates diversity.

Indicator	Calculation	Variation	Use/Purpose
Alumni engagement	Number of interactions done by alumni members over a period of time	Same as above	An inactive or disengaged alumnus doesn't bring any value to the Institution. This indicator measures the effective engagement of the alumni in terms of actual interactions and participation to various activities.
Alumni donations	<p>Amount of alumni donations per academic year</p> <p>-----</p> <p>Amount of alumni donations per academic year/Total income of the year</p> <p>-----</p> <p>Amount of alumni donations per academic year/Total budget of the year</p>		As already mentioned, many HE Institutions deeply count on alumni donations to even-out their budget. The amount of those donations reflects the alumni engagement and sincere involvement. When compared to the Institution's total income or budget, it gives an idea on the extent and weight of their contribution.
Alumni satisfaction	Sum of satisfaction questionnaire points/Maximum number of points		Alumni satisfaction can be surveyed through questionnaires. A satisfied alumnus is more likely to participate actively, assist the Institution in several ways and give constructive feedback.
Alumni average salaries	Sum of alumni salaries/Total number of alumni	Can be calculated for each degree level separately (bachelor, master and PhD) or/and by discipline or age-group	Knowing the median earning of graduates is important for several reasons. First and foremost, it is used for benchmarking purposes when compared to other HE Institutions. The higher the average salaries are, the more attractive is the Institution towards prospective students, because the "return on investment" in their education is higher. It is an important selling point. It means students who graduate from this HE Institution will secure better employment opportunities and are valued in the job market. It also suggests that graduates are equipped to be successful because successful people secure good jobs with a good pay. While graduate salaries are an important factor, using it as the single measure of success in HE should be avoided. In fact, students who graduate from fields such as arts, nursing or public sector professions, despite making

Indicator	Calculation	Variation	Use/Purpose
			an essential contribution to society and the economy, earn less on average.
Alumni employers' profile	Number of alumni members employed by leaders in a major company or leader in the field/Total number of alumni members	Same as above	The profile of the companies who employ an Institution's graduate is as important as the salaries' level. Although both indicators are closely linked and consequential, understanding the profile of employers gives insights about the desirability of those graduates and the quality of the jobs they secured. Employers can be sorted into categories by size, total budget, income, profits, market share, history, etc. The suggested indicator is one example of measuring the employers' distribution.
Alumni entrepreneurship	Number of alumni who are entrepreneurs/ Total number of alumni members	Same as above	A country's competitiveness hinges on its HE system's ability to create business-ready graduates with entrepreneurial skills. Developing entrepreneurial economies where competitiveness and growth can thrive and innovation and creativity can drive new ways to improve the social and economic well-being of their people, has become the priority of many governments around the globe (Herrmann, Hannon, Cox, & Ternouth, 2008). Measuring the number of alumni who started their own venture is an indication of graduates' entrepreneurial skills and level of inspiration, self-confidence, and talent. Those same graduates are more likely to found and lead dynamic new ventures and transform any organization they join or manage. Although entrepreneurship was traditionally taught as part of business degrees, it is being progressively introduced to a wide range of disciplines so that entrepreneurship education is embedded in every subject. Graduates need more than academic attainment. To add value, they need to have the entrepreneurial skills that enable them to seize and exploit opportunities, solve issues and problems, generate and communicate ideas, and make a difference in their communities regardless of their discipline. It is consequently an indication of an Institution's quality of education and contribution to the development of society (Herrmann, Hannon, Cox, & Ternouth, 2008).
Alumni positions by level	Number of alumni by job level / Total number of alumni members	Same as above	Each job level is typically associated with a salary range, incentives and job titles. Job levels can be grouped in six areas: executive management, middle management, management, advisory and staff with senior and junior positions. Sorting alumni by job level is another way to appreciate the employability and prospects of professional development of graduates.

Indicator	Calculation	Variation	Use/Purpose
Litigations and lawsuits	Number of ongoing litigations and lawsuits during an academic year		Litigations in HE Institutions can result from a wide range of intended or unintended actions, from admissions' tampering, discrimination, sexual assault/misconduct, racism, suppressing freedom of speech, to faculty dismissal and intellectual property rights. While the mission of HE Institutions and core of quality assurance standards revolve around integrity, honesty and transparency, one would think that HE Institutions would by no means, be in a position to face accusations and lawsuits. In some cases, the reality is quite different. Monitoring the number of lawsuits conducted against the Institution is one indicator of its compliance with legal accountability and integrity principles.
Sustainable development	<p>Institutions' environmental impact (waste and energy consumption, recycling activities) = Number of actions that limit ecological damage and green campus building during a recorded period of time</p> <p>-----</p> <p>Institutions' carbon footprint during a recorded period of time</p> <p>-----</p> <p>Number of times where the campus facilities were made available for local communities during a recorded period of time</p> <p>-----</p>		<p>Beginning with the Stockholm Declaration of 1972, there has been a steady development of national and international sustainability declarations relevant to HE. Institutions attempt to become more sustainable by signing these declarations and are already (or in the process of) incorporating and implementing them in their activities (Wright, 2002). There are several reasons why a HE Institution would integrate sustainable development (SD) within its mission and objectives, from quality assurance purposes to image polish and reputation. While we will not delve into the myriad reasons why HE Institutions cannot but join this trend, reconciling SD and finances is tough and at the heart of governance pressure.</p> <p>Defining sustainability in HE is complex and ambiguous as the concept applies to diverse institutional settings. To measure sustainability in HE, analysts must develop criteria for cross-institutional assessment. David Orr begins this process by proposing five criteria to rank campus sustainability that demonstrate institutional commitment to SD: 1) What quantity of material goods does the Institution consume on a per-capita basis? 2) What are the Institution's management policies for materials, waste, recycling, purchasing, landscaping, energy use, and building? 3) Does the curriculum engender ecological literacy? 4) Do HE Institutions finances help build sustainable regional economies? 5) What do the graduates do in the world? (Shriberg, 2002).</p> <p>As HE is a catalyst for SD for the next generations, communicating their impact is becoming an essential part of satisfying accountability expectations from public and private funders, policymakers, accreditation agencies, students and faculty. At the same time, there is a lack of clarity and a divergent understanding of the concept of</p>

Indicator	Calculation	Variation	Use/Purpose
	<p>Number of SD actions and awareness campaigns during a recorded period of time -----</p> <p>Number of actions that reduce development disparities during a recorded period of time -----</p> <p>Number of public health-related actions during a recorded period of time -----</p> <p>Institutional budget dedicated to SD efforts/Total institutional budget -----</p> <p>Number of outreach programs and trainings engaging the community, surrounding schools, and underprivileged groups that promote sustainability during a recorded period of time -----</p>		<p>impact of HE on SD (Findler, Schönherr, Lozano, Reider, &amp; Martinuzzi, 2019). The proposed indicators highlight direct and indirect impacts on SD arising from the activities of HE Institutions.</p> <p>Indicators related to students’ diversity and students’ access from underprivileged groups (in the students’ section) also measure the Institution’s engagement in SD efforts.</p>



Indicator	Calculation	Variation	Use/Purpose
	<p>Number of joint research programs with other Institutions on SD</p> <p>-----</p> <p>Number of faculty members, staff, students trained on environmental issues</p> <p>-----</p> <p>Number of programs or courses in the curriculum, covering the topic of SD</p> <p>-----</p> <p>Number of research projects dealing with SD issues</p>		
Economic development and engagement	<p>Number of rewards and incentive programs delivered to faculty members and staff that encourage innovative teaching; community-engaged research; patenting and commercialization of discoveries; any form of innovation in solving economic, policy, or social</p>		<p>In HE, “<i>economic development means proactive institutional engagement with partners and stakeholders, in sustainable growth of the competitive capacities that contribute to the advancement of society through the realization of individual, firm, community, and regional-to-global economic and social potential</i>” (Klein &amp; Woodell, 2015). HE Institutions enhance the competitiveness of their communities and regions while serving the global society, through many diverse programs, services, and activities in the areas of human capital/talent development, research and innovation, and stewardship of place (as defined by the Association of American State Colleges and Universities, stewardship of place is the idea that HE Institutions have a responsibility to collaborate with community stakeholders in the places they are located to maximize shared opportunities and jointly address critical issues.). Accordingly, the economically-engaged Institution seeks to adapt and enact, in ways consistent with its mission, the following general strategic program principles:</p>

Indicator	Calculation	Variation	Use/Purpose
	<p>problems; creative works</p> <p>-----</p> <p>Implementation of newly developed ecosystems</p> <p>-----</p> <p>Number of adapted courses or programs based on community needs</p> <p>-----</p> <p>Number of health-related endeavors</p> <p>-----</p> <p>Number of lifelong-learning programs</p> <p>-----</p> <p>Number of lifelong learners enrolled in programs during a recorded period of time</p> <p>-----</p> <p>Amount of scholarships given to students</p> <p>-----</p>		<ul style="list-style-type: none"> <li>- Embed economic engagement, innovation, and entrepreneurship across institutional missions;</li> <li>- Engage in regional innovation ecosystem;</li> <li>- Engage with communities—in social, physical, and virtual forms—and actively pursue working and collaborating for the common good with other community stakeholders;</li> <li>- Serve regional human capital and workforce needs;</li> <li>- Contribute to the health and wellbeing of the community it serves;</li> <li>- Enhance opportunities for faculty, students, and staff to engage with the public, industry, and government beyond their disciplines and Institutions;</li> <li>- Innovate continuously in teaching and learning practice.</li> </ul> <p>The challenge is to link within the Institution the teaching, research and community service roles by internal mechanisms (funding, staff development, incentives and rewards, communications) and to engage the Institution with all facets of the regional development process (skills enhancement, technological development and innovation, cultural awareness). Within advanced economies, there is a general concern that teaching and research within HE Institutions are not directed enough towards specific economic and social objectives. One of the fields where this demand is strongest is regional infrastructure development. Being located in “regions”, HE Institutions are often asked to make an active contribution to the development of these “regions”. These demands are mainly driven by processes of globalization and regionalization in economic development, whereby the local environment is as relevant as the national macroeconomic situation in determining the ability of enterprises to compete in the national and global economies. As a result, regionally-engaged HE Institutions can become a key asset for economic development by meeting the various needs of a more diverse client population such as flexible structures for lifelong learning created by changing skill demands; more locally-based education as public support for students has declined; greater links between research and teaching; more engagement with the end users of research</p> <p>(Chatterton &amp; Goddard, 2000).</p>
Media visibility	Media visibility is one of the factors that stakeholders use to determine reputation (Plewa, Ho, Conduit, & Karpen, 2016), it has a significant influence on public opinion and contributes		

Indicator	Calculation	Variation	Use/Purpose
	strongly to building companies' corporate reputation (Capriotti, 2007). The perception of an Institution's brand image or identity by stakeholders is closely linked to its reputation. HE Institutions have lately become more and more comfortable with including social media as part of their integrated marketing communication although accusations of a technological lag between higher education and the rest of society can be traced back to the last century (Selwyn, 2012). Today, a strong online presence is likely to positively influence an Institution's reputation, therefore, monitoring media visibility is yet another way of assessing and influencing an Institution's reputational performance (Haddad-Adaimi, Abi Zeid Daou, & Ducq, 2022).		
Media Favorability Index (MFI)	Number of positive messages / Number of negative messages	Can be divided by type of media (print, social media, digital, audiovisual, etc.)	This indicator shows favorable publications about the Institution based on the tone of the messages. If MFI <1, then during the period there were more negative publications than positive ones. This indicator is to be compared with the mentions related to the competitors as well as with the average market value during a certain period. It also allows to understand what types of media concentrate more on positive or negative messages, on what levels and when. It also shows where media visibility isn't contributing to building a positive and solid reputation and helps identify corrective actions.
Media budget	Media budget/Total institutional budget	Same as above	This indicator measures the weight of money allocated by the Institution to support media activities that should strengthen the Institution's image and reputation.
Media mentions	Number of media mentions during a period of time	Can be separated between intended (owned) content and earned content	The media can more or less mention the Institution with positive or negative content. The more positive media mentions, the better the performance of the Institution in reputation and image building. This indicator also allows institutions to keep negative mentions in check.
Share of Voice	$\frac{\text{Institution's number of publications}}{\text{Total number of publications in the HE market}}$ ----- $\frac{\text{Number of mentions of the Institution's name}}{\text{Total}}$	Mentions can be compared in key and non-key media, in national and regional outlets	Share of Voice (SoV) is a measure of the market that a "brand" owns compared to its competitors. It acts as a gauge for the brand's visibility and awareness and how much it dominates the conversation in the industry or relevant market. The higher the market share, the greater popularity and authority the "brand" likely has among users and prospective customers (Bredava, 2020).

Indicator	Calculation	Variation	Use/Purpose
	number of HE Institutions' mentions  -----  Institution's impressions / Total eligible impressions		
Web traffic	Report from the web analytics report		Analyzing the traffic on the Institution's website is a valuable way of assessing visibility and media effectiveness. If a website is a hub for engaging the audience, then web analytics are a good proxy for measuring and monitoring the performance. Website visitors can be divided into three groups, depending on their source: 1) through owned content on the pages of the Institution's website; 2) through earned content from third-party websites where posts were published or the Institution was mentioned in the media articles; 3) through social content from social networks. Website visits indicate if the social media strategy is going the extra mile and attracting users to actively seek more information about the Institution and its services.
Search Engine Optimization ROI	(Value of Conversions – Cost of Investment) / Cost of Investment		Search Engine Optimization (SEO) strategy uses keywords and other specific criteria to help push a website toward the top of search engine rankings. SEO drives awareness of a brand or product in the early stages of the buying process. Search engine rankings have a critical impact on the number and quality of the received leads and growth of users' trust. In order to assess the performance of an SEO strategy on an Institution's reputation, it is useful to calculate the ROI of the SEO strategy.
Backlinks	Number of backlinks during a period of time	Can be calculated by types of backlinks	Backlinks are links from other sites that direct traffic to the website. This is a good source of traffic that helps to strengthen reputation among target audiences and search engines. However, not all references are equally useful. They vary in size and impact. There are three types of backlinks ranked by level of value: 1) Good backlinks that mention the Institution in a positive way, but do not have an active link. 2) Very good backlink remembers the brand/name and contains an active link. 3) The best backlink refers to the website and mentions the positive aspects of the Institution. The quantity and quality of those backlinks should be tracked to identify appropriate resources and adjust the content plan accordingly.

Indicator	Calculation	Variation	Use/Purpose
Conversion rate	Number of targeted events that have been successfully completed / Total number of such events	Can be calculated by event type	Conversion is a meaningful action done by prospective clients following an interaction with an ad (for example, clicking on a text ad or viewing a video) and then completing a desired goal intended through the ad (such as an application request or a call). It is the holy grail of marketing, an underestimated indicator in public relations and media visibility. It is the clearest indicator in terms of the number of leads received. The higher the conversion rate, the better the visibility.
Net Promoter Score	Percentage of promoters - percentage of detractors		<p>Net Promoter Score (NPS) is the most popular indicator for customer loyalty measurement on a scale from 1 to 10. Depending on the answer to the question "What is the probability that you would recommend our product / service to your friends, colleagues, partners?" customers are divided into three groups:</p> <p>1-6 — detractors or name/brand critics. This is the growth zone: a dissatisfied critic can be turned into a promoter;</p> <p>7-8 — neutrals. Neither negative nor positive. This is a risk zone - the client does not understand the value of the product/service, can use/ purchase out of habit, more sensitive to price changes, may go to a competitor;</p> <p>9-10 — promoters are brand/name advocates who actively use the product/service, generate recommendations and positive feedback.</p> <p>The higher the NPS score of a HE Institution, the better its reputation and the more loyal the students. This indicator allows Institutions to identify the detractors and neutrals and work on minimizing their numbers in order to enhance students' loyalty which affects engagement, drop-outs, and graduation rates.</p>
Social Media Engagement	Number of fans "talking about" retrieved from the social media account	Can be done by media type or overall or by engagement type (number of likes, number of reposts, number of comments, etc.). Can be divided between	Engagement is probably the most tracked metric for social media marketing, it includes tracking likes, comments, views, shares, downloads, and reposts, etc. An active and engaged community guarantees additional visibility and better reputation (Podobnik, 2013). However, one must assess whether engagement is driving actual value. While it helps extend the reach, it is not to be used as an indicator of overall performance. A balance of engagement and other metrics is needed to really grasp the adequacy of content strategy to the social community and the likelihood of generating business and reputation benefits to the Institution.

Indicator	Calculation	Variation	Use/Purpose
		positive references or negative ones	
Community growth	<p>Number of followers or fans</p> <p>-----</p> <p>Number of followers or fans at end of period - Number of followers or fans at beginning of period/ Number of followers or fans at beginning of period</p>	Can be done by media type or overall	Month-over-month followers' growth is a good metric to track. While many argue that it's not the most important metric, some studies showed that it is one of the most important social media marketing indicators (Podobnik, 2013). In theory, the more social followers/fans an Institution has, the more reach its content will get, the better the impact on reputation and image. Growing social communities can help get more visibility, makes social advertising more cost effective and projects the idea that the Institution is likeable. It is also useful to compare those indicators with other Institutions of a similar size.
Impressions / Reach	<p>Impressions/Frequency</p> <p>Both values can be retrieved from the reports of online marketing</p>		The amount of people being served the content (reach), and the number of times the content is being served (impressions), can say a lot about how the content's performance. The algorithms used in the social news feeds dictate who sees what content, so a rapid drop in these visibility metrics can indicate that a content doesn't engage well with the algorithms, and thus what people are responding to. It is important to reference these metrics to ensure the delivery of the ads, and to determine how engaging they are by looking at the click-through-rate. A low rate on these metrics might indicate that the ad doesn't attract viewers or that the Institution isn't appealing.
Click-through rate	<p>Total number of clicks / Total number of impressions x 100</p>		Click-through rate (CTR) refers to the ratio of the number of users exposed to a specific link on a website page (or in an email) who click the link and view the advertised product or service. CTR is primarily used by digital and online marketers to quantify the success and effectiveness of an advertising campaign. It directly influences an ad's Quality Score or Relevance Score. However, CTR aren't always a positive sign in case the ad fails to target the right keywords, or the landing page, or offering isn't helpful or relevant to a visitor. While both the conversion rate and the CTR are important to measure the performance of marketing efforts, they affect two different marketing funnel stages. At the top of the sales funnel, the CTR measures what action users perform (such as clicking your

Indicator	Calculation	Variation	Use/Purpose
			ad) <i>before</i> they get to the website. At the middle and bottom of the sales funnel, conversion rates measure actions that people take when they're <i>already on</i> the website.

APPENDIX I  
LGU STRATEGIC PLAN

<b>LGU Strategic Plan 2017-2022</b>						
Pillar 1: Excellence in Teaching and Learning						
<b>Update the curricula / courses content / learning outcomes</b>	Involve the business sector (industries and syndicates)	Reinforce internships and trainings	Increase workshops and case study whenever possible	Increase sessions offered by special guests from the industry	Increase the use of information technology (as course support) during courses	Implement a matching system between the courses' objectives and assessment/evaluation
<b>Update the Internships Assessment Methods</b>	Review evaluation forms	Review training supervision check sheet	Review grades distribution	Train internship supervisors on assessment techniques	Introduce self-assessment by students	Review internships prerequisites, objectives, number of hours and learning outcomes
<b>Introduce two new undergraduate majors in public health</b>	Market study	Submit Ministry file for accreditation				
<b>Launch graduate studies</b>	1 doctorate degree in Physical Therapy	1 MBA	1 MPH			
<b>Develop new University Diplomas</b>	2 in public health	1 in social media	1 in quality management			
<b>Increase the ratio of full-time faculty members holders of PhD</b>						



<b>Increase contact hours with students</b>	Increase time spent with students' advisors (on registration and throughout the semester)	Increase office hours of full time and part time faculty members				
<b>Create new University diplomas and CEPs for foreigners</b>						
<b>Academic partnerships</b>	Sign new academic cooperation agreements with European universities	Reinstate and activate previous agreements				
<b>Increase faculty members satisfaction</b>	Frequent surveys	Review internal faculty bylaws				
<b>Pillar 2: Students' Centeredness</b>						
<b>Enhance students' retention rates</b>	Decrease students' absences	Decrease AW rate	Decrease W rate	Decrease the ratio of probation students		
<b>Decrease time to graduation</b>	Increase course offerings	Increase schedule flexibility	Increase tuition fees monthly installments			
<b>Students' engagement</b>	Increase Participation in events	Increase Participation in relevant councils	Satisfaction surveys	Increase number of events that interest students	Develop the career office (to facilitate internships and employment upon graduation)	Enhance the procedure of students' petitions/non-conformities and incident forms

<b>Increase students exchange with partner universities</b>	Incoming	Outgoing				
<b>Dedicate part of on-campus dorms for underprivileged students</b>						
<b>Increase rewards and incentives for students with high GPA</b>						
<b>Increase the scope of students' work-grants</b>						
<b>Pillar 3: Social Impact</b>						
<b>Invest in more USR activities and outreach programs</b>	Volunteering actions	Christmas activities	Easter activities	Free trainings at high schools		
<b>Introduce sustainable activities</b>	Recycling on-campus	Install solar energy	Work towards the use of less papers in the administration			
<b>Introduce elective courses with social impact</b>	Business Ethics courses	Bioethics courses	First aid courses			
<b>Intensify joint projects with NGOs</b>	Hold an NGO fair on-campus	Sign new project agreements	Sign new partnership			
<b>Collaborate with professional bodies</b>	For curricula update	For internships	For research activities	For funds		

<b>Collaborate with relevant ministries on joint projects</b>	Ministry of Public Health	Ministry of Economy and Trade	Ministry of Industry			
<b>Students' financial Aid</b>	Increase the average financial aid grants	Widen the scope of financial aid eligibility				
<b>Launch a small-scale incubator</b>						
<b>Register the LGU Alumni Association</b>	Founding members	Founding meeting	Founding council			
<b>Increase orientation visits at schools</b>						
<b>Pillar 4: Keeping finances healthy</b>						
<b>Decrease the debt ratio</b>						
<b>Increase total income</b>	Minor increase of tuition fees every 2 years		Approach German foundations for fundraising to cover tuition fees of underprivileged students			
<b>Increase emergency reserves</b>						
<b>Increase profitability</b>						
<b>Decrease students' unpaid balances</b>						

<b>Increase enrolments</b>						
<b>Pillar 5: Intensifying Research</b>						
<b>Increase research productivity</b>	Increase research budget	Establish a rewards and incentives scheme for researchers	Increase students' publication of senior projects and thesis	Facilitate collaborative research projects between departments	Increase joint research activities with partner universities	Increase joint research activities with industries
<b>Organize a conference day on-campus</b>						
<b>Expand the scope of the Research Council</b>						
<b>Partner with the National Center for Scientific Research</b>						
<b>Pillar 6: Campus Infrastructure</b>						
<b>Students' spaces</b>	Create a students' lounge	Equip the gym room	Dorms' renovation			
<b>Laboratories</b>	Update one computer lab	Equip the microbiology lab	Create a dealing room			
<b>New Executive rooms</b>	Create one executive classroom for graduate studies	Create one workshop room for graduate studies				
<b>Internet</b>	Increase internet speed	Increase internet coverage on-campus				

<b>Maintenance and renovation</b>	Keep the same budget ratio					
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