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The impact of performance measurement systems on career management in higher education

Claudia Urdari

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ÉCOLE DOCTORALE ABBE-GREGOIRE
LABORATOIRE INTERDISCIPLINAIRE DE RECHERCHE EN SCIENCES DE
L'ACTION

THÈSE présentée par :

Claudia URDARI

soutenue le: 18 juin 2015

pour obtenir le grade de : **Docteur du Conservatoire National des Arts et Métiers**

Discipline/ Spécialité : Sciences de gestion

**L'impact des systèmes de mesure de la
performance sur la gestion des carrières
dans l'enseignement supérieur**

THÈSE dirigée par :

Monsieur BURLAUD Alain
Madame TIRON-TUDOR Adriana

Professor, Conservatoire National des Arts et Métiers
Professor, Université Babeş-Bolyai

RAPPORTEURS:

Monsieur COLASSE Bernard
Madame NOGATCHEWSKY Gwenaëlle

Professor, Université Paris-Dauphine
Maître de conférences, Université Paris-Dauphine

PRÉSIDENT DU JURY:

Madame CHATELAIN-PONROY Stéphanie

Professor, Conservatoire National des Arts et Métiers

JURY:

Madame DEACONU Adela

Professor, Université Babeş-Bolyai

ÉCOLE DOCTORALE ABBE-GREGOIRE
LABORATOIRE INTERDISCIPLINAIRE DE RECHERCHE EN SCIENCES DE L'ACTION

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Claudia URDARI

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Discipline/Specialty: **Management Science / Accounting, control, audit**

The impact of performance measurement systems on career management in higher education

SUPERVISORS:

Mr. BURLAUD Alain

Professor, Conservatoire National des Arts et Métiers

Mrs. TIRON-TUDOR Adriana

Professor, Babeş-Bolyai University

REFEREES:

Mr. COLASSE Bernard

Professor, Université Paris-Dauphine

Mrs. NOGATCHEWSKY Gwenaëlle

Associate Professor, Université Paris-Dauphine

PRESIDENT OF THE JURY:

Mrs. CHATELAIN-PONROY Stéphanie

Professor, Conservatoire National des Arts et Métiers

JURY:

Mrs. DEACONU Adela

Professor, Babeş-Bolyai University

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¹ Original: «Maître de conférences»

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C.U.

Résumé

L'impact des systèmes de mesure de performance sur l'enseignement supérieur et sur la gestion des carrières des universitaires est vraiment puissant. Cette thèse vise à fournir quelques éléments qui expliquent la transformation de ce secteur et les changements des aspirations des universitaires. Une attention particulière est portée sur les significations de la mesure de la performance au-delà des classements et sur la manière selon laquelle les universitaires perçoivent leur environnement actuel. L'analyse du contenu des classements et des systèmes d'accréditation, l'observation des établissements d'enseignement supérieur et des entretiens avec des professeurs, des maîtres de conférences, des PRAG, des vacataires et des doctorants ont permis de constituer une base de données fiable pour la recherche actuelle.

L'institutionnalisation des systèmes de mesure de performance joue un rôle important dans la transformation du monde universitaire. La prolifération des classements a privilégié en avant certaines activités exercées par les établissements d'enseignement supérieur, imposant la transformation des pratiques académiques, ainsi que le développement des inégalités d'image entre les différents cheminements des carrières universitaires. La pression normative a incité les institutions à s'aligner sur les exigences internationales, fait qui a conduit à des grandes transformations au niveau individuel, où les membres du corps professoral ont changées leur perception sur la carrière universitaire.

Le sujet de cette thèse a émergé en observant les classements internationaux et les systèmes d'accréditation, ainsi que les actions des établissements d'enseignement supérieur et le comportement des universitaires. Mes résultats mettent en lumière la grande importance accordée par la communauté universitaire aux activités de recherche en soulignant quelques conséquences dues à la normalisation des activités académiques. En fait, l'utilisation inadéquate des indicateurs de performance conduit à plusieurs anomalies, comme par exemple l'affaiblissement de la carrière pédagogique.

Mots clés : l'enseignement supérieur, gestion des carrières, classements universitaires, mesure de la performance

Abstract

Performance measurement systems impact the higher education field and influence the career management of academics. This dissertation aims to provide some elements in explaining how the academic world has changed and what academics aspire to do in the future. Particular attention is paid to the meaning of university ranking measurements and to the individual perception of the current academic environment. Content analysis of rankings and accreditation systems, observation of higher education institutions (HEIs) and semi-structured interviews with Full Professors, Assistant Professors, Lecturer, and PhD candidates were used as a reliable database for the current research.

The institutionalization of performance measurement systems plays an important role in the transformation of the academic field. Used intensively in the marketization of HEIs, they lead to the development of a snowball effect. The proliferation of rankings has pushed forward certain activities performed by HEIs, forcing the transformation of academic practices and the development of image inequalities among different academic career paths. As normative pressure guided institutions to align to international demands, major transformations occurred at the individual level, where faculty members underwent significant change in their understanding of what an academic career meant.

The question on how performance measurements impact the academic career management emerged as I observed international rankings and accreditation systems, as well as HEIs actions and academics behavior. My findings corroborate one of the management accounting key concepts, ‘you get what you measure’, and bring to light the emphasis placed by the academic community on research activities. This dissertation emphasizes the drawbacks of using such measurements in search for standardization of academic activities. In particular, I highlight that the improper use of the current performance indicators lead to several anomalies, such as the obscuration of the pedagogical career, which has lost its status and is now often regarded as a limited and shameful career choice.

Keywords: higher education, career management, university rankings, performance measurement

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General introduction

“The important thing is not to stop questioning. Curiosity has its own reason for existing. One cannot help but be in awe when contemplating the mysteries of eternity, of life, of the marvelous structure of reality. It is enough if one tries merely to comprehend a little of the mystery every day.” (Albert Einstein)

The higher education field has always been of paramount importance for the social and economic worldwide development Burlaud (2007). Uninterruptedly, HEIs have worked toward global progress and assured the transfer of knowledge to the young population. During the last decades, this field has gone through numerous transformations. The demand for educational activities exploded and the HEIs have opened their doors for anyone interested to gain new knowledge (Kogan et al., 1994).

Yet, the governments were not financially prepared to sustain a mass education (Teixeira et al., 2004). To cover this inability, they encourage HEIs to develop a business-like approach and attract funding from other interested parties (Amaral et al., 2003). As a result, the field was flooded with commercial practices and became a very competitive environment. This fact led to the development of a higher education market (Thornton and Ocasio, 1999), where successful institutions are defined in terms of their ability to attract funding and customers.

In this competitive global environment, the international university rankings and accreditation systems emerged as tools for the evaluation of higher education performance. In particular, international university rankings gained a huge attention due to their ability to employ simple measurements that create a social order and assure the control on the higher education field (Ruef and Scott, 1998). Allegedly being able to reflect the reality of the higher education field, they became an emblem of legitimacy. HEIs used them to build up their reputation and increase their survival rate (Meyer and Rowan, 1991).

So far, the topic of performance measurements is still an under-researched area in higher education (ter Bogt and Scapens, 2012). Most of the studies that focus on this subject enhance the transformation of the field at large, without looking at how they impact the individuals. Moreover, the few studies that tackle the micro level concentrate on understanding the role of classifications in forming the higher education field and do not cover the changes occurred on the career management of academics.

This study aims to fill this gap by providing an insight on *how performance measurements systems impact career management in higher education*. Conducted in the field of higher education, this thesis focuses on three interrelated research sub questions that aim to provide answer on how the academic career looks like in the present and where is it headed to:

What performance measurements the international rankings and accreditation systems use?

How are they impacting the actions performed by the higher education institutions?

How are performance evaluation systems shaping the career management of academics?

The conceptual framework that enables an in-depth understanding of the research topic is built on a triple theoretical foundation. All over the world, institutions employ systems such as university rankings and accreditation systems. The performance measurement theories were used to understand why. Being accounting mechanisms, the performance measurement systems have the ability to make complicated processes simple, they help governments to control the activities performed by HEIs and the institutions to manage the behavior of academics. These performance measurements become extremely powerful by institutionalization. Thus, the institutional theory was necessary to understand how the performance evaluation practices has spread globally and what the HEIs are looking to gain by following isomorphic practices.

Moreover, the link between the performance measurements and a system of incentives and opportunities leads to changes in individual behavior. Hence, in order to grasp the meaning behind the changes occurred at the micro level, it was important to apprehend what career management and career development are. As globalization took place, the career opportunities evolved and individuals found themselves in an international market of higher education. Along with the global transformation of higher education, their perception of the field has changes as well. Being under institutional pressure, affected the way they regard their social reality. The academic career choices have diversified, individuals having a choice between becoming pedagogues, researchers or both.

In order to avoid forcing data into predefined molds, the theoretical concepts were carefully selected based on the concepts emerging from the field and the choice of interpretative perspective as a method of work. To my knowledge, there is no study that covers the subject of career development through the lens of institutionalization of performance measurement

systems. A few studies in human resources deal with job attitudes and performance of individuals (Slocum and Cron, 1985) and the impact of human resource management on the organizational performance (Delaney and Huselid, 1996).

Still, attention should be also given to accounting techniques and how they are used in particular settings (Miller, 1994), such as the higher education sector, to control the career development of individuals. A few studies hint to the impact of performance measurements on organizations and individuals (ter Bogt and Scapens, 2012; Pelger and Grottke, 2015; Raineri, 2015), but do not associate these measurements with the international rankings and accreditation systems. These studies draw the attention to the development of doctoral programs and the curricula mistakes, yet do not go further in linking the doctoral training to the development of the academic career.

In France, a few researchers have also advanced the topic of international rankings and their impact on the higher education environment (Burlaud, 2007; Courpasson and Guedri, 2007; Nioche, 2007; Lussier, 2014).

Some discuss the shock of French institutions when confronted with massification, globalization and internationalization, their difficulty to align to international standards of higher education and to develop programs that attract foreign students. Others emphasize that the emergence of international rankings have impacted the French academic field and suggest that the fundamental academic believes are on the course of being transformed. One study in particular (Lussier, 2014) covered the topic of the changing nature of evaluation practices and the adjustment of academics behavior.

Yet, none of these studies have looked at what the international university rankings and accreditation systems are measuring. If we ought to understand why the behavior of individuals is changing and how their career are affected, the content analysis of the most know international performance measurement systems is a must. Their link to the internal evaluation systems have to be emphasized, as well as the pressure HEIs put on the academics. Moreover, the perception of individuals on what successful practices are, rapidly spreads through word of mouth. Thus, the older generation has an overall view of the academic activities, as they were before the changes occurs as well as the reality of the field as it now. Though, the younger generation has a more narrowed picture of the academia. Although they learn from more experienced individuals, information cannot be fully transmitted, and thus a

selection is naturally made based on what is considered important at a certain moment in time.

This is why I considered the interpretive perspective important for the development of my research. The changes in the academic field cannot be completely explained through a quantitative research, as they can neither be through a qualitative one (Perret and Séville, 2003). Still, performing a study where the individual perception is taken into consideration is of paramount importance. The way actors understand and react to different stimuli is affecting the construction of any field. The social reality can be regarded through different lens, each of them adding to the existing knowledge on how reality is formed. Thus, this research mainly focuses on individuals, how they understand their environment and what actions they take as a result.

Moreover, an interpretive research approach permitted to build a reasoning starting from the field. As I did not want to impose on the findings of my study, I let the data and the literature to guide my research. This is why the structure of thesis does not fit the formal structure of a PhD thesis. As my research idea has emerged from my own curiosity, I found that developing my research gradually, as it happened, was more appropriate than following a model. The first inquiries on rankings, accreditation systems and career management were mere curiosities of a young PhD student. As I advanced the literature, observed the activities performed by academics, and was advice on how to build a stronger image as a PhD student, the research question on *how performance measurements systems impact career management in higher education* grew on me. Thus, in answering the question I did not follow the normal research path, but mixed different stages together in developing the thesis. The methodological choice was one of the most important steps of my research advancement. The interviews were the element I undoubtedly wanted to include in the methodological development, but they were not sufficient to validate the research. Thus, I relied on the literature to discover the methods that would fit an interpretive approach and complete the interviews with additional data. This is how observation of HEIs and the content analysis of international university rankings and accreditation systems have come to play an equal important role in the interpretation of the research findings.

The theoretical foundation emerged in the same way. As I was analyzing the exploratory interviews, I let the data find the appropriate theoretical concepts. Looking the big picture, the institutional theory was the first to be included as it plays an important role in the fast spread of global standards and practices. Going back to actors' perception and their choices,

the career management theories were the next ones to emerge. Although they are extremely significant in my research development, the performance measurements were presented as the third theoretical approach that links together the institutionalism and the career management theories.

The higher education context was presented along the entire dissertation, but I put particular emphasizes on it at the beginning on the last two parts of the dissertation. As the literature review intertwined with the epistemological, methodological and theoretical parts of this thesis, it was necessary to briefly explain the reasons for which in I made certain research choices. Thus, in the first two parts I cover several issues of the higher education environment. Yet, it was necessary to discuss about the existence of a marketplace of higher education and how it was formed, as well as describe the three core missions of HEIs before plunging into a content analysis of international university rankings and accreditation systems. Moreover, since the third part of the dissertation focuses on the institutional image, it was not until chapter 9 that I presented the French higher education environment and the accredited French evaluation institutions.

When analyzing the university rankings and accreditation systems I aimed to understand what they are measuring and the reasons behind their choices. Thus, in order to answer to these questions, I pursued a content analysis of their methodologies and looked at the information provided on the official webpages of the forming organizations. Moreover, once again I relied on the literature to enhance my understanding of rankings, accreditation systems and their employed indicators. The result of this first analysis shows that the most popular performance measurements are research related, most of the rankings linking performance to solely research activities. On the other hand, accreditation systems focus more on pedagogical activities and they push the schools to pay attention to their contribution to society. Yet, the latest are seen as additional marketing tools. Governments continue to prefer the rankings' easy measurement to determine the order of the institutions and as a result, top HEIs consider them more relevant as well.

The same result can be observed at individual level, where younger academics have become research oriented. If asked to define themselves as pedagogy or researchers, my findings show that a different level of importance is given to each of these career choices. Moreover, during the interviews, it emerged that professional experienced academic have a broad view of on academic activities, always linking research to teaching activities. Still, as I moved back to the younger generation, I could observe a huge tendency to focus on research

activities only. The reasons behind the emergence of separate career choices, the importance given to research activities and the career management preferences are described in chapter 10.

To conclude, the key purpose of this dissertation is to investigate the impact of rankings in norming the higher education market, trying to understand how the discourse of academia is changing and how the two main dimensions of academia are defined and separated by evaluation practices in the context of demands for accountability and control. The transition to independent, autonomous and competitive universities tangled with the fast proliferation of rankings has created a discrepancy between the position of researcher and that of a pedagogue, altering the image of career management in academia.

Thus, in what follows I claim that rankings contribute to forming and diffusing an abstract-model (Strang and Meyer, 1993) of international higher education institutions by setting criteria for how to evaluate organizations. Classifying and measuring are techniques that actively contribute to setting normative standards (Power, 1997) regarding the type of activities that are permitted and valued in academic institutions. To develop and legitimize an abstract-model, institutionalization of norms and values plays an important role (Strang and Meyer, 1993). By answering to normative pressure of performing according to the worldwide demands of an international market of higher education, academics have gradually adapted their career management.

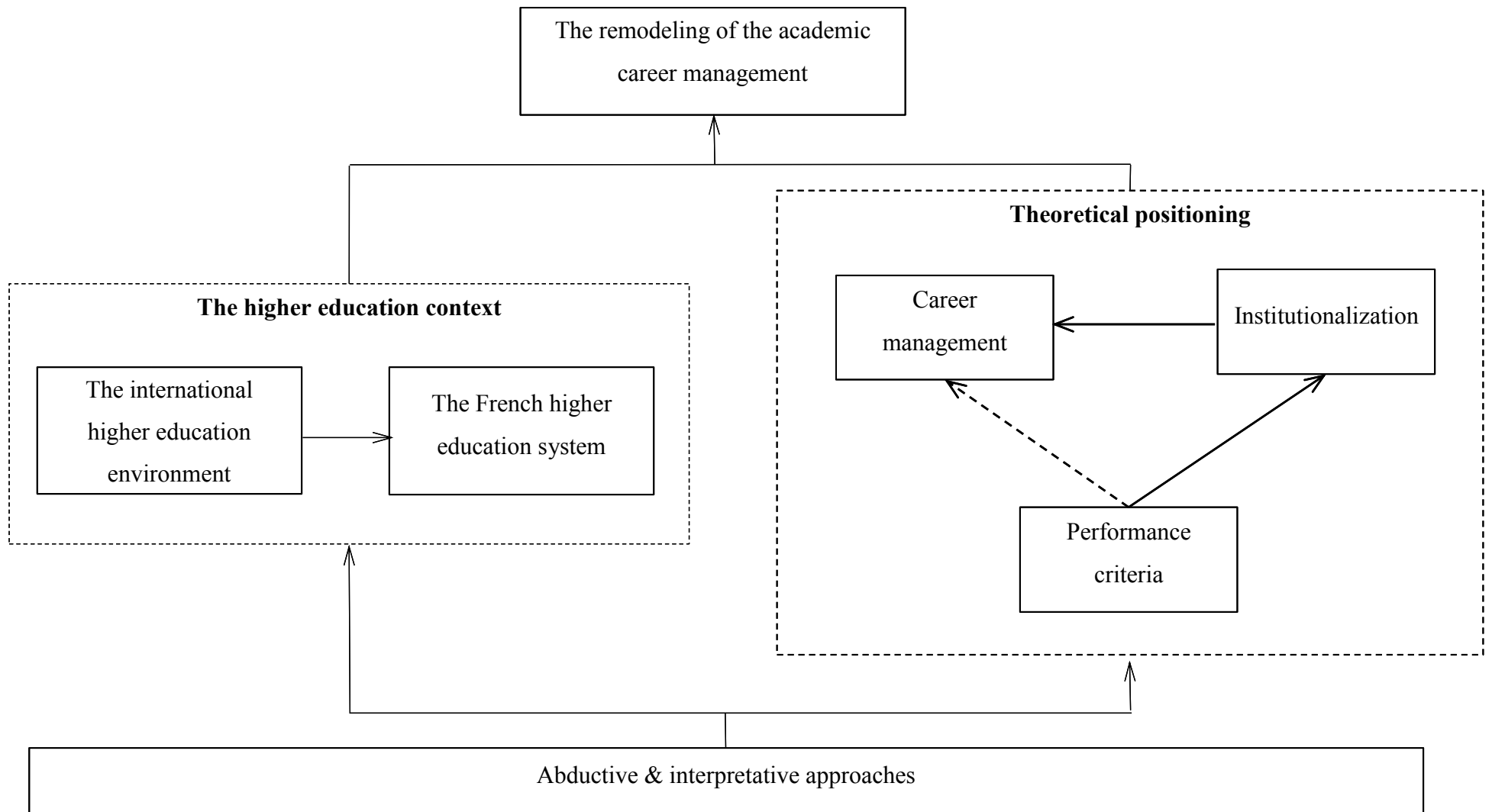


Figure 1. The thesis design
 Source: Author's projection

Part one. Positioning the research

“The real voyage of discovery consists not in seeking new landscapes, but seeing with new eyes.”² (Marcel Proust)

Introduction

The first part of the dissertation has the purpose to discuss the epistemological choices and explain how the research design was put together. Thus, the following two chapters will describe the logical process I followed: the research plan, selected hypothesis, research methods and conclusions.

By combining different concepts from sociology (e.g. Giddens, Bourdieu), philosophy (e.g. Foucault, Super), and accounting (e.g. Power, Hopwood, Miller) I attempt to show how internationalization and the three way relationship between rankings, schools and academics has led to changes in the field of higher education. In my search of elements that help answer to *how performance measurements systems impact career management in higher education*, I look at social conditions and believes that affect the actors’ judgments (Baillie, 2003). Aiming to understand international university rankings as performance measurement systems and observe their role in the academic field, I chose to position my research in the interpretative sphere (Baker and Bettner, 1997; Llewellyn, 2007).

The access to practice was mediated through several data sources: secondary data, direct observations and interviews. The triangulation of different research methods provided an in-depth insight on the social meaning (Brewer, 2003d) of academia and assured the stability (Miller, 2003) of my findings. However, while giving credence to my respondents, I had to develop a critical attitude that helped me to conduct a comparison between what rankings are measuring, the subjective truth of actors and the reality of the field. As a result, the epistemological and methodological processes paved the way towards the following parts of my research and played a major role in generalizing the results to abstract concepts that redefine the theory.

² Original text: « *Le seul véritable voyage ne serait pas d’aller vers de nouveaux paysages, mais d’avoir d’autres yeux.* »

1. The interpretive perspective: building the epistemological foundation

“All human knowledge takes the form of interpretation” (Walter Benjamin)

The first milestone in building a valid and legitimate research is the epistemological choice. Discovering and developing new knowledge has to start with the perspective through which researchers look at their field of study and the methods they will put into practice to find the concepts that can predict the future or help understand, construct and explain the present reality. All these are crucial steps in developing research (Martinet, 1990).

Reflecting upon the choices to study change in higher education and knowing that my research interest was to construct qualitative field studies in accounting with focus on performance management guided me to position my work into the interpretive paradigm. This approach permitted me to ask questions on actors’ reasoning for behaving in a certain way and gave power to their understanding of society (Perret and Séville, 2003).

Rooted in hermeneutics (Llewellyn, 1993), interpretivism assumes that actors compare, contrast and redefine subjective realities to rationalize how their world is constructed (Elharidy et al., 2008). Thus, this perspective adopts a relativist approach, where the researcher considers that “social reality is emergent, subjectively created, and objectified through human interaction” (Chua, 1986, p. 615).

According to the interpretive paradigm, reality can never be completely decipherable (Perret and Séville, 2003). There are no direct methods that can measure and explain it. Moreover, this approach is not concerned with the existence of ‘reality’ in self (von Glasersfeld, 1988). It neither rejects nor accepts the concept of ‘reality’, but instead focuses on how reality is built through actors’ comprehension (Perret and Séville, 2003). Therefore, the ‘reality’ is the reflected image of individual perception.

Early research argued that interpretation implies the measurement of ‘*pure subjectivity*’ (Chua, 1986; Johnson et al., 2006; Lukka and Modell, 2010), while new research methods claim that seeking to understand reality objectively represents an idealistic view (Perret and Séville, 2003). Ontologically, the social reality is claimed to be either *objective* or *subjective* (Johnson et al., 2006). However, recent studies emphasized that the difference between

subjective and objective paradigms might be smaller than previously assumed (Kakkuri-Knuuttila et al., 2010; Vaivio and Sirén, 2010). Llewellyn (2007) advocates that social reality has multiple facets and if one looks to understand the world we live in, he/she has to consider the existence of ‘*differentiated realities*’ (p. 55).

Reality and *knowledge* are relative concepts (Berger and Luckmann, 1966). Specific social environments define them and actors play an active role in disseminating the *knowledge* they ascertain as *real*. Therefore, the researcher must be able to empathize with the ‘object’ of his research and establish how reality is formed. He has to be connected to actors and be able to grasp what is important for them in order to develop a research on the processes through which reality becomes socially constructed.

Although subjectivism is difficult to isolate when the researcher is part of the field (Baumard and Ibert, 2003), this perspective is necessary in order to understand the social, political and institutional contexts within which we situate ourselves. The respondents’ perceptions are a starting point in attaching meaning to data and they should not be ignored (Brewer, 2003b). The interpretive approach treats subjects as *rational objects* that can at any time transform the system in which they coexist (Lorino et al., 2011). Thus, as Berger and Luckmann highlight, social reality is defined through objective facts that are shaped by subjective actions (Berger and Luckmann, 1966).

Actors play a major role in constructing social objective worlds (Perret and Séville, 2003). They accept the institutional pressures (Berger and Luckmann, 1966) and carry them out as *self-fulfilling prophecies* (Watzlawick, 1988). As a result, actors give birth to actions that lead to expected outcomes. However, “[t]he predictability of actors’ behavior does not relate on outside forces, but on actors’ willingness to imprison themselves in an endless game they have created”³ (Watzlawick, 1988, p. 109).

In summary, the nature of knowledge acquired through this research depends on the nature of reality (Perret and Séville, 2003) I have grasped. The relativist hypotheses, the subjective perspectives of my interviewees, the overall objective view of the field are all elements that define the epistemological positioning of this doctoral thesis.

As the goal of the dissertation is to understand how university rankings and accreditation systems impact individuals and change the structuration of higher education, the interpretive

³ Original text: « *la prévisibilité du comportement ne serait pas liée à un déterminisme en dehors des acteurs mais à la soumission des acteurs à un emprisonnement dans un jeu sans fin qu'il ont eux-mêmes créé* »

approach seemed the most suitable: it assured the richness of data, provided valuable insight (Baker and Bettner, 1997) onto the field of higher education and allowed development of a research that attempts to “describe, understand and interpret the meanings that human actors apply to symbols and structure of the setting in which they find themselves” (Baker and Bettner, 1997, p. 293).

At the same time, the interpretive perspective permitted to depict perceptions and actions that lead to building new social realities, it helped to explain the construction and separation of higher education missions, and allowed me to take a critical approach, which implies that I wish to change something in the *status quo*, even if I’m not in the position to achieve the change (Laughlin, 1995).

2. Devising the methodological approach

*“Two roads diverged in a yellow wood,
And sorry I could not travel both
And be one traveler, long I stood
And looked down one as far as I could
To where it bent in the undergrowth”* (Robert Frost)

The following chapter is essential in establishing the legitimacy of my research. It discusses the rules and procedures I build up over time to guide my study and the language I preferred in developing my work. Devising the methodological approach helped to structure my enquiry and differentiate my results from other studies in the fields of performance management and higher education.

The methodology provides tools to create new knowledge and puts emphasizes on techniques used to analyze data. However, it is also concerned with how general notions are conceptualized and emerge in theory development. Thus, methodology represents not only a way to organize ideas and observations, but also a form of communicating the research outcomes (Daly, 2003).

As stated in the previous chapter, this dissertation is qualitative oriented. The main goal is to search for meanings and understandings on how the field of higher education is gradually transformed. However, some basic quantitative methods are employed in presenting the results of international university rankings’ content analysis and the bibliographical approach used to define the career management of the academic profession. Their purpose is solely to support and clarify certain aspects of my results, giving an overview of the research dimensions.

The methods used in this dissertation were built up based on secondary sources analysis and my field observations. As both the interpretive perspective and institutional theory played a central role in my research development, abductive reasoning provided the appropriate tools to construct theories that are embedded in the daily life of my respondents (Ong, 2012). This strategy permitted to depict a large array of meanings, arguments and activities from the field and identify what was hitherto been hidden behind the academic career choices.

2.1. The abductive research strategy

According to the current literature, a valid interpretive research can be constructed using one of the following three qualitative approaches: induction, deduction and abduction. The first one “argues that empirical generalizations and theoretical statements should be derived from the data” (Brewer, 2003, p. 154), while the second states the opposite, that the process of reasoning should start from the theory and data should only be used to validate the initial assumptions (Perret and Séville, 2003). In practice, however, induction and deduction are not mutually exclusive (Brewer, 2003a). More than often, researchers have to explore a complex environment and gather a large data collection. This collection contains ambiguous data that has to be structured in order to become useful. As a result, using one of the above-mentioned approaches is not enough to validate new concepts and theories (Charreire and Durieux, 2003).

With the introduction of the concept of *‘differentiated realities’* it came to light that the researchers should capture the reality through the lens of different individuals. In this case, however, the inductive approach proved to be inefficient (Brewer, 2003a). Starting from a subjective selection of cases and assuming that all possibilities were included in the sample can lead to a false conclusion. It is impossible for the inductive researchers to state that the ground of the study was entirely covered as some cases might come to light after their research is completed.

On the other hand, deduction was criticized for explain the empirical findings through the lent of a unique theory. According to Charreire and Durieux (2003), the fact that a hypothesis is assumed based on previously selected theory can lead to a major disadvantage. The deductive research has a high probability of merely repeating the same elements and meanings already covered in previous studies and thus it will most likely conclude in a non-original research. All these critiques have lead to the development of a third research strategy: the abduction.

Originally elaborated for natural sciences (Ong, 2012), the abductive research developed as a strategy to construct theory in a broad range of interpretive studies (Blaikie, 2000; Blaikie, 2004). The reasoning behind it moves from describing observations collected from the field to explaining the abstract concepts that frame a social phenomenon (Gold et al., 2011). Therefore, it provides a bridge between reality and theory building.

This research method is often concerned with actors’ perception on social reality and how they interpret and experience it from ‘inside’ the field (Ong, 2012). It depicts taken-for-

granted beliefs and common practices as a way to outline the meanings, sign and symbols that define the *shared* social reality (Blaikie, 2000). “The abductive strategy entails ontological assumptions that sees social reality as socially constructed by social actors, where there is no single reality but multiple changing social realities” (Ong, 2012, p. 424).

The researcher has to enter the field without any preconceptions and depict the inside view, specifically the interpretations actors used to define their social world (Blaikie, 2000). He/she has to observe how individuals stock their knowledge and how they reproduce it in their advantage. Grasping the meaning behind these actions provides a “hypothesis on probation” (Peirce, 1903), which represents a possible explanation of a social fact. Such hypotheses are common, but they have to be supported by evidence to become plausible (Gold et al., 2011).

In order to depict the main concepts, the researcher has to understand the skills actors use to manage their everyday lives (Giddens, 1976). Yet, even if the study is based on actors’ perception on reality, we have to bear in mind that the scientist always construct the study for a specific purpose (Schutz, 1976). The research outcomes might be slightly different from one study to another due to the distinguishing characteristics of the observed environment, selection of respondents and the research question. Nonetheless, an interpretive perspective brings a more complete understanding of the field and opens the door for new insights that were not previously taken into consideration and play a major role in defining reality (Baker and Bettner, 1997).

For all the reasons listed above, this research strategy seemed the most appropriate for my dissertation. It permitted the reflection-in-action that I needed to elaborate on my observations and paved the way for theory development. As a young researcher entering the academia, I spent a lot of time inquiring about the field, my peers’ expectations and my own hopes. I have been lucky enough to spend time in different educational environments (French and Romanian), as well as in different educational systems (universities and business schools). The observations that I gathered during this incipient phase, when I was required to decide on a research topic, convinced me that a study on higher education would not only be practical, as it would yield answers to my own questions on academia, but it would also provide a great opportunity to research a field in changing and make use of social concepts to construct theories that are grounded in everyday activities.

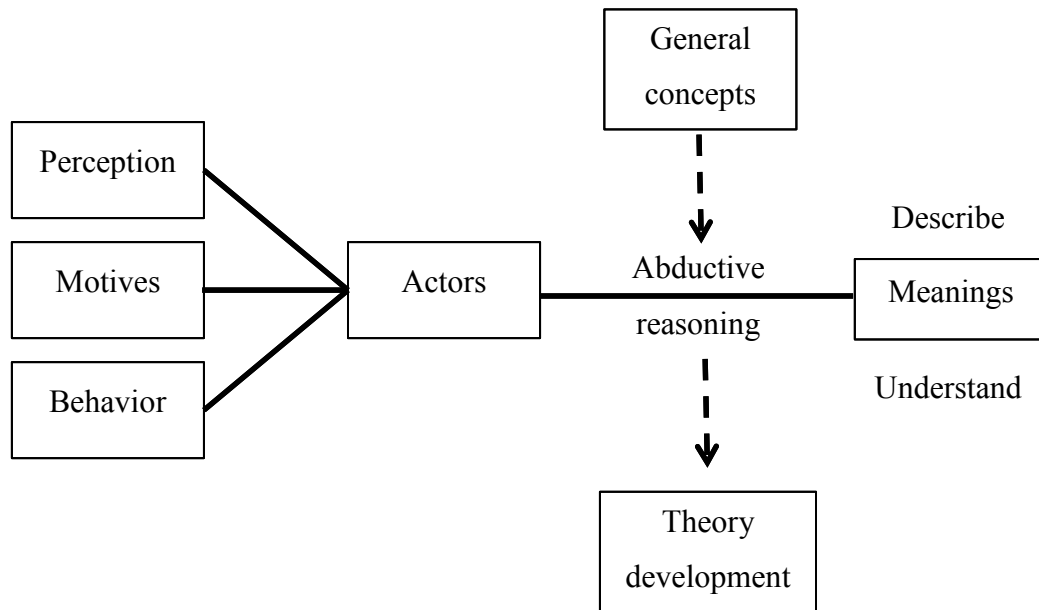


Figure 2. The logic of abductive research strategy

Source: Author's projection

My methodology advanced as a result of my immersion in the field. Starting a new career without having any knowledge on it assured the non-existence of previous conception on how higher education was functioning. The same fact permitted to construct my methodology step by step based on the knowledge and experience I progressively gained from my observations, inquiries and discussion with other academics. Thus, abduction favored the logical development of the following hypotheses:

- (1) The existence of different views on the role of higher education institutions
- (2) Rankings and accreditation systems play a significant role in disseminating a new view of academia
- (3) They both react as performance measurement systems
- (4) Academic institutions adopt the measurements used by these external systems
- (5) Faculty members are affected by institutional pressure
- (6) They interpret and react to this pressure by shaping their behavior
- (7) As a result, a new trend emerged in academic career management

In order to become 'probable truths', the assumptions have to be supported with evidence (Ong, 2012). Thereby, the researcher had to access the field and be able to obtain answers to 'why' questions. Moreover, attention has to be paid to the manner in which those answers are given. According to Ong (2012), the assumptions must meet the following six principles before being generalized:

- Respondents are able to assert their actions and can provide information on their peers actions
- The researcher is accustomed with the language used by respondents and is able to grasp the background knowledge that structures their social world
- The observed social environment is constructed on taken-for-granted knowledge
- The respondents do not question their own behavior or the behavior of their peers before they are asked to describe their life and explain their actions and preferences
- The researcher encourages respondents to reflect upon their social environment and discover the meaning behind it
- The fragments of information collected from respondents are pieced together and supplemented with concepts from literature review and other type of research

In summary, as Miller (2003) emphasizes, '[p]roperly employed, this method [...] is remarkably effective at validly reaching a deep structure of meaning that respondents may be capable of alluding to consciously in only a vague manner' (p. 4).

2.2. Data collection and sources

My assumptions were built up slowly, starting from an institutional view and narrowing the observations to the impact of performance measurements on individual behavior. Following the example of Weber (1968), Schuts (1976), Blaikie (2000) and Ong (2012), I used the six principles of abductive reasoning to depict the typical meaning used by academics in their everyday life and understand the social environment they live in.

I based my findings on analytical reflexivity, which permitted to describe the academic environment, the power relations in the field, and the nature of interactions between different subjects that participated in the study. Moreover, this social tool forced me to reflect upon the processes by which results are obtained and helped display the methodologies that were used (Brewer, 2003e).

The first step of my research was to understand and analyze the most known international rankings and accreditation systems. By performing systematic reviews of secondary data and material obtained with the help of search engine, I draw several conclusions on university rankings and the measurements they use on a regular basis. These results provided valuable information on which activities prime in faculties' agendas and helped to prepare the ground for future interviews.

The second step was to observe several academic institutions and discuss with individuals in an attempt to pinpoint the pressure they are experience when facing rankings and accreditation systems. The observation technique enriches the data on university ranking with a great amount of detail that could have not been gathered through some other research method.

The third and final step was to collect the interviews. The academics that accepted to participate in my research provided information on their personal and professional life experience, as well as details on future projects they intend to pursue. The interviews were analyzed and placed in the nexus of social connections (Miller and Brewer, 2003; Charmaz, 2006), allowing to conduct a research that builds on social issues (Lorino, 2008).

All three-research methods mentioned above will be described in detail in the following part of this chapter. Their aim is to contextualize the data and describe the social situation of the academic world.

2.2.1. Systematic reviews and search tools

The first business schools ranking was published in US in early 1970s (Wedlin, 2006) and 10 years later the first national university ranking was introduced to the public (van Dyke, 2005). Since then, more and more university league tables and rankings saw the light of day, taking different forms and evolving constantly (Dill, 2009). As a result, in order to perform a study on university rankings, it is necessary to define the research question accurately and select a number of relevant rankings for the research.

As shown by recent literature (Wedlin, 2006; Dill, 2009; Martin, 2012), university rankings played an important role in creating an international market of higher education. However, I argue rankings also altered the focus of universities and influenced the internal order and importance of HEIs' missions (teaching, research and contribution to society). Consequently, my research will focus on international university rankings and accreditation systems, understanding how they are built and what they are measuring. This will provide the basis for answering to *how performance measurements impact the academic organizational and individual behavior*.

Performing this study involves three steps. The first one is to select the most known international university rankings and accreditation systems. The second step is to look at rankings' methodologies and create the list of measurements they use. The third one is to split

the performance measurements into categories based on their linkage to the missions of HEIs. This three-step method permits to set a first hypothesis on what type of activities are important in the academic environment. However, to generalize the results and show the role of performance measurements in creating stereotypes that disconnect the three missions of HEIs, additional data is collected through observations and interviews.

In what follows, the methodology will be described in detail. In order to briefly provide an overall image on how performance measurements are selected, it is necessary to emphasize that the systematic review of the existing literature, search engines, archives and other online sources of information provided the basis for a qualitative data analysis. Both primary data, but mostly secondary data, play a major role in determining the type of measurements used by the selected international university rankings.

2.2.1.1. Selection of international university rankings and accreditation systems

The research is based on nine international university rankings⁴ and two accreditation systems. As will be discussed in chapter 7 (*The most known international university rankings and their measurements*) and chapter 8 (*The most popular accreditation systems and their evaluation methods*), performance measurements used by university rankings and accreditation systems trigger academic stereotypes that form behavior and affect the career management of individuals. Thus, this study provides a valuable source of information and contributes to understanding how behavior is shaped and how individuals define their role within the organization and the society. This in-depth analysis will help to better understand why and how the role of HEIs has slowly changed during the last decades.

To carry out this study, several types of research methods were used. Some of them took the form of an investigation of the international university rankings and accreditation systems, as well as analyses of how they are constructed and what they measure. Information about rankings and accreditation systems has been gathered through the published reports, academic articles, and information provided on the web pages of the founding organizations.

The international university rankings were selected through a systematic review of literature. The starting point was a review of the most popular university rankings provided by the

⁴ Although academic rankings are called ‘*university rankings*’, they rank both universities and business schools altogether.

European University Association (EUA, 2011). From this report, nine rankings were considered the most relevant for my research:

- Academic Ranking of World Universities (ARWU, Shanghai Ranking)
- Times Higher Education World Universities Rankings (THE)
- World Best Universities Ranking (USNRW)
- Performance Rankings of Scientific Papers for World Universities (HEEACT/HEEACT⁵)
- Leiden Ranking
- Global Universities Ranking (Reitor)
- Centre for Higher Education University Ranking (CHE University Ranking)
- Centre for Higher Education Excellence Ranking (CHE Excellence Ranking)
- U-Map Classification (U-Map)

The rankings enumerated above were mentioned in several studies as being the most known global university rankings (e.g. ARWU, THE, USNRW), playing a huge role on measuring academic research (e.g. HEEACT, CHE Excellence Ranking) and paying attention to users demands through qualitative factors (e.g. CHE University Ranking).

According to the literature, ARWU is the most known and used international university ranking. Docampo (2013) defined the Shanghai Ranking as being “[a]mong the truly worldwide higher education rankings” in the world (p. 567), while Jeremic et al. (2011) describes it as “probably the most cited ranking list” (p. 587). As they both mention, although the methodology raised controversy and criticism from the academic society, the popularity of the ranking is high.

The second most prominent university ranking is the THE. Multiple studies mention it as one of the most popular global league tables (e.g. EUA, 2011; Hazelkorn, 2011; Loyola, 2013). Among them, some define THE as a “remarkably well-timed [...] product” (Hazelkorn, 2011, p. 29) that complements the governmental policies by raising the bar of competition between worldwide educational institutions and pressuring them to perform in a rational manner. Loyola (2013) reinforces this statement by emphasizing that “the website of the ministries of higher education [...] uses] in the headings the references to Shanghai Jiao Tong Ranking⁶ or

⁵ HEEACT is the acronym for Higher Education and Accreditation Council of Taiwan, the institution that developed the Performance rankings of scientific papers for world universities

⁶ The founding institution of ARWU

Times Higher Education World Universities Ranking” (p. 1256) as effective strategies for policy decision makers.

The USNRW is a ranking that emerged in 2010 through the split of Times Higher Education Ranking (2004-2009) into USNRW and THE. It employs the same measurements used by THE before the split, while the new THE ranking adopted a different methodology⁷. Both rankings kept their high international visibility after the split and both aim for worldwide coverage (de Witte and Hudrlikova, 2013).

HEEACT is another ranking mentioned by several authors for being popular (e.g. EUA, 2011; Aguillo et al., 2010). Although the HEEACT is not as famous as the first three rankings, comparative research on rankings uses it as a benchmark for measuring research performance (Aguillo et al., 2010). However, HEEACT is mostly known for being a governmental ranking that evaluates institutional performance (Hazelkorn, 2011; Hou et al., 2013; Lo, 2014).

Leiden Ranking is not defined as a popular ranking, but as an influential one (de Witte and Hudrlikova, 2013). Thus, it is often used in academic research that involves comparison between different ranking methodologies (e.g. Stolz et al, 2010; EUA, 2011; De Witte and Hudrlikova, 2013).

Reitor is the last global ranking included in this research. Although it is a controversial ranking due to its short live span, Reitor is enumerated in multiple studies as being one of the first rankings produced by a non-English country (e.g. EUA, 2011; Berndtson, 2013). As a result, in spite of being published only once, Reitor is considered to have influenced other non-English rankings and the performance measurements they use used for institutional evaluation in higher education (EUA, 2011).

Two European classifications were selected due to their huge impact on the development of other non-above mentioned rankings. The German Centre for Higher Education was one of the first institutions that created a rating of European HEIs. Thus, CHE University Ranking and CHE Excellence Ranking are famous for their multiranking approach. None of them are providing a list of schools, but rather focus on the users of information and provides a rating of several schools based on the data introduced by each user in the search engine (EUA, 2011). As a result, the CHE rankings are described as being the most transparent and consumer friendly rankings (Stolz et al., 2010). Although several authors define them as

⁷ For more information, see chapter 5, *The most popular international rankings*

national rankings (Stolz et al., 2010; Hazelkorn, 2011; de Witte and Hudrlikova, 2013), it will be shown in chapter 5 (*The most popular international rankings*) that CHE University Ranking and CHE Excellence Ranking take into consideration European Universities where at least one teaching program is performed in German. Thus, I considered them to be European rankings.

The last ranking selected for analysis is the U-Map Classification. Designed as a multiranking that aims to resolve “the difficulties of the existing ranking systems” (De Witte and Hudrlikova, 2013, p. 341), the U-Map Classification provides comparatives of no more than three schools at a time. Similar with the two CHE Rankings, U-Map does not provide any league table of HEIs. The particularity of this ranking is that it “focuses on differences between institutions (institutional diversity) in terms of their mission and profiles (horizontal diversity)” (EUA, 2011, p. 52). In other words, the classification provides information on HEIs’ research and teaching profiles.

The literature mentions a tenth influential international university ranking, Webometrics Ranking (EUA, 2011; de Witte and Hudrlikova, 2013), that was not included in my analysis. Webometrics measures the size and visibility of universities based on the information available on the universities’ webpages (EUA, 2011). Given the fact my research aims to understand how performance measurements used by international university rankings and accreditation systems change the role of HEIs, Webometrics was excluded from the list of selected rankings due to its irrelevance to this subject.

In the field of management and business administration, university rankings are not the only external measurement systems that impact academic institutions. Business schools give equal importance to international accreditation systems and the way they measure the quality of management education (Temponi, 2005; Trapnell, 2007; Lejeune, 2011).

Historically, the accreditation systems have been founded in the US in 1916, but did not gain international recognition before 2003 (Scherer et al., 2005). Among the list of international accreditation systems, Association to Advance Collegiate Schools of Business International (AACSB International), hereafter AACSB, and European Quality Improvement System (EQUIS) are the most popular.

AACSB is claimed to be “the largest business education accrediting body” (Scherer et al, 2005, p. 653) with a worldwide credibility and a total of 716 institutions in 48 countries (AACSB International, 2014b). According to Trapnell (2007), AACSB stands as a

benchmark for excellence in management education, confirming HEIs' "commitment to quality and continuous improvement" (p. 68).

Similar with AACSB, EQUIS is a leading (Temponi, 2005) "international system of quality assessment, improvement and accreditation of higher education institutions in management and business administration" (Urgel, 2007, p. 73). The fundamental objective of EQUIS is to contribute to substantial improve of management education around the world (Lejeune, 2011).

2.2.1.2. Collecting the data

The research methods employed in the study of university rankings and accreditation systems use secondary sources. Information was gathered through a systematic review of websites owned by funding institutions of rankings and accreditation systems and where combined with literature review of academic articles, reports, books and other online sources (non-academic articles and discussion forums).

As emphasized by authors that cover research methodology in different fields, libraries and internet are invaluable tools for performing academic research (Baumard et al., 2003; Menabney, 2003). For a PhD candidate, they play a major role in identifying the research question, justifying the choice of question and keeping in touch with the evolution of literature on the chosen subject (Baumard et al., 2003).

To collect data on university rankings and accreditation systems, I started with the official web sites of organizations in charge with the nine selected rankings and the two selected accreditation systems. By using this method, I collected the indicators employed by each performance measurement system.

Further, I continued with a comprehensive search of literature online and in Paris libraries. These sources provided valuable information on interpretation of indicators: they permitted to look at rankings and accreditation system from different points of view and to understand the controversy around university rankings. They also helped me to decide on what type of analysis I want to perform and what research question I want to answer to.

As mentioned in subchapter 2.1 (*Abductive research strategy*), I had the chance to work with several schools and had access to their online and onsite libraries. Besides being a PhD candidate at two universities (Cluj-Napoca and Paris), in 2010 I was a visiting student at a French business school and between 2010 and 2014 I worked with several French business

schools and universities. Thus, during my collaboration with these institutions, I gathered materials from EBSCO, Emerald, SpringerLink, ScienceDirect, SSRN, and CAIRN. Moreover, I consulted several books on research methodology, theoretical positioning, contribution to society, higher education, marketplace, teaching and research, etc. All these materials provided the basis to form an opinion about what I might find in the field and to sketch the first draft of my interview guide.

2.2.1.3. Carrying out the content analysis

Content analysis is often used as a simplified and effective approach that represents the content of a text (Brewer, 2003c). This method helps to depict the repetitive patterns of a discourse and define the elements actors consider as being important and powerful (Allard-Poesi et al., 2003).

The analysis of international university rankings and accreditation systems' methodologies is meant to contribute to the development of hypothesis about the current status of external performance measurement systems used in the field of higher education. The missions of HEIs are considered essential elements that influence the choice of performance measurements. As a result, I took them into consideration to divide the analyzed indicators into categories.

Conventionally, academic institutions have two missions, namely teaching and research. According to the literature the first role of HEIs was to educate specialists in different fields⁸. Therefore, at the beginning, the sole mission referred to teaching activities (Abbott, 1988). As the time passed, the role of academic institutions has evolved (Youtie and Shapira, 2008) and scientific research was included as a second fundamental mission of HEIs (Locke, 1985).

The literature combined with the content of university rankings and accreditation systems methodologies lead me to question on what individuals, academic institutions and external organizations emphasize when defining the activities that represent the higher education.

Carrying out the analysis, I made a clear distinction between university rankings and accreditation systems. As a result, both of them are presented in different chapters: Chapter 7 (*The most known international university rankings and their measurements*), and Chapter 8 (*The most popular accreditation systems and their evaluation methods*).

⁸ In some fields research was performed even from the beginning as a mean to aid and support the development of different practices. For example, medicine is defined as “the study of disease and its treatment” (Duffin, 1999, p. 11) , which makes the education process of this field inseparable from research.

Given the high number of university rankings, I split them into types. This action enriches the analysis with the methodological preferences of each category of university rankings. Furthermore, distinguishing between types of rankings at European and international levels provides additional information about the importance given by external organizations to teaching and research activities.

As mentioned previously (2.2.1.1. *Selection of international university rankings and accreditation systems*), some of the international selected rankings analyze HEIs from all over the world, while other rankings have a European view. Moreover, depending on the ranking, two methodological approaches are observed: categorization of HEIs and ranking of HEIs. To explain the difference between rankings that rank HEIs and rankings that classify HEIs, it is necessary to define both techniques.

Classification (or *categorization*) is the technique by which similar objects are organized into groups (Cohen and Lefevre, 2005). Governments and organizations use this method to offer data that can be easily compared between different sources. For example, type of jobs are classified into occupations on the basis of their similarities (Cosca and Emmel, 2010). Another example is that of inventories classified into categories for control purposes (Mohammaditabar et al., 2012). *Rating* is another method of classifying institutions. Banks often use credit scoring to analyse and diagnose the possible problems of companies (Vernimmen, 2000).

On the other hand, *ranking* is a technique of ordering objects based on a number of criteria (Mazurek, 2011). According to some studies (Alwin and Krosnick, 1985), this is the most frequently used technique to measure the value of an object. As Martins (2005) emphasized, “positional status” (p. 701) of institutions is strongly linked to reputation, financial performance, access to capital, professional autonomy and increased chances of survival of institutions. Thus, the rankings are used as tools that compare the object of study in competitive environments.

Going further with my analysis, the content analysis of rankings’ methodologies along with the observations made on performance measurement indicators lead to the conclusion that some rankings are specialized in research activities, while others have a global view. Thus, I created two sub-categories in my analysis of European and global rankings: *specialized* rankings concerned with one core mission of HEIs and *general* rankings which include indicators on at least two missions.

Table 1. The selected international rankings

Type	European		Global	
	General	Specialized	General	Specialized
Classification	U-Map	CHE Excellence Ranking		
	CHE University Ranking			
Ranking			ARWU	USNRW
			THE	HEEACT
			Leiden Ranking	
			Reitor	

Source: Author's projection

The last step of the analysis was to decompose the rankings into indicators and divide them in two main categories: measurement of teaching activities and measurements of research activities. By looking at the content of different websites, reports and articles, I aimed to depict the trend of performance measurements used in academia. The analysis and the results are shown in Chapter 5 (*The most popular international rankings*).

2.2.2. Fieldwork

The field study is based on two research methods. The first one consists in direct observation of six higher education institutions, while the second one is based on forty semi-structured interviews with Full Professors, Assistant professors, Lecturers and PhD candidates. As university rankings and accreditation systems are indirectly influencing organizations (Martins, 2005) and individuals, the observations are used to clarify the context in which academics conduct their activities. They complement the interviews along with secondary sources, such as interviews collected by authors of other academic studies, as well as statements provided in non-academic articles or discussion forums.

2.2.2.1. Direct observations

The observation is a research method where the scientist takes an active role in observing the processes of an organization during a limited period of time (Baumard et al., 2003). The researcher participates in the field, observing the behavior of individuals in their own environment (Jersild and Meigs, 1939). The observation technique is classified according to the level of participation in the field and the level of subjects' awareness on being observed. Brewer (2003) recognizes two approaches of participative observation:

- Unobtrusive research – observers participate in the field and engage in research projects without informing their subjects. Unobtrusive research can take two forms:
 - Covert unobtrusive research – scientists create experimental situations for subjects, without informing them they are part of a research project
 - Overt unobtrusive research – the object of observation is the actual behavior of individuals. This research method implies that the scientists are familiar with the field of study and they keep their research aim hidden.
- Participant research – observers participate in the everyday life they are trying to understand and make subjects aware about being observed. Participant observation can also take two forms:
 - Covert participant research – observers create experimental situations for their subjects and inform them about being part of a research project.
 - Overt participant research – is a rare form of participant observation, where the observer passes as an ordinary member in an environment that requires specialized knowledge and behavior.

The research method selected for my observations is a mix between overt unobtrusive research and overt participation research. When I became a PhD candidate, I entered the field of academia with certain knowledge from practice. Being selected through an open competition and passing the first year examination I became an *ordinary member* of my academic institutions. However, when I decided on the topic I want to pursue and the field I want to analyze, I did not openly disclose it to my peers. Thus, methodologically I situated my research in the overt unobtrusive sphere. My peers were not aware they were being

observed or connected to my research thesis. Nevertheless, if individuals asked questions about my research topic, I did not hide it in any way.

The objective of my observations is to understand *how external performance evaluation systems impact the higher education institution* and analyze *how they are integrated in the everyday life of these institutions*. The results of my observations are used to develop the picture of the current higher educational system and improve the draft of my interviews, which represent the primary source of analysis.

2.2.2.1.1. Formal authorization and accessing the data

Unlike other researchers that have difficulties in accessing the field (Baumard et al., 2003), working and studying in HEIs permitted me an easy access to data and facilitated the observations of departments and individuals. Moreover, since observations were not my main research method, I did not consider necessary to obtain a formal authorization from any of the HEIs related to my study. As stated by Baumard et al (2003), this approach is often used in management studies. The drawback is that notes cannot be included in the annexes of the thesis, due to confidentiality issues.

Even if the access to the field was easily obtained, any analysis requires time, patience and understanding of norms, habitus and rhythm of individuals (Marchall and Rossman, 1989). The confidence of actors is vital in collecting the observations and interviews (Baumard et al., 2003). Thus, the scientists have to spend the necessary time to interact with their subjects and create a relation of trust based on which they can build their research. The danger of such methods is that the lack of confidence can lead to biased results (Lincoln and Guba, 1985).

My approach was to use the observation as a complementary method that could provide information to correct and enrich the content of the first interview guide draft. In other words, observation was employed to collect additional information on the field in order to use it in preparing the semi-structured interviews. In what follows I will briefly explain my relation to each of the schools included in the study and the method I used to collect the data.

2.2.2.1.2. Presentation of the observed higher education institutions

During my thesis, I analyzed a total of six HEIs. I started as a PhD student in accounting in 2009 and slowly developed interest for teaching activities. Thus, from 2010 to 2014, I taught and graded different courses in accounting. As a result, I had a direct contact with individuals

from accounting departments. Some of the observations I made were restricted to the group of people I entered in contact with, while some others observation are vast, containing notes of meetings, direction undertook by the HEIs, preferred approaches, and so on.

The first higher education institution I observed is a Romanian university (hereafter called *Alfa*). With a rich historical background, this institution aims to promote worldwide the knowledge and multicultural development. As many other Romanian HEIs, *Alfa* kept an international focus, establishing academic programs in several languages. The university is organized into faculties that cover specific fields of studies. The accounting department follows the rules established by the organization and focuses on national and internal directives. Until recently, the research was done within the departments, without having a separate research center. However, the situation changes in 2013, a research center being created in order to organize and follow up the implementation of research policies and strategies. The coordination of doctoral studies is organized within a separate institute, which guarantees the cohesion of doctoral studies. The institute collaborates with the faculties and thus assures the evolution of each doctoral thesis within the adequate department.

The second higher education institution is a French university (hereafter *Beta*). With a historical background of more than 200 years, *Beta* is a public institution focused on providing lifelong learning programs in French. The institution is organized into departments and offers courses in all French territories around the world. The accounting department incorporates an institution dedicated to career development in finance, management control, accounting and audit. Research is an integrated mission of *Beta*, researchers being grouped into research laboratories based on the department they pertain to. PhD candidates are included among the researchers of the institution, and thus they have access to the research laboratories. However, they are also part of a doctoral institute that was created in 2006 with the purpose of validating the training, the practices and the orientation of doctoral programs.

The third institution observed in this study is a French business school (hereafter *Gamma*). Similar with the two institutions described above, *Gamma* has a long history. Created more than 100 years ago, the institution developed its mission by offering top English and French teaching programs to students from all over the world in the field of management. In addition to the educational mission, the school performs research activities at a high level. *Gamma* is organized in departments and the researchers within the departments are reunited under the same research laboratory. Besides the laboratory, the institution developed five research centers, each of them with a distinct research focus. The doctoral program is developed as a

separate program, the school having full autonomy on deciding if students are allowed to continue the doctoral studies based on their performance. Although the program is developed in two steps, PhD candidates are evaluated yearly. The doctoral program is built on a strategy of excellence and a tough selection process of candidates. *Gamma* is the only business school in France that can award PhD diplomas validated by the French government. All the other French business schools had to develop partnerships with at least one French university in order for their diplomas to be recognized in France.

The fourth higher education institution is also a French business school (hereafter called *Delta*). With over 50 years of experience in providing educational programs on several continents, *Delta* created a multicultural learning environment meant to answer to the business world's demands. With this general view in mind, the school developed two core missions: the responsible development through teaching and the expansion of knowledge borders through research. The school is organized into departments and as many other business schools and universities in France, it provides a PhD program in several areas of business management. Completely taught in English, the program follows a strategy of excellence, selecting the brightest and most creative students. The PhD degree comprises two steps: the first is dedicated to coursework, while the second consist of time allocated to writing the dissertation and performing research activities.

The fifth higher education institution included in my study is another French business school (hereafter called *Epsilon*), but has the particularity of being part of a French university. With around 50 year of history and two campuses situated in France, the business school is specialized in bachelor and master programs provided in English and French. In addition to the educational activities, *Epsilon* was recognized by several French publications as one of the best business schools in France in terms of research activities. The school developed collaborations with several research institutes, including the French National Centre for Scientific Research (CNRS), a high number of universities all around the world and a large number of companies.

The sixth higher education institution is a French business school (hereafter called *Zeta*). Recently formed through the merger of two business schools, *Zeta* aims to be recognized as a leading European business school that provides excellent training to future leaders of tomorrow. With two campuses situated in France, the institution addresses to foreign students from all over the world. Although without PhD program before 2014, *Zeta* has developed a

partnership with a Chinese university and the institution is now welcoming PhD candidates in business administration.

The six higher education institutions were observed from 2009 to 2014. The level of observation was different for each school (Table 2). All four business schools included in the study are AACSB and EQUIS accredited, while the two universities are not.

Table 2. The observed higher education institutions

HEI	Observation period	Level of observation
Alfa	2009-2014	Accounting department
Beta	2009-2014	Accounting department
Gamma	2010	Accounting department
Delta	2011-2014	Individuals
Epsilon	2013-2014	Groups and individuals
Zeta	2014	Individuals

Source: Author's projection

2.2.2.1.3. Gathering the observations

The observations were collected through a research process that consists in constantly recording information in writing. The informal analytical notes that result from the observation technique have the purpose of accurately recalling the events or individual behavior that took place during a certain period of time (Charmaz, 2006). By employing this technique, I compared my notes on several accounting departments, being able to extract the strategies that are engaged by the six HEIs, the similar actions that take place in these departments and the similar behavior of individuals within the departments.

As stated above, due to my status as a PhD candidate and lecturer in accounting, the targeted schools, departments and individuals that were observed are part of the management field and include the following areas of specialization: accounting, economics, management, marketing, finance, operations management, organizational behavior and strategy. More specifically, my observational focus was on the accounting departments and the individuals working within this area of specialization, while my interview focus was on the entire field of business management. The intention was to grasp the results that can be conceptualized for

the landscape of higher education. In what follows, I will present the context, period and the perspective I based my observations on.

The circumstances that lead me to *Alfa* and *Beta* are related to my status as a PhD candidate. Most of my time as a PhD student was spent within these two institutions. Thus, given the lengthy period of time, they permitted me to draw a complete picture of HEIs and on the career management of academics. Both *Alfa* and *Beta* were observed between 2009 and 2014. The observations were gathered within the accounting departments, where notes were taken during the official gatherings, informal meetings with faculty members and informal discussions between several academics pertaining to the institutions.

The entrance to *Gama* was facilitated by my status as a PhD candidate. In 2010 I was a visiting student at this institution during the first semester of studies. This permitted me to observe and understand the strategies implemented by a reputable school, the existence of high competitive market of higher education and how all the pressure of this specific environment affected the behavior of academics. Similar with *Alfa* and *Beta*, *Gama* was observed through the prism of the accounting department and the individuals that work within this specific department. Notes were taken during the classes, the research meetings organized by the department and the informal discussions between PhD candidates and/or the academics within the accounting department.

Unlike the previous three institutions, the entrance to *Delta*, *Epsilon* and *Zeta* was facilitated through my status as a lecturer in accounting. Thus, the observations were mostly made on the internal expectations of the accounting departments, the groups of academics, and individuals I entered in contact with.

The notes on *Delta* were collected between 2011 and 2014. The information was mostly gathered during informal discussions with different members of the department, when I took advantage of the opportunity and openly asked them about the functioning of the department, the strategies they follow and their opinions, views and preferences.

Epsilon is the second institution observed through the prism of an employee. Observed from 2013 to 2014, this institution represents a valuable object of study due to its aim to become one of the most reputable schools in France. The notes on *Epsilon* were collected during official and unofficial group meetings and multiple discussions with academics and the administrative staff.

Zeta is the last institution observed for my study. Although the notes were collected during a short period of time in 2014, they helped to prove that academic institutions follow the same trend in terms of strategy. The observations made at *Zeta* include open discussion with several individuals within the accounting department, the topics of the discussions covering the following themes: hiring process of new academics, the expectations of the school in what concerns their current faculty members and the struggles of individuals to fit these expectations. Since the discussions took place ad-hoc, the academics involved in the study felt comfortable to openly talk about their personal views and problems. Because I did not follow an interview guide to direct this discussion, I considered this part of the field study to fall into the observation analysis of the academic field.

The notes collected from the higher education institutions are analyzed through a cross-sectional study that serves to describe the common features and differences between individuals, academic groups and faculty departments. Although longitudinal studies are the most frequently used in management research (Bergh, 1993; Forgues and Vandangeon-Derumez, 2003), for the development of my analysis I preferred a cross-sectional approach. Based on the literature, cross sectional analysis is also often employed in management accounting and organizational behavior, more specifically in cognitive and competitive positioning studies (Hodgkinson, 2005) and management accounting surveys (Luft and Shields, 2006; Janke et al., 2014). Thus, since the aim of my observations is to depict the resemblances and differences between the behaviors of similar academic groups and individuals, this research technique seemed to be the most appropriate.

According to the current literature, the qualitative data gathering implies that researchers constantly ask themselves if the data is sufficient and has a high quality. Thus, to evaluate and validate the content of the data, I followed the example of Charmaz (2006) and paid attention to the following issues:

- (1) The data collected must offer enough background about the individuals, processes and settings and portrays the full context of the study
- (2) Detailed description of participants view and actions is recorded
- (3) The data should reflect the truth behind the surface
- (4) The data is sufficient to reveal the change occurred in the field
- (5) Sufficient views of individuals are collected to explain the individual actions
- (6) The data collected is enough to develop analytical categories
- (7) The comparison between data can inform and generate relevant hypothesis

The six higher education institutions selected for my study were carefully selected based on their background. They exemplify a various selection of strategies, goals and targets and clearly define the context in which they work. Although the sample of institutions is certainly biased in that it consists only of institutions I worked with, the selection process did not follow a random logic. The study started with two similar institutions from different countries and evolved by following a *theoretical sampling* and constant *comparative method* (Strauss and Corbin, 1998; Charmaz, 2006). As a result, I first added an institution with a different context, passing from universities to business schools. Later, to complete the image of academia, I added three more institutions to my sample. The purpose was to include an equal number of institutions analyzed from the point of view of a PhD candidate and that of an employee.

Thus, although the data collection is biased in the selection of institutions, I do not consider this poses any challenge to the validity of my results, as my aim was not to predict the future of higher academic institutions, but to depict the shared common competitive tools available within the field of higher education and understand their influence on the career management of academics.

2.2.2.2. Semi-structured interviews

Interviews are one of the most widely used research methods (Baumard et al., 2003; Leonard, 2003). If handled with care, the scientists can collect valid information through discourses of individuals and this can yield rich research data. The interview takes the form of a face-to-face interaction between the researchers and their subjects. These meetings unfold as conversations on a specific topic with the aim to reveal information about a certain research question. Depending on the topic of the conversation, interviews can take three forms: structured, semi-structured and unstructured.

In qualitative research, interviews are usually semi-structured or unstructured, as they need to be open-ended and flexible. The researcher aims to focus not only on the main topics he prepared in advance, but also on new elements that can emerge during the conversation. Only by doing so he can obtain valuable information for the study. Qualitative researchers try to understand how individuals think and feel about the topic of discussion. Thus, the semi-structured and unstructured interviews are used to “develop ideas and hypotheses rather than to gather facts and statistics” (Leonard, 2003, p. 166 – 167).

The collection of interviews is a difficult task. To assure the reliability of data, the scientist has to understand the environment he aims to study. He must draw a sketch regarding behaviors and activities he expects to find in the field before he starts interviewing individuals. Further, he has to be able to show empathy to his subject, know when to speak and when to be quiet, dress and act accordingly with the situation in order that data collection process is not influenced by his actions.

Most of the times, the topic is delicate and participants might not feel comfortable during the interview. As a result, they might try to hide their true perceptions on the topic. To avoid these situations, the researcher has to pay attention to details, tonality and body language of his subjects, and use checkup questions meant to eliminate the false information.

For the purpose of my research, semi-structured interviews were chosen as the main research method. This choice permitted to collect valuable data by following a certain structure in terms of topic. Moreover, the semi-structured interviews allow the participants to freely express their opinion and direct the conversation where their thoughts took them. This approach is extremely useful in the sense that it allows the researcher to make refined comparison between different professional stories of individuals and extract the main similarities and differences in their career choices.

Starting from the literature, which emphasizes that rankings have become a fact of life for HEIs and academics working within this institutions (Wedlin, 2006), I questioned if rankings proliferation have changed the role of higher education institutions. As a result arguments and statements on organizational and individual behavior came to surface. Therefore, I considered essential to let academics speak as key actors in this field and provide their opinion on the subject.

2.2.2.2.1. Conducting the interviews

After performing an important part of the content analysis and the observations, I initiated the interview phase. Thus, between October 2012 and June 2014 I gathered 40 interviews conducted with Full Professors, Assistant Professors, Lecturers and PhD candidates. This research phase was performed while I continued my study on university ranking and accreditation systems and my observation on higher education institutions. For the interview phase, I followed ten practical steps:

- (1) Formulate the general topic to be covered during the interview

- (2) Begun to review the literature and continue to do so during the entire development of this phase
- (3) Discuss with different academics and decided the type of individuals to be interviewed
- (4) Prepared an interview guide with non-direct sensitizing concepts
- (5) Record the interviews and take notes on the respondents behavior
- (6) Analyze the interviews and identified the recurring concepts
- (7) Categorize the concepts and explore their meanings either based on secondary data or during the following interviews
- (8) Refine and narrow the subject
- (9) Go back to the literature for additional information that helped construct the theory
- (10) Test the concepts through discussions with other academics to establish the validity of my findings

In the previous section (2.2.2.2. *Semi-structured interviews*), I mentioned that semi-structured interviews have the great advantage of being flexible. However, they provide several other benefits that come in handy when performing research activities. One of them is the high response rate (Leonard, 2003). If properly approached, most of the individuals agree to be interviewed. This was also the case with my study. From all the individuals I selected to provide information for my data collection, none refused to be interviewed. Since all the participants knew what research is, along with the fact that I promised them anonymity and non-disclosure of the full conversations, have also balanced in my favor.

As a result, even if the information they were revealing is sensitive, the respondents trusted me to record the conversation with a tape-recorder or Skype-recorder, depending on the type of meeting, and let me take notes during the interview. I only had minor problems with two interviewees, one of them being embarrassed and the other reluctant in disclosing their private thoughts. *Benjamin*, full lecturer in accounting, gave me permission to record the interview. However, as he was a new team member in his institution, he was afraid to give details that he considered to be disadvantageous for his peers or the institution he was working with. After the interview was over and I stopped the recorder, he was kind enough to provide the details he avoided while the recorder was on. On the other hand, *Ismael*, a full professor at another institution, was not extremely helpful during the interview. He dodged most of my questions using several techniques to avoid a direct answer, but without refusing to reply: he simply answered by ‘yes’ or ‘no’, he replied with another question, etc. Neither

the discourse of *Benjamin* nor *Ismael* were excluded from my data collection. Since *Benjamin* provided me with truthful and detailed information, even after the recorder was stopped, his discourse was as valid as those of all my other interviewees. Even if *Ismael* did not provide rich information during his interview, his answers could still be compared with the information obtained from the remaining interviewees. Thus I did not exclude him from the sample.

2.2.2.2.2. Choosing the interviewees

The interviewees were selected in accordance with the goal of this research, which goes beyond the changes that occurred in the hierarchical structure of HEIs. Since I aim to understand academics perceptions and the way university rankings and accreditation systems influence their career management, I selected a sample of academics that would represent the population under study. Thus, the choice was made based on the type of institution they were part of, their title, their academic interest, their background and their age.

I approached the field by performing an exploratory study and I selected to interview five experienced individuals that worked within the six HEIs mentioned in the previous section (2.2.2.1. *Direct observations*). As a result of the exploratory phase, I recalibrated my interview guide and focused on four categories of participants.

At the beginning, I aimed to interview three groups of individuals: Full Professors, Assistant Professors and Lecturers. The fourth group, PhD candidates⁹, was added after the exploratory phase ended. Out of a total of five initial interviewees, three suggested that PhD students should be included in my sample. They emphasized that PhD candidates could provide more information about how the future generation of academics plans to manage their careers. Both current members and future academics put effort into developing their profile according to the expectation of the job market. Thus, following the advice of these three more experienced academics, I scheduled several interviews with PhD candidates. I carefully selected six PhD students based on their research interest (qualitative or quantitative), their year of study (2nd, 3th or 5th) and their professional background (having entered the PhD program immediately after they ended their master program or spent a few year in an organization before deciding to follow a PhD program).

⁹ To simplify the name of the category, I used “PhD candidates” as a denomination for PhD and post-doc students. Both these categories of individuals are part of the academic environment, playing a role in the development of the higher education institutions, but without being considered “academics”. The term “academic” is normally used for the faculty members.

The five faculty members I interviewed in the exploratory phase have a rich academic background. All of them were selected based on their long experience in the field and none of the five interviewees is under 40 year of age. As I consider the more experienced individuals can provide valuable information for my future research development, I have selected to interview three Full Professors, one Assistant Professor and 1 lecturer (Table 3). All of them have more than fifteen years of experience as employees of higher education institutions and two of them came to academia after building some professional experience.

Table 3. Interviews conducted in the exploratory phase

Interviewees	Number of women	Number of men	Total interviewees
Full professors	1	2	3
Assistant professors	0	1	1
Lecturers	0	1	1
PhD and post-doc candidates	0	0	0
Total number of interviews	1	4	5

Source: Author's projection

The information provided by the five individuals that were interviewed during the exploratory phase aided me to select the relevant questions and define the main subjects. Thus, the initial interview guide was reduced to a more appropriate length and it was not necessary to follow up with a second interview.

As my research progressed, the categories were fully developed in terms of characteristics and dimension, and the relationship between categories was validated. The theoretical saturation was reached after I conducted forty semi-structured interviews with faculty members and PhD candidates. According to the literature, this number of interviews is appropriate for conducting qualitative research on individuals' behavior (Ibarra, 2003; Lupu, 2011).

Even if the main objective of this study is to understand the role performance management systems play in the development of careers and not the way gender influences the perception of individuals, in my research I made a clear distinction between the numbers of participants

from both sexes. Performing several online investigations, I noticed that higher education institutions have picked up the trend of disseminating gender information on their websites. For example, INSEAD, HEC Paris, and ESSEC mention the number of male and female students, although this information does not relate in any way with the content of the document they provide (ESSEC, 2014; HEC Paris, 2014; INSEAD, 2014). Thus, in order to avoid ruining my data collection due to gender issues (Dambrin and Lambert, 2006; Lupu, 2011), I kept track on the number of women and men that participated in my study.

I also considered appropriate to use theoretical sampling and select the interviewees based on the concepts I intended to employ in my theory under construction. As a result of my exploratory phase, the issue was not anymore to select a sample that represented the population under study, but to fit together the theories and the data that surface during the interviews.

Since the pressure put on academics through the internal evaluation systems of HEIs seemed to play an important part in how they deal with their careers, I chose the theoretical sample in order to depict the characteristics that are of special interest to the subjects (Cuganesan et al., 2012). The actions that force the choice of individuals are stronger at the beginning of a new career. This is the reason why at the end of my interviews I focused more on PhD candidates. As they have a strong desire to succeed, they are easily molded by the evaluation systems. On the other hand, as Aurore (Full Professor) emphasized, when you get to the highest position, you are less influenced about what others think or want from you. Thus, while interviews provide access to the phenomenon under study, the theoretical sample illuminates and extends the relationships between subjects (Eisenhardt and Graebner, 2007).

From the total of forty participants, nine are Full Professors, eleven are Assistant Professors, five are Lecturers and fifteen are PhD candidates (Table 4). The group included people at different professional stages. Some were preparing for their academic careers, others have just started them, several have taken the leap a while ago and had no desire to go into the next level and last were the ones at their career peak. At least half of the interviews were, therefore, retrospective. Except for the PhD candidates, the participants talked about their professional lives starting with their infancy and ended with their current academic interests.

Table 4. Categories of interviewees¹⁰

Interviewees	Number of women	Number of men	Total interviewees
Full Professors	2	7	9
Assistant Professors	7	4	11
Lecturers	4	1	5
PhD candidates	4	11	15
Total number of interviews	17	23	40

Source: Author's projection

In sections 2.2.1 *Systematic reviews and search tools* and 2.2.2.1 *Direct observation*, I emphasize that two types of HEIs distinguish themselves among the multitude of academic institutions. Thus, following the same approach I used for the content analysis and the direct observations, I divided my interviews into categories based on the institution they were pertaining to: universities and business schools (Figure 3). From the total of forty interviewees, twenty-three individuals are employees of business schools, while seventeen are working for universities.

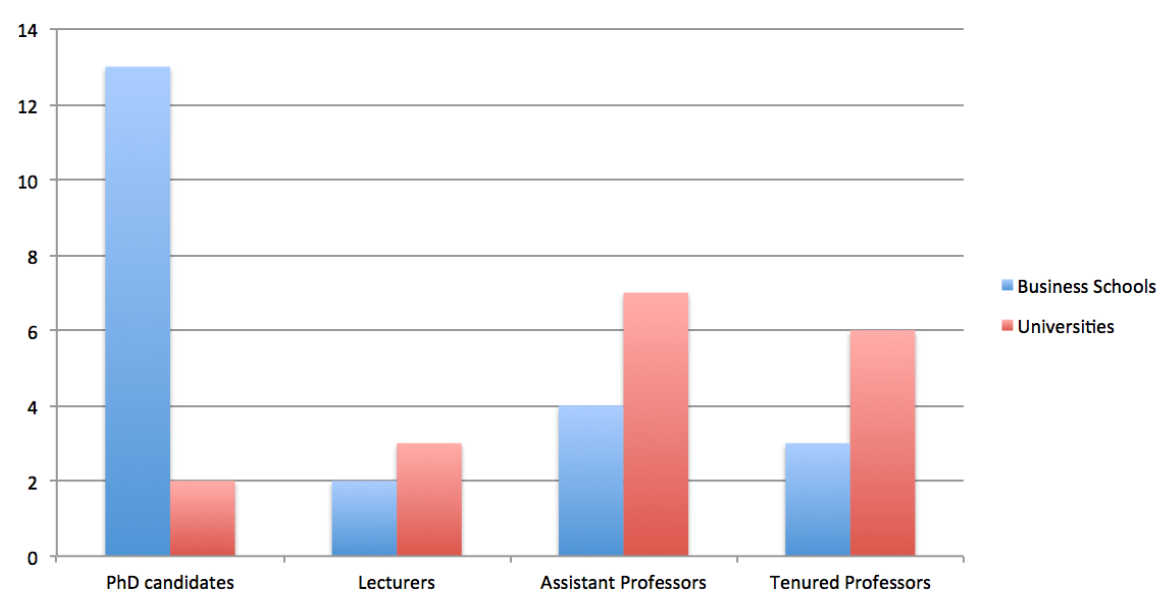


Figure 3. Distribution of interviewees based on the type of higher education institution

Source: Author's projection

¹⁰ Table 4 includes the interviews conducted in the exploratory phase.

As emphasized in the *General introduction*, I chose the management field as a ground for both my observations and my interviews. I mainly focused on stories of individuals working within the accounting departments. However, in order to empower the results, I decided to include interviewees from other areas within the management field (Figure 4). This action permitted to compare individuals' behavior within the same social environment (the accounting department). Each department has its specificities and although the institutional requirements are the same, the pressure put on the departments is somehow different. Thus, I wanted to be able to reach my conclusions by observing individuals that answer to the same institutional factors, but also to grasp if certain behavioral trends are encountered in multiple departments. Moreover, the accounting department provided an appropriate surrounding to investigate all the four types of categories of individuals during the same period of time.

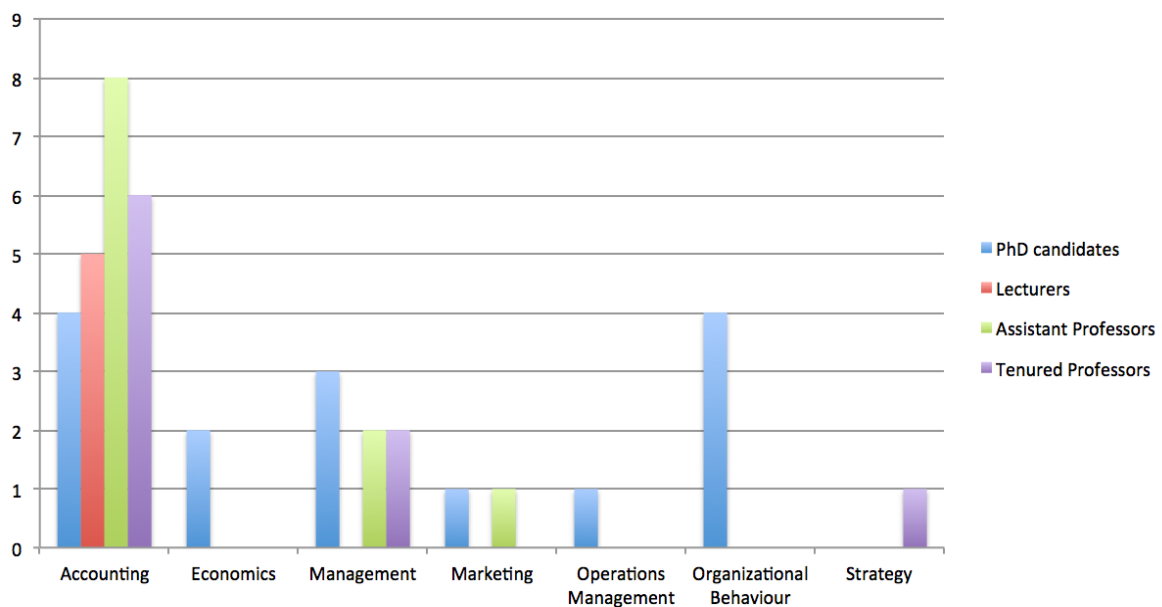


Figure 4. Field distribution of interviewees

Source: Author's projection

The people interviewed for this study range in age from twenty-four to sixty-five, with most between thirty and thirty-nine (Figure 5), squarely when they can fit into several categories: PhD candidates, Lecturers and Assistant Professors. When selecting the interviewees, I paid attention to several factors. I did not choose to interview two identical individuals. For example, I selected one PhD student at twenty-four and another one at forty-four. Each of these individuals has a different perspective on how to approach a PhD program and their future academic career. Further, by selecting another two individuals under-thirty, but in

different years of studies, permitted me to understand how and why the perception of PhD students was changing. The same strategy of selection was used for Assistant Professors, Lecturers and Full Professors. Although the structure of each category of individuals does not reflect the exact proportion of personnel of HEIs, the theoretical sample had a great significance in choosing the interviewees. For example, the Full Professors over sixty years old provided valuable information on the historical changes in the field of higher education. However, since they are reaching the end of their careers, they are not interested in managing their careers anymore, so I quickly reached my saturation sample for this category of age. Thus, the reason my sample is the most dense between thirty and thirty-nine is due to the fact that individuals that can provide the most insight on how they strategize and manage their professional lives coincides with this category. Since my objective was to study people with enough experience that have already developed a sense of their (future) professional identity and that understand the expectations of the higher education job market, I consider that my current sample reflects my goal.

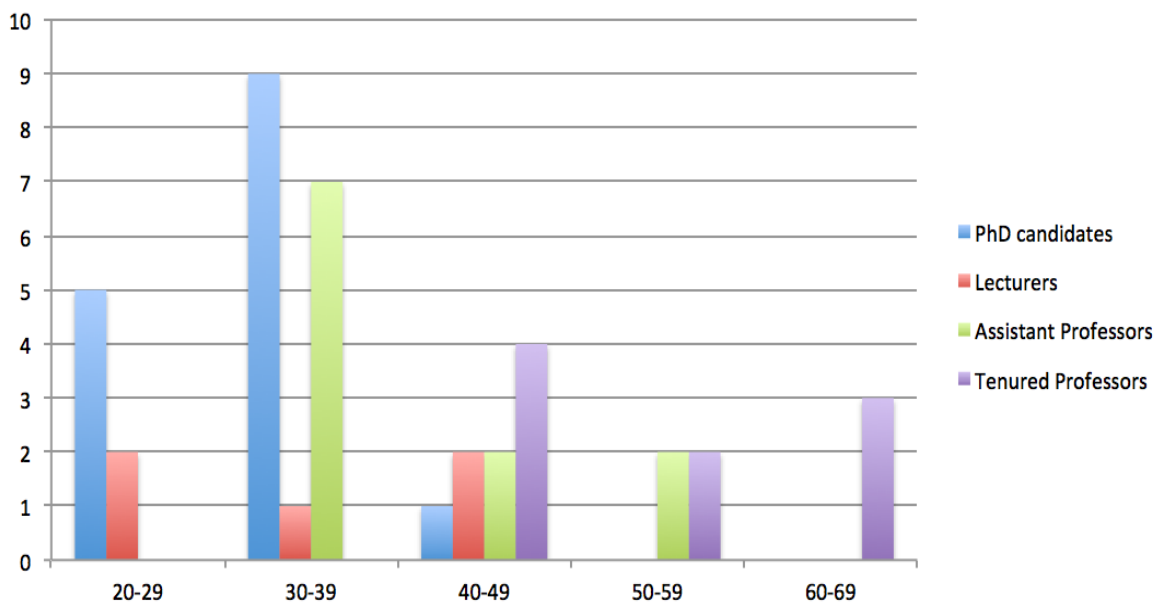


Figure 5. Age distribution of interviewees

Source: Author's projection

The culture of a country, the educational environment and the parental influences are embedded in the social background of individuals. They are seen as a key elements that shapes actors' perception, disposition and behavior (Samaha et al., 2014). The "social

environments in which one grew up” (Hofstede, 1991, p. 4) trains and refines them. Therefore, the social background plays an important role in defining their identities.

Aiming to see if there is a significant difference between the way performance measurement systems affect the behavior of individuals that have different backgrounds, but work in the same environment, I used the nationality as a proxy to define the personal, and sometimes professional, background of individuals. Even if my study was performed in the French educational environment, I was able to collect data from individuals that pertain to seventeen nationalities (Figure 6). Such a compilation was possible due to the marketization of higher education (Bok, 2004). The intention to “expand the size and reputation of the institution” (Bok, 2004, p. 4) lead to the competition of HEIs for the best students and faculty. To achieve these new defined organizational goals, the institutions were forced to strategize and expand their search beyond their country borders.

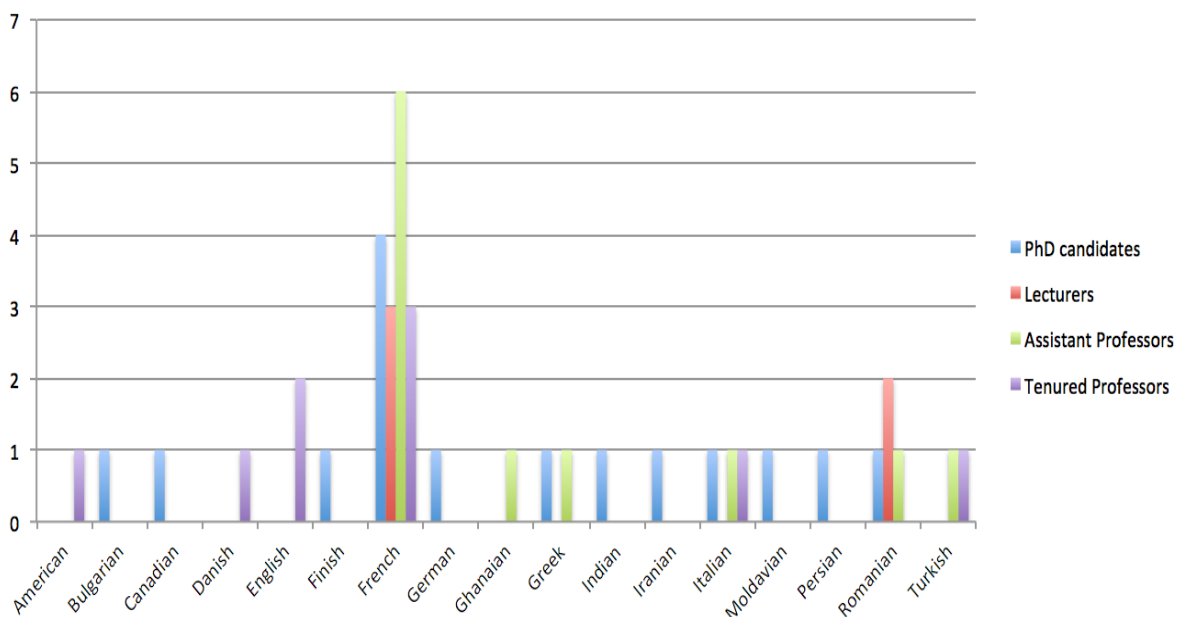


Figure 6. Nationality distribution of interviewees

Source: Author’s projection

The following tables show the profile of Full Professors (Table 5), Assistant Professors (Table 6), Lecturers (Table 7) and PhD candidates (Table 8) that provided information on university rankings and their use in academia, the internal evaluation systems of their institutions and the development of their careers. The profiles are structured based on the

following categories: job position, age, gender, nationality, field of interest and institution of employment.

Table 5. Profiles of the interviewed Full Professors

Date of interview	Position	Age	Gender	Nationality	Field	Institution	Denomination in the study
16.10.2012	Full Professor	62	Male	French	Accounting	University	Augustin
01.11.2012	Full Professor	65	Male	English	Accounting	University	Dakota
27.11.2012	Full Professor	44	Female	French	Accounting	University	Aurore
03.04.2013	Full Professor	61	Female	English	Accounting	University	Jasmine
01.07.2013	Full Professor	47	Male	French	Accounting	University	Honore
18.12.2013	Full Professor	50	Male	Turkish	Accounting	Business School	Ismael
23.12.2013	Full Professor	44	Male	Italian	Management	University	Manuel
25.02.2014	Full Professor	50	Male	Danish	Management	Business School	James
28.02.2014	Full Professor	45	Male	American	Strategy	Business School	Chris

Source: Author's projection

This category of participants was selected to provide data on the changes occurred in higher education in last three decades. The interviewees were selected based on their experience, personal background, field of work and institutional environment.

Table 6. Profiles of the interviewed Assistant Professors

Date of interview	Position	Age	Gender	Nationality	Field	Institution	Denomination in the study
30.10.2012 30.02.2013	Assistant Professor	44	Male	French	Accounting	University	Bernard
05.02.2013	Assistant Professor	34	Male	Italian	Management	Business School	Magnus
07.02.2013	Assistant Professor	30	Female	Greek	Marketing	Business School	Ailsa
07.02.2013	Assistant Professor	32	Female	Romanian	Accounting	Business School	Claire
23.02.2013	Assistant Professor	35	Female	French	Management	Business School	Diane
11.03.2013	Assistant Professor	52	Male	French	Accounting	University	Pierre
19.03.2013	Assistant Professor	35	Female	French	Accounting	University	Margot
08.04.2013	Assistant Professor	36	Male	French	Accounting	University	Lucas
22.04.2013	Associate Professor	56	Female	Ghanaian	Accounting	Business School	Grace
18.07.2013	Assistant Professor	44	Female	French	Accounting	University	Marine
16.02.2014	Assistant Professor	37	Female	Turkish	Accounting	University	Nicole

Source: Author's projection

Historically, the most influential studies on career development have emphasized that individuals grow professionally by following several stages (Super, 1953; Levinson, 1985; Greenhaus et al., 2010) that are closely linked to the age of individuals. In his theory of vocational development, Super (1953) talks about: growth (the discovery of the professional world), exploration (the process of narrowing the list of career possibilities), establishment (the decision), maintenance (the reevaluation of career choice), and disengagement (the

career change). Moreover, Greenhaus et al (2010) defines the stages of career development from a different perspective. Based on the major tasks of individuals during their professional lives, the authors define the following four stages: occupational and organizational choice (development of occupational self-image), early career (define the career goals), midcareer (focus on work productivity), and late career (prepare for retirement). Starting from these two theories, I define my four categories of interviewees into pre-career (PhD candidates), early career (younger Assistant Professors and young Lecturers), midcareer (experienced Assistant Professors, experienced Lecturers and younger Full Professors) and late career (experienced Full Professors).

Since Full Professors cover the late career and part of the midterm career stages, my next step was to find a group of individuals that could describe the actions that take place at the early stages of the academic career development. Therefore, a second category of interviewees emerged by including a group of Assistant Professors. These individuals hold the first job positions as faculty members. However, in the French public sector of education, the title of ‘Assistant Professor’ does not exist. The French equivalent for both ‘Assistant Professors’ and ‘Associate Professors’ is ‘Maitre de conférence’¹¹. As a result, the ‘Assistant Professors’ category includes both ‘Maitre de conférence’ and private sectors’ Assistant Professors.

The selection of interviewees was made based on Greenhaus et al (2010) assumptions. According to them, younger individuals are more eager to define their place in the organization and pursue their goals. Since I already had data on midcareer individuals’ perception, I preferred to mostly focus on Assistant Professors between thirty and forty. Furthermore, the younger Assistant Professors were selected based on their personal background, field of work and institutional environment. Only one participant was over fifty and two between forty and fifty. They were selected to provide information on the reasons behind deciding to halt professionally or slowly advance to the next step in the academic career.

¹¹ The procedure for obtaining this title is explained in subchapter 9.3.

Table 7. Profiles of the interviewed Lecturers

Date of interview	Position	Age	Gender	Nationality	Field	Institution	Denomination in the study
24.10.2012	Lecturer	45	Male	French	Accounting	University	Benjamin
04.04.2013	Lecturer	30	Female	French	Accounting	University	Aimee
08.04.2013	Lecturer	40	Female	French	Accounting	Business School	Sabine
28.12.2013	Lecturer	28	Female	Romanian	Accounting	University	Tamera
09.01.2014	Lecturer	29	Female	Romanian	Accounting	University	Rachel

Source: Author's projection

Because I had an easy access to the field, I was able to control the selection of interviewees. My only difficulty was in finding individuals that could provide a perspective on academia from a full teacher or full researcher point of view. Assistant Professors, Associate Professors and Full Professors are in charge with several activities: administrative responsibilities, teaching duties and research obligations. Therefore, their identity is built on a mix of the above-mentioned activities. On the other hand, lecturers can tell their story from a teacher's perspective. Thus, a third category, 'Lecturers' had to be included in my sample.

In France, Lecturers are rarely part of the permanent staff. They are either "*vacataires*" (individuals hired to perform certain activities and are not part of the permanent staff) or they have a *PRAG*¹² contract (civil servants in charge of full time teaching activities)¹³. However, as one of my interviews states, "it is not easy to be hired [by a higher education institution] if you are not an academic, a researcher. There is rather an expectation [from higher education institutions] to have this profile"¹⁴ (Benjamin, PRAG). As a result, lecturers are to some extent invisible in these organizations and it was very difficult to find enough participants that pertain to this category. Investing time into finding them was rewarded by a very rich set of data.

¹² University lecturer, PRAG being an acronym for « professeurs agrégés du secondaire »

¹³ The notions of "vacataire" and "PRAG" is fully described in subchapter 9.3.

¹⁴ Original text: « Ce n'est pas facile d'entrer [dans un école d'enseignement supérieure] quand on n'est pas justement universitaire, chercheur. Il y a plutôt un souhait [dans l'école d'enseignement supérieure] d'avoir ce profil là. »

Unlike the previous two categories, with Lecturers I did not afford to make a selection based on age or experience, personal background, field of work and institutional environment. Due to their hidden presence, I was more than content to have at least one individual from each category of age. Moreover, looking at how they manage their careers was not possible from a career development point of view. Lecturers cannot evolve on the professional ladder. Except if some major changes occur (e.g. obtain a Doctor degree), they are stuck on the same career level during their entire professional lives^{15 16 17}. Therefore, the Lecturers inclusion in the interview sample was due to the fact that they could complete the picture of the academic environment through their life stories: the events with which they deal on a daily basis, their goals, the expectations they have from the institutions, the pressure they are supposed to deal with, the image of self they create and the way they consider others see them. All these data are helpful in explaining not only the behavior of lecturers, but also the behavior of the first two categories of interviewees.

¹⁵ According to the French law, PRAGs' salaries can increase based on a grade they receive as a result of an annual evaluation and a certain number of conditions, such as the minimum number of years spend within each tier. Moreover, after they reach their 7th tier in the *normal class* («*classe normale*»), they can advance into a *super class* («*hors classe*»). The Minister of Education decides each year the number of positions available in the *super class*.

¹⁶ In this research I focused on the perception of individual and not their increase in revenues. Since PRAGs' opinion is that their peers regard them as "simple lecturers" (Pierre, 2012), the career development of PRAGs is not detailed in the content of this thesis.

¹⁷ During my field study, I interviewed two PRAGs and surveyed several discussion forums (e.g. *La Gaïa Universitas*).

Table 8. Profiles of the interviewed PhD candidates

Date of interview	Position	Age	Gender	Nationality	Field	Institution	Denomination in the study
22.04.2013	PhD candidate	25	Male	Greek	Management	Business School	Kyle
07.05.2013	PhD candidate	28	Male	Romanian	Accounting	Business School	Vladimir
12.11.2013	PhD Candidate	31	Male	French	Organizational Behavior	Business School	Pancho
25.11.2013	PhD Candidate	32	Female	Bulgarian	Organizational Behavior	Business School	Eleanor
22.12.2013	PhD Candidate	24	Male	German	Organizational Behavior	Business School	Jonas
07.02.2014	PhD Candidate	31	Male	Iranian	Management	Business School	Ace
07.02.2014	PhD Candidate	26	Male	Moldovian	Economics	Business School	Adam
07.02.2014	PhD Candidate	30	Male	Italian	Economics	Business School	Daniel
07.02.2014	PhD Candidate	29	Male	Canadian	Management	Business School	Jacob
07.02.2014	PhD Candidate	30	Male	Indian	Marketing	Business School	Randall
17.02.2014	Postdoc candidate	34	Male	French	Organizational Behavior	University	Tyler
18.02.2014	PhD candidate	31	Female	Finish	Accounting	University	Amber
23.02.2014	PhD candidate	30	Female	Persian	Operations Management	University	Monica
10.03.2014	PhD candidate	37	Female	French	Accounting	Business School	Christal
20.03.2014	PhD candidate	43	Female	French	Accounting	Business School	Beatrice

Source: Author's projection

Greenhaus et al (2010) define the first stage of a career development as the moment of birth for the professional self-image. This period of time is located before the early career stage and, in academia, it can be defined as the period of time during which individuals follow a PhD program. Except the PRAG, every faculty member is obliged to go through the PhD process¹⁸. Thus, I defined this period of time as the pre-career stage in the academic institutions.

As mentioned at the beginning of this section (2.2.2.2.2. *Choosing the interviewees*), PhD candidates were added as a category after the exploratory phase ended. Initially, I planned to interview only six individuals, but as the research evolved, this fourth category transformed into the main (unexpected) source of information.

During my meetings with the previous three categories of interviewees, I could not gather sufficient data on the pressure faculty members have to deal with. Whenever this subject was approached, I depicted a deviation from the discussion. In particular, Assistant Professors created a discourse of self-identity creation and own career management decision-making, completely avoiding to talk about the pressure HEIs puts on them and how this affects their behavior. They avoided mentioning the 'pressure' or the goals of the institution and always talked about the *suggestions* they received from the heads of their departments and the *contractual obligations* they have.

On the other hand, PhD candidates described very well the pressure they felt and the reasons behind the actions of their supervisors. Not being yet legitimated as part of the system, but coexisting around others that were, the PhD candidates did not try to cover in any way their goals, openly explaining their future career plans and how they are building up their career strategies.

Due to the rich data I gathered during the first six interviews with PhD candidates, I ended up expanding the number of participants for my fourth category from six to fifteen. Although the most valuable data came from individuals in their 3rd, 4th or 5th year of studies, which includes thirteen interviewees, I also included two participants that were in their 2nd year of study. Their inclusion in the sample helped to define the first contact with the academic world and the expectation of candidates before developing a full knowledge on the academic world.

¹⁸ For a full description of the career advancement in France, please refer to the subchapter 4.3. *Career advancement in France*.

2.2.2.2.2. Carrying out the meetings

The interviews took place over a period of around one year and a half. Each interview lasted fifty minutes on average, ranging between half an hour and two hours. All of them were digitally recorded and, with a few exceptions, all my interviews took place in private offices or by Skype. Coffee shops and public parks were the meeting place for four interviews only. As a result of organizing the meetings in appropriate environments where interruption was hardly an issue, the transcription proved to be easier than expected. Only one interview required special effort as it presented elements of background noise.

The recording of the interviews offered a high quality and accuracy of discourse reproduction, and therefore of evidence. Since the subject of study is perceived as being a sensitive one in the academic environment, I anticipated a high risk of inhibition for interviewees. Thus, at the beginning of each meeting, I spent time to explain to each participant that the interview is fully confidential and the information he/she provides will be used for the purpose of research only. Moreover, in order to assure anonymity, I used pseudonyms for all participants in my research study and I altered particular details of their lives, such as the name of the institutions they work for. Four individuals expressed high concerns regarding the confidentiality. Two of them felt reassured on the purpose of the meeting after checking one of my research articles, while two others requested to see the chapters where the parts of their interviews will be used in order to avoid any slip of personal information.

2.2.2.2.2.1. The interview guide

An interview guide (Annex 1) was used to provide a reference point during the meetings with the participants to the study. The guide was constructed to allow a free discussion, but also to be able to revive the interaction if necessary and assure that issues of interest will not be omitted. Depending on the type of individual that was interviewed, the relevance of the questions was decided on spot. For example, I did not ask French individuals question on language and cultural issues as they were living and working in their native country.

To track the elements that influence the academic career management, I started with a question that served as a preamble to put interviewees at ease and boost their confidence: “Tell me how you decided to be a faculty member” or “Tell me why you decided to start the PhD program”. Next, I built up the discussion on questions that slowly lead the participants

to the present moment. The main themes of the interview guide revolved around the research and teaching activities:

- Choice of profession
- The PhD track
- Publishing
- Rankings
- Networks
- Teaching and research
- Job evaluation
- Language and cultural issues
- Professional and personal life
- Projection into the future

2.2.2.2.2. Approaching the interviewees

Before scheduling the first meeting, I went through several studies on how to perform qualitative research (Miller and Brewer, 2003; Thiétart and associates, 2003) and a practical guide to qualitative analysis (Charmaz, 2006). The pre-meeting preparation provided information on how to negotiate with the participants and aided me to avoid making mistakes during the interviews.

Although the first question encourages individuals to talk about their stories, I had to slowly lead the discussion through all the main topics covered in the interview guide. To assure the proper environment for the ‘confessions’, during the meetings I wrote down the additional questions I wanted to ask and let the participants finish their story before asking details or clarifications.

From the beginning, I decided the level of comfort of my interviewees was more important than my data collection. If they felt that I was barging into their private thought, I would have lost more than I would have gain. Thus, if the participants felt unsure or afraid about revealing the information, I let the question go and waited for them to provide the information later, if they felt comfortable doing so.

Moreover, when I felt the participant was not relaxed and needed a boost of confidence, I tried to loosen up the conversation by talking about some situations I myself went through. This reinforced the ‘confession’ atmosphere I aimed for, reassured the interviewees about the confidentiality of data and created a sense of complicity between my interlocutors and me.

At the beginning I was not as experienced as to leave the discussion completely conversational and I needed to follow the interview guide. Moreover, since the meetings did not take place in my native language I had to pay attention to vocabulary and pronunciation. As it would be expected, I performed the interviews in French with French citizens, in Romanian with the Romanian interviewees and in English with the remaining participants. I preferred this approach due to the fact that French and Romanian individuals felt more comfortable in telling their stories in their native language, while the remaining participants felt more at ease by using English instead of French.

2.2.2.2.3. Analyzing the interviews

The data analysis was carried out in parallel with the collection of interviews and was performed with NVivo8. This software, dedicated to processing qualitative data, assists in organizing the information, facilitates the search of keywords in the transcripts and aids in generating new theoretical concepts (Johnston, 2006). However, even if NVivo helps considerably in handling hundreds of pages of interviews (Lupu, 2011) it does not substitute the research work: the in-depth reading and analysis of the text (Blummer and Kenton, 2014). The software is mainly used in grounded theory to identify concepts (Hutchison et al., 2010) by using an inductive approach. It can assist the emergence of theory starting from the field, but the search tools, codes and node links can also aid the researcher to model the codes, to articulate existing theories and to gain a rich understanding of the data. Johnston (2006) emphasizes that although many claim to be using grounded theory they “are in fact performing a form of pattern analysis” (p. 384). As a result, NVivo is used as a tool of abductive reasoning, where both induction and deduction techniques are employed.

The analysis usually starts with early concept identification (Hutchison et al., 2010), which means that the transcripts are broken apart and analyzed piece by piece. Charmaz (2006) defines this process as a way to attach meaning to the data. Further, based on their content, the segments are coded by selecting, separating and sorting the data. At the beginning, the codes are “free” (they are not linked with other concepts), but as the study advances, several similar codes are identified and they are organized into “tree nodes”.

The software facilitates the discovery of patterns, but as I did not want to force an analytical framework on my findings, I used NVivo only for managing the concepts. The final code selection was decided after going back and forth between the data and the concepts described by the current literature (e.g. the concept of pressure).

Furthermore, even if I used NVivo to structure the data by using the full transcripts, I was aware that this fact will “*reduce the complexity of reality*”¹⁹ (Kaufmann, 2004, p. 80). In constructing the image of the field as seen by individuals, it was necessary to take into consideration the body language, the silence, the rhythm, the intonation and the pauses. All these are also elements that can change the meaning of the discourse of participants (Kaufmann, 2004). Thus, my reflexive process led me back to the audio version of the interviews and to the notes I took during the meetings with the participants. In order to understand and interpret the reasoning behind the statements they have made, I had to ask myself what interviewees are trying to describe. For this reason, the transcripts alone were not enough.

Conclusion

The field of higher education was previously analyzed from several angles: business schools and their contribution to society (Morsing et al., 2012), the universities in the market place (Bok, 2004), the impact of marketization on the teaching practices (Colet et al., 2006), the role of university rankings in forming symbolic boundaries (Wedlin, 2006), and so on. However, most of the studies focus on a macro level and explain the reasons for which changes have occurred in this field.

A few studies use the interview method to define the core subject by integrating the perception of top-level individuals. For example, Wedlin (2006) collects data from managers of business schools with the purpose of understanding the role of classification in forming the field of higher education. Yet, she does not built an interest on how these classifications are affecting the career management of academics. Therefore, the micro level remains mostly untouched.

A few attempts has been made to investigate the impact of changes in the field of higher education on the identity of academics (ter Bogt and Scapens, 2012). Moreover, to my knowledge, no study has yet pursued the development of academic career management as result to of the field changes. My dissertation aims to fill this gap by interpreting their perceptions and integrate them into the existent research findings.

¹⁹ Original text: « *un travail de réduction de la complexité du réel* »

The reasons for choosing abductive reasoning as a research approach was due to the fact that it permitted to create a context where field and theory intertwine and lean toward the same goal: the development of a research that emerges from the field and adds to the existent theoretical concepts.

My study does not attempt to go beyond the borders of current investigations, but seeks to understand the same phenomenon through a different perspective. As many before me, I consider that actors have the key to provide in-depth insights on how *social reality* is constructed and that their perceptions can complete the image of the field. Consequently, my research aims to add to the current literature by investigating the impact of classifications as performance measurements systems on the career management of academics.

Moreover, I let the object of my research and the literature to guide the development of the conceptual framework. This fact leads to the construction of a complex methodology that permitted to determine the characteristics of the individuals and those of the field they live in. For these reasons, in order to assure that the data collection provides enough information to reach a valid conclusion, I triangulated the systematic reviews, direct observations and semi-structured interviews in a unitary research method.

In qualitative research, interpretation plays a major role in creating new knowledge and the researchers “shared no canons, decision rules, algorithms, or even any agreed-upon heuristics to indicate whether findings were valid and procedures robust” (Miles and Huberman, 1994, p. 262). Thus, the reliability and the validity of the methodological choices rely mostly on the competences of the researcher (Drucker-Godard et al., 2003), who has to document and explain in detail the methodologies and techniques employed in the development of the study.

Moreover, Drucker-Godard et al. (2003) state that another way to validate the qualitative research methodology is to compare the results obtained through different research techniques. They state that the researcher has to use different data sources, describe the research methods employed in the study and validate the results with the help of key actors. All these actions are meant to reinforce the fact that the methodology is appropriate for measuring the dimensions specified in the conceptual framework.

Up until this point, I described the research methods and the data sources. The study was initiated through a systematic review of the methodologies employed by university rankings, continued with a direct observation of six HEIs and followed up by interviews with forty

academics and PhD candidates (Fig. 6). Furthermore, I used the results of this analysis to develop the direct observations and semi-structured interviews and the results of direct observations to recalibrate the interview guide.

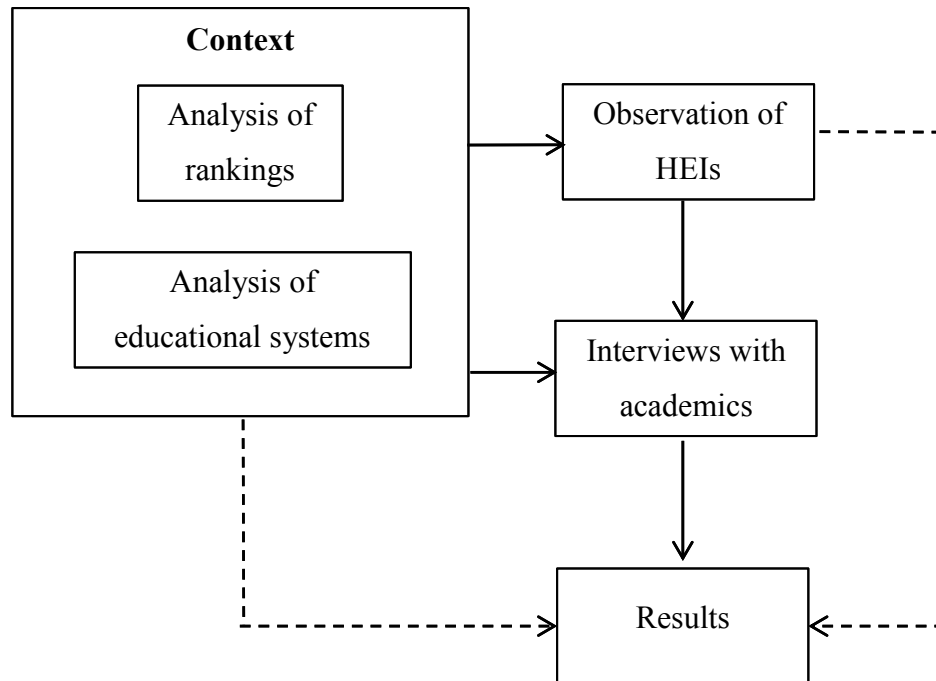


Figure 7. The flow of research methodology

Source: Author's projection

In order to validate my methodological choices and my preliminary results I presented my study to some key actors from the field of higher education. In *section 2.2.2.2, Semi-structured interviews – Gathering the interviews*, I mentioned the existence of an exploratory interview phase, where I interviewed experienced academics. Besides gathering the data, I also discussed with them about my initial findings and the future avenues to be pursued in my research. Hence, in my opinion I took all the necessary actions in order to validate and prove the reliability of my methodology and my results.

Part two. The conceptual framework

“Thoughts without content are empty, intuitions without concepts are blind.”
(Immanuel Kant)

Introduction

The second part of the dissertation is concerned with the theoretical and conceptual issues that work in close association with the interpretations emerging from the field. The following three chapters gather concepts coming from various streams of research (e.g. accounting, organizational behavior, human resources) and present them in the context of this thesis. Following the field of study, three main research streams (institutionalism, career management and performance measurements) were selected for the crucial role they play in explaining the field.

Institutional theory is primordial in creating and maintaining the beliefs that structure our environment (Lawrence et al., 2009). It explains how patterns are established and the role they have in changing the individual and organizational behavior. On the other hand, *career management* is concerned with the twists and turns that take place when developing an effective career strategy. The management process, the context of career development, personal and professional lives integration are all taken into consideration by individuals when choosing the career path they want to follow (Greenhaus et al., 2010). Yet, the connection between institutionalism and career management is not obvious. The link is mitigated through the use of *performance measurements*. These accounting tools are of paramount importance in molding, motivating and controlling organizations and individuals (Miller, 1994) and thus they are often employed to institutionalize certain behaviors.

The conceptual framework presented below permitted to fully make sense of the data collected from the higher education field. The institutionalization of performance measurements manage to explain the findings concerning the current development of the academic career management and, in the same time, allowed a glimpse into the future of the academic environment.

3. Organizations and institutions

“No man ever looks at the world with pristine eyes. He sees it edited by a definite set of customs and institutions and ways of thinking.” (Ruth Benedict)

Institutions and their interactions have been a topic of interest for many years. Early researchers focused on defining the social institutional forces and analyzing their impact on behavior (Scott, 2008), while later theorist looked at organizational issues from an institutional point of view (Lawrence et al., 2009).

All these scientists perceived the *institutions* as being more than *organizations*. In addition to the organizational entity, they included the common behavioral patterns that are socially sanctified. The concept of *institutionalization* was introduced to define the process that takes place over time and transfers the set of believes across several generations (Tolbert and Zucker, 1996).

In order to survive, organizations need not only the resources and the information, but also social acceptability and credibility (Scott et al., 2000). These conditions are assured by legitimacy, which is the “generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed systems or norms, values, beliefs, and definitions” (Suchman, 1995, p. 574), and institutionalism offers the mechanisms to legitimizing their behavior.

The interplay of actors, agency and institutions has come to occupy a predominant research stream in institutional studies of organizations (Lawrence et al., 2009). Although many theorists put emphasis on how the institutional process affects organizational practices and structures (Meyer and Rowan, 1977), more recent work has focused on how actors change the institutional practices within which they operate (DiMaggio, 1988).

In summary, “[i]nstitutionalization constraints conduct in two main ways: by bringing it within a normative order, and by making it hostage to its own history” (Selznick, 1992, p. 232). It provides a framework where templates of action and the mechanisms that impose the actions are created and can be affected by the actions actors take as a response to these mechanism (Lawrence et al., 2009).

3.1. Early institutionalism

Since much of the contemporary research is drawn on efforts made by the pioneers of institutional theory, although I do not attempt to provide a through review, I considered mandatory to examine the early work. The first contributions to the institutional theory came from the fields of economics, political science and sociology. The early theorists developed different concepts and analyzed institutionalism from different perspectives.

Among the economists, Carl Merger was the first to emphasize the existence of social institutional forces and the need to find a theoretical explanation for this phenomena (Langlois, 1986). By the beginning of the 20th century, other three theorists were acknowledged for their interest in the subject. Veblen researched the impact of institutional character of the organizational context on the behavior of individuals and defined *institutions* as the settled habits that are commonly accepted by actors (Veblen, 1909). Similarly, Commons was interested in the individual behavior, but from another perspective. He introduced the concept of institutional ‘*rules of conduct*’, which was described as a mechanism that defines the limits within which actors can perform their activities (Commons, 1970).

On the other hand, Mitchell focused on institutional change and devoted his energy to study the nature of business cycles. He insisted that the economic principles should be grounded on the reality coming from the field and not from the abstract theories (Scott, 2008). Although these institutionalists might have been correct in stressing the importance of change, they failed to succeed in promoting their ideas. Their attempts were dismissed due to their lack of theoretical foundation (Coase, 1983) and for using a descriptive reasoning that prevented the progress of their arguments (Vanberg, 1989).

The political scientists approached the institutionalism from a different perspective. They grounded their studies on law and moral philosophy and focused on creating a normative framework (Simon, 1991). At the beginning of the 20th century, institutionalism in political sciences was preoccupied with the development and structuration of legal systems. Later, the studies started to concentrate more on describing particular political systems and their normative rules. Thus, the scholars devoted more attention to historical developments and warded off from the implication of institutionalism on the future of the organizations (Bill and Hardgrave, 1981).

Around mid-'30s, the theoretical and empirical approaches began to be reintegrated in political sciences as it was claimed that in order to understand the field analysts should have an in-depth comprehension on the distribution of power, but also on the attitudes and the political behavior (Thelen and Steinmo, 1992). Therefore, the political studies have shifted toward a behavioral perspective, where the political life was organized around the concepts of *self-interest* and *resource allocation* (March and Olsen, 1984). In the '70s, these new redeveloped theoretical strings were deepened through the '*rational revolution*' (Scott, 2008, p. 7). Stressing the rational role of individuals and organizations in the development of institutional forces and the influential procedures enhanced the future implication of institutionalism in political sciences.

Through the 20th century, institutionalism was extremely popular in sociological theories (Scott, 2008). The society was defined as an organic system structured in institutional subsystems that evolved slowly over long periods of time (Spencer, 1910) and institutions were described as systems of concepts and structures, where *concepts* referred to purposes and *structures* expressed the body that puts ideas into action through different mechanism (Summer, 1906). The general idea of institutions as specialized arenas continues to exist in contemporary sociology through the notions of '*field*' (DiMaggio and Powell, 1983), where the role of institutional environments in producing social change is often emphasized.

The interdependence of individuals and institutions was another stream of research in sociology. These studies stressed that behavior is both cause and effect of the institutional pressure and habit (Cooley, 1956). Institutions come to life, professions are sharpened and identities are created in a context where individuals behavior is integrated and standardized (Hughes, 1939). The social construction of reality appears to actors as external and objective, although the structures where the result of their actions, beliefs, norms and power relations (Marx, 1972). The structures are subjectively formed and become legitimized through social facts. Regarded as external phenomenon and backed by sanctions, the actions take the form of symbolic systems of knowledge, beliefs and moral authority (Durkheim, 1950). The actors attach subjective meaning to their behavior, interpret the external factors and respond to them. This *rational behavior* is seen as a model that evolves historically. It represents a map that actors use to guide their understanding of social reality (Weber, 1949).

The normative system is internalized as the actors orient their actions toward standard models and value patterns. Moral authority is the primary motive for aligning to an institutional norm and it plays an important role on structuring the personality of individuals (Scott, 2008).

Moreover, institutions are seen in this context as systems of norms that control and define the relationship between actors (Parsons, 1951; Parsons, 1990). Thus, symbolic systems weight considerably in constructing the self and the social reality and meanings are created through interaction (Mead, 1934). The self-construction includes two different elements: the self and the other self, meaning that individuals interact with each other by creating an image of how they are expected to behave. As a result, an *ideal type* is constructed and actors proceed in building their life accordingly to this ideal image (Schutz, 1967).

Moving closer to the present, Bourdieu examined how groups of individuals express themselves in symbolic struggles. He analyses how specific conceptions of reality are imposed on groups of people in a social arena that he defines as the '*field*' (Bourdieu, 1973). This concept was later used to describe the place where institutional processes shape organizations (DiMaggio and Powell, 1983). On the other hand, Berger and Luckmann (1966) looked at institutionalization through a different perspective. They emphasized that actions are produced, repeated and stabilized to create a socially shared system of symbols.

3.2. Neo-institutionalism

As seen previously, institutions were defined early, while organizations were recognized as distinctive social forms at the end of '30s, beginning of '40s (March, 1965). Three streams of works that connect organizations and institutional arguments are identifiable among early theorist: Merton's and Selznick's institutional models, Parsons institutional approach and Simon theory of administrative behavior.

Although Merton did not use the term of institutionalization, his work was recognized for depicting multiple forces within the organizational processes that created a value normative order. His main interest was to see how actors behavior of compliance to rules interfere with the purposes of the organization, arguing that normative pressures create a tendency to follow rules to the point of excessive rigidity at the expense of social values (Merton, 1957).

Selznick is the leading early figure in institutionalization in organizations. His work was strongly influence by Merton, although the influence is less widely recognized (Scott, 2008). He focuses on defining organizations and institutions, separating the two concepts. Organizations are a system of rational coordination of human efforts for the achievement of specific goals, while institutions are organizations affected by external and internal social

processes. They react and change under the pressure imposed by the environment, being in the same time influenced by the social characteristic of its participants. For Selznick, organizations can be transformed into institutions through social processes during a long period of time (Selznick, 1948). Thus, institutionalization is a process that infuses organizations with value so they can achieve their goal and establish their status (Selznick, 1957).

As mentioned in the previous subchapter, Parsons discussed in most of his writings about the subjective dimensions of institutions and how individuals internalize the shared norms, which become the basis for their behavior. However, his research on organizations shifts the attention to a more objective dimension, where individual or organizational behaviors are governed by a system of norms. The relation among actors is shaped by rules and values that are generally accepted by the society (Parsons, 1990) and institutionalization takes place at an individual level. Parson argues that normative systems are employed to legitimize organizations and their activities. He emphasizes that different sectors are driven by different codes, values and normative frameworks, but they all use the existent patterns to receive legitimacy in the society (Parsons, 1953).

Simon as well focused on organizational behavior, developing the theory of administrative behavior. He was among the first theorists assuming that behavior is rational in organizations because individuals are constrained and guided in their knowledge of means and consequences of their actions. He considered that structures are meant to simplify the work of individuals, guiding them in the process of decision making. Individuals are thus expected to adopt rules, procedures and routines and follow them exactly (Simon, 1997). Joining forces with March, he was one of the first contributors to the foundation of neo-institutional theory. They developed the term of “performance” and “search” programs that guide and shape individual behavior. Organizations create a system of values, rules and routines that reduce social embarrassment of individuals confronted with unusual tasks, proving them with a framework that assists them in their decision making process (March and Simon, 1958). Individuals’ behavior is thus described as rational when comes in an organized and institutional manner.

At this point, ideas come to form the basis of neo-institutional theory. In the next part, work that links neo-institutionalism to organizational analysis and which is relevant for this research is divided among the social, economic and political phenomenon and presented in a similar manner with the early institutionalism.

The work of economic theorists focused on the development of an economic theory of institutions, estranging themselves from the early institutionalists that lacked an analytical theory. Questioning the factors that influence some economic exchange at institutional level, findings revealed that prices are established through structures, following rules and hierarchical obedience, rather than responding to negotiation in the market (Coase, 1937). Thus, the institutional factor seems to overpower the market mechanisms. Williamson developed Coase's ideas, linking the shift of economic exchange to organizational structuration to the existence of certain condition in the market: the complexity and uncertainty of decision-making and existence of an "opportunistic" individual. However, he viewed the normative side as an organizational background condition that doesn't affect the individual behavior (Williamson, 1975). Departing from Williamson's ideas, another economic theorist directed his attention to a wider institutional frameworks and viewed organizations as players that enable whatever strategies necessary to win the game of the fit, abiding in the same time by the societal rules (North, 1990).

Neo-institutionalism in political sciences is divided between two different theories: the historical institutionalism and the rational choice theory. Being considered more as competitive and independent approaches to political sciences, both approaches agree on the importance of institutionalism, but stress different assumptions and perspectives that make impossible their unification into a more complete theory (Thelen, 1999). The historical institutionalists focus their attention on governmental structures and the way they shape actors behavior and interests (Hall and Taylor, 1996), arguing that actors choices can be understood only as part of an institutional framework. Institutions define a behavioral pattern, thus constraining and pressuring the actors to act in accordance. However, institutions are also empowering behavior by permitting actors to act (Krasner, 1988). On the other hand, the rational choice theorists see the institution as a normative system that seek to promote and protect the individuals by creating a motivational process that can either be an incentive or a constraint for their chosen behavior (Peters, 1999). Keohane, a historical institutionalist, formulates a similar idea, which he considers that applies only in an international relations field. He argues that in an institutional context, organizations shape the choices and power of actors that construct them, but in the same time reflect the choices and power of these individuals (Keohane, 1989).

Sociological theorists had the greatest impact on the neo-institutional theory's foundation. Their work was mostly interdisciplinary, mixing sociological concepts with ideas emerged

from cognitive and cultural theories, as well as some sub disciplines like ethnomethodology and phenomenology.

Some theorists continued the work of Simon on decision making in organizations. They analyzed different cognitive factors, such as anger or fear, to understand what types of elements contribute to the processing of information and problem solving. The idea of human mind defined as an apparatus that structures the individual cognitive processes came to life (Markus and Zajonc, 1985). The recognition of past processes and reasoning seemed to be among the factors that mediate the actors' behavior in case of uncertainty (Edelman, 1992). Until the '80s, sociologists viewed individuals as passive actors that conformed to the social demands. The cognitive theorist however recognized that individuals participate actively in making sense of their world, creating and changing the social structures (Burke and Reitzen, 1981).

Other theorist focused on the theory of culture, supporting the development of professional specialization of production, evaluation and dissemination of knowledge (Donald, 1991). Culture was defined as a "socially established structures of meaning" (Geertz, 1973) underlying the importance of symbolic systems in structuring the social life. Ideas, intentions and emotions are activated by symbols, thus playing an indirect role defining behavior, actors and settings (D'Andrade, 1984). However, this branch of sociology is accused of subordinating culture to social structures, explaining behavior construction as a result of relational systems of interaction among actors rather than action empowered by symbolic systems (Kroeber and Parsons, 1958).

As opposed to cultural theorists, phenomenology theorist emphasized the existence of symbols as external system that can be observed through power of language, codified encyclopedia of professional communication and rituals (Wuthnow, 1987). This approach defines culture as an objective phenomenon, where social interaction constructs the symbolic structures shared by all participants. The process of construction of common meanings is considered as one of the phases of institutionalization. Institutions are defined as symbolic systems that possess their own reality, a reality that has to be shared by all participant actors. Thus, actors are confronted with the common meanings of the institution and passed by into their knowledge through socialization (Berger and Luckmann, 1966).

Researchers within the tradition of ethnomethodology built on Parson's model, stressed the cognitive components of behavior (DiMaggio and Powell, 1991). Focusing on the rational

decision making process, they analyze how individuals make sense of their environment and the normative systems from an organizational setting (Garfinkel, 1967).

The ideas coming from all these different streams of economy, political sciences and sociology penetrated the organizational studies field of research at the beginning of the '70s. One of the first attempts to incorporate neo-institutionalism into the study of organizations was made by Silverman. He proposed a theory of action for organizations, arguing that individuals are constrained by the way they construct their social reality. Thus, Silverman regarded behavior as a reflection of the social system characteristics that are external to actors but that restrain them. For him, meaning is an objective social fact created through an institutionalized framework, and organizations have the role to provide its members with definitions of the meanings (Silverman, 1971).

Another influential sociologist developing studies on individual behavior was Bourdieu. He developed the concept of “social field” that referred to social arenas held together by the same values and approaches. For him, the field was an external social phenomenon where actors were able to structure their behavior according to different situations based on their past behavior, or “habitus” as he liked to call it (Bourdieu, 1977).

DiMaggio and Powell (1983) argue the existence of three mechanism by which institutionalism is diffused through the field of organizations: coercive, mimetic and normative. Meyer and Scott (1981) also identify the organization field in their studies, arguing that these fields help linking the social environments within which institutional processes are conducted.

3.3. Crafting the theoretical framework

Now, after the main ideas and insights of institutional theorists, providing a context for the current research, were introduced, I turn to craft my theoretical framework. I present the definition of institutions and its three mechanism that sets the path of my analysis, then I describe the concept of structuration which mitigates between the institutional constrains and individual capabilities to make their free choices.

Institutions are enduring social structures (Giddens, 1984) formed out of symbolic elements, social activities and physical resources. Institutional models tend to resist to change (Jepperson, 1991) being maintained and reproduced through time (Zucker, 1977). As

reference for what institutions mean, I preferred Scott's (2008) definition to build on: "[i]nstitutions are comprised of regulative, normative and cultural-cognitive elements that, together with associated activities and resources, provide stability and meaning to social life." (p. 48)

Although an institutional perspective pays a higher attention to symbolic systems –rules, norms and cultural-cognitive beliefs – care must also be put into activities that produce and reproduce these symbolic systems of social life. Institutions are after all an assemblage of people and their interactions that brings them to life (Hallett and Ventresca, 2006).

Many works on institutions emphasize their ability to control and constrain behavior. In order for norms and rules to be effective, sanctioning mechanisms are put into work through social structures of power (Giddens, 1984) and legal, moral and cultural boundaries are defined. However, institutions not only manage to constrain individual behavior, but they also help individuals to evolve by providing guidelines and resources (Scott, 2008).

As presented in the previous two subchapters, the institutional and organizational theorists have a spacious area of work, focusing on different angles of social structure and behavior. Powell and DiMaggio (1991) identified three mechanisms through which institutional isomorphic change occurs and that will define legitimacy affect actors: **coercive isomorphism** that results from the struggle for legitimacy or political influence, **mimetic isomorphism** that stems from individual and organizations responses to uncertainty, and **normative isomorphism**, associated with professionalization. Although the mechanisms are derived from different conditions and lead to different outcomes, they intermingle and are visible through the changes occurred in the higher education environment.

Table 9. Facets of institutional isomorphism

	Regulative	Normative	Cultural-Cognitive
Basis of compliance	Expedience	Social obligation	Taken for granted Shared understanding
Basis of order	Regulative rules	Binding expectations	Constructive schema
Mechanism	Coercitive	Normative	Mimetic
Logic	Instrumentality	Appropriateness	Orthodoxy
Indicators	Rules Laws Sanctions	Certification Accreditations	Common beliefs Shared logics of action Isomorphism
Affect	Fear Guilt Innocence	Shame Honor	Certainty Confusion
Basis of legitimacy	Legally sanctioned	Morally governed	Comprehensible Recognizable Culturally supported

Source: Scott, 2008, p. 79

3.3.1. Coercive isomorphism

Also called the regulative pillar, this mechanism underscores the regulative aspects of institutions, more specifically debating about rule setting, monitoring and sanctioning activities (Scott, 2008). Scholars behind this theory argue that the organizational behavior is constrained and influenced by rule systems and enforcement mechanism, institutions being caught in a game of rules where formal and informal pressures are passed on through written or unwritten codes of conduct (North, 1989).

The use of coercive isomorphism is not a new approach in higher education studies, although, the study I'm referring at, research on cultivation of identity and curricula change that conform to the state standards (Meyer et al., 1981) and not directly on performance measurements. Individuals tend to get involved in backing their own job position, reinforcing their own role within the institution, and altering the relationships with other individuals

(Ritti and Goldner, 1979). In this context, coercion is identified as a primary mechanism of control (DiMaggio and Powell, 1983), where individuals and organizations that pursue their own-interests are seen as constructing or conforming to rule systems (Scott, 2008). Weber (1968) emphasized that rules attempt to cultivate a belief in its legitimacy -where organizational controls are necessary decide the governmental budget, honor legal commitments of federal contracts- and establish financial reporting requirements that ensure the receipt of governmental funds (Weber, 1968).

Within a rationalized state, dominance becomes the most common example of coercive forces (Meyer and Rowan, 1977). Powerful actors impose standard procedures and operating rules on others, using authority to legitimate power in a normative framework (Scott, 1987) and increase homogeneity within given fields (Powell and DiMaggio, 1991). Thus, institutions tend to become organized around “rituals of conformity”, but loss their group solidarity under output controls. Institutions that depend on the government are subject to standardized reporting criteria mechanism (Coser et al., 1982), being compelled to adopt accounting standards and performance evaluations that are compatible with the governmental policies (Powell and DiMaggio, 1991). Scott (2008) argues that one of the roles of the state is to enforce accurately monitoring of performances. The costs entailed by this activity are mostly stressed by using the agency theory.

Structures and agency have an important impact on identity construction. Behavior can be explained through own will or by the work of structures, risking falling either in methodological individualism or holistic sociological traditions. However, the structuration theory (Giddens, 1984) shows how agency and structure intermingle in the production of social order. According to Giddens, the actor is shaping and being shaped by the social environment. He emphasizes that all other theories dealing with these elements are merely simplifications of reality.

In short, there is much to analyze in understanding how institutions function, how they interact with other institutional elements and how they affect the individual perceptions of those within the institution. Through this pillar of institutional theory I analyze how decisions are applied across organization, making them less adaptive and flexible, but with great consequences on the role of professions and individual behavior.

3.3.2. Mimetic processes

Also called the cultural-cognitive pillar, this is the second institutional mechanism and it takes into consideration the cognitive dimension of human existence. When goals are ambiguous or the environment creates symbolic uncertainties, institutions tend to model themselves on other institutions that they perceive to be more legitimate or successful (Powell and DiMaggio, 1991). Although the mimetic process aims to demonstrate a position among the best, new institutions are built upon old models (Kimberly, 1980), assuring an increasing homogeneity in organizational structures, but also letting actors with little variation to select from, thus losing the availability of diversity (Scott, 2008).

Compliance often occurs because other types of behaviors are unimaginable to actors, routines are created and taken for granted. The normative theorists stress the force of mutually accepted obligation (Scott, 2008), while cultural theorists emphasize the role as a common understanding for particular types of actors associated with particular actions (Berger and Luckmann, 1966). "Institutions are embodied in individual experience by the means of roles. [...] The institution with its assemblage of 'programmed' actions, is like the unwritten libretto of a drama. The realization of the drama depends upon the reiterated performance of its prescribed roles by living actors. [...] Neither drama nor institutions exist empirically apart from this recurrent realization." (p. 73-75)

Studies show how belief systems and cultural frames are imposed on and adopted by actors (DiMaggio and Powell, 1983) and how roles develop as repetitive patterns of actions in a wider institutional framework (Goffman, 1983). Stressing the social construction of a common framework, roles become habitualized and objectified, while actors align to the cultural beliefs so they can feel competent and confident (Scott, 2008). Feelings can have a positive effect of certitude and confidence, but also a negative one, of confusion and disorientation, when he finds himself in an identity crisis, born from his difficulty to comply with the imposed models.

Mediating between external stimuli and individual response, the mimetic isomorphism creates a symbolic representation of the world. This theoretical approach focuses not only on the objective conditions, but also on actors' subjective interpretation of them. For Weber, behavior is regarded as social action only to the extent that actors attach meaning, but for others an actor is considered a function of its internal representation of its environment (D'Andrade, 1984). Psychologists have shown that the cognitive frame is created from an

actors decision on what information he considers important, how it will be encoded, organized into memory, and interpreted (Markus and Zajonc, 1985). Thus, although external forces sharpen the interpretative process, actors themselves help classify, argue, negotiate and define their social environment (Douglas, 1982; Scott, 2008).

3.3.3. Normative pressures

The group of theorists for this pillar focuses on institutional work designed to reproduce norms and beliefs that link the obligatory and evaluative dimension to social life. The normative systems define goals, but also provide rules designed as ways to pursue them. These types of systems are normally seen as imposing constraints on social behavior by including values and norms, but enabling at the same time the social action. For Scott (2008), *values* are conception of desired actions together with construction of social standards to which existing organizations and behaviors can be compared. On the other hand, *norms* are imposed, defining the legitimacy of actions. The role of actors is then defined as “conceptions of appropriate goals and activities for particular individuals or specific social positions” (Scott, 2008: 55), stretching the fact that normative systems can apply to a collectivity as a whole or only to specific types of actors or professions.

Power and DiMaggio (1991:70) emphasize that the normative pressure streams primarily from professionalization, which they define “as the collective struggle of members of an occupation to define the conditions and methods of their work”. Professions are subject to coercive and mimetic pressures and although individuals differ by nature, they tend to be homogenized in terms of their professional behavior. Universities are one source of isomorphism, in terms of formal education and legitimation they provide through their programs. A second source is the construction and enlargement of professional networks that boost organizations in a social environment and that also have a role in diffusing the models through mimetic behavior. I want to argue here that I see higher education institutions as professional environments where individuals are trained on how to achieve the means pursued in their profession through networks and understanding of evaluation systems, engaging in a isomorphic change of tradition and control that shapes behavior and transforms the social reality (Perrow, 1974).

Since I consider higher education as a field as any other, traces of mechanisms for encouraging normative isomorphism can be easily observed based on previous research. One

of them is the recruitment process for new personnel (Powell and DiMaggio, 1991), which represents an extremely careful selection of requirements that, among other things, must help the institution to boost the external evaluation system.

Also, the recruitment process assures homogeneity in career tracks, so that individuals who make it to the top are random and unpredictable (March and March, 1977). The personal behavior, style of dress, vocabularies (Cicourel, 1970), methods of speaking and addressing others (Ouchi, 1980) are the subject of training and socialization to common expectations. Powell and DiMaggio (1991) emphasize that the filtering of personnel go to the extent that only individuals coming from elite higher education institutions are selected. Since these types of institutions generally have a common set of attributes, follow similar policies, procedures and structures and tend to see problems in a similar manner, they were recognized as being the best in their field. Socialization also acts as an isomorphic force when HEIs-profession-employer networks are put into use. The exchange of information contributes to a recognized hierarchy of status, which becomes a constraint of personnel move among institutions. The professionalization tends to proceed toward homogenization, but at the same time differentiation among sets of organizations becomes more visible. Each of the institutional processes is expected to increase organizational efficiency, even if evidence of it doesn't exist. However, organizations are legitimized by their similarities to others in the field and being easier to be recognized as reputational and legitimate organization, emerging easily into social categories where they can attract funds. Their conformity to social structures doesn't however ensure more efficiency (Powell and DiMaggio, 1991). Some authors argue that administrators are mostly concerned with status and prestige in a competitive market rather than with the efficient use of resources (Lee, 1971). Moreover, the fields that include large professionally trained labor forces are primarily driven by status competition. Powell and DiMaggio (1991) give higher education as an example of structural homogenization, where common career paths, such as full professor and assistant, are defined as commonly understood meanings in the social context. Since reputable organizations attract the labor force at a higher rate, the process of legitimization encourages institutionalization isomorphism. Organizations seek to form the same structure and provide the same services as their competitors.

3.4. Institutionalism and legitimacy

“Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some social constructed norms, values, beliefs, and definitions.” (Suchman 1995, p. 574)

Each of the three institutional mechanism presented above provide a basis for legitimacy. They create an institutional framework where legitimacy is developed in a subjective manner. Generalized at a large scale (Suchman, 1995), legitimacy is considered to be a condition that reflects perceived agreements with institutional frameworks. Described as a perceptible symbolic value, legitimacy creates a second order of meaning (Berger and Luckmann, 1966). During the early stages of institutionalism, society established accepted patterns and standards and connected them to social norms so they can be legitimized and gain the cognitive validity.

Weber (1968) argues that power in the form of authority is one of the arbiters supporting legitimacy. Authorities can vary in definition from place to place, but they mostly refer to state agencies and professional associations that are critical in organizations development. For example, accreditations and certification bodies are considered to be the prime indicator of legitimacy (Ruef and Scott, 1998). Organizations thus can be formed and survive in a social environment only if they possess two properties: they have to be socially accepted and be credible institutions (Scott et al., 2000).

In accordance with the three institutional mechanisms defined by Powell and DiMaggio, three basis of legitimacy can be distinguished (Table 9). Under the coercive mechanism, organizations are legitimate only if they perform their activities in accordance with the legal requirements. In a normative conception behavior is shaped by social expectations, which can conduct to feelings of shame or social recognition of actors. In this context, certification and accreditation of higher education institutions can be defined as social obligations. The mimetic mechanism defines legitimacy as relating to a social shared understanding that is taken for granted. In this case, actors seek legitimacy by structuring and defining their identities in accordance with situations, frames or references accepted by their social environment (Scott, 2008).

Most empirical works often include more than one institutional form, in different combinations. Patterns can be institutionalized because they are taken for granted, morally approved or backed by authority figures. However, the institutional mechanisms can support

different choices and behaviors when they are not well aligned. Such situations can create the point of departure for institutional changes (Caronna, 2004).

3.5. Structure, agency and institutionalism

Early neo-institutional theorist highlighted the organizational and individual constraints created through the use of institutional mechanisms that assured continuity of social structures, but define actors as the result of social structures (Meyer and Rowan, 1977; DiMaggio and Powell, 1983). However, more and more theorists draw the attention to the fact that actors also have an impact on the institutional change through their own will and the strategies they undertake (DiMaggio, 1991; Powell, 1991; Scott et al., 2000). Both these sociological traditions are considered as unsatisfactory pitfalls into either individualism or holism, being mere simplifications of social reality.

The structuration theory developed by Giddens (1984) in “The constitution of society” mitigates between these two sides of institutional forces, arguing that they are in fact compatible processes that interrelate. He emphasizes that structures are “both the medium and the outcome of practices they recursively organize” (Giddens 1984, p. 25). Thus, a social structure is a “product *and* platform of social action” (Scott 2008, p. 77), actors shaping and being shaped by the social environment they live in.

In studying identity, two concepts have to be taken into consideration (Woodward, 2004; Lupu, 2011): structures and agency. Giddens’ structuration theory views actors as being capable of understanding everyday situations, monitoring others and their own results and acting accordingly. Agency is thus defined as the degree of control actors have on the social world. Giddens argues, “to be able to ‘act otherwise’ means being able to intervene in the world, or to refrain from such interventions, with the effect of influencing a specific process or state of affairs” (Giddens 1984, p. 14). On the other hand, the structures are “forces beyond our control that shape our identities” (Woodward, 2004,p. 6), rules and norms followed to produce and reproduce the social environment. Nevertheless, structures exist only if the continuity of social world is ensured in time and space. However, such continuity can be accomplished only through actors’ actions (Giddens, 1984)

4. Career management

“People with goals succeed because they know where they're going.”

(Earl Nightingale)

Work is a determinant factor in the lives of many people (Greenhaus et al., 2010). It gives meaning to their existence and defines their identity (Baruch et al., 2014). As a result, studies related to workplace, vocation and career management have increased steadily over the last decades. Multiple theories on career choice and development emerged, some of them being embedded in psychology (Super, 1953; Holland, 1985), while others had sociological roots (Reissman, 1953; Musgrave, 1967). They cover a broad range of subjects, among which career counseling, career development and career success.

As this thesis focuses on understanding how performance measurements affect the career management of academics, these theories are fundamental in the development of my research. Institutional factors, the organizational environment and personal background influences the career development of individuals. However, the actors are the ones that ultimately decide how to manage their professional lives.

Studies have shown that actors aim to maximize their professional success by following institutional goals (Palmer et al., 2011). According to Greenhaus et al. (2010) they manage their careers either by transforming their environment or by changing their expectations, values, or goals. With this in mind, they develop a career management process, where they explore themselves and their working environment, set career goals, develop career strategies and perform activities that help them progress professionally.

In addition, they continue exploring the professional world by exchanging with their peers. They pay close attention to the behavior of their colleagues, the reaction of their managers and the expectations of their organization. Thus, they collect feedback and put together the information that helps them to understand the changes they have to make in their career plans in order to achieve their goals. As they fight to fit the professional and personal environments (Mirvis and Hall, 1996), they respond to institutionalized procedures, such and performance measurements and evaluations.

4.1. The career management process

This research deals with multiple theoretical concepts, aiming to explain the impact of performance measurements used by international university rankings and accreditation systems on the career management of academics. Thus, although globalization is only one of the causes that increased the competition among individuals and organizations (Greenhaus et al., 2010), the dynamic expansion of the business and educational activities opened the gates to a new wave of social changes and pushed institutions to transform themselves (Brousseau et al., 1996).

Many of them had to significantly alter their structure and internal procedures to meet the challenges of a marketplace without borders (Greenhaus et al., 2010). Furthermore, as change requires change, career and career opportunities shifted away from the traditional perspective on work (Brousseau et al., 1996). Instead of putting emphasize on improving the capabilities of the workforce internally, institutions have accepted the free flow of employees between organizations and put greater importance on the multicultural grow of individuals (Greenhaus et al., 2010).

Until now, *career* has been defined as the ascension of employees toward job positions that imply an increased authority and responsibility (Brousseau et al., 1996). However, as changes have occurred in the work environment, the concept of *career* is now described as “the pattern of work-related experiences that span the course of a person’s life” (Greenhaus et al, 2010, p. 10). In this new light, the significance of hierarchical progress is only one of the many elements that define careers. Others are work related decision-making, personal aspirations, individual expectations, values, personal needs and individual perceptions on the work experience (Sturges et al., 2002).

Thus, to understand how individuals look at their professional lives, subjective interpretations are as important as the objective events. In accordance to the above-mentioned arguments, my research methodology was built not only on the sequence of positions held by individuals, but also on their mobility within a single career path. Moreover, the questions were framed in such a way that individuals were able to describe their perception on the social reality and outline the changes that occurred and that affect their professional behavior.

To understand how individuals handle their careers, the semi-structured interviews included a set of investigations related to *career management*, concept that is defined as the “process through which individuals develop, implement, and monitor career goals and strategies”

(Greenhaus et al, 2010, p. 12). The participants were asked to talk about how they monitor job offers, develop career goals, employ career strategies and create their professional network. All of these activities are a result of the behaviors displayed by individuals to advance in their career paths (Sturges et al., 2002).

The management process implies the development of personal and professional aptitudes that help actors to improve their strategy and change their goals in accordance with their expectations. The literature makes a clear distinction between the notion of *career management* and the one of *career development*. According to Greenhaus et al. (2010), the latter is described as “an ongoing process by which individuals progress through a series of stages, each of [them being] characterized by a relative unique set of issues, themes and tasks” (p. 13) and refers to the totality of factors and practices employed by individuals to increase the effectiveness of their professional decisions (Herr, 2001).

Parsons (1909) emphasized three elements that have to be taken into consideration by individuals when choosing their profession: “(1) a clear understanding of yourself, your aptitudes, abilities, interests, ambitions, resources, limitations [...] (2) a knowledge of the requirements, conditions of success, advantages and disadvantages, compensation, opportunities, and prospects in different lines of work; (3) true reasoning on the relations of these two groups of facts” (p. 5). Thus, he claims that individuals need to understand the type of career they wish to pursue and consequently define their goals.

The recent range of ideas in career management research entered the field of organizational studies and lead to the elaboration of concepts such as boundaryless career (Arthur and Rousseau, 1996), protean career (Hall, 1996) and post-corporate career (Peiperl and Baruch, 1997). All of them address different social or institutional changes, but they agree individuals have to be responsible for defining and managing their careers (Lips-Wiersma and Hall, 2007).

Brousseau et al. (1996) argues that actors should free themselves from organizational determinants and make their own decision in what regards their career paths. They should set their goals based on their own expectations rather than act to fit the demands of their social environment, institutions, peers or family members (Mirvis and Hall, 1996).

However, these new various theories put too much emphasize on individual responsibility and forget that the organizations also influence the career process. Some institutionalized procedures, such as performance measurements, can impact the decisions of individuals.

Thus, in developing theories on career management, researchers should take into consideration institutional pressure, job insecurity, decline in employability and other organizational factors (Lips-Wiersma and Hall, 2007).

4.2. Social environment, institutional structure and career success

Career success is defined as a “function of the individual’s perception of satisfaction with the job and with career progress” (Greenhaus et al., 2010, p. 27). It represents the period in time when actors grasp their achievements positively, followed by a high job security, well established social relationships and a good balance between their professional and personal lives (Friedman and Greenhaus, 2000).

However, although individuals are the ones that ultimately decide their career paths and establish the goals they want to pursue, the social environment, the institutional structures and the network plays a major role in defining their professional expectations and directing the strategies that will be employed to achieve the individual goals (Inkson, 2007).

All along their lives, actors experience many situations that serve as a learning process and define their professional identity (Herr, 2001). The situations occur in the social plan, where individuals interact with other actors (peers, family members and so on). As a result, a wide range of external factors affect the process of career decisions-making (Jepsen, 2006). They shape the characteristics, the attitudes and the expectations of individuals.

Moreover, the development of a personal and professional network is of paramount importance for career management. It can influence, guide and support the career choice and the strategies individuals use to achieve their professional goals (Colakoglu, 2006). Studies have reported that friends and acquaintances provide actors with employment advices and help them pursue their objectives (Greenhaus et al., 2010). The network can provide information on job openings, insight on what the organizational expectations are and offer advices on what behavior is accepted or should be avoided during the recruitment phase (Greenhaus et al., 2010).

My study draws on the results emphasized by the current literature. The observations and the interviews show that actors establish and maintain relationships with their peers and that these interactions are essential in achieving success in the working environment. However, I

argue that institutional and organizational factors affect not only the career management, but can also lead to the emergence of different career paths within a profession.

Career studies highlight a series of connections between individuals and their workplace (Ornstein and Isabella, 1993). When social changes occur, the relationship between institutions and their employees is altered and the effects of the changes are reflected on the career development of individuals (Lips-Wiersma and Hall, 2007). Thus, career paths are driven by organizational activities, norms and culture (Whelan-Berry et al., 2003).

Most of the times, the alterations in the structure and functioning of organizations are perceived by actors as threats (Kelly et al., 2003). They disrupt the professional lives of individuals, take away their job security and makes the career difficult to predict (Lips-Wiersma and Hall, 2007). In spite of that, organizational changes proved to be successful if it involved tools that modify the mentality of actors (Lewin, 1948).

Fear of unknown causes mental anxiety. However, some tools can smooth the transition process. For example, individuals are informed about the performance measurements that will be used to measure their achievements before the evaluation process begins. Although this action does not completely reduce the feeling of anxiety, actors feel more comfortable with the social and organizational change. By communicating the measurements that will be used (Garnett et al., 2008), organizations reduce the stress level (Mortillaro and Scherer, 2014) and provide individuals with the possibility to adjust their actions according to the new requirements.

As emphasized before, organizations play an important role in developing the career of individuals. Some studies even make a clear distinction between *career management* and *career self-management*, claiming that the former refers to the attempts made by organizations to influence the career development of its employees (Arnold, 1997), while the latter is under the total control of individuals (Kossek et al., 1998).

Organizations that commit to their employees are more likely to retain them (Arnold, 1997) and actors that are helped to understand the organizational practices become more confident in their own skills and manage to develop their careers successfully (Noe, 1996). Moreover, individuals are aware that if their efforts are recognized by the management, the chances to receive future help from the organization are increasing (Arnold, 1997). Therefore, if a certain career path is perceived as being successful, individuals will change their behavior in accordance with the new emerged image of career success (Weick, 1996).

Furthermore, through the recruitment process, organizations are aligning individual behavior with their own expectation (Brousseau et al., 1996). Greenhaus et al (2010) proposes to institutions to use an effective selection process of employees that will allow identifying the applicants with the highest chances of success. In addition, it is claimed that the organizations put effort into shaping their employees' behavior after the recruitment process ended (Rousseau, 1989). Building an influential network within the organization, seeking the advice of managers on how to perform certain tasks and drawing attention to their successful results is a sign of commitment to the organizational goals (Sturges et al., 2005). The organizations are thus described as “enacted realities that define what to do and what not to do” (Simsek and Seashore Louis, 1994, p. 672). They provide a reference framework of how individuals should act and what is the appropriate behavior to be noticed by the organization (Brown, 1978). Individuals should follow the social system of beliefs, use the methods and instruments to apply the beliefs and support the beliefs in their interactions with others (Simsek and Seashore Louis, 1994). My analysis shows that the same trends occur in the academic environment. Individuals recognized a model of career success and the youngest ones are heading a movement on the roles of academics, shifting from a traditional view of education to a new developed career path.

4.3. The stages of career development

In part I, subchapter ‘*Choosing the interviewees*’, I briefly described how theorists have divided into stages the time spent by individuals to develop their careers. Among all the studies mentioned previously (Super, 1953; Levinson, 1985; Greenhaus et al., 2010), the only one that defines these stages around the professional lives of individuals is written by Greenhaus et al. (2010). The other two investigations look at how professional background is formed during the entire life span of individuals, which is not within the purpose of this study. Thus, my theoretical background and the choice of interviewees relied mostly on Greenhaus et al's theory, where four stages of career development (Table 10) are defined based on the individual professional growing process.

The first stage of career management described by the authors is the ***occupational and organizational choice***. Before entering the job market, individuals must choose a career path and develop their professional image. This image will continuously change during the professional life as individuals explore their working environment, but during this initial contact with the professional world, young adults cannot relate on professional experience.

Thus, in order to obtain a job offer, they have to provide potential employers with their personal background and a professional image. Moreover, they have to take advantage of the opportunities they stumble onto, to pay attention to the organizational requirements and to recognize which actions are rewarded by the institution (Greenhaus et al., 2010).

As soon as they acquire their first job position, individuals start establishing their careers. This part of the career development process represents the second stage, called the *early career stage*. At this moment, individuals learn about the job requirements and discover the technical aspects of their job position. However, the organization expects them not only to perform well, but also to act within the framework of the institutional norms. In order to be accepted as a member of the team, they have to align their personal goals to the organizational expectations (Greenhaus et al., 2010).

Table 10. Stages of career development

Stage	Typical age range	Main activities
Occupational and organizational choice	18-25	Assessment of the alternative career paths Development of the initial occupational choice The quest for educational skills Development of the professional self-image Search for job offers
Early career	25-40	Accommodation with the job requirements Ascertain the organizational rules and norms Align the personal and organization goals Increase competence Pursue career goals
Midcareer	40-55	Reaffirm or modify career goals Continue to be professionally productive
Late career	Over 55	Remain productive in work Maintain self-esteem Retirement preparation

Source: Adapted from Greenhaus et al. (2010)

The third stage of career development is known as the *midcareer*. Studies have shown that around 40 and 45 years of age, individuals tend to evaluate their accomplishments relative to their goals and examine the balance between work and personal life (Levinson, 1985). This stage can be triggered by a number of experiences and leads to some major concerns that are commonly identified as being part of the midlife transition: fear of obsolescence, the need for a career change and career development stagnation (Greenhaus et al., 2010). With all the feelings of personal failure or the regret to have sacrificed family time in order to pursue career success, the main concern of individuals is to remain productive (Burke, 1999). The productivity can take the form of professional growth, maintenance of the skills needed to perform the current responsibilities or professional stagnation (Greenhaus et al., 2010).

The fourth stage is known under the name of *late career*. Research has shown that at this stage only a small number of individuals are selected by organizations to become senior leaders (Greenhaus et al., 2010) while the majority cannot continue the professional growth. The challenge of the latter group is to continue to contribute to the organization while they start preparing their retirement (Williams and Savickas, 1990), but their efforts are sometimes jeopardized by the stereotypes and biases against older individuals (Beehr and Bowling, 2002). The late career is seen as a stage where people lack productivity, efficiency and adaptability (Greeler and Simpson, 1999). Although this has proved to be untrue (Keene, 2006), these individuals are still perceived as unreceptive to new ideas, rigid and resistant to change (Greenhaus et al., 2010). Thus, the organizations pay less attention to them, invest less in their development, and sometimes use subjective appraisals to justify the distribution of financial resources to other employees.

Based on the theory and the research result discussed above, I created four types of academic career development stages as follows: pre-career, early career, midcareer and late career. They are similar with the ones described by Greenhaus et al. (2010), with the only exception that I renamed the *occupational and organizational choice* stage as the *pre-career stage*. This change was necessary as the individuals corresponding to this pre-career category, the PhD candidates, have already developed several occupational alternatives and are at the stage where they pursue the necessary education to follow the academic path. During this pre-career stage, some of the individuals decide on a different alternative, as for example returning to practice. Thus, the PhD track provides them with a glimpse into their future academic career helps them decide if they want to pursue it or concentrate on another career path. Many schools offer several types of doctoral opportunities for individuals to consolidate their knowledge: they can embark into a PhD program while continuing to work part time,

they can pursue a research interest in collaboration with a company or focus full time on research. For example, *Aimee*, one of my interviewees, obtained a national diploma that permitted her to teach at high schools. In the same time, she was proposed to follow a PhD program and was offered a scholarship. Since she was interested in teaching and was at the time unsure what type of career she wants to pursue, she decided to enroll as a PhD candidate and decide later which of the two paths she will prefer.

As a result of the literature review, the interviewees were therefore split into categories not based on their age, but on the activities they were performing while the interviews took place. For example, since PhD candidates were looking to improve their knowledge, understand the academic environment, and built up an academic image, although some of them were over 40 years old, they were included in the *pre-career category*. The young Assistant Professors and Lecturers are normally individuals that spent time on understanding the rules and norms within their institution. They develop their career goals and strategies according to what they observe and they invest time in refining their academic image. Thus, the *early career stage* refers to this category of people. Experienced Assistant Professors, experienced Lecturers and younger Full Professors however are more concerned with reaffirming or modifying their career goals. Thus, they were included in the *midcareer category*, which as Greenhaus et al. proved, is concerned with these activities. The remaining interviewees are represented by experienced Full Professors and they are included in the *late career category*. Although some of them are young (just barely over 50), they have at least ten years of experience in this job position. They cannot advance professionally, but they remain productive in terms of research and teaching. Some slowly prepare for an efficient retirement, preferring it instead of a brusque ending of their professional life, while others prepare the ground for future collaborations even after the retirement. However, they are all concerned with maintaining and not creating or shaping their self-image.

4.4. Career goals, strategies and appraisal

There are several ways to achieve goals. Each individual creates his/her own path in the professional world. Nevertheless, research has shown that in social sciences, *models* are used to represent the reality of the field (Dubin, 1983). These models include a set of activities that can be undertaken by individuals in order to achieve the desirable outcomes. Although organizations play an important role in defining the career paths, individuals that succeed in their professions take an active role in managing their careers (Greenhaus et al., 2010).

The first step of a career management process is the *career exploration*. Individuals that wish to successfully progress in their careers (Phillips, 1982) engage in a exploratory behavior of self and the environment (Jordaan, 1963). They gather information by discussing with peers and family members. Furthermore, they reflect about themselves (e.g. interests, values, expectations, abilities), their alternative career paths and the organizational environment (Greenhaus et al., 2010). Thus, individuals take into consideration the professional opportunities and the obstacles they expect to encounter in the near future and they pay close attention to develop the skills and behavior that are recognized by the organization (Noe, 1996).

Conducted properly, career exploration provides individuals with complete and accurate image of self (Greenhaus et al., 2010). It increases their *self-awareness*, clarifies the options they have and helps them understand how to adapt to the *environment* (Zikic, 2006). For example, since most HEIs have similar requirements for hiring, job candidates observe the institutions, discuss with peers, go to job interviews and try to answer some questions that might help them improve. Examples of such questions are (adapted from Noe, 1996 and Greenhaus et al., 2010):

- What skills are required for an academic career?
- What is the difference between several job alternatives?
- What advantages do I gain by choosing a job position over the other?
- What experience is needed to move from the current position to the next hierarchical one?
- Who gets rewarded in the organization?
- Is my current career path likely to come to an end within a few years?
- How can I improve my skills?
- What development opportunities do I have?

Greater awareness of self and the environment helps individuals to *set career goals* (Greenhaus et al., 2010). They decide on the desired outcomes (e.g. promotion, salary increase, skill development) and focus on the activities that will help them achieve results (Greenhaus, 1987). However, this process also influences the behavior of individuals by directing their attention to certain activities (Noe, 1996). Through increased understanding of self and the environment, the individuals are stimulated to develop and maintain a behavior that facilitates the implementation of strategies and the achievement of the goals (Locke and Latham, 1990). The more focused the career goals are, the more likely is that employees will

engage in this behavior. Noe (1996) showed that the individual's motivation to achieve the goal assures their participation in activities that will help achieve them, but he could not prove that the organization is also involved in the career development of individuals. However, he proved that the knowledge of the environment and self is one of the major causes behind the employees' willingness to participate in activities that will develop skills and behavior meant to achieve goals.

Once the goals are in place, the individuals start to employ a behavior that reinforces their desire to succeed (Locke and Latham, 2006). They start to ***develop and implement career strategies***, which are defined as "a sequence of activities designed to help individuals attain a career goal" (Greenhaus et al., 2010, p. 54). The strategies can take different forms, depending on what individuals set as a goal. They can mean building a professional image, attaining reputation, engaging in organizational politics or other useful activities (Callanan, 2006). Some studies even show network and self-nomination is strongly related to salary-progression (Gould and Penley, 1984). Thus, organizations rate their employees more favorably during the performance evaluations if the later built a discourse where they link their actions to the expectations of their organizations.

Individuals that chose an appropriate strategy have more chances to ***progress toward their goals*** (Greenhaus et al., 2010). However, all type of inquires improve the career knowledge through support received from the organization and their peers. ***Feedback*** can be collected in different ways and at different moments. Individuals can receive advice during the ***performance appraisal*** phase or they can take notes during discussions they have with their peers. The information that is gathered from all the sources helps individuals become more aware about their weaknesses and provide more insight into the expectations of their organization.

The model of career management cycle presented by Greenhaus et al. (2010) was a starting point for this chapter's theoretical development. However, instead of integrating career appraisal in the career development process, I adapted their model by using the performance appraisal process (Figure 8). Even if individuals pay attention to career appraisal, which represents a self-evaluation, this is considered as a part of the feedback process (Larson and Bailey, 2006). But individuals use not only career appraisal as a feedback tool, but also performance appraisals, which are generally employed by organizations. As emphasized by the current literature, the performance appraisal has been recognized a long time ago as a formal organizational procedure through which the performance of individuals is measured and evaluated on a regular basis by the organization (Longenecker and Ludwig, 1990).

Moreover, it was stressed that organizations use performance evaluation schemes and reward systems to direct the career development of employees in sync with their own expectations (Brousseau et al., 1996). However, the uses of formal appraisal process are employed as a critical management tool (Landy and Farr, 1983). This makes employees to pay more attention to their behavior and work towards an individual image that will help them avoid a shameful situation.

For the reasons presented above, it seemed necessary to include the role of performance appraisals in the career management cycle. The new model (Figure 8) show that external appraisal has an impact on the strategy implementation and in the same time turns the attention of employees to the career paths, themselves and the environment with, making career management and ongoing process.

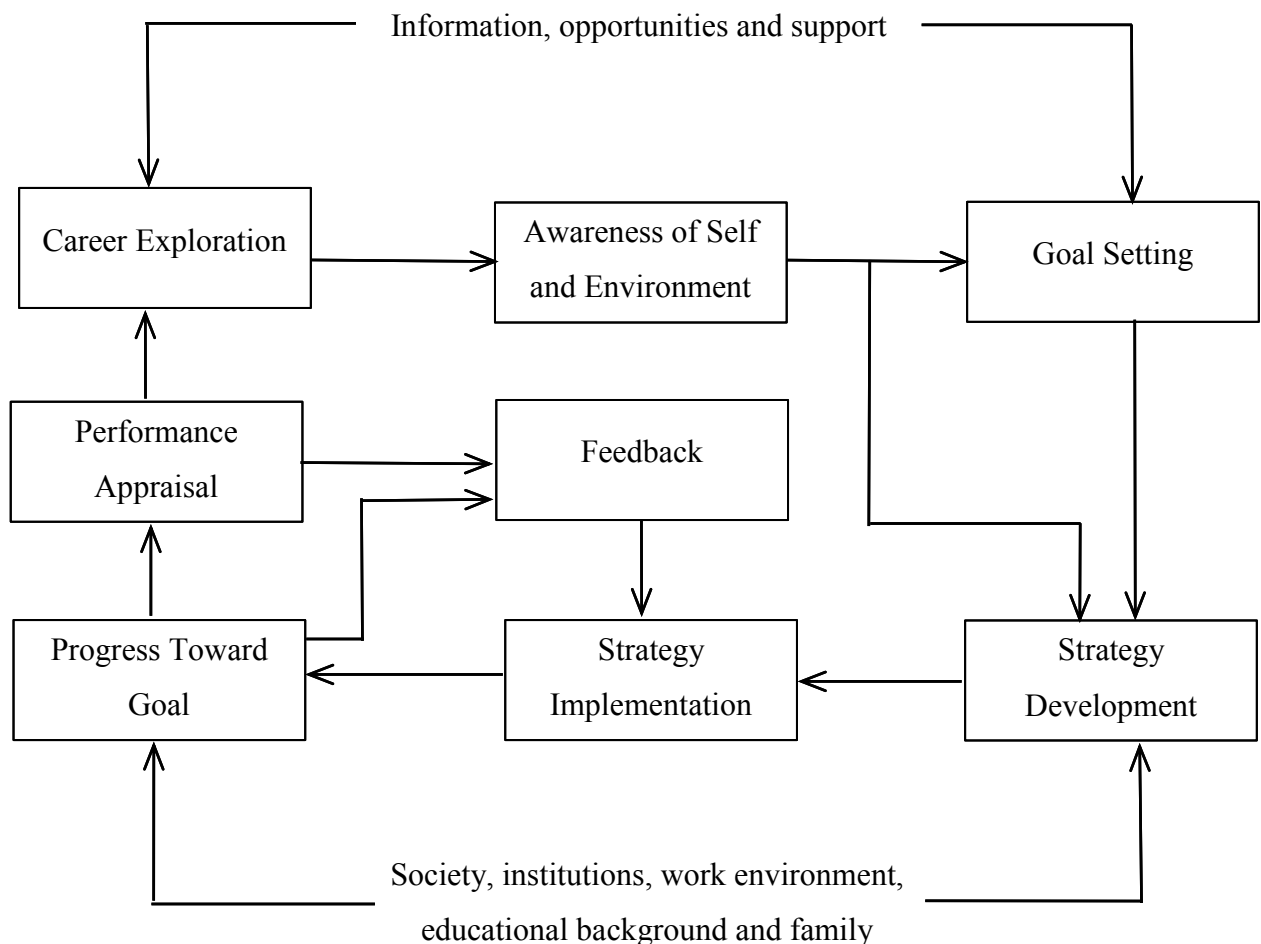


Figure 8. The career management cycle
 Source: Adapted from Greenhaus et al. (2010)

5. Performance measurements

“I think it is an immutable law in business that words are words, explanations are explanations, promises are promises, but only performance is reality.”

(Harold S. Geneen)

During the last several decades, a profound transformation took place in accounting research. Instead of being seen as a secondary constituent of social relations, accounting is now perceived as an activity deeply embedded in the development of the social environment (Miller, 1994). Defined as a practice that transforms individuals, organizations and processes, accounting affects the way personal and professional lives are managed, influences the construction and structuring of organizational activities and directs the ‘writing [of] the world’ (p. 21).

From all of the accounting mechanisms studied by contemporary scientists, performance measurement represent the most common organizational practice (ter Bogt and Scapens, 2012). Many institutions use them to improve their own performance, but also to compensate their employees for their good results (Meyer, 2007) or penalize them on the bad ones. However, as the French thinker, Michel Foucault, emphasizes, we have to pay attention to “the most boring practices [as they] often play an unacknowledged but fundamental role in the social life” (cited by Power, 1997, p. xi).

The topic of performance measurement has become of high interest for the academic community (Neely, 2002). Contemporary researchers discuss the multiple roles of performance measurements and their implications on the organizational and individual behavior. Moreover, even if attention was draw to huge problems brought by the use of performance measurement systems (McGowan and Poister, 1985; Smith, 1995; Lapsley, 1996; Berman, 2002), the topic continued to grow and the implementation of such systems continued to spread (ter Bogt and Scapens, 2012). As a result, the performance measurement represents a very diverse topic that covers subject from multiple fields: accounting, marketing, operations, management and so on (Neely et al., 2002).

5.1. Performance measurement concepts

According to the Oxford English Dictionary (OED), *performance* is the “action or process of performing a task”. Starting from this definition, Meyer (2007) stresses the fact that the notion of *performance* brings to life an anomaly. Instead of being seen as an actual activity, in the field of accounting *performance* is considered to be an economic result or simply the result of an activity. Yet, OED (2014) provides additional explanations to their definition. *Performance* is the “capabilities of a machine, product or vehicle”, but can also refer to a “task or operation seen on terms of how successfully it is performed”. As a result, in this thesis I will use the concept of *performance* as a reference to how well a task or an activity is performed by individual/organizations.

On the other hand, *measurement* is defined as “the process of assigning a number to an attribute [...] according to a rule or set of rules” (Dicker, 2010, p. 4). In other words, it represents the quantification of actions, performance, outcomes or any other elements that need to be identified, evaluated or controlled. However, for measurements to be meaningful, they have to reflect the underlying reality they are measuring (Houle et al., 2011). For this reason, the methods of measurement go through continuous changes with the aim of finding systems that accurately define and express the evolution of the phenomena of interest.

Performance measurement is thus a quantitative representation of how well organizations or individuals are performing. In practice, performance management can take different forms. For example, Drury (2012) refers to this concept as a useful method that informs “managers on how well they are performing in meeting targets” (p. 230). Another example is given by Meyer (2007), who defines *performance measurement* as a system that evaluates the efficiency of organizations in generating profit.

Meyer (2007) underlines that *performance measurements systems* are a way of reducing complex phenomena to simpler elements. He also argues that performance measurements help to better understand and control the actions of organizations or individuals. Berman (2002) emphasizes that these systems have the ability to increase productivity by tracking outcomes in a timely manner, facilitate comparison between individuals, organizations or fields, and integrate indicators that are available on a real-time basis.

In this context, *indicators* are defined as statistic data that provide information on performance of individuals or organizations (Dicker, 2010). They can be computed in two different ways: one that focuses on *outcomes* (looking at the results or consequences of a particular action) or and another on *outputs* (the accomplishment of a particular activity)

(Kelly et al., 2003; Dicker, 2010; Schreyer, 2012). According to Propper and Wilson (2003), three main categories of indicators are used in the public sector: administrative data, qualitative reports and user surveys. However, Dicker (2010) emphasizes that the most commonly used category is administrative data, which is based on outputs: *gross outputs* (e.g. the number of enrollments), measurements that are easy to understand, but which measure correlation and not causation; *net outputs* (e.g. the difference between the predicted grades of students and their actual results), measurements that are difficult to compute and do not provide a measure of efficiency; and *input and process measures* (e.g. the student-staff ratio), which measure the input data and give no indication on the efficiency of a public institution. Berman (2002) argues that current performance measurement systems have managed to rather measure outputs than outcomes. This fact generates significant problems, as efficiency is no longer the primordial issue in performance measurements processes. However, he also explains why organizations fail to measure outcomes. The data required for such measurements implies a huge effort of collecting information on the perception of customers and others interested parties, information that has to be analyzed, interpreted and quantified. Such processes are time consuming and as a result only 29% of the organizations report the completion of valid surveys (p. 350).

In the business environment, *indicators* are simple measurements that help compare the economic and financial results on an accurate basis, but they do not position companies in a temporal dimension²⁰. In order to offer a view on the performance of any organization, the *indicators* have to be interpreted in the social, economic and financial context and to be able to explain the value-added of any specific activity (de la Bruslerie, 2002).

Similar with the requirements for the information published in the financial statements (IASCF, 2009), in order to be useful to users, *indicators* must abide several qualitative characteristics:

- *Relevance*: Indicators must be able to accurately measure the factors that represent the phenomena under study. The first step of developing a performance measurement system is to correctly define the subject of measurement. Further, the appropriate tool of measurement has to be determined. In order to be relevant, the measurements' results must also have an impact on the decision-making process. They should help

²⁰ In financial accounting, the concept of *performance* comes to complete the ratios of financial profitability (de la Bruslerie, 2002). The later offers an instant picture of the financial outcomes, while the former provides a glimpse into the future. It helps the company to compare its results with other industry peers or to track them during a given period of time. In this specific case, *performance* is defined as the increase in value of an investment that will lead the company to more future gains.

evaluate past, present or future actions, confirm expectations, or correct bad assumptions.

- *Reliability*: The results of measurements are reliable when they are free from errors or bias. They have to be *neutral* and *complete*. Moreover, the information they provide should assure the prevalence of *substance over form*. Thus, in the development of performance measurement systems it is important to look at the significance of the indicators and verify if they *faithfully represent* the reality of the field. Replicate them due to institutional constraints or isomorphic practices should not prime in deciding the indicators to be used.
- *Comparability*: Indicators must allow comparability between organizations in order to evaluate their performance. Thus, it is important that users are informed about changes in measurements and the effects of such changes. However, the need for comparability should not ignore the fact that different institutions might have different goals. For example, comparing the research capabilities of two HEIs, where one is focused on developing top academic research while the other targets the education of older population, can be performed. Comparing the two HEIs will without a doubt show that the first is better than the second one in terms of research. However, to compare these two schools on an overall criterion is not relevant as each of them has different goals. Moreover, indicators must be changed if relevance is not met anymore.
- *Understandability*: Indicators should be easy to understand. Although the users are expected to have knowledge in the field and willingness to study the information provided, organizations are expected to disclose data in a comprehensive and easy format to understand.

Meyer (2007) also talks about requirements for performance measurement systems, but in an optimal environment. He specifies that:

- A few simpler quantitative and qualitative indicators should be enough to measure performance. If too many measures are used, it is difficult for organizations and individuals to analyze them and information might be lost.
- The qualitative measures serve as leading performance indicators.
- The measures go beyond the borders of the organization, meaning that the same sets of indicators are used by every organization.
- The performance measurement system is stable.

- Individuals are compensated based on both qualitative and quantitative indicators.

However, it is very difficult to find qualitative indicators that can measure all types of organizational activities. The problem arises when organizations are not able to find a performance indicator that covers their entire activity and they try to add different ones in order to create a satisfying performance measurement system. Nevertheless, Meyer (2007) emphasizes that it is easy to find quantitative indicators that fit these requirements. Yet, the type of the organization and the conditions of operating has to be taken into consideration. Otherwise, performance evaluation can lead to a certain schism of a profession, result that on a long term might not provide benefits for organizations and their social environment.

5.2. Accounting and performance measurements

Accounting has become one of the most influential methods of managing organizations and social structures (Burchell et al., 1980). Two decades, it was emphasized that in order to understand how the calculative practices are used to control and manage the activities of individuals, accounting has to be studied in its social and organizational context (Miller, 1994). Moreover, Lowe et al. (1983) underlined that to understand the accounting practices it is necessary to look beyond the boundaries of the organization. As a result, accounting was considered as an *uncharted area*, where the social and institutional role of calculative practices has yet to be discovered (Burchell et al., 1980).

Thus, research has been directed to identify the accounting practices that construct social relationships and influence individuals and organizations (Miller, 1994). Such practices affect the way individuals interpret the social reality and the way they manage their professional and personal lives. Although little attention has been devoted to the roles of calculative practices, it was stressed that they alter the behavior of individuals (Hopwood and Miller, 1994; Miller, 2001).

Miller (1994) depicts three distinct aspects of accounting as a social and institutional practice. First, he defines *accounting as a technology*, a tool used to transform the nature of activities and the behavior of individuals in such a way that the social reality may be transformed. Accounting, he says, has the ability to give credence to certain actions, and in doing so, can help to increase their visibility of events or processes. Calculating and recording the results of an activity transform the way in which individuals think about the actual process. As a result their understanding of the reality changes and their future actions are based on the new

discoveries they have made. To measure and benchmark performance against those of other individuals or institutions means to aim for a change in the organizational or social structure and impose the requirements that stand at the basis of the calculations. Thus, accounting provides a particular way of controlling individuals and the activities they perform. Moreover, it gives an unquestionable legitimacy to the process underlying the performance measurement system. Even if the objectivity and neutrality of the indicators is disputable, ‘the elegance of the single figure provides a legitimacy that [...] seems difficult to disrupt or disturb’ (Miller, 1994, p. 3).

Second, Miller (1994) defines *accounting as a language*. He emphasizes that accounting practices include a unique vocabulary that can be used to build a rational representation of the reality. The process involves borrowing rationales from established bodies of expertise (e.g. governmental institutions) and mobilizing them into calculative practices. Moreover, the accounting vocabulary helps to outline the goals, procedures and policies that have to be followed. Setting goals that can be measurable increases the awareness of individuals on the actions they need to pursue. In addition, through this calculable measures, the organization makes individuals responsible for their actions by linking the measures with rewards systems for reaching the target or punishment systems for failing to do so (Drury, 2012). Rationales of competitiveness, decision-making, responsibility and efficiency represent the common truths in the name of which change can be pursued. They legitimate the restructuration of organizational activities and support the attempts made to redefine the identity of individuals. Thus, accounting is often held out by professional bodies and organizations as a mean to achieve efficiency, effectiveness and profit.

Third, accounting practices help to understand how the social ground is constructed and reconstructed (Miller, 1994). Institutional theorists define accounting as a key element in transforming the structure of the field, stressing that organizations are driven to incorporate *rational* customs (Meyer and Rowan, 1977). Moreover, the accounting vocabularies used by individuals were identified as a leading mechanism of isomorphic practices. “Accounting was held to be central to the creation of specific patterns of organizational visibility, the articulation of certain forms of organizational structure and segmentation, and the formation and reinforcement of relations of power” (Miller, 1994, p. 6).

In a competitive environment, organizations and individuals adopt common habits and procedures in order to increase their legitimacy and their survival rate. Accounting tools that use calculative practices often take the form of performance measurement systems. As emphasized by Power (1997), these systems are repeatedly employed in the ‘*pathological*

checking' society we live in (p. xii). The public uses them to evaluate and compare institutions, the organizations mobilize them to evaluate employees and individuals engage such practices to evaluate themselves and establish where they are compared with where they should have been (Otley, 2002).

As a result, performance measurement systems represent ideal mechanism of control. They are used as managerial tools for "measurement, reporting and subsequent correction of performance in order to achieve the organization's objectives" (Drury, 2012, p. 24). Moreover, since numbers seek no further reinforcement (Porter, 1996), the results of performance measurement systems are taken for granted and objectified without being questioned (Miller, 1994).

In conclusion, these accounting practices have three major characteristics: they represent a management tool, they offer an overall view of the organization and they provide a mean to motivate and control employees (Otley, 2002). Due to the purpose of this thesis, in what follows I will focus solely on the last function, which aims to increase the overall value of the organization by controlling and motivating individuals to pursue activities in certain directions.

In the current literature, control is often defined as the function that makes sure actual work is done to achieve the goals of the organization (Drury, 2012). Many different control mechanisms can be used to provide measurement and information that assist in determining which action has to be taken to reach the original intention, and thus indicators can underline which activities are being managed (Otley, 2002). Anthony (1965) defined management control systems as 'the process by which managers assure that resources are obtained and used, effectively and efficiently, in the accomplishment of the organization', thus enabling organizations to evaluate their performance.

In addition, theories of rational choice show that control and actions are undertaken based on the anticipation of future outcomes, the alternative choices and the probable consequences of these alternatives (March, 1978). Thus, the professional life of individuals is formed on individual and collective decisions that take place in the organizational context. Furthermore, it was claimed that accounting systems play a huge role in forming the rational behavior rather than contributing to the decision-making process (Miller, 1994).

Hence, accounting is used as a *common language* that helps to communicate the expectations of the organization (Otley, 2002). In the same time, accounting can also be employed to constraint the behavior of individuals. Behavior controls involve observing the actions of

individuals and guiding them to fulfill the objectives (Drury, 2012). Moreover, defining actions that are acceptable or unacceptable is a form of action control. Some societies and institutions prevent people from averting from the accepted path by creating *behavioral constraints* and *action accountability* (Merchant and Van der Stede, 2007).

Although accounting practices are *imperfect mirrors* of the economic and social reality (Miller, 1994, p. 1), there is “something irresistible about the demands for accountability and transparency they serve, even when the consequences are perverse” (Power, 1997, p. xv). Accounting practices create a feeling of coziness, informing individuals and organizations on what they should expect and how they are evaluated. Moreover, they reflect the structure of the field and are linked to the notion of responsibility (Miller, 1994), also known under the name of *accountability*.

5.3. Performance measurements, public sector and higher education

Performance measurement systems are widely used in both private and public sectors (Propper and Wilson, 2003). Several European countries have pushed notions such as ‘management by objective’ and ‘evaluation’ to be adopted by the public institutions starting the 1960s (ter Bogt and Scapens, 2012). In particular, the interest for such measurements has increased significantly over the last two decades due to the need of making the public sector accountable for its actions (Karsten et al., 2001). As performance measurements are more output oriented (Lynn, 2006), they are considered perfect mechanisms for decentralization. Moreover, they are excellent tools for developing competitive environments (Karsten et al., 2001).

However, since the public and the private sectors are different by nature, employing the same methods to motivate employees in public and private organizations might lead to different results (Propper and Wilson, 2003). In the private sectors, individuals have to perform fewer tasks than in the public one. Furthermore, since these tasks are well defined, it is not difficult to find indicators that relate to specific individual activities. As a result, employees distinctively know what they are expected to do and they can choose an appropriate strategy in order to reach their goals.

The public sector, on the other hand is described as very risky in what regards the use of performance measurements to motivate employees (Dixit, 2002). The tasks performed by individuals in this sector of activity are broad in nature and they are not defined in a clear manner. Hence, finding indicators that can relate to a complex list of activities is more difficult to achieve and can lead to conflicting situations. “The multiple and sometimes vague goals of the public sector means that performance relative to these goals is difficult to measure” (Propper and Wilson, 2003, p. 253). Thus, since increase in both efficiency and equity are pursued through the use of performance measurement systems, indicators should be selected attentively if avoiding bad outcomes is desired.

Propper and Wilson (2003) identified several reasons for using performance measurement systems in the public sector:

- They improve the performance of individuals, individual units or organizations
- They determine and develop best practices
- They provide all interested parties with information on the market (e.g. the market of higher education)
- They increase the accountability of individuals, managers or organizations

Since these systems are transferred from the private sector, they should incorporate elements that are related to the public institutions. However, even if in many cases profit is not the goal, the successful performance measurement system should pay attention to at least the following elements (adapted from Otley, 2002, p. 17): market share, productivity, service leadership, personnel development, employee attitudes, public responsibility, balance between short-term objectives and long term objectives.

Yet, in order to develop effective performance measurement systems, several assumptions have to be taken into consideration (Kravchuk and Schack, 1996):

- Clearly define the objective of the measurement
- Develop an accurate strategy of measurement
- Involve the major users of the information in the design and development phase of the performance measurement system
- Determine the structure and order of measurements
- Develop different sets of measures for each type of users
- Consider the users requirements through the development process of performance measurement systems
- Provide each type of user with sufficient information

- Review and revise the measurement systems on a regular basis
- Consider the complexity of the activities under evaluation
- Avoid the excessive accumulation of information

On the other hand, various authors have pointed out the negative consequences of using performance measurement in evaluating public sector activities (Hood, 2007). Propper and Wilson (2003) articulate the existence of multiple distorted measures that aim to improve performance results in the detriment of unmeasured actions. In their desire to maximize their benefits, individuals tend to manipulate the results. Smith (1995) highlights several unintended consequences that result from publishing performance measurement of public institutions: gaming, measure fixation, myopia, misinterpretation and misrepresentation. Thus, by aiming to improve the efficiency of one activity, focus might be lost on the remaining activities and this might lead to behaviors that were not expected at the beginning of the performance measurement process development (Propper and Wilson, 2003).

Due to the continuous changes that occurred in the educational sector, HEIs are currently facing major uncertainties (ter Bogt and Scapens, 2012). For example, functioning largely based on public funds, the contraction of governmental monetary resources has been alarming for these educational institutions (Croham, 1987). This change has led to a number of adjustments in the planning and allocation of governmental funds. As a result, ratio funding systems were implemented by several countries and high emphasize was put on audit and accountability procedures (ter Bogt and Scapens, 2012).

Many countries took steps into making use of performance measurements (Johnsen, 2005) in the higher education sector. The governmental authorities and the media started to publish results of HEIs performance (Karsten et al., 2001) in the form of official reports and league tables (Propper and Wilson, 2003). The notion of *scientific performance* (Courpasson and Guedri, 2007) was born and performance measurement systems became “a feature of the educational landscape” (Karsten et al., 2001, p. 231).

Build on the assumption that HEIs are similar across countries and that their performance can be easily compared (Wedlin, 2006), performance measurements systems use, in mostly all of the cases (e.g. university rankings), the same set of indicators to evaluate these institutions. Yet, Dicker (2010) argues that these institutions differ in a number of factors that are important for students, such as accommodations, the quality of HEIs career services, the quality of partnerships with companies and foreign universities. Moreover, he states that most of the indicators (e.g. graduate employment, research quality, staff/student ration) provide a

very rough reference on the HEIs actual performance. As a result, such performance measurement systems do not provide an accurate image of the higher education field (European Commission, 2010). They help measure the overall performance of HEIs, but are “imperfect [measurement systems], particularly with regard to intangible factors” (Dicker, 2010, p. 9).

Meyer (2007) argues that “the longer a measure is used and the more intensely it is applied, the less information it yields and the more urgent it becomes to find new measures” (p. 57). He emphasizes that if the same measurements are kept, several dangers arise:

- Employees/organizations learn how to meet the measure without improving the actual performance
- Organizations replace the low performers with higher ones
- Employees/organizations withhold data that can harm their performance evaluation

However, the same type of measurements were endorsed by different performance measurement systems and a reflex of mimetic action was reinforced in the higher education sector (Courpasson and Guedri, 2007). Moreover, since it is claimed that these measurements are able to improve the efficiency of the knowledge transfer, governmental authorities use them as a criteria for resource allocation (Propper and Wilson, 2003). Further, media and governmental authorities argue that by publishing the performance measurement results of HEIs, they (Karsten et al., 2001):

- Aid parents and students that are looking to chose an educational institution
- Provide the educational institutions with information that will help them improve their performance
- Assist the educational institutions to account for the way they spent public funds

Albeit arguments were provided to reinforce these statements, issues arise concerning their validity. The activities that take place in the educational environment are complex and as a result the currently employed performance measurements systems are not able to fully reflect the reality (Dixit, 2002). As a result, further questions are advanced on which performance the measurement systems are emphasizing. In addition, previous research has shown that middle-class has access to public information on HEIs performance, but they also demonstrated that the public does not consider these results as a key issue in their decision-making process (Karsten et al., 2001). For example, parents and students take material constraints and geographical boundaries into consideration before everything else.

5.4. Individual performance appraisal systems and academia

The institutional theory stresses the fact that institutions impact the individuals and their social environment through systems of incentives and opportunities (Moya et al., 2014). The higher education sector is not an exception. Governments encourage HEIs to use rational management structures, accounting tools and performance indicators to evaluate and motivate their employees (Townley, 1997).

As a result of the increasing use of managerial methods in the higher education sector, great attention is now given to performance evaluation of faculty members (Salmon, 2008). Performance measurements in particular are increasingly common (ter Bogt and Scapens, 2012) in academia as they have the power to create the illusion of a marathon for notoriety where a simple number can grant individuals with reputation for life (Charle, 2009).

The effect of accounting measures on human behavior has been of high interest for more than half a century (Hofstede, 1967). Researchers have looked into how managers evaluate the performance of their subordinates and the way in which these practices influence the individuals' motivation (Hopwood, 1972) and increase job-related tension (Hartmann et al., 2010). In a more recent study, ter Bogt and Scapens (2012) emphasized that changes in performance measurement systems affect the HEIs, their departments and the academics working within them.

One managerial tool that has direct impact on individuals' behavior is the performance appraisal. This tool helps organizations to rationally construct their legitimacy and thus it is recommended as key element for managers (Townley, 1997). Performance appraisal is defined as a complex process through which impressions and evaluations of one individual are collected to form the basis for periodic assessments (Feldman, 1981).

Some countries (e.g. UK) have introduced annual performance appraisal as a mandatory procedure for all academics (Jarratt-Committee, 1985). The argument for adopting such practices was that monitoring academic performance and establishing procedures that increase the accountability of faculty members are beneficial for the development of the educational sectors. As a result, such tools started to be used on a common basis to reward and promote individuals in the academic environment (Redman, 2011).

Generally, individuals are aware that the performance measurements systems focuses on the activities that are primordial for their organizations. Moreover, they are dependent on the appraisal systems and the criteria by which they are evaluated (Mayer and Davis, 1999).

Thus, if they want to become successful in their careers, they have to focus primarily on these activities. On the other hand, organizations use performance measurement systems to increase people's awareness on long-term goals and keep their behavior consistent (Meyer, 2007). Feedback on how well activities are executed was proved to have a strong impact on productivity of employees (Kim, 1975; Downs et al., 1984).

Moreover, Dicker (2010) stresses that performance measurements systems use targets and incentives as a way to encourage individuals or organizations to follow a certain type of behavior. However, he argues that attaching financial rewards to output data leads to the development of perverse incentives, such as arbitrary distinction or gaming activities. Setting quantitative targets causes workers to focus on the outcomes of their work, meaning that they overlook the activities that are not measured. Thus, in areas such as higher education, the activities that are unquantifiable end up being disregarded even if they are central to the goals of the HEIs.

Despite these drawbacks, Townley (1997) accentuates that the methods used to evaluate employees during the annual appraisal meetings can lead to different results: individual *development* or pressure. Some organizations use performance appraisal as a way to secure the trust and commitment of individuals and thus through the evaluation process they aim to discover the weaknesses of individuals in order to help them improve their skills. Other organizations, however, seek only to evaluate the performance of individuals based on past performance. Townley defined this type of performance appraisal as *judgmental appraisal* (p. 455) and argues that such an evaluation is executed with the scope of comparing individual performance vis-à-vis the achievements of other individuals.

The university rankings and the accreditation systems were reported to favor the judgmental performance evaluation forms (ter Bogt and Scapens, 2012). Thus, even if HEIs preferred the development appraisal model (Townley, 1997) for internal use, the judgmental management practices become a central feature in the higher education sector (Whitley et al., 2010). Yet, the use of judgmental performance measures increased the pressure on individuals and lead to a high level of stress associated with work (ter Bogt and Scapens, 2012). However, these factors can affect behavior in unexpected ways (Smith, 1995; Courty and Marschke, 1997; Fitz-Gibbon, 1997). Performance measurement systems are used to develop and form the behavior of academics (ter Bogt and Scapens, 2012), but the ways in which they are used and the outcomes of such practices are still to be discovered.

Conclusion

Up until this point, little research has advanced questioning on the nature and consequences of using performance measurements in the higher education environment (ter Bogt and Scapens, 2012). Moreover, authors that followed this path addressed the issues of research assessment (Ashton et al., 2009), journal rankings (Dill and Soo, 2005) and the impact of rankings on governmental resource allocation (Martin and Whitley, 2010), without looking at the consequences of such practices on the individual behavior and career development.

To cover this gap, my thesis deals with the changes occurred in higher education, looking at how the evaluation of the academic activities affects the individuals and their professions. The increasing competition among HEIs had led to mergers and internal reorganization of these institutions. In addition, the academic jobs were restructured and a large number of temporary workers were employed to perform certain activities of the higher education system. As a consequence, the level of job security has declined significantly and the academic career path is undergoing major changes.

The starting point of this transformation has been the institutionalization of performance measurements. Due to the birth of an academic market of higher education, organizations discovered they can increase their legitimacy and their survival prospect by developing institutional isomorphic practices (Meyer and Rowan, 1991). On the contrary, organizations that failed to do so left themselves vulnerable to the outcomes of a high competitive environment (Townley, 1997).

This coercive isomorphism is likely to occur when organizations are financial dependent on others and they have an ambiguous goal (DiMaggio and Powell, 1983). Although HEIs are autonomous, a high proportion of their activity is financed through public funds (Croham, 1987) and thus, they are trapped in an institutional bubble where they have to obey rules and prove they are acting on collective values.

Some studies have emphasized that career theories provide the tools to study the effect of organizational change on individual behavior (Lips-Wiersma and Hall, 2007) and that the concept of career can be employed to explore the influence of institutional factors on the roles and identity construction of individuals (Arthur et al., 2005). However, actors are not mere puppets that comply without questioning the practices. They interpret and reinterpret their the result of actions and respond to the social pressure (Van Maanen, 1977). The

acceptance of measurement practices by the academic community and the ordering of the activities performed in the higher education environment have led to the transformation of the academic career.

Thus, this dissertation targets to provide answers on how performance measurements are used to align the behavior and career of individuals. A double impact of performance measurements was depicted in the theoretical flow (Fig. 8). As soon as the performance criterion changes, individuals react to the new requirements. Yet, these changes occur at the organizational level. The effect of such transformation at a large scale is obtained through a process of institutionalization, which represents a slower process, but has a stronger impact on the career management of individuals.

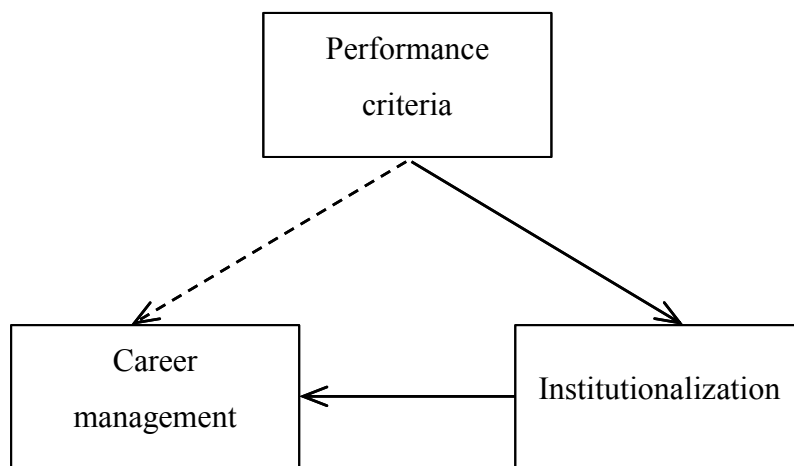


Figure 9. The theoretical flow of performance measurements

Source: Author's projection

To conclude, I argue that the use of performance measurement systems in the academic environment has led to significant changes in the higher education environment. As a result the academic profession was compelled to evolve. Due to a sustained effort of some external organizations, such as governments and media, along with the isomorphic actions of HEIs, the academic career management and the recruitment process in higher education institutions has changed tremendously.

A research on individuals' perception can depict the transformation that occurred in the academic landscape. Actors impact the development of their environment through their actions. They define their own reality through the understanding they have on the field. They desire to succeed and use intuition to build their goals. They apprehend that their actions are

only valued if they are reflected in their performance. As a result, they learn to act based on what the evaluation systems are measuring.

Part three. The evaluation of higher education activities

“Not everything that counts can be counted, and not everything that can be counted counts.” (Albert Einstein)

Introduction

What society accepts today as normal and obvious was not always so (Power, 1997). Similar with the audit activity, the evaluation of HEIs raises doubts for many individuals involved with these practices. In the recent years, international university rankings and accreditation systems have become of paramount importance for higher education (Wedlin, 2006; Nigsch and Schenker-Wicki, 2013). With the intention to objectively assessing the quality of HEIs (Lukman et al., 2010), these performance measurement systems have become irresistible to governments, helpful to future students, and captivating for legitimizing reputation. However, many authors claim that using these evaluation systems in the form they are now is damaging the academic environment (Rousseau, 2008; EUA, 2011; Kuan et al., 2011). Yet, *playing a rankings' game* (Watzlawick, 1988; North, 1990) is extremely tempting. As the famous Earl Nightingale says, “[e]xcellence always sells”, and these performance measurement systems advertise their ability to depict the HEIs with the best quality services and outstanding reputation.

Thus, the third part of the dissertation focuses on topic of external evaluation systems used in the higher education sector. The next three chapters discuss the activities performed by HEIs and analyze the most known international university rankings and accreditation systems. The multiple roles of HEIs are discussed: education, research and commitment to society, as well as the existence of a higher education market. Moreover, the measurements used by the external evaluation systems are compared and a conclusion is drawn on the type of activities measured and marketed in the higher education sector. This third part is of primary importance as it sets the ground for the observations and the interviews collected from the field. As ter Bogt and Scapens (2012) stressed, university rankings and accreditation systems may have serious implications on the future research and the academics.

6. The higher education environment

“Our environment, the world in which we live and work, is a mirror of our attitudes and expectations.” (Earl Nightingale)

Higher education institutions have always been the core engine for economic and social development (Burlaud, 2007) and their primordial role was to transfer knowledge and innovative practices to students (Paulré, 2001). Yet, starting the last century, the educational process has gone through tremendous transformations (Romainville, 2006). As the informational society emerged (Castells, 1996), the demand for higher education increased significantly and HEIs were no longer expected to nurture the elite of the society (Romainville, 2006), but to fuel the economic competitiveness and organizational survival. This fact led to the massification of higher education (Kogan et al., 1994), which meant that HEIs opened their doors for everyone interested to pursue higher education studies (Altbach, 2013).

The transformation of the higher education environment took the form of global policies and international exchanges between HEIs. Nowadays, we see students and faculty members freely moving between countries in search for higher intellectual challenges (Mitchell and Nielsen, 2012). Thus, a market of higher education slowly emerged (Marginson, 2004). HEIs entered in a consumer society (Rhoades, 1987), being forced to make strategic changes and reconfigure their objectives in accordance to the market demands. They differentiated their activities and their missions evolve, going from education transfer to research and interactions with the socio-economic environment.

Media, governments and the public started to become more and more interested in the activity performed by HEIs (Propper and Wilson, 2003; Pugés, 2012). As a result, the rivalry among these institutions appeared, HEIs competing for reputation, funds and customers. In an effort to establish a credible market for higher education, the use of performance measurement systems flourished (Wedlin, 2006). Their purpose was to offer a reliable proof on the quality of HEIs' activities (Townley, 1997) and to build up a reputation chart (Bok, 2004). In particular, governments and media played a major role in the development of these systems.

6.1. Types of higher education institutions

There are many types of HEIs around the world. For example, the French system currently includes several categories of academic institutions, such as universities, *grandes écoles*, business schools, higher professional schools (*écoles supérieures professionnelles*), specialized schools (*écoles spécialisée*), university institutes for technology (IUT: *instituts universitaires de technologie*), preparatory classes for *grandes écoles* (CPGE : *classes préparatoires aux grandes écoles*) and research institutes (the most prestigious being CNRS). Other higher education systems include some of the above-mentioned institutions, as well as some additional ones. Sometimes, the HEIs have the same functioning as the French ones, and some other times their missions are differently constructed. Nevertheless, the purpose of this dissertation is not to cover the classification of the entire higher education institutions. Given the research question addressed in the methodological part, the data collection was solely gathered from universities and business schools. As a result, in what follows I will briefly characterize only these two types of institutions.

Universities are claimed to be an European invention (Rüegg). Meant to provide high quality education to a wide range of students, these institutions are under the State's governance. Thus, according to the national policies, universities generally permit access to every individual that shows a desire to pursue a higher education program. Their traditional social role and functions have been preserved over time and spread over the entire world.

On the other hand, *business schools* are associated with an American model (Engwall, 1992). Unlike universities, business schools were not created by the state. They are either private or public institutions and they often affiliate their image to an international mission and worldwide demands. Several countries, such as France, have tried to resist the business school model (Engwall and Zamagni, 1998). Although they could not completely stop their genesis, the rights of business schools were limited in certain areas. For example, in what concerns the doctoral degrees, business schools were obliged to collaborate with universities in order to award state diplomas²¹.

As can be seen above, the higher education sector has a large spectrum (Marginson, 2004) and thus, for the purpose of this dissertation, distinction will not be made between the level of education provide by HEIs (post-secondary, tertiary or third level) or the type of institutions (universities, academies, colleges and so on). The observations and interviews were collected

²¹ In France, HEC is the only institution with its own PhD program. All the other French business schools have joint PhD programs with at least one French university.

from business schools and universities, both of them being identified in this thesis as *higher education institutions* (HEIs).

6.2. Marketplace and competition

As in any other sector, the higher education market emerged through an institutional process (Thornton and Ocasio, 1999) and was shaped by social, political and cultural factors (Marginson, 2004). The governments in particular played a major role in this market development. In many European countries, the State is a major provider of capital for HEIs (Neave and van Vught, 1994). Thus, governments have the power to control and direct the higher education environment.

The higher education field was claimed to be fruitful for the evolution of market mechanisms (Williams, 2004). The European governments developed policies to establish the autonomy of HEIs (Teixeira et al., 2004), which allowed the appearance of several market conditions (Table 11). They are largely based on the concept of freedom (Hemsley-Brown, 2011) which assures the liberty of students to choose what, where and how they want to study (Brown, 2011), as well as HEIs right to select their target customers and the appropriate curricula.

Thus, HEIs became providers of knowledge, while students turned into customers of higher education services (Jongbloed, 2003). As a result, the higher education field went through some major changes, among which the offering of equal opportunities to pursue higher education studies to all the interested parties and the development of educational programs that answered to different social and economic needs.

Table 11. Conditions for market development

Providers	Customers
Freedom of entry	Freedom to choose the provider
Freedom to specify the product/service	Freedom to choose the product/service
Freedom to use available resources	Adequate information on prices and quality
Freedom to determine prices	Direct and cost-covering prices paid

Source: Jongbloed, 2003, p. 114

The increased demand for higher education services lead to the transformation of the educational field. Governments allowed HEIs to opened their doors for everyone, but they were no longer able to provide funding for the increased number of students (Teixeira et al., 2004). In their search for a solution to this problem, the governments encouraged the development of a higher education market (Hemsley-Brown, 2011).

HEIs were forced to find alternative income sources. In order to maximize their revenue, HEIs learned commercial practices and developed a business-like approach (Amaral et al., 2003). Yet, not all of them were lucky enough to find sufficient funding opportunities and some were forced to choose between closing or merging with other institutions (Hemsley-Brown, 2011).

The extensive marketization of higher education and the governmental cutbacks lead to the development of a competitive environment (McMurtry, 1991). Globalization only added to the evolving rivalry between HEIs. The free flow of individuals, ideas and capital across borders (Marginson, 2004) meant that institutions could address a larger market. Thus, they became service providers and developed marketing practices, fact that sustained the competitive environment (Burlaud, 2007). Nowadays, HEIs are like any other type of organization. They fulfill market duties and developing commercial activities (Aspromourgos, 2012) by providing services, such as teaching and research, in response to their customers' needs (Willmott, 1995).

The massification of higher education and the emergence of competition between HEIs lead to an increase interest of public monitoring (Propper and Wilson, 2003) Media, students, parents and other stakeholders of higher education services started to pay attention to the performance of HEIs (Bok, 2004). Moreover, since public funds were limited, governments used their institutional power to introduce a market rationality similar with the one of private sectors (Townley, 1997). They developed performance measurements systems with the intent to justify the distribution of public funds.

Thus, university rankings and accreditation systems flourished in response to demands for transparency and comparability (Wedlin, 2006). In addition, they create a competitive environment and put external pressure on HEIs to become players on the higher education market (Propper and Wilson, 2003). University rankings in particular provide a control mechanism that selects the “best” schools, transforming the higher education market in a battlefield for reputation and legitimacy.

HEIs use the performance measurement systems to inform their future customer about the results they obtained, while governments use them to justify the distribution of public funds. After all, efficient markets allocate resources in a cost effective way for the most profitable use (Oxelheim and Rafferty, 2005) and the best way to comfort the stakeholders of higher education is through numbers.

Moreover, governments have argued that increasing the choice of educational institutions and applying market theories in the educational sector leads HEIs to be more effective (Karsten et al., 2001). These strategies were claimed to push schools to perform better and be more responsive to the social and economic needs.

The university rankings and accreditation systems play a decisive role in the forming of a global market for higher education (Marginson, 2007 a). They “create a market where [...] schools could be rewarded and punished for failing to be responsive to their two prime constituents: the students and the corporations” (interview cited in Wedlin, 2006, p. 11).

6.3. Higher education institutions and their missions

HEIs have always been considered a significant source of knowledge and innovation for the social and economic development. Yet, the changes occurred in the higher education field forced them to reconsider their social role (Jongbloed et al., 2008). Initially, HEIs were expected to form specialists in different areas of activity. Therefore, they solely focused on educating their students (Abbott, 1988). Over time, their role has evolved (Youtie and Shapira, 2008) and scientific research was added as a second core activity for these institutions (Locke, 1985). A third mission emerged only recently due to the concerns of HEIs lack of contribution to the society (Laredo, 2007). Yet, although these three missions are defined separately, in reality they overlap (Fig. 9). Knowledge is enriched through research and pedagogical techniques are improved through constant search for better alternatives. Moreover, the use and application of knowledge outside the academic environment is accomplished in the business environments through training sessions performed by employees of HEIs. These sessions make use of research results and thus they are linked to both pedagogical and research activities.

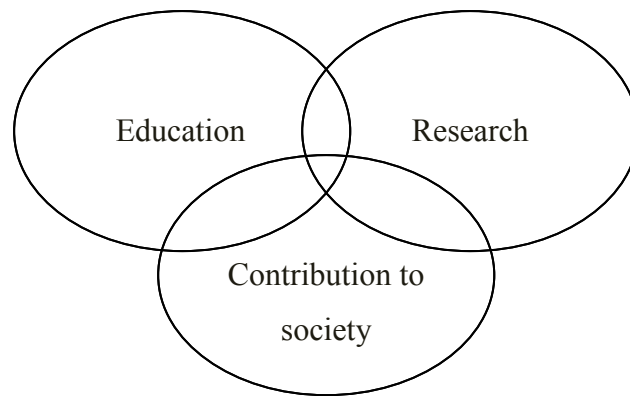


Figure 10. The three missions of HEIs

Source: Author's projection

6.3.1. Education

The traditional role of HEIs was to allow students the access to knowledge (Paulré, 2001). Namely, HEIs were expected to transfer knowledge to their students on how to cope with future professional problems (Raghunadhan, 2009). Thus, offering higher education programs was always part of HEIs missions (van Vught et al., 2010).

In time, the knowledge transfer has taken different forms. For example, in European countries, higher education degrees are awarded for three cycles of studies: bachelor (1st cycle), master (2nd cycle) and doctoral (3rd cycle). As the knowledge and understanding of students is different for each cycle, the way pedagogical activities are performed by academics molds on the students' ability to integrate the knowledge and handle its complexity.

Along with the profound transformation that occurred in the higher education environment, the idea of an European higher education agreement emerged (Higher Education Ministries, 1998). Moreover, diversification of study programs, among which online learning, vocational and adult education surfaced as major concern. Another issues were to give students the opportunity to spend at least one semester abroad and to recognize at a national level the higher education degrees awarded by abroad European HEIs (Higher Education Ministries, 1998). As a result of the efforts to overcome these tasks, the European Higher Education Area (EHEA) was created (European Higher Education Area, 1999).

Studies have started to approach the demands for pedagogical enhancement (Christensen-Huges and Mighty, 2010), the inclusion of technology in the current pedagogical approaches (Spires and Hervey, 2011) and improvement of learning quality (Bowden and Marton, 1998). As the number of higher education programs and students have greatly increased, the teaching workload has followed the same path (Christensen-Huges and Mighty, 2010).

Faculty members have to cover more teaching loads and are forced to reduce the private exchange with their students. Although the latter is the only form through which success of learning practices can be checked (Fiore and Rosenquest, 2010), academics are more and more often avoiding them in the detriment of evaluation methods that are easier to grade (Christensen-Huges and Mighty, 2010).

The traditional criticism of pedagogy is its lack of science driving (Adangnikou, 2008). Even if some scientists have developed an interest on how pedagogical skills can be improved, the reflection on individual teaching performance is mostly made in solitude. The opportunities to make significant changes in the pedagogical culture is rare as individuals have the chance to discuss such issues with other faculty members only occasionally (Fiore and Rosenquest, 2010). Thus, in their current teaching approaches, they tend to use traditional pedagogical approaches, also defined as “practice of convenience” (Christensen-Huges and Mighty, 2010, p. 4). Yet, the reason for which this practice is employed so often is due to lack of time.

6.3.2. Research

Nowadays, social actors are more and more aware that research findings are important for the development of their activities. Moreover, when entrepreneurial tools pervaded the public sector and the higher education market emerged, HEIs realized they could obtain funds by selling the rights to use their scientific research (Bok, 2004). Due to the success of this practice, research activities were included among the core activities of HEIs and have come to occupy a major portion of the academic workload (van Vught et al., 2010).

Although there is no universal definition for it, research is normally referred to as “a process of investigation leading to new insights” (HEFCE, 2011). It is a creative work that increases the amount of knowledge necessary for the development of new social and economic devices. According to the existing literature, the goal of research activities has changed in time, shifting from a traditional knowledge production, which was based on curiosity, to a knowledge quest for solving specific social problems (Gibbons et al., 1994).

Research activities are divided in two main categories: fundamental (or basic) and applied (European Commission, 2010). The prior is often defined as the “experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of [a] phenomena and [its] observable facts, without any particular application or use in view” (OECD, 2002, p. 30), while the latter determines possible uses for the findings of basic research.

Thus, research can be seen as a continuum process, with a large spectrum that goes from curiosity-driven to practice-based research activities. However, their developed in HEIs has the tendency to focus on fundamental research. These institutions can undertake both types of researches, but only certain areas (medicine, chemistry, etc.) make it possible for applied research to be performed in the higher education environment (European Commission, 2010).

As a result of including research as a second core activity performed in HEIs, the academic expectations of the employees of these institutions changed. Faculty members could no longer limit to pedagogical activities and were required to contribute to the production of new knowledge (Fournier et al., 1988). A multitude of journals flourished in the last decades and academics could publish their research results in academic and professional journals. In addition, as research was more and more valued by HEIs, the recruitment process of faculty members incorporated inquires on candidates abilities to perform research activities and publish in scientific journals (Burlaud, 2007).

6.3.3. Contribution to society

Discussion on how HEIs contribute to the social, economic and political environment existed for decades (Jongbloed et al., 2008). Yet, the diversification of study programs and the facilitation of a lifelong learning development pushed HEIs to take action and interact with their environment (OECD-CERI, 1982). As a result of these external pressures, they had to carefully reconsider their role and rethink the way in which they create value (Jongbloed et al., 2008).

Hence, a third mission of higher education emerged: their contribution to society. Although it is still a delicate component of HEIs missions, some argue the regional community service has to be fully developed (Goddard, 2000). More accurately, they call for development of HEIs ability to generate, use, apply and exploit knowledge outside the academic environment (Molas-Gallart and Castro-Martínez, 2007).

Realizing that collaborations between industries and HEIs will foster social and economic growth, governments encouraged the development of outreach activities in the higher education environment (Laredo, 2007). Moreover, HEIs soon discovered that some third mission activities, such as innovation and advisory activities can bring a significant source of revenues and other non-financial benefits.

As recent studies have emphasize, contribution to society has three dimensions: knowledge transfer, innovation and entrepreneurship (Montesinos et al., 2008). Yet, the problem with third mission activities is that they overlap with the pedagogical and research ones (Jongbloed et al., 2008). Knowledge transfer is still an education activity, even if it refer to lifelong learning or professional development (Jongbloed, 2003). Moreover, innovation refers to the exploitation of research results that can help industry to develop internally or externally. Thus, HEIs can create company partnerships and commercialize their research outcomes (Jongbloed et al., 2008).

In today's higher education environment, a great weight is placed upon contribution to society (Neave, 2000). HEIs seek to increase their funds by developing close links to the industry and demonstrate entrepreneurship skills (OECD, 2007). They help set spin-off firms and business ventures, as well as provide teaching and research services that are applicable nationally or regionally (Jongbloed et al., 2008).

7. The most known international university rankings and their measurements

“If I cannot overwhelm with my quality, I will overwhelm with my quantity.” (Emile Zola)

In a global context of higher education, competition among institutions is reflected through the sudden emergence of university rankings and the popularity they have gained in such a short amount of time (Hazelkorn, 2009). Best-known for their ability to set evaluation criteria (Charle, 2009) and their aptitude to order HEIs based on their performance (Wedlin, 2006), university rankings are often used as management or political decision-making mechanisms.

Governments use them to allocate funds, while students employ them to select the most appropriate school for their needs (Thakur, 2007). Yet, the proliferation of university rankings has reached a point where it strongly influences the behavior of HEIs and their employees. In their struggle for reputation and funds, HEIs aligned their activities to rankings demand by adapting their internal evaluation systems to the performance measurements used by university rankings.

Thus, analyzing the most popular international university rankings can provide some answers on how the role of HEIs has been altered. The results are expected to assess the level of importance given to each of these three major activities and explain the current perception of academics on higher education, career management and their future expectations. This chapter starts with the historical evolution of the nine selected university rankings²² and continues with a content analysis of rankings methodologies. The aim of this section is to identify what rankings are measuring related to the three core missions presented above.

Endeavoring to understand the field of higher education, which is alleged to be reflected by university rankings (Wedlin, 2006), the content analysis provides a perfect tool. It shows the performance measurements used and the importance assigned to each of them, while permitting the link with the object of their measurements, namely the HEIs core missions.

²² The selection process is explained in subchapter 2.2.1.1. (*Selection of international university rankings and accreditation systems*)

7.1. A historical approach to international university rankings

The first rankings published in the higher education field saw the day of light in early 1970s (Wedlin, 2006). The United States was the ground of departure for these performance measurement systems. They nurtured their development and implemented the first national rankings in 1983 (van Dyke, 2005). Yet, it was not until 2003 that rankings conquered the global environment (EUA, 2011). The publication of the first Shanghai Ranking has shaken the academic world. As UK and US strongly dominated among the top world HEIs, different countries rebelled in face of these outcomes and produced their own set of international or regional performance measurements. In the past years, a multitude of university rankings emerged. Yet, only the most known ones were selected for analysis²³. Starting 1998 and until the present, the timeline of the selected classifications and rankings is presented below (Figure 11).

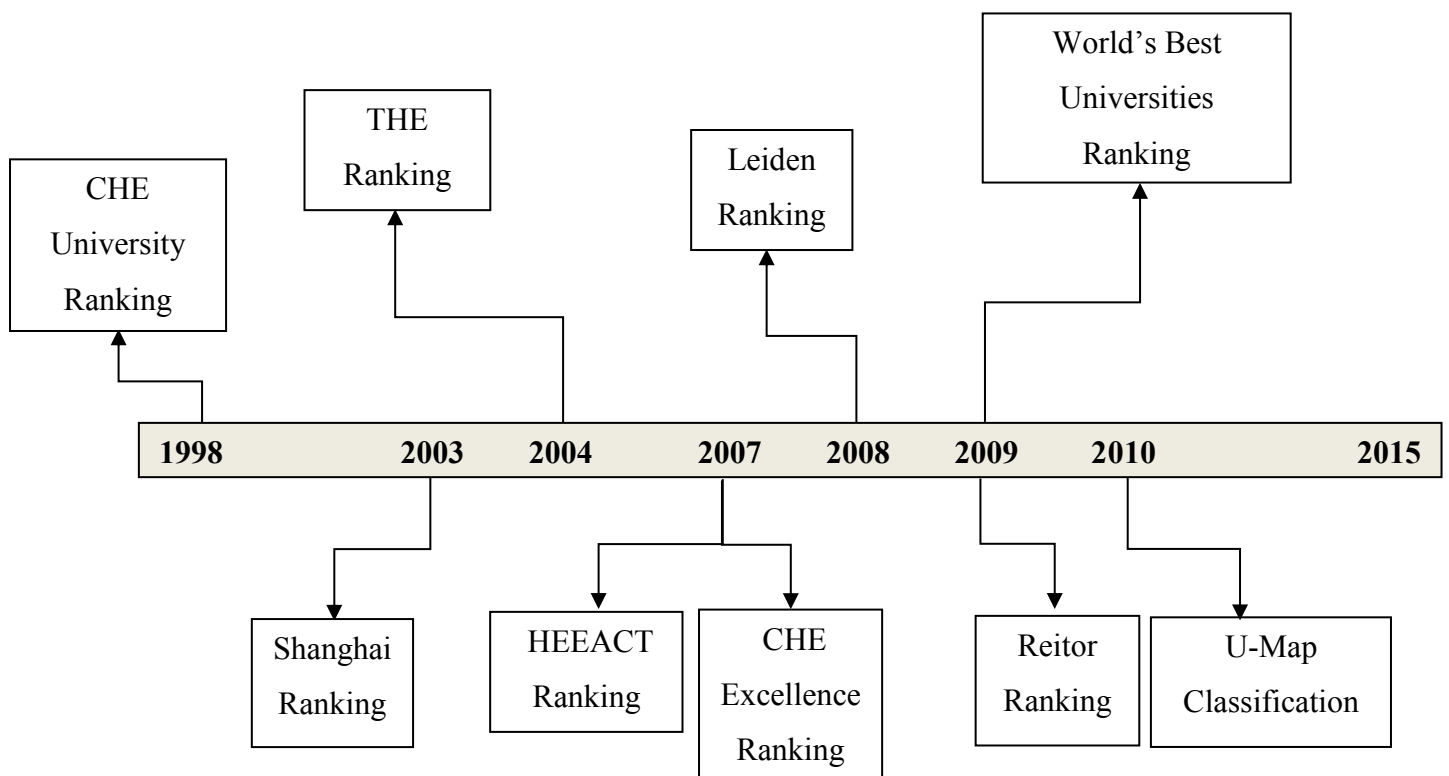


Figure 11. The emergence of international university rankings

Source: Author's projection

²³ The list of indicators and their explanations are provided in Appendix 2.

7.1.1. CHE University Ranking

Published for the first in 1998, this university ranking was meant to provide students and HEIs with fair and qualified information. Initially designed for German HEIs, the ranking has continually developed. In 2004 it became an international ranking through the addition of Austrian HEIs. Since then, other three countries joined the project: Switzerland (2005), Netherland (2007) and Belgium (2007). Although the initial stages of the pilot projects for Austrian and Swiss HEIs started in 2004, respectively 2005, they were not developed further. However, the CHE project continued to evolve by focusing on all HEIs where German is a language of instruction: solely or in combination with other languages (EUA, 2011).

In 2005, CHE coopted a German weekly newspaper to publish the results of the ranking and be in charge of marketing and selling strategies. However, CHE remained the only institution in charge of collecting and analyzing the data (CHE, 2013b). They kept the ranking multi-dimensional and included a number of indicators that could be compared on an overall basis. Yet, instead of comparing whole range of activities performed by institutions, the CHE university ranking analyzes the fields within the selected institutions (e.g. economics, sociology, biology).

The methodology is based on a combination of sources, facts and various data on HEIs. Moreover, CHE focuses on students, graduates and professors views and perspectives (CHE, 2010a). The ranking is highly interactive, offering users the possibility to select the indicators they consider important (Figure 12). They can select up to ten indicators and the system will automatically display the HEIs that fit the best their requirements.

The methodological approach is that for each indicator the HEIs are allocated to one out of three categories (top, middle or bottom), without providing an overall league tables. Depending on the indicator, CHE presents league tables showing to which group the HEI belongs to, or HEIs are ranked based on criteria selected by the user. Thus, the ranking's results can be visualized as rankings and/or as ratings, depending on what the user is searching for. Yet, HEIs are either listed alphabetically or they are presented as part of a category (EUA, 2011).

MY INDICATORS:

(S) = Student's judgments (F) = Facts (P) = Professor's judgments

Academic studies and teaching

- Contact between students (S)
- Counselling (S)
- Courses offered (S)
- E-Learning (S)
- Study organization (S)

Equipment

- IT-infrastructure (S)
- Library (S)
- Library – computer workstations
- Rooms (S)

International orientation

- Support for stays abroad (S)

Job market and career-orientation

- Job market preparation (S)
- Practice Support (S)

Overall opinion

- Overall study situation (S)
- Reputation for academic studies and teaching (P)
- Research Reputation

Research

- Many internationally visible publications (F)
- Many doctorates (F)
- Many publications (F)
- Much third party funding (F)

Town and University

- Higher education sport (S)
- Low rent (F)
- Small university location (F)

Figure 12. An example of CHE personalized ranking

Source: EUA, 2011, p. 48

The strong belief of CHE is that the indicators should be presented as a whole, and full comparison among HEIs is not permitted on their website.

7.1.2. Academic ranking of world universities

The history of ARWU started in 1998, when the President of China stated that his country has several top world class universities which are unknown to the large public (Liu, 2009). As a result, the Shanghai Jiao Tong University initiated a project in collaboration with other eight Chinese universities to find if there is a gap between Chinese and world top HEIs. The

project focused on research activities (Bador and Lafouge, 2005), classifying HEIs based on their research quality (Docampo, 2013). Although ARWU was always considered to be a holistic university ranking, reliable, objective and accessible measurements had to be found (Liu et al., 2005) Thus, due to its lack of global comparability, the pedagogical performance was not taken into consideration (Marginson, 2007 a).

The project gained both national and foreign positive reactions and the first results were published in 2003. Due to the success it had with the public, ARWU decided to update the data annually and publish a ranking for each of the following years. The indicators selected for the performance measurement of higher education activities were the number of publications, number of citations and number of Nobel prizes or Fields medals. The list of measurements were made available on the official website of the organization and remained mostly unchanged over time²⁴.

Yet, several papers have emphasized the impossibility to replicate the ARWU's results (European Commission, 2010; Docampo, 2013), along with the lack of transparency of the methodological choices. The ambiguity behind the computation of ARWU's indicators has raised a huge criticism, which is mostly due to the extensive use of the ranking to benchmark the quality of HEIs (Docampo, 2013).

7.1.3. Times Higher Education World Universities Ranking

THE, formerly known as Times Higher Education Supplement, is a weekly British magazine that targets middle-class consumers. Covering subjects of higher education interest (Jobbins, 2002), the supplement gained international recognition in 2004, after publishing the first annual THE World University Ranking. It was often claimed that THE was the Europe reply to the success of Shanghai ranking (EUA, 2011). However, THE published national league tables even since 1993, long before the emergence of ARWU (Jobbins, 2002).

From 2004 to 2009 THE collected data through their collaboration with Quacquarelli-Symonds (QS). Measurements on quality of research and teaching activities, as well as graduate employability and international outlook of research-leading universities were employed in assembling the methodology (THE, 2013). Starting 2010 THE changed the data provider to Thomson Reuters. As a result of this choice, the methodology of the ranking

²⁴ The only adjustment refers to the name of *Per Capita Performance* indicator, which was called *Size of Institution* before the first ranking was published.

computation was affected (Baty, 2009). Although arguments were brought to support this choice²⁵, the weights of three major activities performed by HEIs are almost unchanged²⁶ (EUA, 2011).

7.1.4. CHE Excellence Ranking

In 2007, the Center for Higher Education Development released an extension of the CHE University Ranking. The new ranking had the role to identify the HEIs that were excellent in the fields of biology, chemistry, mathematics, and psychics. In 2009, the fields were extended with the addition of political science, psychology and economics. Similar with the previous University Ranking of the same organization, the Excellence Ranking do not combine the results into an overall indicator and doesn't produce a single league table.

CHE continues to follow a discipline-oriented multidimensional approach (CHE, 2010b) and users can chose between two or three HEIs for comparison. Yet they can only compare the indicators, without obtaining a rank of HEIs (Zeit, 2013). Until now, only two rankings were published for 2009 and 2010. The results of the measurements are presented on *Die Zeit* website and published in its weekly journal in alphabetical order based on HEIs academic field (CHE, 2013a).

The methodology consists in a two-step exercise. The first step is a pre-selection analysis for which HEIs are considered only if they have at least 3,000 publications in Web of Science. The HEIs that fulfill this condition enter the pre-selection analyses, where *stars*²⁷ are awarded based on different criteria. Yet, the selection criteria are not holistic, different type of measurements being taken into consideration for each field²⁸. An extra *star* is awarded to HEIs that obtain at least 50% of the total achievements in their field. The second step consists of an in-depth analysis for which institutional surveys and students surveys are gathered. *Stars* are assigned for second-step indicators as well, but CHE does not explain the basis on which they can be obtained. At the end of the analysis, HEIs are ranked based on their data validity and the number of *stars* they obtained.

²⁵ The new methodology was claimed to be more rigorous, balanced, sophisticated and transparent (Baty, 2010c).

²⁶ This critique is covered in subchapter 7.2.

²⁷ Instead of point or grades, HEIs are awarded starts based on which comparison is possible. The modality of star allocation is presented in Appendix 2.

²⁸ For example, in the field of economics, HEIs are analyzed in-depth only if they have at least two *stars* per total, a minimum of one *star* being awarded for publications and citations

7.1.5. Performance ranking of scientific papers for world universities

HEEACT is one of the international rankings that focus solely on research performance. First published in 2007, the ranking produces the list of top 500 HEIs in the fields of agriculture and environment sciences, engineering computing and technology, clinical medicine, life science, natural sciences and social sciences.

The performance ranking of scientific papers for world universities was the results of the collaboration between the Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT) and the National Taiwan University (NTU). Due to the implication of HEEACT in the development of this ranking system, it was decided that the official acronym for the ranking would be the same as the one of the council. Yet, in 2011 HEEACT announced the development of an overall ranking and passed full control to NTU, also changing ranking name to “Taiwan Ranking” (National Taiwan University, 2015).

In terms of methodological changes, both HEECTA and the renamed Taiwan Ranking have remained mostly unchanged. The only exception was in 2008, when one indicator, *number of subject fields where the university demonstrated excellence*, was excluded from the list of indicators. The two funding organizations argued that the change was made due to the inability of the indicator to favor all institutions equally. This indicator was used as a complement for the h-index, which was not able to measure the increase in visibility (Rousseau, 2008). Yet, data was available only in some of the fields analyzed by HEECTA (EUA, 2011).

7.1.6. Leiden Ranking

In 2008, the Center for Science and Technology Studies (CWTS), which pertains to the Leiden University, published a ranking focused on citation and research performance (Boulton, 2011). Base exclusively on bibliometric data (Waltman et al., 2012), the ranking measures research quality and was updated biannually until 2012. Due to the increase in popularity, the ranking is published annually since 2013.

Similar with CHE University Ranking and CHE Excellence Ranking, the Leiden Ranking does not provide an overall league table. Yet, this ranking does offer the possibility to see the ranking of institutions for each individual indicator and compares HEIs based on the indicator’s value, country, region and dimension of scientific performance (CWTS, 2014).

The CWTS team was involved in the development and computation of some indicators of other rankings, such as the CHE Excellence Ranking and Multiranking (EUA, 2011). Although some methodological limitations are emphasized, the Leiden Ranking's is recognized as a valid and useful international university ranking (Mingers and Lipitakis, 2013), for example being compare the difference between HEIs performances and the average of their fields area.

7.1.7. Global Universities Ranking

The Reitor Ranking was published in 2009 as a response to other international university rankings that excluded the Russian universities from the top world HEIs (EUA, 2011). All institutions willing to participate to the development of this ranking were invited to fill and submit a set of questionnaires that would be used during the results preparation. The ranking wasn't updated since 2009, and at the time included a final number of 63 HEIs, among which only nine were foreign.

Nevertheless, the global university ranking is an international ranking and its indicators have to be analyzed for several reasons. Reitor was one of the first rankings trying to incorporate all type of HEIs activities. Secondly, this ranking looked at HEIs online visibility, goal that was previously encountered only in the Webometrics Ranking of World Universities. Last, but no least, the Reiters methodology provides evidence on how performance is defined for higher education institutions.

Three different methodologies were employed by Reitor during 2009 (EUA, 2011). Moreover, in 2012, the Russian Education University reported they were working on a new version, which was never made public. Nevertheless, the results of the Global University Ranking published in 2009 were harshly criticized as the director of Times emphasized it was not possible for an international university ranking to have a Russian HEI placed on the first position while so many other rankings had different results (Roth, 2012).

7.1.8. World's Best Universities Ranking

After the collaboration between THE and Quacquarelli-Symonds ended, the later used the same methodology to develop the World's Best Universities Ranking²⁹ in 2010 (EUA, 2011).

²⁹ The indicators employed by the World's Best Universities Ranking are presented in Appendix 2

7.1.9. U-Map classification

Sponsored by the European Commission the U-Map classification is a project led by the Centre for Higher Education Policy Studies (CHEPS). Started in 2005, U-Map aimed to classify the European HEIs based on various criteria. The final report of the project was published in 2010 and the classification was made available to the public.

Similar with the other two European rankings presented above, the U-Map classification neither compute overall scores nor provide league tables of HEIs performance. The absolute values of indicators are provided only when users select the HEIs they want to compare (CHEPS, 2013). Yet, the users can select no more than three HEIs at a time.

The U-Map classification was used as a tool for the development of a universities ranking (U-Multirank) sponsored by the European Commission. This ranking was first published at the end of 2014 and its methodology closely followed the U-Map classification³⁰.

7.2. The missions of higher education reflected in international university rankings

The international university rankings are defined by their funding organizations as having either general or specialized view on higher education. Based on the data collected from these organizations websites and the available literature, the nine selected rankings state to be measuring the performance of HEIs as follows: seven have an overall view, while two take into consideration only one of the higher education missions (Table 12).

³⁰ The indicators used by both U-Map classification and Umultiranking are explained in Appendix 2

Table 12. Assumed performance orientation of international university rankings

Performance Ranking	General	Specialized		
		Education	Research	Contribution to society
CHE University Ranking	X			
ARWU	X			
THE	X			
USNRW	X			
CHE Excellence Ranking	X			
HEEACT			X	
Leiden Ranking			X	
Reitor	X			
U-Map	X			

Source: author's projection

To check the validity of this information, an in-depth analysis of rankings methodological content was pursued. The explanations of the indicators³¹ were analyzed by looking at the type of activities they were related to. Since the information provided by some rankings was contradictory, the activities were split into four categories based the existing literature: education, research, contribution to society and other activities.

Pedagogical activities are linked to measurements of educational programs, number of degrees, course content, teaching evaluation, other reputational surveys, expenditure and income on teaching (Table 13). While evaluation of teaching is often seen as an instrument for improving teaching quality (CHE, 2013b) and number of students enrolled is considered to affect the learning experience of individuals (van Vught et al., 2010), some other indicators were not as successful in being accepted as proxies of pedagogical activities (Baty, 2010a).

Identifying the educational indicators was not a difficult task. The indicators related to education are defined in detail by some rankings (e.g. CHE University Ranking, U-Map classification), which are targeting the users' needs. Yet, some other rankings (e.g. ARWU, THE) use research proxies to measure teaching quality. Thus, in order to objectively separate indicators into categories a methodological approach had to be used. The critiques regarding

³¹ Provided in Appendix 2

the use of indicators, the indicators definitions and the rate of employability of indicators in different rankings were used to determine the appropriate category for each indicator.

One problematic indicator that was included in this category is the *faculty student ratio*. As emphasized by some academics, this measurement is far from determining the pedagogical abilities of individuals.

“To think that such a ratio could signify 'teaching quality' shows how serious a problem we face with rankings that privilege the availability of a metric over its validity” (Baty, 2010a, citing an academician).

Moreover, rankings do not differentiate between teaching and research staff and as a result the indicator might be used in either category. Yet, as this indicator is employed as a pedagogical measurement by all the selected rankings, the *faculty student ratio* was included in this category. Another indicator that received similar critics and was added to the education category is the *income per academic*.

Internationalization indicators are also problematic due to their integration of both pedagogical and research personnel. Some rankings, such as THE, claim to be assessing the number of best faculty members by scaling the international to domestic staff, raising even more controversies on this type of indicators. Yet, internationalization can be seen as a focus of programs and the mix of cultures aimed to offer global educational programs. Thus, *international students* and *international faculty* were considered as measurements of pedagogical activities.

The students' opinions regarding teaching evaluations, overall assessment of the HEI, and any other type of judgments were all included in the education category. Yet, there was an issue with the *students' judgments* indicator, which includes the PhD candidates' opinion on support given by HEIs for conferences, workshops participation and paper publication. Although the number of PhD students was used as an indicator for research³², the support given by schools to their PhD students was considered as a support to improve their abilities and thus was included in the education category, along with the bachelor, master, long-term students, etc. opinion on the HEIs involvement in their educational programs.

³² The literature considers them as research oriented individuals. More explanations are provided on in the following part, namely **research related indicators**.

Table 13. Education activities measured by international university rankings

	CHE University Ranking	ARWU	THE	USNRW	CHE Excellence Ranking	HEEACT	Leiden Ranking	Reitor	U-Map
Number of educational programmes								10%	
Degree level focus									X
Subject area covered									X
International orientation of programmes	X								
Orientation of degree									X
Courses offered	X								
E-learning	X								
Integration of subfields	X								
Set-up and structure of courses	X								
Proportion of graduates in norm period of study	X								
Course content	X								
Support by teachers	X								
Students judgment on overall study situation	X				X				
Teaching evaluation	X								
Reputation in teaching and learning	X		15%	10%					
Study organization	X								

	CHE University Ranking	ARWU	THE	USNRW	CHE Excellence Ranking	HEEACT	Leiden Ranking	Reitor	U-Map
Support for stays abroad	X								
Contact among students	X								
Faculty student ratio	X			20%				10%	
Students enrolled									X
Undergraduates admitted per academic			4.50%						
International students			2.50%	5%	X			5%	X
PhDs and bachelors awarded			2.25%						
Student mobility					X				
Incoming students									X
Outgoing students									X
Erasmus-Mundus-Master					X				
First year bachelor regional students									X
Mature students									X
Part-time students									X
Distance learning students									X
International faculty			2.50%	5%	X				X

	CHE University Ranking	ARWU	THE	USNRW	CHE Excellence Ranking	HEEACT	Leiden Ranking	Reitor	U-Map
Teaching staff mobility					X				
Scientific staff teaching in summer schools					X				
Income per academic			2.25%						
International income sources									X
Expenditure on teaching									X
Total budget of the university per full time students								15%	
Total Education	41.67%	0%	29%	40%	41.18%	0%	0%	40%	60.87%

Source: author's projection

On the other hand, the **research related indicators** were more difficult to establish. Research reputation and number of publications are indicators directly linked to research, but there are other research indicators that are claimed to be measuring pedagogical activities or contribution to society. Such example is given by ARWU, which uses *Alumni* to measure the quality of education. Since this indicators counts the numbers of alumni winners of Nobel Prizes and Field Medals, awarded based on their research capabilities, the indicator is in fact quantifying the impact and relevance of research activities (Hirsch, 2005). Moreover, other two rankings³³ exclusively use the award indicator as a measurement of research capabilities of faculty members.

Another controversial indicator is *citation per faculty* (Baty, 2010a). THE – Thomson Reuters includes an improvement of the *citation* indicator (H-index) in a citation category, which is different from research and teaching categories. Four other rankings³⁴ employ *citation* for research measurement, while three use the *h-index* as a research impact measurement³⁵. As emphasized in the literature, the *h-index* became the de facto indicator for research performance evaluation and has been adopted by many databases and rankings (Kuan et al., 2011).

THE – Thomson Reuters employs the number of *PhDs awarded* to measure the teaching quality, arguing that undergraduate students value rich environments that include postgraduate students (THE, 2013). Yet, CHE University Ranking and the U-Map classification use this indicator to determine the research quality of HEIs. Since doctoral programs are seen as research activities finalized through research publications (van Vught et al., 2010), the indicator was included in the research category.

³³ CHE Excellence Ranking and Reiter.

³⁴ CHE University Ranking, ARWU, HEEACT and Leiden.

³⁵ CHE Excellence Ranking, HEEACT and Leiden.

Table 14. Research activities measured by international university rankings

	CHE University Ranking	ARW U	THE	USNRW	CHE Excellence Ranking	HEEACT	Leiden Ranking	Reitor	U-Map
Research reputation	X		18%	40%					
International conferences held/organized by the department					X				
Number of publications	X	20%	6%		X	20%		6.67%	X
Publications in international journal ratio	X		2.50%			15%			
Numbers of highly cited papers							X		
Number of articles in high impact journals						15%			
Citations and references	X	20%		20%		20%	X	6.67%	
H-index			30%		X	30%	X	6.67%	
Book citations					X				
Highly cited researchers		20%							
Awards obtained by staff members		20%			X			6.67%	
Awards obtained by alumni		10%							
PhDs awarded	X		6%						X
International doctoral student ratio					X				
Projects and grants					X				

	CHE University Ranking	ARW U	THE	USNRW	CHE Excellence Ranking	HEEACT	Leiden Ranking	Reitor	U-Map
Proportion collaborative publications							X		
Proportion international collaborative publications							X		
Mean geographical collaboration distance							X		
Proportion of long distance collaborative publications							X		
Available scientific journals					X				
Membership in editorial journals					X				
Research orientation of teaching	X								
Academic performance of HEIs per number staff members		10%							
Research income			6%						
Expenditure on research									X
Total Research	16.67%	100%	68.50%	60%	52.94%	100%	100%	26.66%	13.04%

Source: author's projection

Unlike for the previous two types of activities, international rankings do not classify the indicators that measure this activity into a separate category. As mentioned in subchapter 6.3.3, the **contribution to society** emerged a decade ago as a new mission of HEIs and thus, in order to identify the indicators, I had to rely on a proposed list of measurement for third mission activities (Molas-Gallart et al., 2002).

As some teaching indicators that specifically concern the preparation of students for their future or actual work life are lately interpreted as one of the HEIs contribution to society, the literature emphasizes the existence of conflicts between the indicators used for the measurement of education activities and the HEIs contribution to society (Molas-Gallart and Castro-Martínez, 2007). Moreover, the indicators measuring the performance of third mission activities also overlap with research activities, as some of them are oriented toward industry improvements (Montesinos et al., 2008).

The most recent international university ranking analyzed³⁶ offers several examples of such indicators. Linking the production of knowledge with its usefulness for the society, measurements such as *number of patents* and *number of start-up firms* were included in a separate category entitled *knowledge transfer*. This novelty is backed up by the literature, where knowledge exchange is emphasized as being one of the crucial roles of HEIs. These institutions have the duty to organize, create, distribute and ensure the knowledge availability for future users (van Vught et al., 2010).

³⁶ U-Map classification

Table 15. Contribution to society measured by international university rankings

	CHE University Ranking	ARWU	THE	USNRW	CHE Excellence Ranking	HEEACT	Leiden Ranking	Reitor	U-Map
Teaching of basic subject	X								
Teaching of transferred skills	X								
Teaching of problem solving skills	X								
Teaching of independent work/learning	X								
Teaching of team skills	X								
Support during practical placement phase	X								
Career orientation and practical relevance	X								
Preparation for work life	X								
Graduates working in the region									X
Research income from industry	X		2.50%						
Income from knowledge exchange activities									X
Regional income sources									X
Promotion of research competence	X								
Number of certificates on discoveries and patents								6.67%	
Patent application filed									X

	CHE University Ranking	ARWU	THE	USNRW	CHE Excellence Ranking	HEEACT	Leiden Ranking	Reitor	U-Map
Start-up firms									X
Cultural activities									X
Total Contribution to Society	27.78%	0%	2.50%	0%	0%	0%	0%	6.67%	26.09%

Source: author's projection

The fourth category (**others**), includes all the indicators used by international university rankings and that do not measure either one of the three missions of HEIs. For example, the literature has put emphasis on gender balance, but being a woman or a man does not affect pedagogical and research abilities of faculty members nor the students' abilities to accumulate knowledge. Another example is the availability of libraries, rooms and IT infrastructure in HEIs. As stressed by CHE (2010a), these resources are one of the major sources for learning. Yet, they are as important for the development of research activities, researchers making use of them to find online articles, to keep track of their research advancement, to communicate with international co-authors and so on.

Table 16. Other measurements of international university rankings

	CHE University Ranking	ARWU	THE	USNRW	CHE Excellence Ranking	HEEACT	Leiden Ranking	Reitor	U-Map
Costs of accommodation	X								
Student sport	X								
Libraries	X								
Rooms	X								
IT-infrastructure	X								
Performance of the computer center of the university								6.67%	
Volume of web-products								5%	
Request popularity of the university								5%	
Page rank of the main page of the university's site								5%	
Involvement in international academic communities								5%	
Gender balance					X				
Total Other	13.89%	0%	0%	0%	5.88%	0%	0%	26.67%	0%

Source: author's projection

Thus, as presented in the four above mentioned tables, the indicators used by the nine selected international university rankings were linked to the mission they were measuring. Yet, the name of the indicators was not changed from their original denomination. To compare the indicators and reach a conclusion in what concerns the importance given to each indicator, similar indicators had to be analyzed together. Yet, since each ranking named the indicators differently, some adjustments had to be made. The denomination used in tables 13 to 16 was chosen based on the explanation provided³⁷ for each indicator. For example, the *citation and reference* denomination was used in six rankings: *citations per publications* (CHE University Ranking), *papers indexed in SCI and SSCI* (ARWU), *citation per faculty* (USNRW), *number of citations in the last 11 years* and *number of citations in the last two years* (HEEACT), *mean citation score* (Leiden Ranking), *citations and references to staff publications* (Reitor). According to the explanations provided for each indicator, all the above measurements analyze the number of citations, but in different formats: per total or per publication, for the past year, two year, 11 years and so on. Thus, all these indicators were included in tables under the same denomination. The CHE Excellence Ranking used a seventh *citation* indicator. Yet, its definition corresponded to *h-index* indicator and as a result was included under the *h-index* denomination. A similar methodology was used to group all the other indicators.

Moreover, in order to assess the importance given by rankings to each activity, some additional adjustments had to be made. For the rankings that do not employ weights of indicators³⁸, the proportion used to measure the activities performed by HEIs was computed as the number of indicators for each of the three missions divided by the total number of indicators employed by the ranking. For example, the U-Map classification used a total of 23 different indicators, from which 14 were teaching oriented, 3 were research oriented and 6 measure the HEIs contribution to society. Thus, the education indicators represent a total of 60.87%, the research indicators represent 13.04% and contribution to society represents 26.09%.

The last adjustment made to rankings indicators concern the Reitor ranking. Although it provides weights for its indicators, Reitor specifies them for categories only. In order to measure the importance given to education, research and contribution to society, the group's weight was equally distributed among all the indicators pertaining to the same group. For example, the *professional competence of faculty* includes three indicators: *number of staff*

³⁷ All the indicators are presented in Appendix 2.

³⁸ CHE University Ranking, CHE Excellence Ranking, Leiden Ranking and U-Map classification

*winning world-level awards*³⁹, *number of staff publication*⁴⁰, *citations and references to staff publications*⁴¹. The total weight of the group is 20% and, as a result, the 6.67% was distributed to each indicator.

The content analysis of international university ranking methodologies provides an interesting result. CHE University Rankings is known for its focus on students and its lack of league tables. As presented in subchapter 7.1.1, the user introduces the data online, and the HEIs that correspond with this data are made available online. The ranking is user focused and the indicators are educational oriented. Yet, since PhD candidates are also part of the student community and given that some field areas (e.g. medicine) are more research oriented, research indicators had also to be included in the ranking. The results of my analysis show that these expectations are entirely fulfilled. CHE University Ranking focuses primordially on pedagogical activities (41.67%), secondary on contribution to society (27.78%), and only thirdly on research activities (16.67%). Even if it was the first ranking published⁴², CHE University Ranking has a strong social orientation, which, according to the recent literature, should also include contribution to society⁴³.

ARWU is the most known international ranking and it was always recognized for its capability to assess the entire range of activities performed by HEIs. The team behind the ranking itself claimed to be using measurements of education and this believe was supported by the existence of a *quality of education* criteria. Yet, as it was explained above, the indicator used to measure the pedagogical activity is research oriented. Thus, as shown by the results, ARWU is solely research oriented (100%), fact that is in accordance with some remarks found in the literature, where ARWU was claimed to have difficulties in assessing the pedagogical performance due to the specificity of educational activities (Marginson, 2007 a).

Another ranking well known for its overall performance orientation is USNRW (former THE). Although the rankings was highly criticized for reasons⁴⁴ that ultimately lead to the

³⁹ Denomination: *awards obtained by staff members*.

⁴⁰ Denomination: *number of publications*.

⁴¹ Denomination: *citations and references*.

⁴² Reference made only to the nine selected international university rankings.

⁴³ Information presented in subchapter 6.3.3 (*Contribution to society*).

⁴⁴ THE used questionnaires to determine the values of *academic peer review* and *employer review* indicators, but it was later proved that even if the questionnaires were sent to more than 180,000 email addresses, the number of respondents was rather small (e.g. the *academic peer review* indicator had 6,534 in 2008). Moreover, it was reported that this ranking was manipulating data by adding the responses from one year to the next one without taking in consideration the possible duplicity (EUA, 2011). *Citation per faculty* and *faculty student ratio* were also criticized for being easily manipulated, Baty (2010a) emphasizes in an article that ratios based on the same data can vary from 6:1 to 39:1 by only playing with definition of the indicators.

change of data providers for THE, the results of my analysis show that USNRW focuses primarily on research (60%), but pedagogical activities measurements are following closely (40%). Yet, looking at the indicators more closely, it can be seen that they are crude proxies for pedagogical measurements. *Employer review* was highly criticized for its low rate of response⁴⁵, while *international faculty* and *international students* indicators are limited to the international orientation of HEIs. In 2013, Times Higher Education has openly acknowledged these critiques as being true.

THE changed the methodology in 2010, aiming to assure a more rigorous, balance and sophisticated measurement (Baty, 2010b). The indicators were included into five categories, where teaching, research, citation, internationalization and economic activities of HEIs were considered activities of paramount importance in the current higher education environment. Comparing USNRWS and THE indicators, it can be seen that THE succeeded in making the indicators more accurate. For example, the previous *academic peer review* indicator was split in two: *reputation survey – teaching* and *reputation survey – research*. Yet, as the results of content analysis prove, THE continued to focus on research activities (68.50%). The increase in accuracy and the inclusion of new indicators have led to a slight increase in research activities, a decrease of interest in education activities and the emergence of the first contribution to society indicator.

The CHE Excellence Ranking aims to assist master and PhD students in selecting the best HEI for their needs. Thus, the indicators used in by this ranking should focus on both teaching and research capabilities of HEIs. The result of the content analysis show that CHE is slightly more research focused (52.94%), but the difference between the number of research indicators and pedagogical indicators is not significant.

HEEACT and Leiden Ranking are known as research oriented rankings. No surprising results are unveiled by the content analysis, as they only prove the research orientation of both rankings (100%).

Reitor ranking was highly criticized for its methodology and ceased to exist one year after its emergence. The major problem with this ranking was that it did not manage to attract many foreign institutions⁴⁶ and thus the results indicate that Russian HEIs are the top worldwide institutions (Roth, 2012). Thus, Reitors methodology was questioned, and discussions started on differences between this rankings results, ARWU and THE. Yet, as the content analysis

⁴⁵ From the approximately 17,000 worldwide universities, each with a high number of employees, only 2,336 respondents participated in 2009 (EUA, 2011).

⁴⁶ Reitor ranks only nine foreign HEIs.

brings to light, Reitors methodology was different than ARWU's and THE's. Those two rankings are research oriented, while Reitor focuses more on educational activities (40%). Since research indicators are closely following the educational ones (26.66%), Reitor has been a mix ranking.

The U-Map classification is the most recent ranking of HEIs and similar with CHE University Ranking and CHE Excellence Ranking, this ranking is user oriented. The results show that most of the indicators are measuring educational activities (60.87%), followed by HEIs contribution to society (26.09%), while research is placed last in this ranking (13.04%). From the nine selected rankings, three focus solely on research (Table 17). Other three have a predominant research orientation and the remaining three focuses majorly on teaching activities. These results are quite different from the first assumptions, which were based on ranking methodologies presentations. In addition, from the three teaching oriented rankings, one has ceased to exist in 2010, leaving only two educational oriented rankings functional. Both of them are European rankings, well known by Germanic and other European countries, but not yet around the world. The well-known global rankings have in fact a research orientation, similar with the one of research-oriented rankings. Thus, the results of the content analysis lead to conclusion that higher education activities have not only evolved during the last decades, but the order of importance of these activities have changes, research priming among the three types of activities.

Table 17. Performance orientation of international university rankings

Performance Ranking	Education	Research	Contribution to society
CHE University Ranking*	41.67%	16.67%	27.78%
ARWU		100.00%	
THE	29.00%	68.50%	2.50%
USNRW	40.00%	60.00%	
CHE Excellence Ranking*	41.18%	52.94%	
HEEACT		100.00%	
Leiden Ranking*		100.00%	
Reitor	40.00%	26.66%	6.67%
U-Map*	60.87%	13.04%	26.09%

* A self-employed methodology was used to compute the percentages⁴⁷

Source: author's projection

⁴⁷ These rankings do not provide the percentages used for the computation of their indicators. Thus, a self-employed methodology was used to provide the final percentages per each category of indicators. The results correspond with the focus presented by each of the rankings (e.g. the Leiden ranking is presented as a research focused ranking). More information is provided in subchapter 7.2.

8. The most popular accreditation systems and their evaluation methods

“Excellence is the unlimited ability to improve the quality of what you have to offer.”
(Rick Pitino)

Defined as a series of actions undertaken by organizations or agencies to recognize a higher education institution or a program to have met the set of predetermined standards (Hedmo, 2002), the accreditation process aims to determine the commitment to quality and continuous improvement of educational activities. Hence, the accreditation systems bring a qualitative perspective to the evaluation of HEIs performance.

They look at several criteria, such as internationalization, corporate connection, ethics, responsibility and sustainability, and put emphasis on the pedagogical activities and HEIs contribution to society. Yet, even if benefits can be gained from going through an accreditation process, the perception of European HEIs is that international accreditation systems are mere strategic tools (Scherer et al., 2005)

In highly competitive markets, such as higher education, institutions are forced to quickly respond to continuous changes and as a result, they often focus on boosting their reputation (D'Aveni et al., 2010). Even if the importance of accreditation systems has increased significantly during the last three decades (Nioche, 2007), that does not mean the interest for pedagogical quality had done the same. As reported by several authors, HEIs use the accreditation systems as an additional tool to gain advantage in face of their rivals and to increase their international prestige and outlook (Temponi, 2005).

In this chapter, we analyze the evaluation methods of two most popular accreditation systems in order to find if they influence the behavior of academics and those of their HEIs. As the accreditation organizations are seen as competitors of governments in what concerns the evaluation of higher education (Nioche, 2007), the content analysis of accreditation systems methodologies allow an in-depth understanding of why governments prefer university rankings for the allocation of funds.

8.1. A historical approach to accreditation systems

Being the oldest accreditation systems in the world, AACSB has always aimed to become a “hallmark of excellence in management” (Trapnell, 2007, p. 68), but until the end of the 20st century focus solely on American schools. A second accreditation system emerged in UK, but with a completely different scope. Instead of focusing on the evaluation of HEIs, AMBA⁴⁸ aimed to validate MBA programs (Urgel, 2007), reason for which this accreditation system was excluded from my study. Yet, it has to mention that both AACSB and AMBA are American models of evaluation that look at HEIs from a national angle, without taking into consideration the internationalization of these institutions or those of their programs (Nioche, 2007).

In contrast to the labeled certifications offered by AACSB and AMBA, EQUIS was built from a joint collaboration of several European countries and has targeted the continuous improvement of the higher education quality (Temponi, 2005). Among all the national accreditation systems, two have decided to expand their certifications outside the borders of their jurisdictions. AACSB and AMBA started a process of internationalization at a similar time, along with the emergence of EQUIS, the only international built accreditation system (Urgel, 2007). In conclusion, as in the case of international university rankings, U.S. and Europe have taken different stand to approach the evaluation of the higher education field.

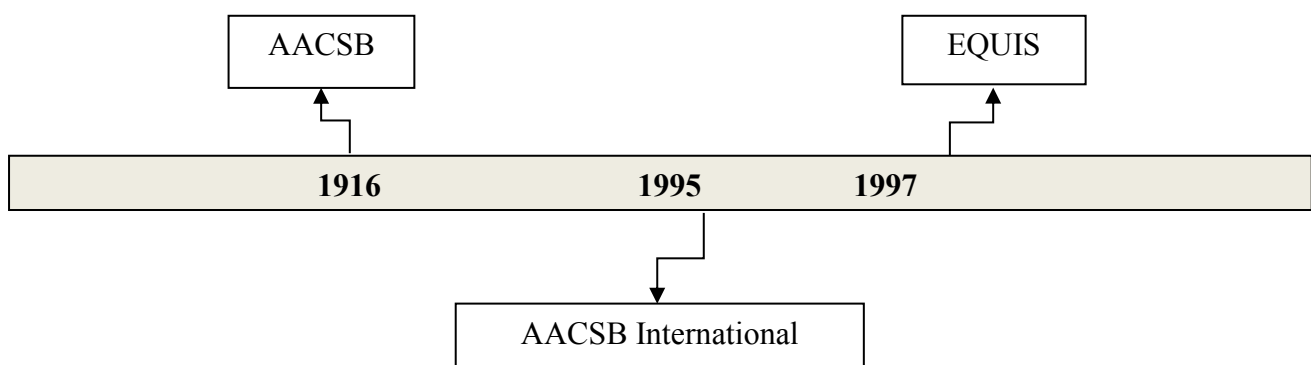


Figure 13. The emergence of international accreditation systems

Source: Author's projection

⁴⁸ Association of MBAs

8.1.1. Association to Advance Collegiate Schools of Business International

AACSB is a “global membership organization of educational institutions, businesses, and other entities devoted to the advancement of management education” (AACSB International, 2014d). Founded in 1916, the organization aimed at first to assure the quality of educational programs and validate the diplomas offered by North American collegiate institutions (Trapnell, 2007).

Since its inception, AACSB has gone through several phases of development. In the initial phase, the accreditations were granted to HEIs on an overall basis. Later, in a second phase, the accreditation system was developed to focus on educational programs and finally, in a third phase, AACSB begun to evaluate HEIs based on their targeted strategy: view (international, national, regional), type of institution (business school, college, etc.) (Nioche, 2007). In 1995, AACSB went globally, expanding the accreditation program to foreign institutions (Trapnell, 2007) and in 2014, AACSB International reported that a number of 727 business schools from 48 countries have earned an AACSB accreditation (AACSB International, 2014b).

In the context of a growing market of higher education, which is highly competitive, the presence of AACSB at an international level proved to be useful to many European HEIs as they employed this accreditation systems as a marketing tool in order to attract the best students and faculty members from all over the world (Scherer et al., 2005). As AACSB confirms the HEIs commitment to quality and assure the continuous improvement of programs⁴⁹ (Trapnell, 2007), the organization aspires to be the leading authority in management education (AACSB International, 2014c).

8.1.2. European Quality Improvement System

Along the years, European Foundation of Management Development (EFMD) has built three quality systems (EQUIS, EPAS⁵⁰ and EDAF⁵¹), focusing on the internationalization criteria. Currently, it was reported that more than 800 members in 81 countries are participating in the foundation’s coordination, dissemination and management (EFMD, 2014c).

⁴⁹ In 2005, AACSB has passes to a five-year review cycle of “vigorous process-driven and outcome-oriented maintenance of accreditation framework” (Scherer et al., 2005).

⁵⁰ European Programme Accreditation System

⁵¹ European Deans Across Frontiers

The first project undertaken by EFMD was the establishment of EQUIS in 1997 with the purpose of raising the quality of worldwide management and business administration education (Urgel, 2007). Constructed as an on-going evaluation system (Temponi, 2005), EQUIS grants accreditations to academic institutions for a period of three or five years, depending on the results of the evaluation (Nioche, 2007). Currently, EQUIS has granted accreditations to 155 HEIs from 40 countries (EFMD, 2014b), number that has continuously increased since the inception of this accreditation system.

Next, the organization looked to enhance the learning process in schools that did not compete globally or did not focus solely on business and management education. As EFMD argued, some worldwide institutions can not be accredited through the EQUIS evaluations as their view go beyond the management education, but they have business and management programs that can benefit from EFMD's help (EFMD, 2014a). As a result, the EPAS project came to life and became functional in 2005. The last project undertaken by EFMD was EDAF, service that became functional in 2011 and that was designed to aid the management of HEIs in developing their school toward a better quality education in management and business administration. Yet, since the last two projects focused on particular activities of HEIs and not their overall mission, they were not included in the current analysis.

8.2. The evaluation process of international accreditation systems

Compared to the international university rankings, accreditation systems have a different view on higher education. Instead of looking to determine HEIs level of excellence based on several indicators presumed to objectively measure schools performance and order the institutions according to results of these measurements, the accreditation systems identify if HEIs provide students with high-quality education.

In a changing context of a global environment, the higher education field is expected to show a high sense of social responsibility and stimulate the socio-economic growth. HEIs are supposed to engage in developing innovative practices, invest in intellectual capital and develop educational programs that answer to the social demand. Yet, as shown in the previous chapter, such qualitative actions are difficult to measure. The accreditation systems come to answer to this educational gap and focus on the level of educational programs. Through a very complicate and demanding evaluation process, the two accreditation systems

aim to create a standard for high quality of management education and assess the HEIs involvement in developing sustainable social practices.

As opposed to ranking systems, accreditations are not solely granted based on measurement results and numbers, but on the existing link between HEIs mission, strategy and functioning. In the case of these evaluation systems, primary importance is given to the educational activities, HEIs having to reach at least the standard quality established by the accreditation organizations. Once the accreditation is granted, HEIs are expected to continually improve their core activities and periodically keep the accreditation organization updated on the developments. In addition, one year before the accreditation expires⁵², HEIs must demand a renewal of their accreditation. Thus, the evaluation process is performed on a constant basis and requires HEIs to commit to the enhancement of the higher education quality.

Yet, even if numbers are important for the eligibility phase of accreditation systems, HEIs are only required to make proof of reaching the standard level, moment at which the actual evaluation can commence. The accreditation bodies assess all three missions of HEIs⁵³, paying special attention to pedagogical activities and the contribution to society.

Yet, the evaluation process revolves around the specific mission elaborated by each higher education institution and the strategies chosen to achieve the outcomes implied by this mission. AACSB International (2015) defines the specific mission of a higher education institution as “a single set of statements serving as a guide for the school and its stakeholders. These statements capture the school’s core purposes, express its aspirations and, and describe its distinguishing features” (p. 14).

As previously emphasized, some HEIs focus more on research, while some other prefers a pedagogical approach. Moreover, the pedagogical (or research) focused institutions might choose to achieve their goals in different manners. For example, if they aim to educate the working population, they would target the development and implementation of distance learning programs, reorientation courses and MBAs instead of educational programs designed to young students. Thus, the accreditation system start the evaluation process from the core mission of HEIs and link all the other components of their evaluation to this first element.

The two selected international accreditation systems pay special attention to ethics, responsibility, sustainability and corporate connection. In addition, EQUIS was designed to

⁵² Depending on the accreditation type (AACSB or EQUIS) and the period of time for which the accreditation was granted.

⁵³ Education, research and contribution to society

take into consideration the international aspect of HEIs development. Although the AACSB's standard and EFMD's presentation do not detail the evaluation process and its elements, the criteria mentioned and described are similar in nature⁵⁴ and can be divided in three distinct categories based on the component's focus (Table 18):

- **institutions** capability to function at a high quality level
- development, improvement and effectiveness of pedagogical activities for **students**
- qualification and sufficiency of **faculty members**, as well as the institutions implication in their career development

The accreditation systems pay attention to select criteria that enhances the higher education activities and improves the functions through which they are achieved. They check for the HEIs interest in collecting students' feedback and the actions taken to improve courses. Moreover, they are interested in the existence and development of additional programs that add to the social environment, such as advisory contracts with the business environment, yet being attentive that these activities must be related to the specific mission of the higher education institution.

⁵⁴ The only visible exception is the focus on internationalization of HEIs.

Table 18. Criteria framework of international accreditation systems

Focus	Criterion
Institution	Mission and strategy
	Scholarship and intellectual contributions
	Financial strategies
Students	Student admission, progression, and career development
	Teaching effectiveness
	Student academic and professional engagement
	Executive education
	Management of curricula
	Curriculum content
	Student-faculty interactions
	Structure and equivalence of degree programs
Staff members	Faculty sufficiency
	Professional staff sufficiency
	Faculty qualifications and engagement
	Support of faculty members and career progression

Source: author's projection

Still, the accreditation systems are far from being perfect. For starters, the American model inclined to put more emphasizes on the research abilities of faculty members, although they do differentiate between academics and professionals. In 2015, they slightly modified several points in their standards, among which the sufficiency of faculty members. Instead of looking at teaching productivity as before, AACSB has transformed the criteria into “faculty productivity” (AACSB International, 2015, p. 45).

Moreover, some of the criteria used by these accreditation systems are encouraging the HEIs to hire faculty members with doctoral degrees only, in order to boost their institution visibility⁵⁵. The same might be the case for EQUIS, although detailed information is not available on EQUIS website. A more detailed analysis would be required to determine the percentage of professional versus academic faculty members in the accredited schools in

⁵⁵ One of the requirements of each faculty member's portfolio is the highest degree earned and the year of completion. As discussed in the previous chapter, the PhD program requires individuals to perform research activities. Professionals coming from the business field are rarely in the possession of such a diploma.

order to determine the implication of these current changes in AACSB and the lack of explanations from EQUIS.

In addition, even if the purpose of the accreditation systems is exceptional, the accreditation process is not free of charge. AACSB requires up to 20,400 USD for an initial accreditation⁵⁶ and a yearly payment of minimum 5,400 USD⁵⁷ (AACSB International, 2014a), while EQUIS requires 26,000 Euros⁵⁸ to review the applications and an annual installments⁵⁹ required only if the institution receives a three or five years accreditation (EFMD, 2014d).

Nevertheless, I consider that the accreditation systems have managed to increase the average educational level, directing the HEIs to also focus on their stakeholders and mold their programs on the needs of their students. Contrary to international university rankings, which are mainly interested in Nobel, Field and other worldwide-recognized prizes, the accreditation systems are interested in the development of the overall population of students. They follow the improvement of educational programs, the relation between the mission of the school and the types of activities performed by HEIs, evaluate the students opinion on the programs they are enrolled in, facts that lead to the enhancement of the global average educational quality.

Conclusion

The technological progress has imposed the massification of higher education and an increased level of knowledge for the worldwide population. The socio-economic environment puts pressure on HEIs to prove their role in the development of a better society. When the global market of higher education emerged, students wished to base their decisions on a simple system that could provide information on HEIs abilities to improve their personal knowledge. Moreover, the increase in students' number has lead governments to question their fund allocation, as it was impossible to sustain a massive educational development at a

⁵⁶ The AACSB's fees for initial accreditation visits are as follows: 1,000 USD for determining the eligibility of the application fee; 5,400 USD for the initial accreditation and 14,000 USD for the initial business or accounting accreditation visit (AACSB International, 2014).

⁵⁷ Accredited institutions are required to pay a yearly fee of 5,400 USD if they are accredited for the business field, and 8,700 if they were granted a business and accounting accreditation (AACSB International, 2014).

⁵⁸ EFMD requires two types of fees: the application fee, which amounts to 9,750 Euros, and the review fee, which represents 16,250 Euros (EFMD, 2014).

⁵⁹ HEIs that obtain a three years accreditation are required to pay an additional 9,750 Euros, while HEIs that are granted a five years accreditation are required to make a payment of 16,250 Euros. The institutions can chose to pay the full amount immediately after obtaining the accreditation, or pay the total amount in equal annual installments of 3,250 Euros (EFMD, 2014).

national level. Thus, they had to find a mechanism that permitted a rational distribution of public money and, in the same time, to assure a transparent allocation process.

In this context, the rise of university rankings was viewed as a possible solution to the social and economic expectations. Benefiting from the powerful advantage of numbers, they had a large success to the public and become extremely influential at a global level (Charle, 2009). The outputs of their evaluation processes were considered a perfect accountability tool, creating the label of ‘excellence models of HEIs’ and legitimizing the measured higher education activities.

Yet, as shown in chapter 7 (*The most known international university rankings and their measurements*), rankings focus on measuring the schools performance in a quantitative manner. Aiming to create an international model of HEIs, they determine the outcomes of educational activities by using the same set of indicators for all the schools included in their analysis, without taking into consideration the specificity of each higher education institution. Moreover, as Einstein emphasized, evaluation methods should also focus on quality issues, as not everything that counts can be counted. University rankings have attempted to add measurement of quality, by collecting for example surveys from either faculty members or students. Yet, as mentioned in this part of the thesis, rankings have failed in measuring quality, as the number of surveys collected was extremely low compared to the number of worldwide faculty members and students. Some funding organizations of international university rankings (e.g. THE) have even acknowledged that measuring for example the quality of teaching is a very difficult task and they are far from accomplishing this target.

Unlike international university rankings⁶⁰, the accreditation bodies have aimed to assure the existence of a high quality higher education system and the continuous improvement of educational activities. As mentioned in chapter 8 (*The most popular accreditation systems and their evaluation process*), the accreditation bodies have built their evaluation procedures around the specific mission of HEIs, paying close attention to what each higher education institution is targeting, the method through which schools link the strategy and the activities they perform to their mission. Thus, their objective is to improve the transfer of knowledge, develop better research and the HEIs involvement in the social and economic local environments.

⁶⁰ Which employ presumed indicators to determine the quality of HEIs activities.

In other words, rankings represent the image of the academic field at a certain moment in time, while the accreditation systems aim to assure a better future for the society and an economical growth through a constant implication and improvement of HEIs within their local and national context. Rankings focus on the past activities and the results obtained by HEIs, while accreditation system focus on the present activities, methods and functions and project the constant improvement of their results into the future (Figure 14).

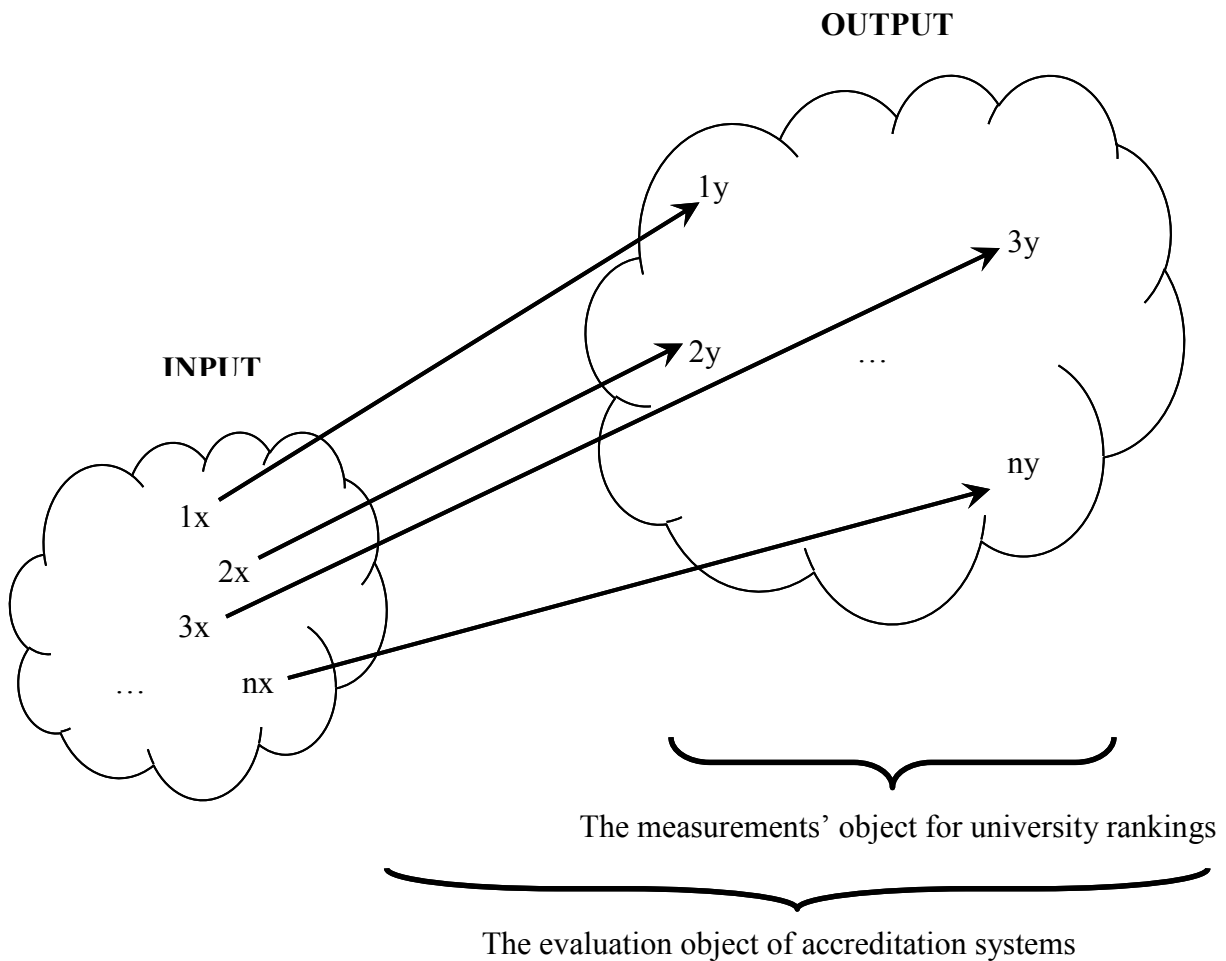


Figure 14. The evaluation object of accreditation systems and university rankings⁶¹

Source: Author's projection

Charle (2009) claims rankings are more successful than any other evaluation mechanism due to their “dominant ideology”. They are easy to use and can easily benchmark the institutions

⁶¹ x stands for the resources and effort provided by the school and y expresses the results of HEIs specific activities. The x and y are linked through a function that represents the method selected by schools to achieve the output they desire.

in the competitive higher education world. Moreover, as any other performance measurement system, they help managers to recognize on which activities they should focus and which one can be dropped or paid less attention to.

Yet, Merchant (2010) stresses that he sees “a dark cloud [...] on the [academic] horizon, in the form of rankings and league tables” (p. 119). Due to the way they are constructed and their intensive global use for funds allocation, rankings are used as primordial mechanism of evaluation in the higher education field, while the accreditation system only add to the schools visibility and reputation (Figure 15). Thus, rankings have the power to transform the educational system, to change the mindset of academics. Although the purpose of HEIs is to prepare “students for meaningful, professional, societal and personal lives” (AACSB International, 2015, p. 2), more and more top HEIs directed their mission toward research activities

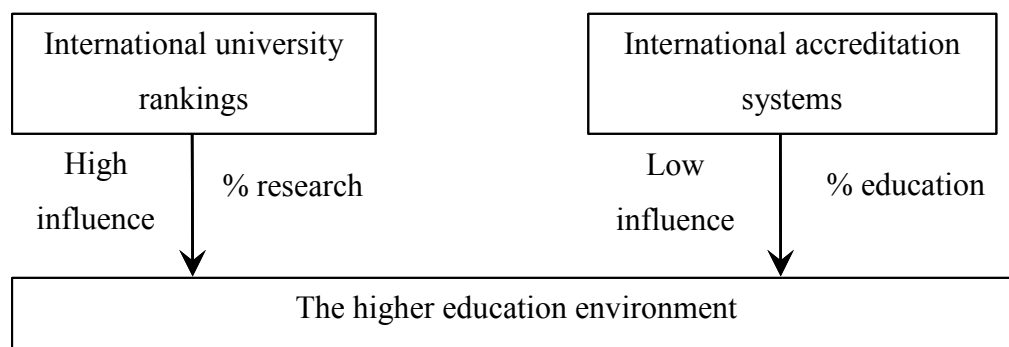


Figure 15. The influence of rankings and accreditations systems on the higher education environment

Source: Author’s projection

The findings show that cognition, rationality and strategic choice of HEIs are inextricably intertwined with one another in the self-desire to survive on the market. These results provide an indication of the process by which successful HEIs are able to sustain their competitive advantage by giving a relative greater emphasis to performance measurements employed by external measurement systems, such as university rankings. During the period within which this filed study was undertaken, reputable (successful) HEIs invested massively in research activities and preponderantly hired faculty staff that is able to undertake research activities. In short, the ranking and accreditations system analysis along with HEIs observations show that

successful HEIs are able to protect their image by acting according to the external evaluation demand, fact that enhances the academics awareness about the high value of research activities and the importance they play in their career advancement.

Part four. Career management in academia

“It is not only what we do, but also what we do not do, for which we are accountable.” (Molière)

Introduction

The fourth part of the dissertation covers the subject of career management in academia. The changes that occurred in the higher education sector have affected not only the institutions, but also their employees. When the university rankings and accreditation systems expanded internationally, the HEIs rebuilt their internal evaluation systems according to the new international demand. The focus of these institutions shifted from a development role to a judgmental one (ter Bogt and Scapens, 2012), where quantitative measurements became of paramount importance in the evaluation of academic activities.

As presented in the methodological chapter, the study is based on observations of HEIs and interviews collected from PhD students and faculty members. This method of work permitted me to grasp the academics' understanding of their environment and determine how the use of rankings performance measurements is affecting the career management process. The next part of the dissertation sets the context for the interviews by describing the career development process of French faculty members and the accredited institutions concerned with the evaluation of higher education activities. Further, I analyze the perception of academics, the recent developments in terms of career management and the demands of the academic environment.

Used as mechanisms of motivation and control, the performance measurement systems aim to direct and align the actions of faculty members towards a global standard of excellence. Yet, the importance given to certain types of activities has changed the strategy of individuals as well as their career choices. The university rankings became a powerful tool in the evaluation of HEIs, but they focus mostly on the performance of research activities. As a result, the use of their measurements on individual performance leads the present and future faculty members to develop a higher interest for research activities.

9. The French higher education system

“Language is not merely a set of unrelated sounds, clauses, rules, and meanings; it is a total coherent system of these integrating with each other, and with behavior, context, universe of discourse, and observer perspective.” (Kenneth L. Pike)

The harmonization of European higher education has been on the governments agenda for a long time (Crêt, 2011). Since 1999, a series of meetings and agreement between European countries were scheduled and they empathized a common desire of several countries to achieve a greater comparability and compatibility between the European higher education systems (European Higher Education Area, 1999). Today, these efforts are widely known as the *Bologna process*.

Nevertheless, although the implicated countries made major adjustments to align themselves to the European requirements, each higher education system has its own particularities. Thus, the education ministries have adopted the changes imposed by the Bologna declaration by adjusting them to their counties cultural background and academic traditions (Mottis). This meant that the European educational systems are not identical and cross-country differences exist among them.

The observations and semi-structured interviews collected for the development of this dissertation were performed in European institutions, most particularly in French ones. Hence, even if the results of the study might be applied to other European or non-European institutions, it is necessary to describe the background and the particularities of the French higher education environment. In what follows, a brief history of the French higher education system is described, two models of career development are provided, and the reality of the field is constructed with the help of the academics perception.

The research folds around the particularities of the French higher education institutions, but the results emerge as being applicable at a global level. This fact was confirmed through several interviews with academics that have worked in different European and non-European countries. Although the validation of a similar worldwide career management transformation was not a condition for my study advancement, I performed this phase out of mere curiosity for future research development.

9.1. The French higher education environment

The history of the French higher education system starts in the 12th century, when the first independent institutions were established (NIAD-UE, 2012). Six centuries later, the system went through several transformations, among which the development of *grandes écoles*, unique institutions that cannot be found elsewhere around the world (Altman and Bournois, 2004).

As in many other countries, the French higher education system was traditionally concerned with knowledge transfer (Cour des Comptes, 2005). Yet, starting with 1930, the promotion of research activities has become a political objective of the French government. In 1968 the academic environment went through a second transformation, which profoundly impacted the higher education environment. The *massification* of higher education has led to the emergence of a large number of new universities. Under these circumstances, the government proclaimed the autonomy of French HEIs and let them to choose their own approach toward a multidisciplinary activity and establish their own research laboratories (Cour des Comptes, 2005).

The decentralization of higher education occurred in 2007, through the emergence of LRU⁶² law (Loi n° 1199, 2007). Yet, the financial resources destined to the higher education development remained under the governmental control. For this reason, some authors claim that autonomy was just a façade, the real purpose being to persuade HEIs to keep track of their own activities and align themselves to governmental expectations (Mercier, 2012). However, the institutional power remained in the hands of the French government.

In addition, it was accentuated that the reform aimed to align the French higher education system to the US model, which is claimed to be the most performing one. In particular, the Minister of the French Higher Education has repeatedly stated that their policy was to encourage the fast development of French universities and aims to include more of them among the institutions listed by international rankings (Charle, 2009).

The lack of time of French higher education evaluators called for a formal system that provides an easy way to select the most performing institutions. To avoid time-consuming tasks, judgmental evaluation system were put into practice (Charle, 2009). Moreover, the practices aimed to avoid reading of articles, thesis, books and other research outputs by

⁶² Law regarding the freedom and responsibilities of universities (*Loi relative aux libertés et responsabilités des universités*)

reducing their diversity and complexity to categories of research activities. The French HEIs and research laboratories are evaluated periodically⁶³. Based on the results of evaluation, they sign a contract with the French government, where the financial aid is stated. An example of the amounts allocated for HEIs and the activities to be performed is provided in table (Table 19).

Table 19. The financing of HEIs through governmental contracts in 2003

Activities (Credits)	Amount (Euros)	Percentage (%)
Scientific activities	171,267,000	59.35
Doctoral training	11,877,000	4.12
IT infrastructure	8,483,000	2.94
Quality enhancement	2,109,000	0.73
Infrastructure	81,436,000	28.22
Other activities	3,902,000	1.35
Recruitment of non-permanent staff	9,502,000	3.29
Total	288,576,000	100.00

Source: Cour des Comptes, 2005

The evaluation of French higher education mostly focuses on a macro level. These practices provide government with a clear image HEIs performance. Moreover, rating the institutions based on the evaluation results helps governments to easily account the amount of the endowment allocated to each institutions, but also to control “the expansion of research facilities and the promotion of excellence based on the performance evaluation of each research teams” (Cour des Comptes, 2005, p. 41).

As presented in chapter 7 (*The most known international rankings and their measurements*), one of the university rankings aims to homogenize education. Yet, the indicators they employ cannot be applicable to all types of disciplines. According to Charles (2009), the French

⁶³ The evaluation process takes place every four years.

higher education performance measurement systems have the same result. Meant to solve the problems encountered by the French academic evaluation system, the government has imported foreign practices, such as university rankings measurements.

These types of practices fascinate policy makers and HEIs managers. They provide a powerful tool to rank institutions in a global market and help to attract money on the margin. As an unwritten rule says, “any number beats no number” (Gingras, 2008, p. 70). Thus, Charles (2009) argues that in an attempt to legitimize this change in practice, the regulatory institutions take the media’s opinion for granted and forget about the specificity of the French educational system. By accepting the national evaluation process, HEIs are left with little maneuvering space for their specific missions projects. Moreover, the evaluation seems to be limited and discriminating: “One of the objectives of the contractual approach is that, regardless of their performance, well known laboratories receive the minimum credit that ensures the operation.”⁶⁴ (Cour des Comptes, 2005, p. 136)

Although the French academics trust the external evaluation systems, these mechanisms are far from being perfect. One major problem is the high level of bureaucracy, the evaluation results being made public at least a year later. These delays are claimed to be caused by the committees, as members are not exempted from other duties nor compensated for the amount of work required to complete the evaluation reports (Charle, 2009). Moreover, although research evaluation provides an easy method of measuring individual and organizational performance, reading thesis, articles, communications and books is extremely time consuming. Thus, with the increased number of candidates, the number of documents has increased proportionally, making it difficult for specialist to perform their activity in time (Charle, 2009). As a result, the existence of independent organizations increases the public confidence in the system, but as the number of evaluators has remained the same while the amount of work has increased considerable, a significant delay is noticed in completing the evaluations. This is in opposition with the initial expectations of implementing performance measurement systems in France.

⁶⁴ Original text: « *L’un des objectifs de la démarche contractuelle est que, quelles que soient leurs performances, les laboratoires reconnus disposent, sous la forme d’une dotation de base, d’un minimum de crédits qui garantisse leur fonctionnement.* »

9.2. Performance evaluation in French higher education

The evaluation of academics is not a novelty in the French higher education. However, the measurements systems have changed over the years, in particular being hugely influenced by the media's opinion (Charle, 2009). As overall image of global higher education is constructed around university rankings, the indicators used by the French evaluation system to rank institutions ended up in focusing more on scientific performance. The inclusion of research activities in the core mission of French HEIs (Décret n°84-431, 1984) has led to the evolvement of job positions and recruitment process. Instead of being called *pedagogues*⁶⁵, the academics started to be referred to as *research-pedagogues*⁶⁶, name that reflected their new job requirements. HEIs and academics accepted this change without questioning or reflecting on the reliability of these indicators. The use of measurement systems that are simple to determine and assure a high transparency was very important at the time. As a result, the implications of these measurements on the role of higher education were unfortunately overlooked. Although education is on the agenda of French Higher Education Minister and the European commission, this activity slowly started to fade away from schools and academics priorities.

*“What do we mean by education? (...) I want to be evaluated on something where I know what the goals are.”*⁶⁷ (Interview with a professor, collected by Dejean, 2006, p. 71)

In France, several national authorities are responsible for universities and academics performances: Evaluation Agency for Research and Higher Education (AERES)⁶⁸, High Council for Research and Higher Education Evaluation (HCERES)⁶⁹, National Council of Universities (CNU)⁷⁰, The National Centre for Scientific Research (CNRS)⁷¹ and The National Foundation for Management Education (FNEGE)⁷². Some of these institutions create panels of experts that rank international, national and local journals in order of their

⁶⁵ Original term: «enseignant».

⁶⁶ Original term: «enseignant-chercheurs».

⁶⁷ Original text: « De quoi parle-t-on quand on parle d'enseignement? (...) Je veux bien être évalué sur quelque chose dont on m'a donné les objectifs. »

⁶⁸ Agence d'évaluation de la recherche et de l'enseignement supérieur

⁶⁹ Haut Conseil de l'évaluation de la recherche et de l'enseignement supérieur

⁷⁰ Conseil National des Universités

⁷¹ Centre National de la Recherche Scientifique

⁷² Fondation nationale pour l'enseignement de la gestion des entreprises

importance (Charle, 2009), measurement that is now of paramount importance for almost all the national and international higher education evaluation systems⁷³.

9.2.1. The performance assessment of French higher education institutions

AERES was created in 2006 to answer to the Bologna recommendations and improve the quality of the French higher education system (Bourion et al., 2014). The agency's main mission is to evaluate HEIs, research laboratories, programs and degrees (AERES, 2010). The academics assessment was supposed to be later added to the AERES responsibilities (L'assemblée nationale et le sénat, 2006), but it was never been put in practice as in 2009, the individual assessment process became the mission of CNU.

At the moment, the France higher education system is split in three cycles: bachelor degree, master degree and doctorates. All HEIs that award at least one of these State accredited degrees must be evaluated by an external committee of independent experts every four years (AERES, 2010). The committee has the role to assess the organization, the functioning and the results of each institution, stressing more on schools' policy of quality, strategy and governance, research and training, students results, scientific value and culture, international and European collaborations, control and management (AERES, 2013).

In achieving their mission, AERES has set three major objectives. The first one regards the implementation of commitments made by France during the Bologna Process. The second one concerns the assessment and feedback provided by AERES to the HEIs (Fig. 15). In addition to the evaluation process, AERES has the role to identify the strengths and weaknesses of each HEIs and suggest the modification to be made in order to increase the quality of services provided by the school (AERES, 2010). The third one is the publication of evaluation results and the communication of impartial information on the current state of HEIs.

⁷³ The extensive use of this measurement is discussed in subchapter 7.2.

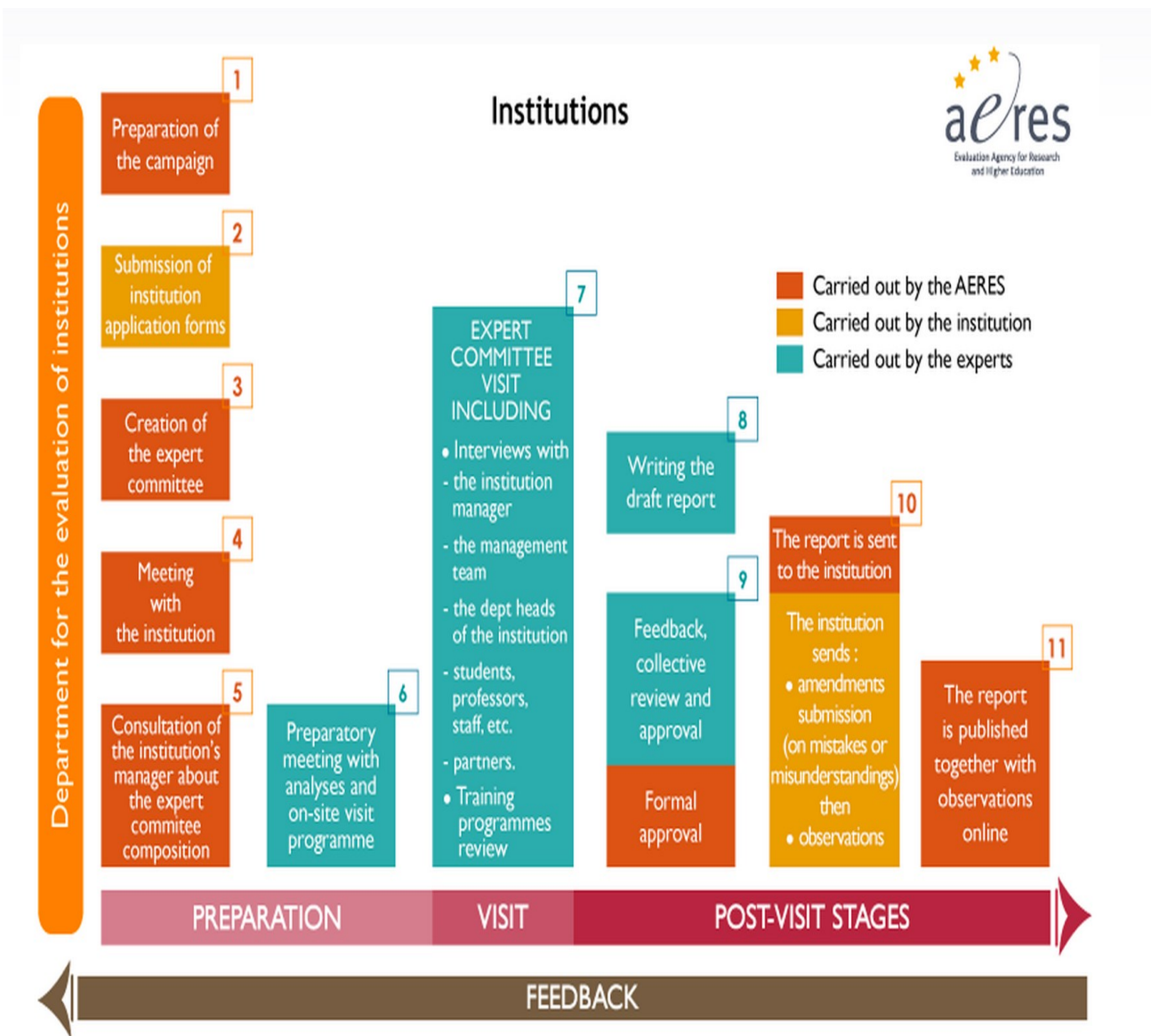


Figure 16. The AERES evaluation process

Source: AERES, 2013

AERES's assessment process follows similar practices with the one employed by accreditation systems. However, the final step of evaluation is to rank the French higher education institutions by transforming their outcomes into outputs (AERES, 2013). For this, AERES uses a quantitative evaluation grid meant to provide relevant information to all the stakeholders of higher education services. Similar to the selection of university rankings measurements, AERES has chosen a quantitative approach due to their operational simplicity, ability to channel HEIs toward institutional homogenization and higher transparency of the evaluation methodology. This mixture of methods was chosen for an obvious reason. The AERES evaluation results play an important role in the allocation of

governmental financial resources, which means the HEIs need to be ranked (Pumain and Dardel, 2014) and this method was expected to provide a proper accountability tool that could have been easily employed by everyone interested in how evaluations are performed.

Yet, contrary to expectations, the grid became a controversial and sensitive subject in the French academic community (Pumain and Dardel, 2014). One of the reasons behind their discontent is the stakeholders' temptation to read the grades rather than actually analyze the evaluation reports. The complex activities of HEIs are reduced to a number that is often the only element taken into consideration for resource allocation or contract renewals. This goes against the quest for separation between the assessment and decision-making processes.

Another reason was the long-term label attached to each evaluated institution. The AERES assessment provides a snapshot of the present, while the structure and activities of HEIs evolve over time. Since the evaluation process takes place every four years, the risk that some institutions are stigmatized while others are overrated is very high (Pumain and Dardel, 2014). Moreover, some HEIs have adopted a red line management⁷⁴ (e.g. closed the less efficient research laboratories) with the aim to boost the average grade and avoid the negative effects that came along with a lower grade. On short term, the exclusions improved their image, but such practices might have no effect on the actual research or educational performance (Pumain and Dardel, 2014).

In order to remedy deficiencies encountered during the assessment process, AERES has continuously adjusted the practices. However, the agency has not clearly express the reasons behind the changes and thus, the national evaluation system was often perceived as illusory and excessively bureaucratic (Pumain and Dardel, 2014), leading to the decrees of public confidence in the AERES's evaluation results. For all these reasons it was announced in 2013 that AERES will be replaced by HCERES, all property, rights and obligations of AERES being transferred to the new institutions (Loi n° 660, 2013).

HCERES aimed to build a new evaluation process by learning from the attempts of previous assessment agencies (e.g. AERES, CNE⁷⁵, MSTP⁷⁶) with clear goal of reinforcing the stakeholders' confidence in the French evaluation system. In order to succeed, HCERES intends to work with partner institutions specialized in different evaluation practices. Moreover, they aim to introduce a list of qualitative measurements that takes into account the

⁷⁴ *Red line management* represents a business practice in which the management team aims to raise the value of specific indicators without carrying if they are related or not to value creation.

⁷⁵ National Council of Evaluation (*Conseil National de l'Evaluation*)

⁷⁶ Scientific, Technique and Pedagogical Mission (*Mission Scientifique, Technique et Pédagogique*)

particularities of each higher education institution and provide an external opinion without being normative.

9.2.2. Academics evaluation in France

With no equivalent in any Western higher education systems, the French National Council of Universities was created in 1945⁷⁷ as a consultative and decision making agency (Picard, 2012). Being the only French institution in charge with the assessment of faculty members (Décret n° 461, 2009), CNU manages the qualification of academics, as well as their recruitment and careers advancement. If individuals are active in the academic environment, they can apply for a tenured job position without being "declared fit by a national authority to exercise the functions for which they are engaged" (Picard, 2012, p. 75). The qualification given by CNU assures the recruiters that the applicant possess the minimal research and pedagogical aptitudes required for the *research-pedagogues* job position.

In 2007, LRU⁷⁸ provided greater autonomy to HEIs. As a result, the academic landscape has considerably changed and the existence of CNU became questionable (Picard, 2012). With the decentralization of power, the government considered that CNU was now meaningless. Yet, by losing CNU, the academics were afraid that the selection and recruitment of faculty members would be subjective (Picard, 2012) and they strongly mitigated for and obtained the preservation of CNU as an institution of centralized control.

In order to evaluate the individual performance, CNU divides higher education into six major fields⁷⁹, each of them being further separated into groups and sections. For each section, the criteria and procedures for qualification and evaluation of individuals are published online. As this dissertation has focused on the business career management of academics⁸⁰, I will further describe only the *Law, economics and management* field, group one, section *Management*. On an overall basis, CNU evaluates individual activity based on the following indicators (CNU, 2012a):

- **Research activity:** number of publications (e.g. articles, books), quality of publications based on journal rankings, number of research projects, number of PhD

⁷⁷ Since its inception, CNU went through several denominations: Comité Consultatif des Universités (1945), Comité Consultatif des Universités (1972), Conseil Supérieur des Corps Universitaires (1979), Conseil Supérieur des Universités (1983) and Conseil National des Universités (1987)

⁷⁸ For more information on LRU, please refer to the previous subchapter.

⁷⁹ Law, economics and management; Humanities; Sciences; Multidiscipline; Theology; Pharmacy

⁸⁰ This methodological choice was explained in chapter 2.

students under supervision, the individual implication in organizing and evaluating research.

- **Administrative activity:** management responsibilities, development and management of programs, other missions and responsibilities within the institution, other missions and responsibilities at national and international level.
- **Pedagogical activity:** number of taught cycles, number of courses, number of pedagogical publications or innovations, notoriety during international teaching exchanges.

To become an Assistant Professor, Associate Professor or Full Professor in the French higher education public sector, individuals have to pass the CNU examination (CNU, 2012b), which is not a simple task. During 2003 and 2012, from the total number of applicants only 31% were qualified as Assistant Professors in the management sciences. On average 20% of the applicants were rejected before the examination even started (Table 20).

Table 20. The results of Assistant Professor qualifications

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Number of applicants	307	364	356	360	384	387	430	411	372	405
Number of rejected files	73	67	64	86	73	85	100	61	71	67
Percentage of incomplete files	24%	18%	18%	24%	19%	22%	23%	15%	19%	17%
Number of applicants before examination	234	297	292	274	311	302	330	350	301	338
Number of qualified applicants	96	120	128	118	144	160	163	179	134	168
Percentage of qualified applicants	31%	33%	36%	33%	38%	41%	38%	44%	36%	41%

Source: CNU, 2012b

The evaluation process of academics has several steps. First, the applicants have to submit a file that contains information on their research and pedagogical experiences. The candidates for Assistant Professor positions should submit their PhD thesis and at least two more research documents in order to validate the application file (CNU, 2012 b, p. 8). Although doctoral studies span over a long period of time, successfully defending the dissertation is not considered sufficient to become an Assistant Professor in France. Moreover, it is strongly encouraged that at least one of the articles enclosed to the application file is published in

journals ranked by FNEGE, CNRS or AERES (CNU, 2012c). The publication is demanded to prove that the peers recognize the applicant's work. Since there is no upper limit to the number of articles to be enclosed, candidates can add as many documents as they consider necessary, but only journal articles and conference articles are considered a plus in terms of research evaluation.

Pedagogical and administrative work is also evaluated, but has a lower impact on the final decision. CNU requests that all applicants have experienced teaching in HEIs and the evaluation process for this specific activity is based on the diversity of programs taught and to whom the course is addressing⁸¹. Ability to administrate educational or research programs is not a must, but they represent a plus for applicants. CNU (2012) claims that although administrative work is rarely remunerated, it is an activity that proves the candidate's desire to work and be part of the higher education system.

⁸¹ Bachelor students, master students, doctoral students

Table 21. The indicators used by CNU for the promotion process of Assistant Professors and Full Professors⁸²

Research	Pedagogy
Publications in journals classified by reference agencies	Development of new programs
Publications in peer-review journals not classified by reference agencies	Management of programs
Publications in professional journals	Students supervision and participation to examination juries
Research books and book chapters	Development of international programs and teaching in foreign languages
Articles in peer-review conferences	Pedagogical innovation and distance learning
Supervision of doctoral and HDR ⁸³ thesis ⁸⁴	Development of new case studies
Engagement in private or public contracts	Participation as expert in national and international pedagogical projects
Contribution to research promotion	Membership in CEVU ⁸⁵ and UFR ⁸⁶
Contribution to research assessment	
Supervision of master thesis	
Development of patents, databases and software	
Administration of programs	Administration of research
Director of department, course, certification, internship etc.	Research director, research laboratory director, HEI director and adjunct director
Management of international mobility and international pedagogical projects	Disciplinary commission director
Management of teaching staff	Management of media relationship
Management of partnerships, promotions and programs	Management of HEI evaluation
Management of student employability	

Source: CNU, 2012c

A main difference emerges between the evaluation of faculty members pertaining to public and private higher education sectors. In private schools, individuals are evaluated every year

⁸² The Law, economics and management field, group one, the Management section.

⁸³ The right to supervise research work (*Habilitation à Diriger des Recherches*)

⁸⁴ In France, Assistant Professors can supervise PhD students only if they successfully defend a research thesis in front of a commission. The process is similar with the doctoral defense.

⁸⁵ Board of Studies and Academic Life (*Conseil des Etudes et de la Vie Universitaire*)

⁸⁶ Training and Research Unit (*Unité de formation et de recherché*)

while in public schools they might not be evaluated on a yearly base. During the observations period, I noticed that academics are evaluated by CNU if they decide to apply for an Assistant or Full Professor position. Moreover, if they desire to pass to the next class, or the next tier inside their current class, individuals have to be evaluated by their institutions⁸⁷. Otherwise, the academics yearly evaluation in public institutions is either inexistent or informal. This means that some individuals might not be evaluated more than once through their professional life if they do not wish to be promoted.

9.2.3. The French journal rankings

As presented above, the evaluation of French HEIs and their employees rely heavily on indicators related to research activities. In order to determine the value of each article, HCERES, CNU and the HEIs⁸⁸ take into consideration the journal rankings published by CNRS and FNEGE (Bourion et al., 2014).

9.2.3.1. CNRS

Created in 1939, the National Centre for Scientific Research (Cour des Comptes, 2005) is recognized as the leading research institution in France (CNRS, 2014a). Covering all scientific disciplines, CNRS has more than 1,100 research units spread all over the French territory and has more than 33,000 employees dedicated to research activities (CNRS, 2014b). Starting with 2004, CNRS has published a journal ranking based on criteria reproduced from several other international journal rankings (Bourion et al., 2014). The journals' list has been reviewed periodically and if changes occurred, CNRS has published a new version on their website⁸⁹. The international and national journals listed by CNRS are split among four categories of importance (CNRS, 2014c). The *first category* includes the most distinguished journals, all except one⁹⁰ publishing articles in English exclusively. These journals are considered to have an essential role for the social and economic worldwide development, and thus they are very selective and apply strict deontological rules during the articles review process. The *second category* incorporates journals with a high selective review process. The articles published by these journals are very innovative for the development of certain fields. The *third category* encompasses journals with a high review

⁸⁷ This part is detailed in subchapter 9.3.2.

⁸⁸ The HEIs require their job candidates to provide proof of publications in journals listed in either CNRS or FNEGE.

⁸⁹ Currently, several versions are available online (2004, 2007, 2008, 2011, 2013, 2014).

⁹⁰ *Econometrica* is the only journal listed in the *first category* that accepts articles in English and French.

process. These journals publish articles that bring important contributions to a large community of stakeholders. The *fourth* and last *category* includes journals with a moderate review process. They often publish articles with original contributions, serving a small community of stakeholders or answering to national concerns.

9.2.3.2. FNEGE

Created in 1968 (FNEGE, 2014a), The National Foundation for Management Education has the role to develop the management higher education in France (*, 2014). The institution was particularly concerned about the visibility increase of French HEIs and their researchers on the global market of higher education. To fulfill this goal, FNEGE began to offer grants to post-doctoral students, grants dedicated to the improvement of their research abilities (FNEGE, 2014a), and commenced a project to establish the criteria that French HEIs need to accomplish in order to become internationally competitive (*, 2014).

Recently, FNEGE committed to the assurance of French journals' quality and the increase of public's confidence in what concerns the scientific reliability of journals (Bourion et al., 2014). Thus, in 2013 FNEGE published their first journal rankings, focusing on journals pertaining to 13 business management disciplines (Table 22). Moreover, the institutions plans to review and update the ranking periodically⁹¹ (FNEGE, 2014b).

Table 22. The list of disciplines covered by FNEGE

Accounting	Human Resources Management	Marketing
Business History	Innovation - Entrepreneurship	Organizational Studies
Finance and Insurance	Logistics	Public Sector
General Management	Management Information Systems	Strategy
Healthcare		

Source: FNEGE, 2013

Similar with the CNRS journal ranking, the FNEGE ranking splits the international and French journals among four categories of importance (FNEGE, 2013). The *first category* includes the most prestigious journals. These journals are considered to publish only articles that in terms of research result provide the best quality of scientific content. Opposite to

⁹¹ According to FNEGE (2014 b), the publication of the ranking's second version is planned for 2016.

CNRS, FNEGE has created inside of this category an additional *first* category* to highlight the most prominent journals in the management field. The *second category* incorporates journals with a high selective review process. The articles published by these journals provide major scientific contributions but to a lesser degree than those published by journals from the *first category*. The *third category* encompasses journals “that meet the principles of arbitration, selectivity and quality leading” (FNEGE, 2013, p. 10). These journals publish articles that bring important contributions, but to a lesser degree than those published in *second category* journals. The *fourth* and last *category* incorporates journals that meet the review principles. These journals publish good quality articles with original contributions, but to a lesser degree than those published by *third category* journals.

The FNEGE’s ranking is considered to be the only legitimate journal ranking, as it is the only one for which the employed criteria was made public (Bourion et al., 2014). Yet, although if FNEGE proves its objectivity by developing a transparent ranking, the employed criteria is similar with the one used by several international university rankings (e.g. impact score, h-index) presented in chapter 7.

Moreover, as FNEGE lists both French and foreign journals, in order to avoid being subjective, the institution has created an evaluation form that was sent to all the academic journals they rank and that accept for publication articles in French. This form follows the model sent by international university rankings to the foreign journal (FNEGE, 2013) and thus instead of succeeding in being objective FNEGE has kept all the errors and subjectivity that comes along with the adopted indicators.

9.3. The French career development models

There are several types of institutions in the French higher education system, but this research study has focused on only two of them, namely business schools and universities. In the quest of identifying how career management of academic is evolving in France, the observations and interviews collected lead me to the discovery of two distinct models of career development in higher education.

9.3.1. Career development in business schools

Individuals that aspire to an academic career are first expected to successfully defend a PhD thesis. When this step is completed, they can apply to a job position of Assistant Professor in a business school, where they are required to make proof of their research and teaching abilities. Some individuals go through an additional step before becoming Assistant Professors. Being a personal preference or a strategic choice⁹², they enroll in a post-doctoral program in order to focus on research and publication of articles.

To advance to the next job position, academics have to demonstrate strong research abilities and publish at least a certain amount of articles⁹³. Moreover, the candidates to the Associate Professor position enter a competition where just few of them are able to secure the title. This step is extremely important in the career development of business schools academics as it means the successful candidate becomes a tenured academic and his/her working rights improve⁹⁴.

The next step in the career development process is to become a Full Professor. Candidates to this job position submit their request to the business school committee and the selection of the successful applicants is done based on their research capabilities, number of publications and reputation. This is the highest academic rank that can be achieved by individuals in the higher education environment.

However, individuals that have not yet achieved a PhD degree also have the possibility to attain an academic position. To cover all the teaching (and sometimes administrative duties), business schools often hire temporary lecturers⁹⁵ on non-tenured positions. These individuals can either be currently pursuing a PhD program or they can be practitioners that aim to explore or select a different career path than their existent one.

In normal circumstance, temporary lecturers are not in contact with any type of academics except those related to their teaching or administrative workload. They are considered as invisible employees, do not have offices at the school and have to handle their students during their courses or by email only. However, these individuals are in charge with a high percentage of the teaching loads. Given the fact that Assistant Professors, Associate

⁹² Although this is not a prerequisite condition of the current job market, more and more business schools demand that applicants have at least one publication before applying for an Assistant Professor position. Thus, after PhD, individuals that do not fulfill this condition choose to spend an additional year as post-doctoral candidates, time they use to submit one or more papers for publication.

⁹³ The number of papers required depends from business school to business school.

⁹⁴ First, the job security of academics increases once they obtain the tenure. In the same time, their academic freedom is guaranteed and they gain the autonomy of investigating social and economical issues as they see fit.

⁹⁵ In the French higher education environment, they are known under the name of *vacataires*.

Professors and Full Professors are required to spend a lot of time on performing research activities, business schools hire a huge percentage of temporary lecturers to fulfill their educational mission.

As an example, during a departmental meeting at one of the observed institutions, the course leader was complaining about the high number of temporary lecturers performing teaching duties under her supervision⁹⁶. Desiring to improve the course quality, she was arguing that the school should hire more permanent staff members as all except one of the temporary lecturers under her supervision were planning to stay for a short period of time and were showing poor teaching abilities. Yet, her request was not approved⁹⁷.

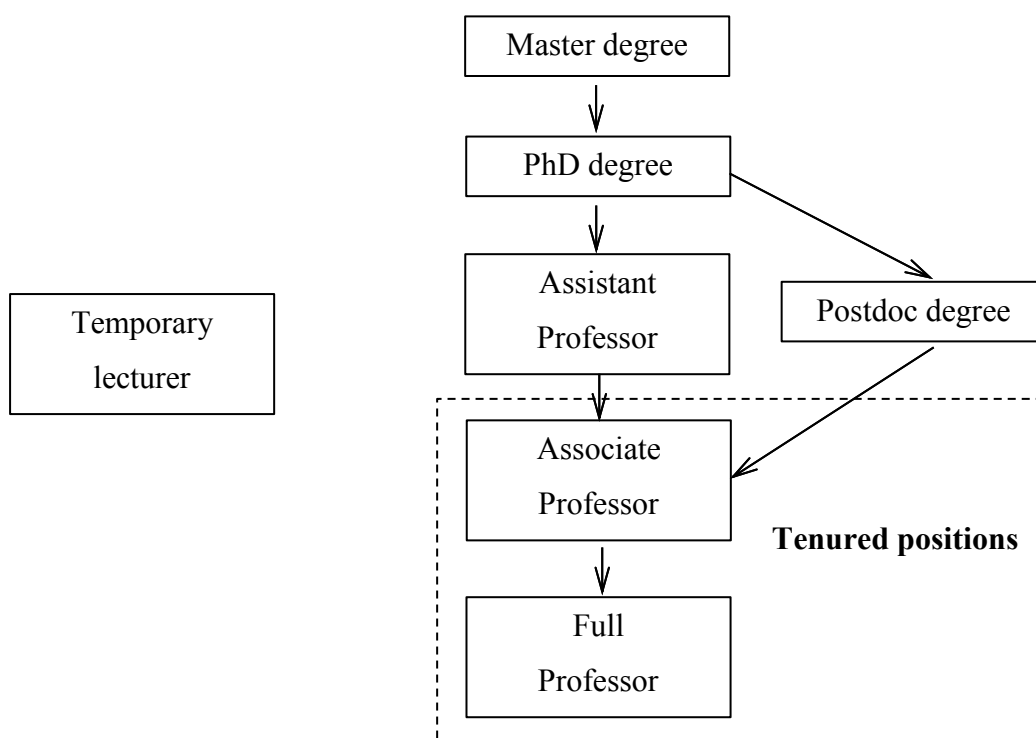


Figure 17. Academic career development in French business schools

Source: Author's projection

⁹⁶ Nine out of twelve lecturers performing pedagogical activities for this specific course were hired as temporary lecturers.

⁹⁷ The business school had a policy of not hiring individuals without a PhD on a permanent position, and thus even if lecturers with good abilities were identified, the schools preference was to continue the contract as it was. Moreover, the school had a policy of hiring one candidate per year for each department.

9.3.2. Career development in universities

After obtaining the master degree, any individual that decides to enter the French public higher education environment has first to prove his/her status as a lecturer or researcher. One way of achieving this goal is to pass an examination called the *national examination of secondary education*⁹⁸. By obtaining this qualification, the individual is allowed to work as a high school teacher or as a university lecturer (PRAG⁹⁹). If a university position is targeted, the individuals that successfully obtains the job has no research obligations, but is required to complete 384 teaching hours, the double quantity required for Assistant Professors, Associate Professors or Full Professors.

This career path however is considered as a secondary option. Due to lack of reputation that a PRAG position implies, the academics prefer to enroll in a PhD program and obtain the title of Assistant Professor¹⁰⁰. This qualification is awarded by CNU and is a mandatory requirement for further career advancement in French universities (Charle, 2009). The academics that obtain the CNU qualification are called *research-pedagogues*¹⁰¹ and are expected to have both a teaching and research profile, they being required to complete 192 hours of teaching and an additional 192 research hours.

Yet, there is one measure implemented before 1987 that new Assistant Professors have to take into consideration. In order to avoid any form of nepotism, the law forbids the candidates to apply to the same institution from which they obtained their PhD degree if they are looking for their first job as PhD graduates (Charle, 2009).

As opposed to the business school career development model, the Assistant Professor position is a tenured position. Thus, academics that attain this rank have the choice to remain on the same position for their entire career and can increase their salary by applying to be integrated in a normal class or an exceptional class¹⁰². However, Assistant Professors have other possibilities of career advancement.

⁹⁸ Original text « *Concours nationaux d'agrégation de l'enseignement secondaire* »

⁹⁹ PRAG is the French acronym for *professeur agrégé*.

¹⁰⁰ Assistant Professor was used here as an English translation for *Maître de conférences*. Yet, the French equivalent also corresponds to the Associate Professors position. Since the difference in denominations comes from the experience acquired by the academics along their working life, the qualification awarded by CNU was considered to correspond to the Assistant Professor position, where the candidates has no or a small amount of experience in any academic position.

¹⁰¹ In France, the research-pedagogues can occupy the entire range of tenured positions: Assistant Professors, Associate Professors and Full Professors

¹⁰² According to the French law, the *Maître de conférences* salaries can increase based on a evaluation made by CNU. Each year, a limited number of positions are available for each tier pertaining to the normal or exceptional

A second option is to apply for examination through which they will obtain the right to supervise doctoral role, and thus be ranked as Associate Professors¹⁰³ (HDR)¹⁰⁴. This specific examination has a process is similar with the one pursued to obtain the PhD degree, with the exception that the research level demanded is higher and requires candidates to probe their ability in supervising future doctoral work.

The third and last option is to apply for an examination called the *national examination of higher education*¹⁰⁵ and become university professors. Reaching this stage is the last step in the career development of French academics. Associate Professors (HDR) can apply for this examination, but Assistant Professor do not have to mandatory go through the HDR examination before applying for the *national examination of higher education*.

class. If applicants meet the promotion conditions, such as the minimum number of years spend within each tier they might be selected to move into the next tier. Moreover, after they reach their 9th tier in the *normal class* («*classe normale*»), they can advance to the *exceptional class* («*hors classe*»). The Minister of Education decides each year the number of positions available in the *exceptional class*.

¹⁰³ As the HDR examination requires a certain level of experience, good research abilities and a minimum number of years spend on the position of Assistant Professors, I considered this *Maitre de conferences* level identical with the position of the business schools Associate Professor.

¹⁰⁴ HDR is the acronym for « habilitation à diriger des recherches »

¹⁰⁵ Original denomination : « *Concours nationaux d'agrégation de l'enseignement supérieur* »

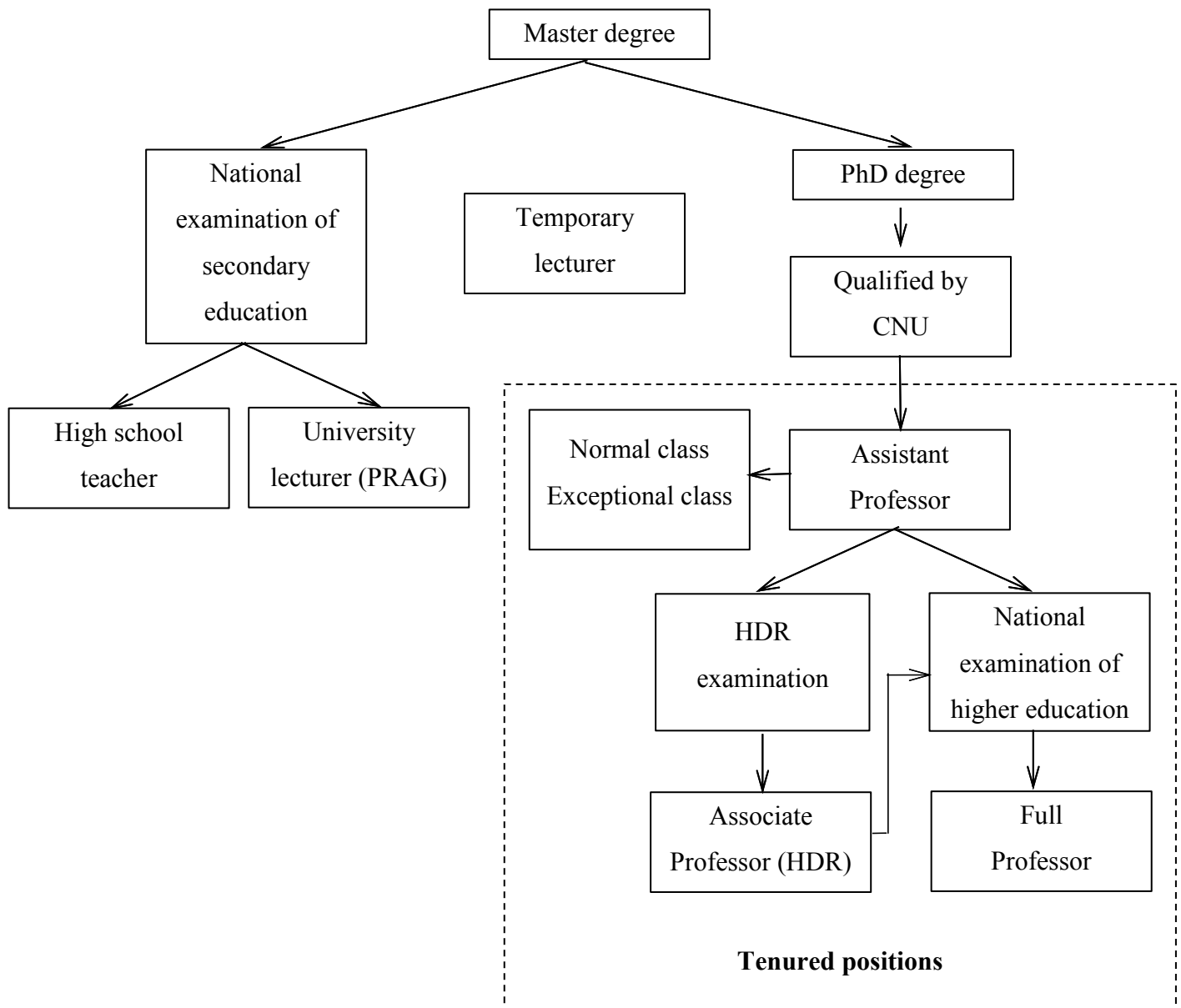


Figure 18. Academic career development in French universities

Source: Author's projection

10. The remodeling of the academic career management

The only man who behaves sensibly is my tailor; he takes my measurements anew every time he sees me, while all the rest go on with their old measurements and expect me to fit them” (George Bernard Shaw)

In the previous chapters it was mentioned that the current performance measurement systems have impacted the HEIs, their missions and their strategies. Yet, the institutionalization of these systems has not only transformed the academic field, but they also affect the perception of faculty members and created a culture of mimicked behavior.

Before entering the higher education field, individuals build a projection of how their professional life will be, what activities they will be performing and what professional relations they will develop with different stakeholders of the educational system. Yet, immediately after entering the field, the individuals enter in contact with other academics and realize there is a contradiction between their expectations and the reality. The conversations they have with others brought to life a different context than the one they envisioned. Thus, in order to continue their academic career, individuals had to adapt to this new discovered environment.

The handling of the external evaluation systems and their huge focus on research has led to significant transformation in traditional role of HEIs. Moreover, the academics functions have changed significantly. Starting from a pedagogical approach meant to assure the transfer of knowledge, academics have ended up in primarily focusing on research activities regardless of the type of academic institution they work for. Thus, it is worth understanding how these two roles are linked and where the misunderstanding lays.

The discrepancy between the image of the field and the perceived reality comes primordially from the use performance measurement systems. These types of control mechanisms have helped businesses to assure that their objectives and plans are achieved. By being adopted in the higher education environment, governments and evaluation institutions have aimed to ensure the good functioning of the higher education environment, but forgot that these management tools have to be constantly corrected and improved so that the objective of HEIs is not chased away.

10.1. Research and pedagogy: convergence or divergence?

As presented in the previous chapter, most individuals working in French HEIs are required to perform two types of activities, namely research and teaching, in order to fulfill their mission. Performing research activities permits academics to improve their courses and to evolve intellectually. The idea behind this practice was that research activities are meant to reinforce the pedagogical experience of students. By performing research activities, academics gain more knowledge and are up-to-date with the current findings, which mean that they can enrich their pedagogical material and assure the transfer of relevant knowledge to their students. This fact guarantees that student benefiting from high quality courses can gain a cutting-edge when entering the business market. As a result, research and pedagogical activities are fundamentally strongly linked.

Most of us are professors and researchers, and if we are both in the same time it means that there is a link between the two. Thus, research should irrigate and improve the content of education. And because the educational content is changing and we want to be sure that everyone knows about the changes, we also need publications with a pedagogical character. This might be a ‘vulgarization’ publication (vulgarization is not at all pejorative here) or a book. It’s normal for a professor to invest time in this kind of activity.¹⁰⁶ (Augustin, Full Professor)

Yet, the qualities of researchers and the ones of pedagogues are of different nature. The researchers are individuals that primarily express themselves in writing, while the pedagogues achieve their purpose by communicating with students during classes. Being a good writer does not automatically imply that someone is also a good speaker, or the other way around. There can be individuals that are good at both these activities, while others are unable to perform any of them.

There are some people that are publishing very well and they don’t have any social skill at all, even [when it comes to] their colleagues. They are nerds. They don’t know

¹⁰⁶ Original text: « Nous sommes enseignants et chercheurs pour la plupart, et si nous sommes les deux à la fois ce que il y a lien entre les deux. Donc les recherches doivent irriguer et améliorer le contenu de l’enseignement. Et pour que le contenu de l’enseignement évolue et que cette évolution soit connue de tous il faut aussi des publications à caractère pédagogique. Alors ça peut être de publications d’articles dans les revues de « vulgarisation » (le nom vulgarisation n’est absolument pas péjoratif, bien sur), ça peut être la publication d’ouvrage pédagogique. Il est normal qu’un professeur investisse également sur ce genre d’activité.»

how a real firm functions. They don't have any clue of how everything works or the relationship [inside a company]. How can you expect them to bring a real insight in something as practical as management? (Pancho, PhD candidate)

Up-to-date information is one requirement for becoming a good pedagogue. Teaching activities also assume a high investment of time and effort in preparing the classes. Pedagogues must be creative during their courses, they must be able to transmit the knowledge to students, they have to interact with the students, to create cases that attract and make students attentive and interested in the information. Thus, there are different ways of assuring the existence of such qualities. Pedagogues with strong backgrounds in the business environment can be as good as the academics that perform research activities.

It is very difficult to be a good pedagogue without doing research [...] but you might be one if you had come from practice. (Beatrice, PhD candidate)

Yet, academics need time to develop research, pedagogical and business skills. Time they do not have anymore. With the changes of the educational systems and the fact that faculty members are rated primordially based on the number and quality of publications, the focus of individuals was directed toward research activities. The pressure put into publications makes them to reduce the time spent on pedagogical activities, which leads them to be less concerned about their teaching performance.

I think the good [for an academic] is to be both good at teaching, at mentoring students, and good at research. [...] But a lot of people I know are so research focused that become afraid [to teach] and do poorly in the classroom. (Tyler, Postdoctoral candidate)

All individuals, regardless of their professional choice, are concerned about career management. The job stability is important for everyone. We all try our best to become professionally successful and assure a stable position in the working environment. Thus, we all become political and strategic in making career choices and follow the paths of our successful predecessors. Given the fact that the current performance measurement systems have create a model of successful academic that underlines the research abilities of individuals, it is not a wonder that faculty members are increasingly interested in research activities.

A lot of academics give up on teaching to invest all their time in research because you are recognized as a good academic only if you publish a lot. If you take time to teach,

*you have less time to research and [politically speaking this is not good for you].
(Beatrice, PhD candidate)*

Academics perceive their profession differently than ten or twenty years ago. They have slowly transformed the research activity into a Holy Grail of academia. Moreover, faculty members seem to have forgotten that some time ago there were great philosophers that were teaching, people like Foucault, and that published the work that came out of their pedagogical pursuit, the lectures they gave in HEIs. Nowadays, since practice-oriented projects or teaching activities are just a small part of the evaluation systems, these activities tend to be overlooked.

There is a big problem at the moment. [...] [I ask myself] what exactly is our role as researchers? We are producing papers that are not even going to be read by anybody but us. What is the point of doing that? We place everything [on our research activity]. (Ace, PhD candidate)

Moreover, in some disciplines, such as management and information technology, there is a high rate of under employment. In these cases, there is a high pedagogical demand and priority should be given to teaching activities and to the development of students' abilities.

[You have to] help [students] to see the world with different eyes. [...] They should not just learn techniques and numbers. (Christal, PhD candidate)

Research should not disappear, but it should be reduced and positioned in equilibrium with the pedagogical activities. The social demand is after all a demand for education and rankings fail to measure the output of this type of activity. The institutions and individuals that have created the international university rankings have no or little idea about the academic world. As a result, they use easy metrics to determine the performance of HEIs and their complex activities. Moreover, by using the ranking system, governments and managers of HEIs assure the control over the activities performed by academics and they can claim a transparency of the system by displaying the methods through which institutions are labeled as top schools. Academics have no influence on the development process of university rankings nor can give feedback on how the current systems can be improved to reflect all the different missions HEIs are socially expected to perform.

Of course, [HEIs] administrators find [rankings] easy to use. Also, I suppose the power lies with the administrators. If the power was with the academics, then perhaps it [measurements] could change. But is all about power and who has [this] power.

And unfortunately, the power [lays] with the administrators, so they will continue to force rankings down our throats whether we like it or not. (Grace, Associate Professor)

Thus, the institutionalization of university ranking measurements has led to changes in academics behavior. The normative pressure followed by the forming of a mimetic culture has led to the disconnection of research and pedagogical activities. Leading schools benefit from this, but on a long term these approach might harm the higher education environment.

There are some institutions behind these rankings, so is not one person that is doing it. It is collaboration among many schools and many people believe in it, so this institutionalism and isomorphism processes may be seen between institutions. It is quite obvious, like in any [other] institutions, [for example] a family, church, schools, [all institutions that] shape our behavior. Rankings definitely shapes our behavior, it forms the way we act in our social [environment], professional networks, etc. (Ace, PhD candidate)

PhD students learn very fast that they have to strategize and manage their career development. Otherwise they can be fired from the PhD program or not be accepted by any recruiting HEIs. Tyler, a Post-doc candidate, talks about his experience in business schools and universities and the importance of learning the tricks of the academic field. He gives examples of very talented academics and PhD students that have been fired from the schools due to their lack of research publications or inability to prove their capability of publish in the near future. In order to survive in the academic environment, individuals have to play a game of rankings. The vivid perception created by rankings, HEIs and faculty members is that either you publish or you perish.

Everybody plays the game [of rankings]. I admit I played it as well. I need a job at the end, so [I played it]. (Tyler, Post-doctoral candidate)

Yet, the acceptance of university rankings and their measurements only helps to make these systems independent and self-functional.

We play the game [of rankings] and we just help to institutionalize it better. (Christal, PhD candidate)

By the time individuals become successful, the reason for which most of them enter the academia is forgotten. Their desire to interact and help students to develop their abilities is

overpowered by the ambition to become successful researchers. This result emerges even if research activities were not even on individuals' agenda before entering the academic field.

I like the interaction with the students and let's be honest, we mostly come to [academia] because of teaching and not research. We have no idea what research is before we join a PhD program. (Tyler, Postdoctoral candidate)

Even the traditional role of HEIs was transformed. Not only that the government has added two additional missions of higher education, namely research and contribution to society, but the change of HEIs role also comes from the perception of individuals on how students select the schools.

People are not coming [at top schools] to learn something, but they come to gain a diploma, to gain legitimacy. [All good schools] have good programs, they have good pedagogues, they have good cases [to discuss in class], they are following the same rules, they are teaching the same classes, where the same discussions take place and the students are similar. But the difference [between these schools] is coming from [their reputation], from the name of the school. (Ace, PhD candidate)

Jacob, a PhD student that has already managed to publish in top journals emphasizes that students are not interested in acquiring new knowledge, but to obtain a diploma from a reputable HEI. He is convinced that the discourse on the educational mission of HEIs is cynical, as no one, including students and faculty members, is interested in performing such activities.

There is this cynical view that higher education institutions are just a sort of factory to produce diplomas. You get a certification that you went to this school, but in terms of actually [gaining] some knowledge or some sort of skills, [the students interest] is lacking. [...] It's hard to say how much knowledge [the HEIs] are producing that those people will use later in life. These are really institutions where you're formed, shaped into a particular [format] and under a particular belief. So I don't know if we [produce knowledge for the students], but in terms of producing [valuable individuals for the society], that's something else. (Jacob, PhD candidate)

However, Christal, another PhD student with a business background, emphasizes that students are more and more upset about the manner in which courses are developed and presented to students. She gives examples of increasingly bad evaluation of pedagogical performance that are ignored by the schools. Yet, as the current external performance

measurement systems focus primordially on research, the HEIs tend to invest most of their funds for the improvement of research outputs.

In [my institution] it's recurrent that the students are not very happy with the content of the class. But I understand why, because really, there are no money, no effort, and no investment in teaching. Everything is directed toward research. (Christal, PhD candidate)

Thus, the HEIs play an important role in pushing the research identity forward. Their strategies and choices, as well as the changes occurred in the higher education environment, have strongly influenced the perception of individuals. Many schools now focus on becoming high status HEIs and blindly follow the behavior and strategies of top organizations. As a result, they ended up pushing their employees to focus on research, write good papers, publish them in good journals and get the recognition the school desired. Yet, this behavior impacts the identity of academic and the way in which they manage their careers.

I am a victim of [an] identity imprint. The [school I graduated from has pushed] the idea that research is the higher status activity in higher education [on all its PhD students. This is what] I now actually believe in. (Tyler, Post-doctoral candidate).

The same HEIs forget to explain their PhD students and faculty members that the main goal of these institutions is to increase the students' knowledge and that the research activity only represents the process through which up-to-date information is provided and new knowledge emerges. After all, in HEIs research has no purpose without a link to pedagogy.

If you take a step backward [and ask yourself] why it is important to do research in higher education institutions, [the following answer comes to mind]. It is because the objective is to get dated information and [, as a result,] a stronger pedagogical experience for the students. It is not about us, [the academics]. It is about getting something better for our students, something that can give them an edge, a competitive advantage [in the market]. (Tyler, Post-doctoral candidate)

10.2. The correlation between academic research and business development

Practitioners have their own objective to achieve. They are aiming for example to solve the problems their companies encounter, increase the profit and attract more customers. Thus,

their activity is demanding and they do not have the necessary time to read research articles and comprehend the theoretical approach. Yet, this research is what improves their performance on a long term.

The practitioners are not interested in the pure research that we are doing, even if in the long term the pure research is what sustains business (Grace, Associate Professor)

To assure the transfer of knowledge, academics should spend time in translating their findings into concepts that are easy to comprehend by practitioners.

To help [the practitioners] in improving their practice we have to go through a different process. [Help] can come from research activities, but it's not research papers that will directly infuse knowledge to practitioners. (Christal, PhD candidate)

Yet, to achieve such a goal takes time, time that academics do not have. Among all the activities performed by academics, only a few are valued. The research results are measured in terms of published articles and number of citations. There are rarely performance measurement systems that look at the number of books and the project developed by HEIs in collaboration with companies. Thus, it seems absolutely normal that individuals that look to develop their career further focus on academic publications.

Although researchers and nobody else read the papers published in [academic] journals, [there is no doubt in my mind this is what I have to do]. This is how things work [in academia]. (Ace, PhD candidate)

Although *outside academia you are nobody with your publications (Pancho, PhD candidate)*, academics still prefer to focus on building their academic reputation. The higher education environment is where they perform their activity, interact with peers and develop their career.

It is true that there are very few people who actually read academic journals, but that's fine. The quality of the journals that you publish in, the amount of citations that you receive and so on still signals your competence. That is [how] you actually get invited to other things as well [...] and how you built up this reputation that you are a serious academic researcher. (Jacob, PhD candidate)

However, some individuals get confused about the activities they are performing. Ismael, a Full Professor at a university, talks about how research helps him to improve his teaching qualities. Yet, in his mind it is not the research he develops in his field that helps him achieve

a *high level* of teaching - which he defines as a transition from *professional to more theoretical* teaching -, but research published in *high ranked journals*. This discourse is in contradiction with the findings presented above. Thus, it becomes obvious that some academics get lost in this game of ranking and do not manage to grasp the difference between what they are required to do and what practitioners are looking for.

10.3. Publish or perish

The survival of the fittest is a process well known to human beings. We are competitive by nature and always aim to show who has the power in any kind of environments. Thus, the development of a higher education market and the internationalization of academic activities have only increased the desire of HEIs and faculty members to be successful. They all started to engage in activities that assured their legitimacy and built their reputation. The current performance measurement systems emerged at the perfect moment and were fast adopted as evaluation mechanisms all over the world. Their ability to transform complex activities into a simple and elegant number attracted a huge number of followers. Although numerous debates were raised on their lack of pedagogical measurements, international university rankings continued to be used as evaluation models for academic activities. Yet, by mostly employing research indicators, as for example number of papers published and number of citations, these performance measurement systems have pushed schools and academics toward a publication fever, where the most successful is the most published one.

By all means, there is an international competition [among academics]. If you are younger, if you are a go-getter, you want to be internationally mobile. Then, of course, you have to be aware of what's happening internationally, you have to be able to publish in different journals and so on. [...] You have to consider the international competition and the global environment we live in. (Grace, Associate Professor)

Yet, the older academics raise the question of giving up the personal life for publication sake. If they have not yet reached the higher ladder of the academic development process, they still have a desire to succeed. But they are more patient and mature than the younger generation and they reflect on the requirements of evaluation systems.

At this age that I am, [...] I am [still] driven by success, but I don't want to be overtaken. I don't want to lose my life or lose my humanity because I'm driven by this [pressure to publish]. And I [admit] that. (Grace, Associate Professor)

Most academics feel they don't have the choice of choosing how much research they have to perform. The ones that accept the pressure of publication emphasize that research gives them the possibility to work on something they like and that enriches them intellectually. However, many do so for reputation purposes. Being a pedagogue means to have a lower social status in academia and individuals want to avoid this situation.

Many have told me that being a lecturer in a university means to be the last wheel on the wagon. We are completely discredited and in fact we are given only what all other refuse. They are weighing us down. Simple lecturers can't have access to good courses nor disciplines we are interested in.¹⁰⁷ (Aimee, Lecturer)

Some lecturers also publish, but their publications are mostly in non-academic journals or books, none of them being taken into consideration from an evaluation point of view. Even if lecturers argue they are more relaxed than researchers since they are not required to publish, paradoxically they work on their publications even at home. They might not be aware of the pressure and they might not feel it at the same intensity level as researchers, but they are under the same burden as well.

Working during the evenings and in the weekends is part of the job. [...] I'm not pressured to research because I'm not doing research. When my courses are ready [for class], I have an administrative obligation, but otherwise I don't have to do anything else. But I do anyway. I am publishing books, which is completely not in my job description.¹⁰⁸ (Aimee, Lecturer)

The low interest of academics to publish for practitioners was already depicted by the current literature. For example, Charle (2009) emphasizes that “[i]f a book is, for example, four points and an article in a journal with reviewers values only one, [an academic] has all the

¹⁰⁷ Original text: « Beaucoup m'ont dit que être PRAG dans une grande université, on est un peu la dernière roue du carrosse. Donc on est complètement déconsidéré et en fait on nous donne les cours que tous les autres ne veulent pas. Et en charge la barque, parce que pour des simples enseignants on n'a pas accès aux bonnes classes, aux disciplines qui nous intéresse. »

¹⁰⁸ Original text: « Le fait de travailler le soir et le week-end pour moi ça fait partie du boulot de l'enseignant. [...] Puis le fait de pas faire la recherche, je pas une pression à la recherche. C'est vrai que moi, de lors que mes cours sont prêts, moi j'ai une responsabilité administrative, mais en fait j'ai pas forcément besoin de faire d'autre chose. Je fais quand même, vu que je rédige des ouvrages, qu'est complètement extérieurs à mon activité de prof. »

interest to publish ten articles instead of a book, since he will gain six points [per total]¹⁰⁹ (p. 167). Thus, individuals do not value anymore the traditional role of HEIs, instead having a primordial desire to succeed in their career. They learn about the evaluation system, they understand how it works and they follow it by the book. Having a business experience and verifying if the research results are socially relevant has ceased to be a priority for anyone.

You can publish about an organization without [never] working in one [...] because research finds a correlation between a dependable variation and independent variable, which means you require to know about statistics and mathematics. It has nothing to do with organization. If I want to see [how] this variable [behaves], its significance in the regression, I don't need to know about the organization. I need to know mathematics. That's how [this things happen]. (Ace, PhD candidate)

10.4. Anxiety and shame

The current performance measurement system is a judgmental one. Thus, individuals that deviate from the institutional and organizational expectations know they will be socially sanctioned and driven to adjust their behavior. As pedagogical activities are perceived as having a lower priority, it is not shocking to see that the lecturers are identified with the lowest social status in the academic hierarchy.

Sometimes it's shameful to say you like to teach because you have to like research [instead]! It's research that is important. You have to be a good researcher, to publish, to have papers [already] published and to go to conferences. You get famous for publishing and for being a researcher, not for being a pedagogue. (Christal, PhD candidate)

Choosing to be a lecturer has become a shameful choice and HEIs tend to hire lecturers only for temporary positions. Moreover, the payment of pedagogical activities is quite low compared with the one performed for research purposes. These procedures were so well institutionalized that individuals take them for granted and do not question their validity.

[The schools] hire lecturers who don't have a PhD and they pay them very badly. They hire a massive number of people [like this] and they have a small faculty

¹⁰⁹ Original text: « Si un « ouvrage scientifique » vaut, par exemple, quatre points et un article dans une revue à comité de lecture un point, il aura tout intérêt à publier sous la forme de dix articles les chapitres de son livre, puisqu'il gagnera ainsi six points dans l'évaluation. »

considering the amount of students they have. And nobody cares. (Tyler, Postdoctoral candidate)

Yet, these practices demotivate the good pedagogues and drive them away from academia. The shameful situations they are put in and the disregard for their activities is lowering their self-confidence and destroys the passion they have for their job.

In a business school (I think it was not by mistake) the director came to visit my class to talk to my students and said I don't have a PhD. Tough he added "she is a good teacher", he talked about [my resistance to entering a PhD program] in front of all my students. He pointed me out, and after he left, the students laughed and told me "He really put you in your place!"¹¹⁰. (Sabine, Lecturer)

The discourse on the academic identity has changed tremendously in the last decade. When talking about the academic career and the role of social role of academics, the necessity of a PhD is a recurrent subject.

At the beginning I thought that the fact that I have worked before [the PhD] was an advantage. But [now] I don't think so [anymore]. Rankings do not take this into account and so I think will be more difficult for me [to find a job without a good publication]. (Beatrice, PhD candidate)

Yet, the number of staff members with a PhD degree is a criterion often encountered in the American international university ranking and accreditation systems. As a result of this measurement, individuals that do not possess a PhD degree are pressured to enter a doctoral program regardless of their current pedagogical and research abilities.

I know [know someone] that actually published in two [...] good journals, but she did not have a PhD. She was just lecturing [at this school] and now she finally decided to go for a PhD. (Jacob, PhD candidate)

Holding a PhD degree automatically increases the social status of individuals. The title obtained at the completion of doctoral program protects individuals from being stigmatized and ashamed by their career choice. Thus, pedagogues with PhD degree have a better image than simple pedagogues, although they are still seen as socially lower than research-focused academics.

¹¹⁰ Original text: *Dans une école de commerce, je pense que ce n'est pas par hasard, le directeur est venu pendant mon cours pour parler aux étudiants et dire que je n'as pas le doctorat. Il dit pourtant « C'est un bonne prof », mais il a même balance à tous mes étudiants. Il m'a vraiment montre du doigt et après il est parti, les étudiants on rigole et m'ont dit [...] « Il vous a vraiment casse, il vous a vraiment remis a votre place qua! »*

At some point, when I had to introduce myself [to other academics], I did not mention I'm a doctor. I think that's part of my past [since I chose teaching over research]. But when I introduce myself [others always] add that I'm a doctor, so people know who I am and think that I'm not a simple lecturer because I have a PhD.¹¹¹ (Aimee, Lecturer)

The institutionalization of performance measurement systems has led to significant changes in the career management of academics. Although a decade ago pedagogues were considered to be the pillar of social development, nowadays, choosing to be one is considered a social abnormality in the higher educational environments.

I chose teaching over research. [...] This is obviously a very personal choice and is not at all shared by others. In any case, my institution does not [accept it].¹¹² (Aimee, Lecturer)

As a result, if a scholar is more a researcher than a teacher and if he has good publications, he gains the respect of his colleagues and confirms his position in the organization. Some academics fight for this reputation believing the system is neither fair nor lasting. Knowing that their colleagues will see them as worthy based on their level and number of publications, many academics aim for top journals, which are imposed on them by their schools.

These findings correspond with several statements encountered in previous research. For example, Courpasson and Guedri (2007) emphasize that “[d]oing little or no research inevitably leads [academics] to see themselves as teachers. Everything happens as if it is research that represents their job: doing or not doing research is decisive in defining an identity, even before discovering if what we are doing is good or not. [...] Identity of French teacher-researchers¹¹³ in management is largely based on how they relate to research activity more than on how they relate to their teaching activity as such”¹¹⁴ (p. 185).

¹¹¹ Original text: « Je ne me sens pas déconsidérée par rapport aux autres même si à un certain moment quand je me suis présentée je dis pas que je suis docteur, parce que pour moi ça fait un peu partie de mon passé. Mais certains, quand je me suis présentée, ont rajouté « Elle est docteur, elle a soutenu », donc les gens savent que je suis et en fait je pense que c'est pas exactement pareil que le fait de PRAG sans être docteur. »

¹¹² Original text: « J'ai fait le choix de l'enseignement contre la recherche. [...] Evidemment c'est une vision très personnelle et qui n'est pas du tout partagée, en tout cas je ne pense pas dans cette maison. »

¹¹³ In France, a clear distinction is made between academics: teachers, researchers and teacher-researchers.

¹¹⁴ Original text: *ne pas ou peu faire de recherche conduit de facto à se percevoir comme enseignant. Tout se passé donc comme si c'était la recherche qui guidait les représentations sur le métier : faire ou ne pas faire de la recherche est décisif pour se situer sur le plan identitaire, avant même d'ailleurs de savoir si ce que l'on fait est bon ou non. [...] L'identité des enseignants chercheurs en management français est largement fondée sur leur propre rapport à l'activité de recherche, plus que sur leur rapport à l'activité pédagogique proprement dite.*

10.5. The current recruitment process and its consequences

The social difference between the images of pedagogues and researchers are visible even from the recruitment phase. Amazingly, these two types of individuals seem to be like two ends of a magnet. Aimee, lecturer at a university, tells the story of her recruitment process for her current job position, describing it as a pleasant one, where people discuss about creating value, the improvements that can be brought in terms of teaching and administrative task. According to her, the successful candidates for this position are chosen based on their interest and the contributions they can bring to the institution.

On the other hand, the recruitment of assistant professors is not always a pleasant one, as it tends to be judgmental. Aimee talks about her and her peers experiences, and describe the recruitment process of the so called research-pedagogues as a difficult one because it consist in criticizing individuals research abilities, which according to her is always easy to do.

Yet, even if the French law requires academics to have both pedagogical and research abilities, during the interview, the candidates are required to highlight their research interest and the potential links with the current research team of the institutions they applied to. On the other hand, pedagogical activities are hardly mentioned during the recruitment process, the ability to present his/her research work being considered sufficient proof of teaching capabilities. Moreover, being a good pedagogue is considered a plus and not a requirement for academic positions.

There is disequilibrium [between research and teaching] because of the rankings. You can see that in the announcements for academic job positions. What [schools] want are researchers that are able to publish a lot. They never ask for pedagogues. If you have some evidence of teaching that is a plus, but never a major advantage. (Beatrice, PhD candidate)

These findings are in accordance with statements made by several directors of HEIs. For example, in the HEC PhD program brochure, the director of the PhD program states that “[e]very leading business school or university recruits its professors on the leading research journals (Ulrich Hege, Associate Dean and Director of the PhD program, HEC Paris, 2014, p. 2). Thus, as the academic world is reconstructed through the performance measurements used by university rankings, it is not surprising that sometimes HEIs find themselves in a paradox situation, where an individual hired due to his very good researcher qualities is not able to teach

If you have published for example three papers, it is not a problem if you have never taught before. [Schools will hire you anyway] because they are selecting people they consider have a future and [...] pedagogy is [regarded as] having a lower social status. (Beatrice, PhD candidate)

Even if a decade ago academics were hired to perform teaching and research activities, the higher education system has evolved into a research gold rush.

I know professors that were recruited 20 years ago were told: “you are supposed to teach and if you do research that’s OK”. But at the moment, nobody will hire [you] without publications in top journals. It is an evolution, definitely an evolution. (Ace, PhD candidate)

Yet, the number of top journals is limited and many people end up with many rejected publications. Thus, they are pushed to make a decision in what regards their career management. These academics are pushed to accept a lower social status, go for a management position in academic institutions or just simply quit academia and built their identity as practitioners. As a result, the mentality of academics has changed tremendously. The discourse they employ is that nothing counts as much as publications. Even a young scholar cannot dream anymore of an academic career without at least a publication, which should preferably be in a top journal.

My supervisor advised me to publish in a very good journal, an Alpha, because it’s better [for the job market] to have the highest [publication] possible. (Christal, PhD candidate)

Today, the pressure to publish is extremely strong and the level of competition is high. Young researchers often see the publication process as a matter of opportunity and speed (Charle, 2009). Moreover, the PhD candidates are aware that in order to get a job, neither the thesis nor communications to conferences are enough. Even the schools that are among the less reputable ones look at individuals’ ability to publish.

[Good journals] are recognized and if you get [a publication in one of these journals], it’s kind of a safety [net]. The only thing that you can be sure of is basically that if you have good publications, [... they will consider you for a job]. Even a small school, which is maybe not so interested in research, will always be happy to get someone with a good publication. (Pancho, PhD candidate)

French HEIs resemble more and more with the American model. Following an American model to evaluate the performance of HEIs and faculty members, the French HEIs seem to slowly give up on their pedagogical focus, which is highly emphasized in the European and French higher education legislation.

In American schools, to be a good teacher it's a minimum request. It is like a factor of hygiene. It is something to be expected [from everyone. Thus,] if you want to be a good pedagogue, that's good, but [this] is not going to put you above and beyond. The only way you can compare across candidates and see which [individual] is really good is to look at their research. That is the way [through which you can] compare. (Jacob, PhD candidate)

Rankings have become a taken for granted belief that HEIs and academic use as an echelon of quality. Yet, it is extremely important to understand how this evaluation systems function and what they are measuring in order to avoid ridiculous situations. For example, several HEIs have raised the bar for job candidates. Not only that research is important, but applicants should also be of foreign nationality:

[One condition puts] business schools higher in the ranking if [these schools] have a lot of foreign [faculty members]. So the tendency of business schools is to hire a lot of foreign [academics to improve their position in the rankings]. But [I wonder] who teaches French students in France. [...] They hire [temporary lecturers] to come and teach the students, which is ridiculous. (Christal, PhD candidate)

Moreover, a recent requirement of business schools in particular demands French candidates to have a double nationality in order to succeed with their job application.

When I talked to [this specific school], they told me: "The best for us would be if you had a dual nationality". [Under such circumstances] they could count me as a foreign professor. Can you believe that? [To have a foreign nationality in France] means that you are the perfect candidate. (Tyler, Postdoctoral candidate)

As a result of performance measurements, the job requirements for academics have changed. The higher education job market demands candidates to prove their ability of becoming good researchers. Thus, many scholars tell themselves that later on, when they have enough publications and when they feel they have a safe job position and, they can take some pedagogical activities, develop networks with business executives and publish books.

There is no question at the moment, at least for me, [that you need to follow a certain structure for your articles and publish]. The recruitment is based on the papers, not on books chapters or books. The books, [although] they have a better impact on practitioners and they will like it better, but right or wrong, without any publication in top journals or good journals or at least a revise and resubmit, [no one] will give you the job. They look for researchers, not for practitioners. (Ace, PhD candidate)

Yet, the some have already experience the disadvantages of becoming good researchers: once a researcher, always a researcher.

When I joined [my current school] I asked for teaching and they said they would [give me some]. But they didn't because they wanted me to focus on research. (Tyler, Postdoctoral candidate)

10.6. The remodeling of PhD programs

As mentioned before, the research proof alone is not sufficient. To be hired by HEIs, individuals must also have a PhD in their research field.

It is not possible [to be hired without a PhD]. Maybe it was possible a long time ago, but at the moment you need to have a degree. Again, this does not mean that you are a good pedagogue or a good mentor, but this is a requirement. You need to be in a good research community, to know about research in general and be trained, toughly trained in a good [PhD] program. It is very random, I will say an exception, that somebody hires you [without a PhD]. (Ace, PhD candidate)

French business schools might hire candidates as soon as they obtain their degrees, if more experience individuals are not available. Yet, in the French public sector of higher education, after defending the PhD, candidates have to be qualified as assistant professor by CNU before they apply for an academic job. The exam consists in a file review and CNU is the only organization that can declare if a person has all the qualities to become an assistant professor or not. Only after decision is made public, the candidates can apply for an academic job position.

Moreover, during the last several years, a new model of dissertation breached through academic gates. More and more students prefer or are asked to prepare a three-article dissertation rather than a big monograph one (Charle, 2009).

Now, more and more PhD students are asked to do three publications. Which I think is very difficult because as a PhD you have about three years to get one published article and it takes you a good 4-5 years [for a good one]. [...] It's a lot of pressure for [the PhD students]. [...] They are thinking only about publishing and not really about understanding and gaining knowledge. (Grace, Associate Professor)

This practice follows a logical flow, as a three-article dissertation increases the chances of publication in a good journal. The youngest PhD candidates are pushed to take the path of publication as soon as they enter the program. Just the oldest PhD candidates and a few of younger ones are still working on monographs and this mostly because they supervisors are older academics that prefer the traditional approach.

In the year above me, I know so many people that are not writing articles, they are just writing a monograph. Each year is more and more article oriented. I also know people in the year below me, even in the first year, that have already targeted very high journals. The mindset is changing fast. I can't imagine that someone is crazy to think he/she has to have [all these articles before graduations]. (Pancho, PhD candidate)

Even the PhD candidates that are unsure about their career choice pursue a publication strategy. They might return to practice or become lecturer in HEIs, but until they decide if following the academic career is their goal or not, they prefer to play safe and publish.

I knew that if I had zero publications, [...] I would have been criticized, and for a good reason no less, if I decided to become an assistant professor. So I participated to conferences and I published an article [...] during my PhD, even if I wasn't encouraged by my supervisor. I've told myself that I have to do it.¹¹⁵ (Aimee, lecturer)

Since HEIs have set their internal evaluation systems based on the measurement used by most international university rankings, the younger individuals that aim to build an academic career learn really fast that they have to abide the rules of the institution and those of their academic community. They invest a lot of work and time in fitting to norms and thus, they

¹¹⁵ Original text: « Je savais que si je faisais zéro communication parce que je n'avais pas de financement, si je voulais devenir maître de conférence on me serait reproché à raison. Pendant ma thèse j'ai fait plusieurs communications et je publie un article [...], donc je n'ai été pas du tout incitée par mon directeur de thèse à communiquer. C'est moi même qui m'est dit qu'il fallait que je le fasse. »

make sense of their actions by promoting the research activities as being their role and their HEIs major role.

[Top schools] are moving away from being educational systems [and they head] toward [becoming] research institutes because they can make a case that research is more important than teaching. This is how they can justify to the external environment that they are worthwhile. (Jacob, PhD candidate)

10.7. Evaluation systems and the academic career management

Not being able to deal with their increasing number of tasks (teaching, individualized support), any form of assessment acts as an additional source of anxiety (Dejean, 2006). Thus, academics prefer to focus on the activities that are evaluated by their institutions and by CNU.

It was very difficult to say that this program is better than the other program. Based on what [you sustain your choice]? Based on the course? Based on the open union of the graduates? So one reason [to choose research as a pillar is] that they have a simplistic view, they are easier to measure. Everybody can see how many papers they have published and which are the citations of these papers. [They can see] to what extent these professors are recognized among the community. So [school aim] to attract more attention and some come with pretty brilliant ideas. [...] Many schools that were publishing in top universities were promoting this idea [that schools are better if they have more publications]. This got fashionable, everybody liked it, so [rankings emerged]. (Ace, PhD candidate)

As opposed to research activities, the evaluations of teaching activities are extremely difficult to develop and can become cumbersome for HEIs. The difference between a good teacher and a bad one is mostly of qualitative nature. Introducing, measuring and tracking such indicators would mean an enormous investment in HEIs time and money.

It is difficult to evaluate [pedagogical activities]. What is considered to be a good teacher depends on the context and varies by country. So it is difficult to reconcile the international [view] with teaching assessment that fit the local environment. (Jacob, PhD candidate)

As a result, French universities in particular, have no proper internal evaluation system for teaching activities. They check if the staff members covered all their teaching hours and the amount of overtime work to be paid, but otherwise they overlook these types of activities. Aurore, a Full Professor at a university, mentions that in these HEIs at the end of the day nobody knows if you are good teacher or not, and they do not even care.

It does not matter [what you do] with the students because it has no impact on your career. You do well or not, it is not measured, it is not considered and it is not taken into account.¹¹⁶ (Aurore, Full Professor)

According to the literature, evaluation of teaching activities is ignored due to the lack of confidence in students' abilities to judge the quality of teaching (Dejean, 2006). The general belief is that first cycle students are not mature enough to be able to assess the pedagogical competencies. However, not everyone shares the same opinion:

I have never seen students being fooled by a teacher ... a teacher can mislead students one year, but no more than that!¹¹⁷ (Interview with a professor, collected by Dejean, 2006, p. 73)

10.8. Career management, legitimacy and social roles

Knowledge on how evaluation and reputation systems work has a great influence on career choices. Moreover, as faculty members base their career management decisions on legitimized models of career success, the higher education environment has a decisive role on how individuals build their image.

There is a difference of status. I think the research-oriented person is higher-profile right now. This is not necessarily the schools perspective, but the faculty members [opinion] that you are a higher status if you are research oriented. (Tyler, Postdoctoral candidate)

As a consequence of the pressure to publish, just a handful of individuals chose to become pure pedagogues.

¹¹⁶ Original text: « [Les échanges] avec les étudiants ça n'a pas d'importance parce que ça [...] n'a aucune répercussion sur ta carrière. Que tu fasses bien, que tu ne fasses pas bien, ça n'est pas évalué, ça n'est pas jugé et ça n'est pas pris en compte. »

¹¹⁷ Original text: « Je n'ai jamais vu les étudiants se tromper sur un enseignant... un enseignant peut tromper les étudiants une année, pas plus! »

[I'm affected by the evaluation systems]. I feel pressured. [...] I think it confuses and distracts me [from my work] because I'm asked what I have published and I'm [mentally stressed] as I realize I have nothing. I have the tendency to want to fall into the drift and pleasure [the school's administration], play their game. But if I'm going to publish then I won't pay as much attention to my classes anymore.¹¹⁸ (Sabine, Lecturer)

Some take the decision after testing the research waters through a PhD program, while others completely refuses to even approach the research activities. Although they know they are criticized for their choice, these pedagogues, or lecturers as students often call them, are empowered by the feeling that the only way they can contribute to society is through teaching.

Teaching more than an assistant professor doesn't bother lecturers because they are paid to do so. Assistant professors have to research during their free time and research normally requires a lot of overtime hours and puts a lot of pressure on individuals. However, sometimes lecturers feel aggrieved with assistant professors that obtain the title and stop researching afterwards. As Aimee, Lecturer in a university, describes the situation, they try to overcome this disappointment through hard work and hope in a change for better. Despite knowing their status is regarded as being lower than those of other academics, they strongly believe that hard work will legitimize their image in the academic society. Yet, rankings and the research mission of academics have already monopolized the higher education discourse.

*People talk about "I've got a paper in a 3 journal, I've got a paper in a 4-journal".
People do talk about [rankings]. (Grace, Associate Professor)*

10.9. "You get what you measure"

Although the idea of using performance measurement systems was to link the research and pedagogical activities, the indicators employed rely solely on the idea that good research ability automatically proves the existence of a pedagogical skill. Thus, rankings have completely directed the academics toward a different direction than initially expected.

¹¹⁸ Original text « [Les classements], ça met de la pression sur moi. [...] Du coup je trouve que ça me désoriente et me déconcentre, parce que je me dis [en état de choc] «on demande que je fais comme publication, j'ai rien ! » et j'y avoir la tendance d'avoir envie de tomber dans la dérive, de dire « je vais marcher dans ce qui m'impose, je vais leur faire « plaisir ». [Ca signifié que] je me concentrer sur aller publier quelque chose plutôt que me concentrer sur mes cours.»

The rationality [behind using research as a measurement] is that the quality of education depends on the quality of the professors that are teaching and if they are at the edge of science. If they are doing cutting edge research it means that they know about the most recent findings. They will deliver better knowledge to students. In theory this is a very linear description after all. But of course we all know this is not [always] true. [In reality, all the schools] have very good researchers [that sometimes are] awful pedagogues that cannot really train the good students. (Ace, PhD candidate)

The desire to use simple measurement to determine the complex activities performed by HEIs and faculty members has impacted the career management of academics. Research has not become the most performed activity in the higher education environment by chance. Its successful proliferation was due to the improper use of rankings' indicators.

I do not know [if the universities are interested more in researchers than professors]. But this is the way the actual system was designed. It's this system that makes research more important for individuals because it is the only thing that is visible in our profession.¹¹⁹ (Aurore, Full Professor)

Charles (2009) argues that for humanities and a portion of the social sciences, sustainable innovation and the most valuable research for society does not take the 'article' form and it cannot be standardized. Yet, as shown in chapter 7, international university rankings are not taking into consideration as research output anything other than journal articles.

We are going towards something that is very scientific, something that doesn't make any sense to me because most of [what we publish] is not even hard science and it's very far from it. It's really like [we're playing] a game of publications. I would never bet my life on something that I publish even if in an Alpha journal. What is lacking maybe is some intellectual [work] that is not science. [Before] there were lots of thinkers and they were not all scientist. So you could have done intellectual work without always trying to fit to some scientific standards (Pancho, PhD candidate)

¹¹⁹ Original text: « [Si pour les universités le chercheurs sont plus important que les enseignants], ça je n'en sais rien. C'est le système tel qu'il a été conçu, qui fait que de fait la recherche est plus importante pour les individus parce que c'est la seule chose qui est visible de notre activité. »

The use of performance measurement systems have changed the higher education system in such a way that even if schools are not able to cover their teaching hours, they prefer to hire temporary lecturers rather than give up on hiring researchers.

[My department] has been unable to recruit. They are loosing [the] people [they have], they have nobody to teach [... because] they just cannot recruit anybody. (Tyler, Post-doctoral candidate)

Thus, although the idea of using performance measurements to determine the success of achieving goals is viable, the indicators that are currently employed have to revise. Since HEIs have three missions that are considered equally important in achieving their social role, the measurements should be balance to cover all the missions.

There is a specific need to revolutionize the whole foundation of rankings and I guess in the future there will be more [involvement in] the educational [activities] and their measurements. [HEIs] should provide a foundation for training scholars as well as practitioners. This is their mission and they should value science, fundamental values and social believes. (Ace, PhD candidate)

To conclude, the use of performance measurements has led to the reconstruction of the higher education field and has created a new academic reality in which career management was completely remodeled.

The idea that [rankings] describes the reality is good. But they are not describing a reality. They are constructing this reality. (Christal, PhD candidate)

Conclusion

How do people choose their career? How do they develop and manage their careers? Are their building strategies aiming to fit the social expectations?

All human beings aspire to build a successful career. Yet, the strategy they develop and implement is based on institutional requirements. Many studies show how individuals adapt to new roles and “how their organizations teach them the ropes by putting them through formal and informal socialization experiences” (Ibarra, 2003, p. 173). Contemporary literature describes the elements that count for the development and advancement of career paths. Moreover, some studies show the influence of the social environment on career

decision taken by individuals (Brousseau et al., 1996) and the role external performance measurement systems play in the construction of reputation (Wedlin, 2006).

Despite the trends of analyzing the impact media and rankings play in redefining the role of organization, precious little is known about how careers are affected by these external tools. This research breaks new ground by simply focusing on how one manages careers based on what the society he lives in defines as being “successful”. The corollary of external performance measurements is analyzed and the conditions that enable taking the leap into a different individual career within the same profession are discussed.

This research distinguishes itself from the previous ones by focusing on how performance measurement systems act as a tool, influencing the choices individuals make in their working lives and remodeling their career management. The demands and aspirations for accountability and control (Power, 1997) led to the separation of academic careers in two. Thus, although the French legislation permits the existence of pedagogues and research-pedagogues within the HEIs, the increasing tendency is to manage academic careers toward forming pedagogues and researchers. Moreover, the research career is perceived as having a higher social status than the pedagogical one.

The direction HEIs have headed to, seem to be the elimination of the traditional lecturer job position and teaching activities from the schedule of full time employees. However, it might be that this is not the outcome external organization expected and neither the desire of HEIs. All of them could be just an unexpected result of the snowball effect that university rankings have created.

My research indicates that changes in career management followed to a long period of time during which academics explore the expectations of HEIs. Yet, the changes are not limited to attitudes and behavior of individuals, but also entail a rather drastic reorganization of the academics priorities in such a way that it contradicts the traditional mission and role of HEIs. To understand the fundamental changes that occurred in career management of academics, I combined various perspectives and turned to the field in order to understand how individuals chose between the multitudes of possible selves and why they retain some aspects of their working lives and disregard the others. This thesis shows how the focus of rankings, accreditation systems and other governmental systems of evaluation of higher education activities on research activities has led to a decrease interest of individuals in other academic activities. HEIs are aiming to incorporate in their internal evaluation systems the performance

measurements used by international university rankings and the requests coming from international accreditation organizations.

Although university rankings state they focus equally on both these dimensions of higher education, research seemed to continually gain importance worldwide, at both organizational and individual level. The interviews strongly emphasized this huge change in academics mindset. During the last years, their behavior was more and more article oriented, freedom of thought being constraint to a scientific standard. Some participants even claim that what misses from the picture of research activities is the intellectual unscientific work. In other words, they emphasize the scarcity of real thinkers by distinguishing between them and intellectuals that focus on article publications.

The results on the qualitative analysis of indicators performed in this chapter, combined with the literature review on rankings and performance measurement systems, shows that education faded out from HEIs mission, as the whole existence of rankings has redistributed the balance between pedagogical and research activities. One reason for my findings might be that research indicators are easily measurable and are globally available, which is in stark opposition with the educational indicators.

It is agreed upon that the current evaluation systems have defects (Charle, 2009), but they cannot be abandoned completely. Instead, international best practices can be improved through observations collected from the field. In order to avoid the complete separation of research and pedagogical careers in higher education, academics must actively take part in the elaboration of evaluation proposals. Instead of only using abstract numbers to explain the academic performance, qualitative factors should be added to the evaluation systems. In-depth analysis and context should be a priority and effort should be put into understanding the link between measurements and outcomes. Such practices can assure that the prior has the desired effect on the latter. As Charle (2009) emphasizes, “this is the time to act.”¹²⁰

¹²⁰ Original text: « il n'est que temps de se mobiliser ».

General conclusion

The main interest of this research lays in the analysis of academics reaction to performance measurement systems and the actions that remodel their career management. Previous research has investigated the transformation of the higher education environments and the role of classification in forming the field. Yet, although some studies have focused on the micro level, none have used the career management theories in explaining the impact of international university rankings and accreditation systems.

The aim was to give an image of the transformation occurred in academia at the individual level, to understand how these changes have occurred and how they are projected into the future of higher education. In particular, this thesis provides elements that underline the raising importance of research and the low status given to pedagogical activities. These results are in contradiction with the traditional role of HEIs, namely their social duty to assure the knowledge transfer. The current research attempts to enrich theoretical and empirical discussions on higher education by interlinking performance measurements concept with the institutional theory and career management. This approach allowed me to show how deep performance measurement systems are impacting the academia through the institutionalization of their methodologies.

In what follows, the scientific contribution of this thesis is summarized and divided in six sections. The first section describes the thesis design, while the second one presents the pragmatic contributions of the thesis, which consists in a better understanding of what international university rankings and accreditation systems mean, what they measure and how they impact the career management of academics. The third section presents the methodological contributions, which consist in the use of abductive and interpretive approaches in explaining the development of academic careers and the construction of the field. The fourth session presents the theoretical contributions, which is are primordially based on the construction of an ample theoretical background that brings performance management together with concepts and theories from different field of studies. The fifth section presents the limits of this research, while the sixth and final section describes the future research perspectives.

The thesis design

The idea of this thesis has started from the field observations and thus the research design developed into a non-typical one. As I let the data to guide my research, the epistemological

and methodological approaches are presented in the first part of the thesis. Both abductive and interpretive research strategies have played a major role in the construction of the theory, in the selection and presentation of the higher education context and finally in the emergence of a remodeled academic career management.

The second part of the dissertation presents the conceptual framework, which is focused on three main theoretical approaches. Although performance measurements play the central role, the data has shown the existence of a three-way relationship between institutionalization, career management and performance measurements. As a result, in presenting the theoretical approach, I started with the neo-institutional theory, which explains how performance measurements gain power through their institutionalization and how they manage to change the perception of individuals on large scale. Yet, changes on career management can also be felt at an individual and organizational level as soon as the performance criteria are modified. These changes however have low impact on the actors' behavior. This is why the career management theories were presented after the institutional one and were followed closely by the performance measurement concepts.

The international higher education environment was presented in the third part of this dissertation, along with the content analysis of international university rankings and accreditation systems. As all these concepts concerned the international view on the higher education, it seemed appropriate to present them together. However, the French higher education system was presented in part four, along with the observations and interviews collected from French HEIs and academics working in the French higher education environment.

The data, methods, theories and the literature review have led to major transformations in the career management of academics. Due to the normative pressure, rankings have changed the perception of present and future faculty members on the current higher education field, which has resulted in a rupture and social differentiation between the research and pedagogical identities.

Pragmatic contribution

A first contribution brought by this research is the acquirement of a better knowledge on what international university rankings and accreditation systems represent what they are measuring and what their purpose is in the higher education environment. Although they do not

specifically refer to the French HEIs, it was shown along the thesis that they have a huge impact on the worldwide higher education systems. Their catchy measurements and easy to employ indicators have gained a huge popularity among governments and HEIs, and France was among the countries that employed them.

The insights gained through observations and interviews show that French academics have the tendency to follow a research path, although they do not belong to research institutes, such as CNRS. These results might be unraveling for the French government, as well as for faculty members and French HEIs. For the first stakeholder, namely the government, this research work might provide valuable information in how the higher education activities are projected into the future and what actions should be taken to correct the undesired effects of their measurements. The next two categories of stakeholders, namely the HEIs and faculty members, might gain a better insight on what they are assessed for and they can improve their capacity to react to these types of measurements.

Theoretical contribution

Although studies on higher education have bloomed during the last decade, the contribution of performance measurement systems to the transformation of the field is still an under-researched area (ter Bogt and Scapens, 2012). Moreover, the few studies adopting an individual perspective are mainly aiming to explain the changes occurred in the field and the impact of rankings, without attempting to explain the transformation of neither the academic career development nor the strategies employed to manage them. For this reason, the current thesis serves as a grid of interpretation for future research developments on the reconstruction of higher education environment.

In addition, the theoretical design employed in this research is innovative, bringing together concepts and theories from different fields and welding them with the performance management concepts. This approach helps to better explain the role and impact of performance measurement system on people's lives and emphasizes the irregularities that emerge with the improper use of quantitative measurements. Moreover, the research focus is not only on individuals' perceptions, but also on an institutional and an organizational one. Thus, this specific theoretical design facilitates the construction of a detailed picture of the higher education environment and shows how the performance measurement systems impact the higher education field from different angles.

Methodological contribution

The interpretive approach plays a major role in the creation of new knowledge, as it permits to question the actors reasoning and gives power to their understanding of the society. Actors are not mere pawns in their environment, but they contribute to the creation of their environment through the acceptance of normative pressure or by opposing them. Thus, their subjective perception is of paramount importance in comprehending how the social reality emerges.

The use of an abductive research strategy added to the methodological development by providing a bridge between the field and theoretical construction. Although several studies emerged in accounting and management by using this methodological approach, they are not as developed as this study, fact that gives a cutting edge to my research. Moreover, both abduction reasoning and interpretivism facilitate the integration of research subjectivity and self-reflexivity of the researcher, yet leaving space for the development of different methodological approaches that employed together assure the research validity.

As presented in part one, in this thesis special attention was given to the construction of the conceptual framework. A variety of research methods were employed, fact that added to the drawing of a detailed picture on the higher education environment. The content analysis of international university rankings and accreditation systems, the observations collected from HEIs and the rich interviews lead to the disentanglement of individuals' former identities, their desires and the normative pressure, elements that together lead to the remodeling of their career management. In addition, the triangulation of the research methods validates the conclusion of the study and grants this thesis a unique perspective, as no other research has yet looked at career management through the lens of performance measurements.

Limits

This research presents several limits. The first one is the inherent subjectivity of that comes with an interpretive research. Yet, the fact that I have a good knowledge on both the status of PhD candidates, researchers and pedagogues helps me to overcome the danger of not being able to put the research results in an objective perspective.

A second limit is given by my focus on the actors' perspective and the way they construct their environment. Actors' reality might be different than the social phenomenon that takes place in field. However, as I emphasize in the thesis, more and more theorist draw attention

to the fact that actors also have an impact on the institutional change through the actions they undertake (DiMaggio, 1991; Powell, 1991).

A third limit is given by the methodological approach, which does not permit a focus on types of educational programs. The thesis was built around the issue of career management in academia and the impact of performance measurement in this particular situation. Thus, surveys and interviews with students were ignored at this point. Still, this situation can be easily corrected through the development of an additional scientific study.

The fourth limit is also linked to the methodological choice. The dissertation was developed on documents and data provided by international university rankings, accreditation systems, HEIs and academics. Thus, the opinion of other stakeholders of educational activities was not taken into consideration. The solution that can correct this methodological restriction is the development of the normative framework with the addition of European normative structures, comparison between European HEIs, as well as the establishment of similarity and differences between national and European higher education structures, all elements that can lead to the construction of performance measurements systems in the higher education environment.

Perspectives

This thesis is only the beginning of my life as a researcher and represents the first steps I took toward the development of a more elaborate task. For me, the PhD serves as a methodological and theoretical foundation and helps to accumulate qualitative and quantitative knowledge on the field of choice. Yet, though its validation, the researcher passes the training level and can plunge into the exciting waves of research along with others of its kind.

A first research perspective to be undertaken is the opportunistic behavior of HEIs that came along with the implementation of university rankings and accreditation systems. Many of these organizations choose to focus on certain performance measurement systems based on what gives them the most convenient results, fact that is in correlation with findings on the transition from governance by law to the governance by number (e.g. the work of Alain Supiot).

A second perspective would be the development of a study on students' perception in what regards the changes occurred in the higher education environment and the academics

behavior in class. Such a study could bring a valuable addition to the present findings, as it will further the knowledge on the effect of performance measurements systems on the academic system.

A third perspective would be understanding the role and position taken by the European Union in the proliferation of performance measurements for the evaluation of higher education activities. From the analysis of three European university rankings and one international accreditation systems, it is clear that the European institutions have a different perspective on how the three main academic activities should be measured. While these four measurement systems emphasize the importance of pedagogical activities, the data collected from faculty members shows a high tendency toward research activities. As result, such a study might bring a new light on the successes and failures of European institutions in stopping the fast spread of the American evaluation systems.

References

* (2014) Les sciences de gestion, facteurs de compétitivité, *L'Expansion Management Review*, vol. 2, no. 153, pp. 32-33.

AACSB International (2014a) *Accreditation fees*. Available online at <http://www.aacsb.edu/accreditation/fees/> [accessed on 10 December 2014].

AACSB International (2014b) *Accredited institutions*. Available online at <http://www.aacsb.edu/accreditation/accredited-members/> [accessed on 10 December 2014].

AACSB International (2014c) *Mission, vision, values, and goals*. Available online at <http://www.aacsb.edu/en/about/mission/> [accessed on 12 December 2014].

AACSB International (2014d) *Prospective educational members*. Available online at <http://www.aacsb.edu/membership/educational/v> [accessed on 12 November 2014].

AACSB International (2015) *Eligibility procedures and accreditation standards for business accreditations*. Available online at [accessed on 12 November 2014].

Abbott, A. (1988) *The system of professions: an essay on the division of expert labour*. University of Chicago Press, 452 p.

Adangnikou, N. (2008) Peut-on parler de recherche en pédagogie universitaire, aujourd'hui, en France?, *Revue des sciences de l'éducation*, vol. 34, no. 3, pp. 601-621.

AERES (2010) *External review report of the French evaluation agency for research and higher education with regard to the standards and guidelines for quality assurance in the european higher education area*. Available online at https://http://www.eqar.eu/fileadmin/agencyreports/AERES_External_Review_Report.pdf [accessed on 02 July 2014].

AERES (2013) *Évaluation des établissements: : référentiel de l'évaluation externe*. Available online at <http://www.aeres-evaluation.fr/Publications/Methodologie-de-l-evaluation/VAGUE-E-2015-2019/Evaluation-des-etablissements-Campagne-d-evaluation-2013-2014> [accessed on 02 July 2014].

Aguillo, I., Bar-Ilan, J., Levene, M. and Ortega, J. (2010) Comparing university rankings, *Scientometrics*, vol. 85, no. 1, pp. 243-256.

Allard-Poesi, F., Drucker-Godard, C. and Ehlinger, S. (2003) Analyses de représentations et de discours. In: Thiétart, R. A. and coll. (eds.), *Méthodes de recherche en management*, pp. 449-475. Paris, France: DUNOD.

Altbach, P. G. (2013) Globalization and forces for changes in higher education. In *The international imperative in higher education*, pp. 7-10. Rotterdam: Sense Publishers.

- Altman, Y. and Bournois, F. (2004) The "coconut tree" model of careers: the case of French academia, *Journal of Vocational Behavior*, vol. 64, no., pp. 320-328.
- Alwin, D. F. and Krosnick, J. A. (1985) The measurement of values in surveys: a comparison of ratings and rankings, *The Public Opinion Quarterly*, vol. 49, no. 4, pp. 535-552.
- Amaral, A., Meek, V. L. and Larsen, I. M. (2003) *The higher education managerial revolution?* Dordrecht: Kluwer Academic Publisher, 297 p.
- Antony, R. N. (1965) *Planning and control systems: a framework for analysis*. Boston: Division of Research, Harvard Business School, 180 p.
- Arnold, J. (1997) *Managing careers into the 21st century*. London: Paul Chapman Publishing Ltd, 256 p.
- Arthur, M. B., Khapova, S. N. and Wilderom, C. P. M. (2005) Career success in a boundaryless career world, *Journal of Organizational Behavior*, vol. 26, no., pp. 177-202.
- Arthur, M. B. and Rousseau, D. M. (1996) *The boundaryless career: a new employment principle for a new organizational era*. New York: Oxford University Press, 408 p.
- ARWU (2010) *Ranking methodology*. Available online at <http://www.arwu.org/ARWUMethodology2010.jsp> [accessed on 19 June 2013].
- Ashton, D., Beattie, V., Broadbent, J., Brooks, C., Draper, P., Ezzamel, M., Gwilliam, D., Hodkinson, R., Hoskin, K., Pope, P. and Sratk, A. (2009) British research in accounting and finance (2001-2007): the 2008 research assesment exercise, *British Accounting Review*, vol. 41, no. 4, pp. 199-207.
- Aspromourgos, T. (2012) The managerialist university: an economic interpretation, *Australian Universities Review*, vol. 54, pp. 45-60.
- Bador, P. and Lafouge, T. (2005) Rédaction des adresses sur les publications: un manque de rigueur défavorable aux universités françaises dans les classements internationaux, *La Presse Médicale*, vol. 34, no. 9, pp. 633-636.
- Baillie, S. (2003) Epistemology. In: Miller, R. and Brewer, J. (eds.), *The a-z of social research*, pp. 94-95. London: SAGE Publications.
- Baker, C. R. and Bettner, M. S. (1997) Interpretative and critical research in accounting: a comentary on its absence from mainstream accunting research, *Critical Perspectives on Accounting*, vol. 8, pp. 293-310.

- Baruch, Y., Grimland, S. and Vigoda-Gadot, E. (2014) Professional vitality and career success: mediation, age and outcomes, *European Management Journal*, vol. 32, pp. 518-527.
- Baty, P. (2009) New data partner for World University Rankings, *Times Higher Education*. Available online at <http://www.timeshighereducation.co.uk/story.asp?storycode=408881> [accessed on 27 February 2013].
- Baty, P. (2010a) The university rankings *Times Higher Education*. Available online at <http://www.timeshighereducation.co.uk/story.asp?storycode=410974> [accessed on 27 February 2013].
- Baty, P. (2010b) THE unveils broad, rigorous new rankings methodology, *Times Higher Education*. Available online at <http://www.timeshighereducation.co.uk/story.asp?storycode=411907> [accessed on 27 February 2013].
- Baumard, P., Donada, C., Ibert, J. and Xuereb, J.-M. (2003) La collecte des données et la gestion de leurs sources. In: Thiétart, R. A. and coll. (eds.), *Méthodes de recherche en management*, pp. 224-256. Paris, France: DUNOD.
- Baumard, P. and Ibert, J. (2003) Quelles approches avec quelles données? In: Thiétart, R. A. and coll. (eds.), *Méthodes de recherche en management*, pp. 82-103. Paris, France: DUNOD.
- Beehr, T. A. and Bowling, N. (2002) Career issues facing older workers. In: Feldman, D. C. (ed.), *Work careers: a development perspective*, pp. 214-241. San Francisco: Jossey-Bass.
- Berger, P. and Luckmann, T. (1966) *The social construction of reality*. New York: Doubleday Anchor, 219 p.
- Bergh, D. D. (1993) Watch the time carefully: the use and misuse of time effects in management research, *Journal of Management*, vol. 19, no. 3, pp. 683-705.
- Berman, E. (2002) How useful is performance measurement, *Public Performance & Management Review*, vol. 25, no. 4, pp. 348-351.
- Bill, J. and Hardgrave, R. (1981) *Comparative politics: the quest for theory*. Washington DC: University Press of America, 261 p.
- Blaikie, N. (2000) *Designing social research: the logic of anticipation*. Cambridge: Polity Press, 356 p.

- Blaikie, N. (2004) Abduction. In: Lewis-Beck, M. S., Bryman, A. and Liao, T. F. (eds.), *The SAGE encyclopedia of social science research methods*, pp. 1-2. London: SAGE.
- Blummer, B. and Kenton, J. M. (2014) Methodology: the data analysis. In *Improving student information search: a metacognitive approach*, pp. 125-136. Oxford: Chandos Publishing.
- Bok, D. (2004) The roots of commercialization. In *Universities in the marketplace: the commercialization of higher education*, pp. 1-17. Princeton: Princeton University Press.
- Boulton, G. (2011) University rankings: diversity, excellence and the European initiative, *Procedia - Social and Behavioral Sciences*, vol. 13, pp. 74-82.
- Bourdieu, P. (1973) The three forms of theoretical knowledge, *Social Science Information*, vol. 12, no. 1, pp. 53-80.
- Bourdieu, P. (1977) *Outline of a theory of practice*. Cambridge: Cambridge University Press, 255 p.
- Bourion, C., Antoine, A. and Bournois, F. (2014) La gestion des connaissances scientifiques par les classifications, les ranking et les listes. Assiste-t-on au développement de prophéties auto réalisatrices sources de processus magiques de rédemption au sein de la gestion des connaissances scientifiques?, *Revue internationale de psychosociologie et de gestion des comportements organisationnels*, vol. 2014, no. 49, pp. 263-286.
- Bowden, J. and Marton, F. (1998) *The university of learning: beyond quality and competence*. London: Routledge Falmer, 320 p.
- Brewer, J. (2003a) Induction. In: Miller, R. and Brewer, J. (eds.), *The a-z of social research*, pp. 154-156. London: SAGE Publications Ltd.
- Brewer, J. (2003b) Interpretation. In: Miller, R. and Brewer, J. (eds.), *The a-z of social research*, pp. 164-165. London: SAGE Publications Ltd.
- Brewer, J. (2003c) Content analysis. In: Miller, R. and Brewer, J. (eds.), *The a-z of social research*, pp. 43-45. London: SAGE Publications Ltd.
- Brewer, J. (2003d) Qualitative research. In: Miller, R. and Brewer, J. (eds.), *The a-z of social research*, pp. 238-241. London: SAGE Publications Ltd.
- Brewer, J. (2003e) Reflexivity. In: Miller, R. and Brewer, J. (eds.), *The a-z of social research*, pp. 259-261. London, UK: SAGE Publications Ltd.

- Brousseau, K. R., Driver, M. J., Eneroth, K. and Larsson, R. (1996) Career pandemonium: realigning organizations and individuals, *The Academy of Management Executive*, vol. 10, no. 4, pp. 52-66.
- Brown, R. (2011) The march of the market. In: Molesworth, M., Scullion, R. and Nixon, E. (eds.), *The marketization of higher education and the student as consumer*, pp. 11-24. Abingdon: Routledge.
- Brown, R. H. (1978) Bureaucracy as praxis: toward a political phenomenology of formal organizations, *Administrative Science Quarterly*, vol. 23, no., pp. 365-382.
- Burchell, S., Clubb, C., Hopwood, A. and Hughes, J. (1980) The roles of accounting in organization and society, *Accounting, Organizations and Society*, vol. 5, no. 1, pp. 5-27.
- Burke, P. and Reitzen, D. (1981) The link between identity and role performance *Social Psychology Quarterly*, vol. 44, pp. 83-92.
- Burke, R. J. (1999) Career success and personal failure feelings among managers, *Psychological Reports*, vol. 84, pp. 651-654.
- Burlaud, A. (2007) L'enseignement de la gestion à l'université face à la concurrence internationale, *Revue française de gestion*, vol. 9/10, no. 178/179, pp. 135-156.
- Callanan, G. A. (2006) Individual career management. In: Greenhaus, J. H. and Callanan, G. A. (eds.), *Encyclopedia of career development*, pp. 378-380. Thousand Oaks: SAGE.
- Caronna, C. (2004) The misalignment of institutional "pillars" : consequences for the U.S. health field, *Journal of Health and Social Behaviour*, vol. 45, pp. 45-58.
- Castells, M. (1996) *The information age: economy, society and culture*. Oxford: Blackwell, 1488 p.
- Charle, C. (2009) L'évaluation des enseignants-chercheurs. Critiques et propositions, *Vingtième Siècle. Revue d'histoire*, vol. 2, no. 102, pp. 159-170.
- Charmaz, K. (2006) *Constructing grounded theory: a practical guide through qualitative analysis* Teller Road: SAGE Publication Inc., 208 p.
- Charreire, S. and Durieux, F. (2003) Explorer et tester: deux voies pour la recherche. In: Thietart, R. A. and coll. (eds.), *Méthodes de recherche en management*, pp. 57-82. Paris, France: DUNOD.
- CHE (2007) *How to measure internationality and internationalisation of higher education institutions! Indicators and key figures*. Available online at

- http://www.che.de/downloads/How_to_measure_internationality_AP_92.pdf [accessed on 10 July 2013].
- CHE (2010a) *CHE university ranking: list of indicators*. Available online at [accessed on 10 July 2013].
- CHE (2010b) *Identifying the best: the CHE excellence ranking* Available online at [accessed on 10 July 2013].
- CHE (2013a) *CHE excellence ranking*. Available online at <http://www.che-ranking.de/cms/?getObject=632> [accessed on 10 July 2013].
- CHE (2013b) *CHE university rankings*. Available online at <http://www.che-ranking.de/cms/?getObject=615&getLang=en> [accessed on 05 June 2013].
- CHEPS (2013) *U-Map classification viewer*. Available online at <http://www.u-map.eu/viewer.shtml> [accessed on 10 July 2013].
- Christensen-Huges, J. and Mighty, J. (2010) *Taking stock: research on teaching and learning in higher education*. Montreal: McGill-Queen's University, 350 p.
- Chua, W. F. (1986) Radical developments in accounting thought, *The Accounting Review*, vol. 61, no. 4, pp. 601-632.
- Cicourel, A. (1970) The acquisition of social structure: towards a developmental sociology of language. In: Douglas, J. D. (ed.), *Understanding everyday life*, pp. 136-168. Chicago: Aldine.
- CNRS (2014a) *Présentation*. Available online at <http://www.cnrs.fr/fr/organisme/presentation.htm> [accessed on 5 December 2014].
- CNRS (2014b) *CNRS presentation brochure*. Available online at <http://www.cnrs.fr/en/science-news/docs/leaflet2014.pdf> [accessed on 5 December 2014].
- CNRS (2014c) *Catégorisation des revues en Économie et en Gestion*. Available online at https://http://www.gate.cnrs.fr/IMG/pdf/Categorisation37_Nov2014-2-1.pdf [accessed on 5 December 2014].
- CNU (2012a) *Critères retenus par la section 06 pour la promotion des enseignants-chercheurs*. Available online at <http://www.cpcnu.fr/documents/25927/23422d10-9550-407a-a666-7f6b0f7e4836> [accessed on 1 July 2014].
- CNU (2012b) *Rapport sur les qualifications aux fonctions de Maître de Conférences et de Professeur des Universités (6ème section: Sciences de Gestion)*. Available online at

http://www.cpcnu.fr/documents/25927/103617/rapport_session_qualification_2012.pdf [accessed on 16 July 2014].

CNU (2012c) *Rapport sur les promotions des Maîtres de Conférences et Professeurs des Universités*. Available online at http://www.cpcnu.fr/documents/25927/103617/rapport_session_promotion_2012.pdf [accessed on 17 July 2014].

Coase, R. (1937) The nature of the firm, *Economica*, vol. 4, pp. 385-405.

Coase, R. (1983) The new institutional economics, *Journal of Institutional and Theoretical Economics*, vol. 140, pp. 229-231.

Colakoglu, S. N. (2006) Networking. In: Greenhaus, J. H. and Callanan, G. A. (eds.), *Encyclopedia of career development*, pp. 536-537. Thousand Oaks: SAGE.

Colet, N. R., Romainville, M. and the collectif (2006) *La pratique enseignante en mutation à l'université*. Bruxelles: De Boeck Supérieur, 249 p.

Commons, J. R. (1970) *The economics of collective action*. Madison: University of Wisconsin Press, 382 p.

Cooley, C. H. (1956) *Social organization: a study of the larger mind*. Glencoe: Free Press, 426 p.

Cosca, T. and Emmel, A. (2010) Revising the standard occupational classification system for 2010, *Monthly Labor Review*, vol. 133, no. 8, pp. 32-41.

Coser, L., Kadushin, C. and Powell, W. W. (1982) *Books: the culture and commerce of publishing*. New York: Basic Books, 412 p.

Cour des Comptes (2005) *La gestion de la recherche dans les universités*. Available online at <http://www.afsp.msh-paris.fr/activite/infosdiscipline/rapp05ccomptes.pdf> [accessed on 7 July 2014].

Courpasson, D. and Guedri, Z. (2007) Les professeurs-chercheurs en management face à la performance scientifique, *Revue française de gestion*, vol. 9/10, no. 178/179, pp. 173-194.

Courty, P. and Marschke, G. (1997) Measuring government performance: lessons from a federal job training programme, *American Economic Review Papers and Proceedings*, vol. 87, no. 12, pp. 383-388.

Crêt, B. (2011) Accreditations as local management tools, *Higher Education*, vol. 61, pp. 415-429.

Croham, C. (1987) *Review of the university grants committee*. London: HMSO, 86 p.

- Cuganesan, S., Dunford, R. and Palmer, I. (2012) Strategic management accounting and strategy practices within a public sector agency, *Management Accounting Research*, vol. 23, no. 4, pp. 245-260.
- CWTS (2014) *Leiden ranking: indicators*. Available online at <http://www.leidenranking.com/methodology/indicators> [accessed on 21 March 2015].
- D'Andrade, R. (1984) Cultural meaning systems,. In: Shweder, R. and LeVine, R. (eds.), *Culture theory: essay of mind, self, and emotions*, pp. 88-119. Cambridge: Cambridge University Press.
- D'Aveni, R. A., Dagnino, G. B. and Smith, K. G. (2010) The age of temporary advantage, *Strategic Management Journal*, vol. 31, no. 13, pp. 1371-1385.
- Daly, M. (2003) Methodology. In: Miller, R. and Brewer, J. (eds.), *The a-z of social research*, pp. 192-194. London, UK: SAGE Publications Ltd.
- Dambrin, C. and Lambert, C. (2006) Le deuxième sexe dans la profession comptable. Réflexions théoriques et méthodologiques., *Revue Comptabilité, Contrôle, Audit*, vol. 12, no. special, pp. 101-138.
- de la Bruslerie, H. (2002) Le diagnostic de la performance et de la rentabilité. In *Analyse financière - Information financière et diagnostic*, pp. 472. Paris: DUNOD.
- de Witte, K. and Hudrlikova, L. (2013) What about excellence in teaching? A benevolent ranking of universities, *Scientometrics*, vol. 96, no. 1, pp. 337-364.
- Décret n°84-431 (1984) Décret n°84-431 du 6 juin 1984 fixant les dispositions statutaires communes applicables aux enseignants-chercheurs et portant statut particulier du corps des professeurs des universités et du corps des maîtres de conférences. .
- Décret n° 461 (2009) Décret n° 2009-461 du 23 avril 2009 modifiant le décret n° 92-70 du 16 janvier 1992 relatif au Conseil National des Universités.
- Dejean, J. (2006) Les réticences à l'évaluation de l'enseignement en France, signe de la culture professionnelle des enseignants-chercheurs ou trait de la culture française? In: Colet, N. R. and Romainville, M. (eds.), *La pratique enseignante en mutation à l'université*, pp. 61-80. Bruxelles: De Boeck Supérieur.
- Delaney, J. T. and Huselid, M. A. (1996) The impact of human resource management practices on perceptions of organizational performance, *Academy of Management Journal*, vol. 39, no. 4, pp. 949-969.
- Dicker, J. (2010) How should we measure public sector performance?, *Viewpoint Papers*. Available online at http://clients.squareeye.net/uploads/2020/documents/Dicker_Public_Sector_Performance_2020PST_1.pdf [accessed on 26 January 2015].

- Dill, D. D. (2009) Convergence and diversity: the role and influence of university rankings, 18. In: Kehm, B. M. and Stensaker, B. (eds.), *University rankings, diversity, and the new landscape of higher education*, pp. 97-116. Taipei: Sense Publishers.
- Dill, D. D. and Soo, M. (2005) Academic quality, league tables, and public policy: a cross-national analysis of university ranking systems, *Higher Education*, vol. 49, no. 4, pp. 495-533.
- DiMaggio, P. J. (1988) Interest and agency in institutional theory. In: Zucker, L. G. (ed.), *Institutional patterns and organizations: culture and environment*, pp. 3-22. Cambridge: Ballinger.
- DiMaggio, P. J. (1991) Constructing an organizational field as a professional project: U.S. art museums, 1920-1940. In: Powell, W. W. and Dimaggio, P. J. (eds.), *The new institutionalism in in organizational analysis*, pp. 267-292. Chicago: University of Chicago Press.
- DiMaggio, P. J. and Powell, W. W. (1983) The iron cage revisited: institutional isomorphism and collective rationality in organizational fields, *American Sociological Review*, vol. 48, pp. 147-160.
- DiMaggio, P. J. and Powell, W. W. (1991) Introduction. In: Powell, W. W. and DiMaggio, P. J. (eds.), *The new institutionalism in organizational analysis*, pp. 1-38. Chicago: University of Chicago Press.
- Dixit, A. (2002) Incentives and organizations in the public sector: an interpretive review, *Journal of Human Resources*, vol. 37, no. 4, pp. 696-727.
- Docampo, D. (2013) Reproducibility of the Shanghai academic ranking of world universities results, *Scientometrics*, vol. 94, no. 2, pp. 567-587.
- Donald, M. (1991) *Origins of the modern mind: three stages in the evolution of culture and cognition*. Cambridge, MA: Harvard University Press, 424 p.
- Douglas, M. (1982) The effects of modernization on religious change, *Daedalus*, vol. winter, pp. 1-19.
- Downs, C. W., Johnson, K. M. and Barge, K. J. (1984) Communication feedback and task performance in organizations: a review of the literature, *Organizational Communication Abstracts*, vol. 9, pp. 13-47.
- Drucker-Godard, C., Ehlinger, S. and Grenier, C. (2003) Validité et fiabilité de la recherche. In: Thiétart, R. A. and coll. (eds.), *Méthodes de recherche en management*, pp. 257-287. Paris: DUNOD.

- Drury, C. (2012) Management control systems. In *Management Accounting for Business*, pp. 259-288. China: RR Donnelley.
- Dubin, R. (1983) Theory building in applied areas. In: Dunnette, M. D. (ed.), *Handbook of industrial and organizational psychology*, pp. 17-39. New York: Wiley.
- Duffin, J. (1999) *History of the medicine*. Toronto: University of Toronto, 433 p.
- Durkheim, E. (1950) *The rules of sociological method*. Glencoe, IL: Free Press, 272 p.
- Edelman, L. (1992) Legal ambiguity and symbolic structures: organizational mediation of civil right law, *American Journal of Sociology*, vol. 97, pp. 1531-1576.
- EFMD (2014a) *EFMD quality services brochure*. Available online at https://http://www.efmd.org/images/stories/efmd/downloadables/QS/EFMD-Quality_Services_Brochure.pdf [accessed on 12 December 2014].
- EFMD (2014b) *EQUIS accredited schools*. Available online at <https://http://www.efmd.org/accreditation-main/equis/accredited-schools> [accessed on 12 December 2014].
- EFMD (2014c) *The management development network*. Available online at <https://http://www.efmd.org/what-is-efmd> [accessed on 12 December 2014].
- EFMD (2014d) *EQUIS fee structure*. Available online at <https://http://www.efmd.org/accreditation-main/equis/equis-fee-structure> [accessed on 12 December 2014].
- Eisenhardt, K. M. and Graebner, M. E. (2007) Theory building from cases: opportunities and challenges, *Academy of Management Journal*, vol. 50, pp. 25–32.
- Elharidy, A. M., Nicholson, B. and Scapens, R. W. (2008) Using grounded theory in interpretive management accounting research, *Qualitative Research in Accounting and Management*, vol. 5, pp. 139–155.
- Engwall, L. (1992) *Mercury meets minerva. Business studies and higher education: the Swedish case*. Oxford: Pergamon Press, 240 p.
- Engwall, L. and Zamagni, V. (1998) *Management education in historical perspective*. Manchester: Manchester University Press, 177 p.
- ESSEC (2014) *PhD in Business Administration*. Paris: ESSEC Business School.
- EUA (2011) *Global university rankings and their impact*. Available online at http://www.eua.be/pubs/Global_University_Rankings_and_Their_Impact.pdf [accessed on 14 January 2014].

- European Commission (2010) *Assessing Europe's university-based research*. Available online at <http://ec.europa.eu/research/era/docs/en/areas-of-actions-universities-assessing-europe-university-based-research-2010-en.pdf> [accessed on 23 February 2013].
- European Higher Education Area (1999) *The Bologna Declaration: joint declaration of the European Ministers of Education*. Available online at http://www.ehea.info/Uploads/Declarations/BOLOGNA_DECLARATION1.pdf [accessed on 24 December 2014].
- Feldman, J. M. (1981) Beyond attribution theory: cognitive process in performance appraisal, *Journal of Applied Psychology*, vol. 66, no. 2, pp. 127-148.
- Fiore, L. and Rosenquest, B. (2010) Shifting the culture of higher education: influences on students, teachers and pedagogy, *Theory Into Practice*, vol. 49, pp. 14-20.
- Fitz-Gibbon, C. T. (1997) *The value added national project: feasibility studies for a national system of value added indicators*. Available online at http://www.cem.org/attachments/publications/CEMWeb009_Feasibility_Study_Nat_System_VA_Indicators.pdf [accessed on 9 February 2015].
- FNEGE (2013) *Academic journal quality list*. Available online at [accessed on 30 June 2014].
- FNEGE (2014a) *Présentation*. Available online at <http://www.fnege.org/a-propos/presentation> [accessed on 7 December 2014].
- FNEGE (2014b) *Classement des revues*. Available online at <http://www.fnege.org/publications/classement-des-revus> [accessed on 7 December 2014].
- Forgues, B. and Vandangeon-Derumez, I. (2003) Analyses longitudinales. In: Thiétart, R. A. and coll. (eds.), *Méthodes de recherche en management*, pp. 422-448. Paris, France: DUNOD.
- Fournier, M., Gingras, Y. and Mathurin, C. (1988) L'évaluation par les pairs et la définition légitime de la recherche, *Actes de la Recherche en Sciences Sociales*, vol. 74, no. 74, pp. 47-54.
- Friedman, S. D. and Greenhaus, J. H. (2000) *Work and family - allies or enemies? What happen when business professionals confront life choices*. New York: Oxford University Press, 288 p.
- Garfinkel, H. (1967) *Studies in ethnomethodology*. Englewood Cliffs, NJ: Prentice Hall, 304 p.

- Garnett, J. L., Marlowe, J. and Pandey, S. K. (2008) Penetrating the performance predicament: communication as a mediator or moderator of organizational culture's impact on public organizational performance, *Public Administration Review*, vol. 68, no. 2, pp. 266-281.
- Geertz, C. (1973) *The interpretation of cultures*. New York: Basic Books, 480 p.
- Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P. and Trow, M. (1994) *The new production of knowledge*. London: SAGE, 192 p.
- Giddens, A. (1976) *New rules of sociological method: a positive critique of interpretative sociologies*. London: Hutchinson, 196 p.
- Giddens, A. (1984) *The constitution of society*. Cambridge: Polity Press, 402 p.
- Gingras, Y. (2008) Du mauvais usage de faux indicateurs, *Revue d'histoire moderne et contemporaine*, vol., no. 55-4bis, pp. 67-79.
- Goddard, J. (2000) The response of higher education institutions to regional needs, *European Journal of Education*, vol. 35, no. 4, pp. 475-496.
- Goffman, E. (1983) The interaction order, *American Sociological Review*, vol. 48, pp. 1-17.
- Gold, J., Walton, J., Cureton, P. and Anderson, L. (2011) Theorising and practitioners in HDR: the role of abductive reasoning, *Journal of European Industrial Training*, vol. 35, no. 3, pp. 230-246.
- Gould, S. and Penley, L. E. (1984) Career strategies and salary progression: a study of their relationships in a municipal bureaucracy, *Organization Behavior and Human Performance*, vol. 34, pp. 244-265.
- Greeler, M. M. and Simpson, P. (1999) In search of late career: a review of contemporary social science research applicable to the understanding of late career, *Human Resource Management Review*, vol. 9, pp. 309-347.
- Greenhaus, J. H. (1987) *Career management*. New York: Dryden Press, 52 p.
- Greenhaus, J. H., Callanan, G. A. and Godshalk, V. M. (2010) *Career management*. New York: SAGE Publications, 485 p.
- Hall, D. T. (1996) *The career is dead, long live the career: a relational approach to careers*. San Francisco: Jossey-Bass, 358 p.
- Hall, P. and Taylor, R. (1996) Political science and the three new institutionalisms, *Political Studies*, vol. 44, pp. 936-957.

- Hallett, T. and Ventresca, M. (2006) Inhabited institutions: social interactions and organizational forms in Gouldner's patterns of industrial bureaucracy, *Theory and Society*, vol. 35, pp. 213-236.
- Hartmann, F., Naranjo-Gil, D. and Perego, P. (2010) The effects of leadership styles and use of performance measures on managerial work-related attitudes, *European Accounting Review*, vol. 19, no. 2, pp. 275-310.
- Hazelkorn, E. (2009) Rankings and the battle for world-class excellence: institutional strategies and policy choices, *Higher Education Management and Policy*, vol. 21, no. 1, pp. 1-22.
- Hazelkorn, E. (2011) *Rankings and the reshaping of higher education: the battle for world class excellence* Hampshire: Palgrave Macmillan, 272 p.
- HEC Paris (2014) *Doctoral program brochure. PhD in Management*. Paris: HEC Paris.
- Hedmo, T. (2002) The Europeanisation of business education. In: Amdam, R. P., Kvalshaugen, R. and Larsen, E. (eds.), *Inside the business schools: the content of European business education*, pp. 247-266. Copenhagen: Copenhagen Business School Press.
- HEFCE (2011) *Assessment framework and guidance on submissions. REF 2014*. Available online at <http://www.abdn.ac.uk/research/ref2014.php> [accessed on 11 May 2013].
- Hemsley-Brown, J. (2011) Market heal thyself: the challenges of a free market in higher education, *Journal of Marketing for Higher Education*, vol. 21, no. 2, pp. 115-132.
- Herr, E. L. (2001) Career development and its practice: a historical perspective, *The Career Development Quarterly*, vol. 49, no. 3, pp. 196-211.
- Higher Education Ministries (1998) *Sorbonne joint declaration on harmonisation of the architecture of the European higher education system*. Available online at http://www.ehea.info/Uploads/Declarations/SORBONNE_DECLARATION1.pdf [accessed on 13 March 2015].
- Hirsch, J. E. (2005) An index to quantify an individual's scientific research output, *Proceedings of the National Academy of Sciences*, vol. 102, no. 46, pp. 16569-16572.
- Hodgkinson, G. P. (2005) *Images of competitive space : a study of managerial and organizational strategic cognition*. Basingstoke, UK: Palgrave Macmillan, 320 p.
- Hofstede, G. (1967) *The game of budget control*. Assen: van Gorcum, 363 p.
- Holland, J. L. (1985) *Making vocational choices: a theory of careers*. Odessa: Psychological Assessment Resource, 150 p.

- Hood, C. (2007) Public service management by numbers: why does it vary? Where has it come from? What are the gaps and the puzzles?, *Public Money and Management*, vol. 27, no. 2, pp. 95-102.
- Hopwood, A. and Miller, P. (1994) *Accounting as social and institutional practice*. Cambridge: Cambridge University Press, 324 p.
- Hopwood, A. G. (1972) An empirical study of the role of accounting data in performance evaluation, *Journal of Accounting Research*, vol. 10, no. 1, pp. 156-182.
- Hou, Y. C., Ince, M. and Chiang, C. L. (2013) The impact of excellence initiatives in taiwan higher education, 25. In: Wang, Q., Cheng, Y. and Liu, N. (eds.), *Building world-class universities: different approaches to a shared goal*, pp. 35-53. Rotterdam: SensePublishers
- Houle, D., Pélabon, C., Wagner, G. P. and Hansen, T. F. (2011) Measurement and meaning in biology, *The Quarterly Review of Biology*, vol. 86, no. 1, pp. 3-34.
- Hughes, E. (1939) Institutions. In: Park, R. E. (ed.), *An outline of the principles of sociology*, pp. 281-330. New York: Barnes & Noble.
- Hutchison, A. J., Johnston, L. H. and Breckon, J. D. (2010) Using QSR-NVivo to facilitate the development of a grounded theory project: an account of a worked example, *International Journal of Social Research Methodology*, vol. 13, no. 4, pp. 283-302.
- IASCF (2009) *International financial reporting standards*. London: International Accounting Standard Board, 2880 p.
- Ibarra, H. (2003) *Working identity*. USA: Harvard Business School Press, 199 p.
- Inkson, K. (2007) *Understanding careers*. Thousand Oaks, Ca: SAGE, 344 p.
- INSEAD (2014) *PhD in Management 2014-2015 brochure*.
- Janke, R., Mahlendorf, M. D. and Weber, J. (2014) An exploratory study of the reciprocal relationship between interactive use of management control systems and perception of negative external crisis effects, *Management Accounting Research*, vol. 25, no. 4, pp. 251-270.
- Jarratt-Committee (1985) *Report of the Steering Committee for Efficiency Studies in Universities, Committee of Vice-Chancellors and Principals*. London: The committee, 53 p.
- Jepperson, R. (1991) Institutions, institutional effects, and institutionalization. In: Powell, W. W. and DiMaggio, P. J. (eds.), *The new institutionalism in organizational analysis*, pp. 143-163. Chicago: University of Chicago Press.

- Jepsen, D. A. (2006) Family background and careers. In: Greenhaus, J. H. and Callaman, G. A. (eds.), *Encyclopedia of career development*, pp. 313-317. Thousand Oaks: SAGE.
- Jersild, A. T. and Meigs, M. F. (1939) Direct observation as a research method, *Review of Educational Research*, vol. 9, no. 5, pp. 472-482.
- Jobbins, D. (2002) The Times/The Times Higher Education Supplement - league tables in Britain: an insider's view, *Higher Education in Europe*, vol. 27, no. 4, pp. 383-388.
- Johnsen, Å. (2005) What does 25 years of experience tell us about the state of performance measurement in public policy and management?, *Public Money and Management*, vol. 25, no. 1, pp. 9-17.
- Johnson, P., Buehring, A., Cassell, C. and Symon, G. (2006) Evaluating qualitative management research: towards a contingent criteriology, *International Journal of Management Reviews*, vol. 8, no. 3, pp. 131-156.
- Johnston, L. H. (2006) Software and method: reflections on teaching and using QSR NVivo in doctoral research, *International Journal of Social Research Methodology*, vol. 9, no. 5, pp. 379-391.
- Jongbloed, B. (2003) Marketization in higher education, Clark's triangle and the essential ingredients of markets, *Higher Education Quarterly*, vol. 57, no. 2, pp. 110-135.
- Jongbloed, B., Enders, J. and Salerno, C. (2008) Higher education and its communities: interconnections, interdependencies and research agenda, *Higher Education*, vol. 56, pp. 303-324.
- Jordaan, J. P. (1963) Exploratory behaviour: the formation of self and occupational concepts. In: Super, D. E., Stratishtersky, R., Mattin, N. and Jordaan, J. P. (eds.), *Career development and self-concept theory*, pp. 42-78. New York: College Examination Board.
- Kakkuri-Knuuttila, M.-L., Lukka, K. and Kuorikoski, J. (2010) Straddling between paradigms: a naturalistic philosophical case study on interpretive research in management accounting, *Accounting, Organizations and Society*, vol. 33, no. 2/3, pp. 267-291.
- Karsten, S., Visscher, A. and de Jong, T. (2001) Another side to the coin: the unintended effects of the publication of schools performance data in England and France, *Comparative Education*, vol. 37, no. 2, pp. 231-242.
- Kaufmann, J. C. (2004) *L'entretien compréhensif*. Paris: Armand Colin, 127 p.
- Keene, J. (2006) Age discrimination. In: Greenhaus, J. H. and Callaman, G. A. (eds.), *Encyclopedia of career development*, pp. 10-14. Thousand Oaks: SAGE.

- Kelly, A., Brannick, T., Hulpke, J., Levine, J. and To, M. (2003) Linking organizational training and development practices within new forms of career structure: a cross-national exploration, *Journal of European Industrial Training*, vol. 27, pp. 160-168.
- Keohane, R. (1989) *International institutions and state power: essay in international relations theory*. Boulder: Westview Press, 270 p.
- Kim, J. S. (1975) *Effect of feedback on performance and job satisfaction in an organizational setting*, PhD, Michigan State University.
- Kimberly, J. (1980) Initiation, innovation and institutionalization in the creation process. In: Miles, K. and Miles, B. (eds.), *The organizational life cycle*, pp. 18-43. San Francisco: Jossey-Bass.
- Kogan, M., El-Khawas, E. H. and Moses, I. (1994) *Staffing in higher education: meeting new challenges*. London: Jessica Kingsley Publishers, 144 p.
- Kossek, E. E., Rovers, K. and Demarr, B. (1998) Career self-management: a quasi experimental assessment of the effect of training intervention, *Personnel Psychology*, vol. 51, pp. 935-962.
- Krasner, S. (1988) Sovereignty: an institutional perspective, *Comparative Political Studies*, vol. 21, pp. 66-94.
- Kravchuk, R. and Schack, R. (1996) Designing effective performance measurement systems under the government performance and results act 1993, *Public Administration Review*, vol. 56, no. 4, pp. 348-358.
- Kroeber, A. and Parsons, T. (1958) The concepts of culture and of social systems, *American Sociological Review*, vol. 23, pp. 582-583.
- Kuan, C.-H., Huang, M.-H. and Chen, D.-Z. (2011) Ranking patent assignee performance by h-index and shape descriptors, *Journal of Informetrics*, vol. 5, no. 2, pp. 303-312.
- L'assemblée nationale et le sénat (2006) Loi n° 2006-450 du 18 avril 2006 de programme pour la recherche.
- Landy, F. J. and Farr, J. L. (1983) *The measurement of work performance*. New York: Academic Press, 342 p.
- Langlois, R. (1986) The new institutional economics: an introductory essay. In: Langlois, R. N. (ed.), *Economics as a process: essays in the new institutional economics*, pp. 1-25. New York: Cambridge University Press.

- Lapsley, I. (1996) Reflections on performance measurement in the public sector. In: Lapsley, I. and Mitchell, F. (eds.), *Accounting and performance measurement*, pp. 109-128. London: Paul Chapman.
- Laredo, P. (2007) Revisiting the third mission of universities: toward a renewed categorization of university activities?, *Higher Education Policy*, vol. 20, no. 4, pp. 441-456.
- Larson, L. M. and Bailey, D. C. (2006) Career appraisal. In: Greenhaus, J. H. and Callanan, G. A. (eds.), *Encyclopedia of career development*, pp. 70-72. Thousand Oaks: SAGE.
- Laughlin, R. (1995) Empirical research in accounting: alternative approaches and a case for "middle-range" thinking, *Accounting, Auditing & Accountability Journal*, vol. 8, no. 1, pp. 63-87.
- Lawrence, T. B., Suddaby, R. and Leca, B. (2009) Introduction: theorizing and studying institutional work. In: Lawrence, T. B., Suddaby, R. and Leca, B. (eds.), *Institutional work*, pp. 1-27. Cambridge: Cambridge University Press.
- Lee, M. L. (1971) A conspicuous production theory of hospital behaviour, *Southern Economic Journal*, vol. 38, pp. 48-58.
- Lejeune, C. (2011) Is continuous improvement through accreditation sustainable?, *Management Decision*, vol. 49, no. 9, pp. 1535-1548.
- Leonard, M. (2003) Interviews. In: Miller, R. and Brewer, J. (eds.), *The a-z of social research*, pp. 166-171. London: SAGE Publications.
- Levinson, D. J. (1985) *The seasons of a man's life*. New York: Knopf, 384 p.
- Lewin, K. (1948) *Resolving social conflicts*. New York: Harper, 230 p.
- Lincoln, Y. S. and Guba, E. G. (1985) *Naturalistic inquiry*. Beverly Hills, CA: SAGE, 416 p.
- Lips-Wiersma, M. and Hall, D. T. (2007) Organizational career development is not dead: a case study on managing the new career during organizational change, *Journal of Organizational Behavior*, vol. 28, no. 6, pp. 771-792.
- Liu, N. and Cheng, Y. (2005) Academic ranking of world universities: methodologies and problems, *Higher Education in Europe*, vol. 30, no. 2, pp. 127-136.
- Liu, N. C. (2009) The story of the academic ranking of world universities, *International Higher Education*, vol. 54, pp. 2-3.

- Liu, N. C., Cheng, Y. and Liu, L. (2005) Academic ranking of world universities using scientometrics - A comment to the "Fatal Attraction" *Scientometrics*, vol. 64, no. 1, pp. 101-109.
- Llewellyn, S. (1993) Working in hermeneutic circles in management accounting research : some implications and applications, *Management Accounting Research*, vol. 4, pp. 231-249.
- Llewellyn, S. (2007) Case studies and differentiated realities, *Qualitative Research in Accounting & Management*, vol. 4, pp. 53-68.
- Lo, W. Y. W. (2014) Taiwan's higher education system in Context. In: Lo, W. Y. W. (ed.), *University Rankings*, pp. 15-39. Singapore: Springer Science.
- Locke, E. A. and Latham, G. P. (1990) *A theory of goal setting and task performance*. Englewood Cliffs: Prentice Hall, 544 p.
- Locke , E. A. and Latham, G. P. (2006) Building a practically useful theory of goal setting and task motivation: a 35 year odyssey, *American Psychologist*, vol. 57, pp. 705-717.
- Locke, R. R. (1985) Business education in Germany: past systems and current practice, *The Business History Review*, vol. 59, no. 2, pp. 232-253.
- Loi n° 660 (2013) Loi n°660 du 22 juillet 2013 relative à l'enseignement supérieur et à la recherche.
- Loi n° 1199 (2007) Loi n°1199 du 10 août 2007 relative aux libertés et responsabilités des universités
- Longenecker, C. and Ludwig, D. (1990) Ethical dilemmas in performance appraisal revisited, *Journal of Business Ethics*, vol. 9, no. 12, pp. 961-969.
- Lorino, P. (2008) Méthodes de recherche en contrôle de gestion:une approche critique, *Revue Finance Contrôle Stratégie*, vol. 11, no. Special (June), pp. 149-175.
- Lorino, P., Tricard, B. and Clot, Y. (2011) Research methods for non-representational approaches to organizational complexity: the dialogical mediated inquiry, *Organization Studies*, vol. 32, no. 6, pp. 769-801.
- Lowe, E. A., Puxty, A. G. and Laughlin, R. C. (1983) Simple theories for complex processes: accounting policy and the market for myopia, *Journal of Accounting and Public Policy*, vol. 2, no. 1, pp. 19-42.
- Loyola, D. (2013) International market for higher education and a higher education policy: the case of France and China, *International Journal for Cross-Disciplinary Subjects in Education*, vol. 4, no. 3, pp. 1256-1262.

- Luft, J. and Shields, M. D. (2006) Mapping management accounting: graphics and guidelines for theory-consistent empirical research 1. In: Chapman, C. S., Hopwood, A. G. and Shields, M. D. (eds.), *Handbooks of management accounting research*, pp. 27-95: Elsevier.
- Lukka, K. and Modell, S. (2010) Validation in interpretive management accounting research, *Accounting, Organizations and Society*, vol. 35, no. 4, pp. 462 - 477.
- Lukman, R., Krajnc, D. and Glavič, P. (2010) University ranking using research, educational and environmental indicators, *Journal of Cleaner Production*, vol. 18, no. 7, pp. 619-628.
- Lundberg, J. (2007) Lifting the crown - citation z-score, *Journal of Informetrics*, vol. 1, no. 2, pp. 145 - 154.
- Lupu, I. (2011) *La construction de l'identité des femmes experts-comptables en France*, Doctorat, CNAM, 371 p.
- Lussier, S. (2014) *Les enseignants-chercheurs en gestion à l'épreuve des nouvelles injonctions institutionnelles en matière d'évaluation : une étude France-Québec*, Doctor, Université Paris Dauphine, 421 p.
- Lynn, L. (2006) *Public management old and new*. London: Routledge, 224 p.
- March, J. C. and March, J. G. (1977) Almost random careers: the Wisconsin school superintendency, 1940-72, *Administrative Science Quarterly*, vol. 22, pp. 378-409.
- March, J. G. (1965) *Handbook of organizations*. Chicago: Rand McNally, 1247 p.
- March, J. G. (1978) Bounded rationality, ambiguity, and the engineering of choice, *Bell Journal of Economics*, vol. 9, no. 2, pp. 587-608.
- March, J. G. and Olsen, J. (1984) The new institutionalism: organizational factors in political life, *American Political Science Review*, vol. 78, pp. 734-749.
- March, J. G. and Simon, H. (1958) *Organizations*. New York: Wiley, 300 p.
- Marchall, C. and Rossman, G. B. (1989) *Designing qualitative research*. Beverly Hills: SAGE, 344 p.
- Marginson, S. (2004) Competition and markets in higher education: a 'glonacal' analysis, *Policy Futures in Education*, vol. 2, no. 2, pp. 175-244.
- Marginson, S. (2007 a) Global university rankings: implications in general and for Australia, *Journal of Higher Education Policy and Management*, vol. 29, no. 2, pp. 131-142.

- Markus, H. and Zajonc, R. B. (1985) The cognitive perspective in social psychology, 1st volume. In: Lindzey, G. and Aronson, E. (eds.), *Handbook of social psychology*, pp. 137-230. New York: Random House.
- Martin, B. R. (2012) Are universities and university research under threat? Towards and evolutionary model of university speciation, *Cambridge Journal of Economics*, vol. 36, pp. 543-565.
- Martin, B. R. and Whitley, R. (2010) The UK research assessment exercise: a case of regulatory capture? In: Whitley, R., Glaser, J. and Engwall, L. (eds.), *Reconfiguring knowledge production : changing authority relationships in the sciences and their consequences for intellectual innovation*, pp. 51-80. Oxford: Oxford University Press.
- Martinet, A. C. (1990) Grandes questions épistémologiques et sciences de gestion. In: Martinet, A. C. (ed.), *Epistémologies et sciences de gestion*, pp. 9-29. Paris: Economica.
- Martins, L. L. (2005) A model of the effects of reputational rankings on organizational change, *Organization Science*, vol. 16, no. 6, pp. 701-720.
- Marx, K. (1972) The German ideology: part I. In: Tucker, R. C. (eds.), *Marx-Engels reader*, pp. 110-164. New York: W. W. Norton.
- Mayer, R. C. and Davis, J. H. (1999) The effect of the performance appraisal system on trust for management: a field quasi-experiment, *Journal of Applied Psychology*, vol. 84, no. 1, pp. 123-136.
- Mazurek, J. (2011) Evaluation of ranking similarity in ordinal ranking problems, *Acta academica karviniensia*, pp. 119-128.
- McGowan, R. P. and Poister, T. H. (1985) Impact of productivity measurements on municipal performance, *Policy Studies Review*, vol. 4, no. 3, pp. 532-540.
- McMurtry, J. (1991) Education and the market model, *Journal of Philosophy of Education*, vol. 25, no. 2, pp. 209-217.
- Mead, G. H. (1934) *Mind, self and society*. Chicago: University of Chicago Press, 440 p.
- Menabney, N. (2003) Internet. In: Miller, R. and Brewer, J. (eds.), *The a-z of social research*, pp. 160 -164. London: SAGE Publications.
- Merchant, K. A. (2010) Paradigms in accounting research: a view from North America, *Management Accounting Research*, vol. 21, no. 2, pp. 116-120.
- Merchant, K. A. and Van der Stede, W. (2007) *Modern management control systems: text and cases*. New Jersey: Prentice-Hall, 880 p.

- Mercier, A. (2012) Dérives des universités, périls des universitaires, *Questions de communication*, vol. 22, pp. 197-234.
- Merton, R. (1957) Bureaucratic structure and personality. In: Merton, R. K. (eds.), *Social theory and social structure*, pp. 195-206. Glencoe: Free Press.
- Meyer, J. and Rowan, B. (1977) Institutionalized organizations: formal structure as myth and ceremony, *American Journal of Sociology*, vol. 83, pp. 340-363.
- Meyer, J. and Rowan, B. (1991) Institutionalized organizations: formal structure as myth and ceremony. In: Powell, W. W. and DiMaggio, P. J. (eds.), *The new institutionalism in organizational analysis*, pp. 41-62. Chicago: University of Chicago Press.
- Meyer, J., Scott, R. and Deal, T. E. (1981) Institutional and technical sources of organizational structure. In: Stein, H. D. (ed.), *Organization and the Human Services*, pp. 151-178. Philadelphia: Temple University Press.
- Meyer, M. (2007) Finding performance: the new discipline in management. In: Neely, A. (ed.), *Business performance measurements: unifying theories and integrating practice*, pp. 113-124. Cambridge: Cambridge University Press.
- Miles, M. B. and Huberman, A. M. (1994) *Qualitative data analysis: an expanded sourcebook of new methods*. Thousand Oaks: SAGE, 256 p.
- Miller, P. (1994) Accounting as social and institutional practice: an introduction. In: Hopwood, A. and Miller, P. (eds.), *Accounting as social and institutional practice*, pp. 1-39. New York: Press Syndicate of the University of Cambridge.
- Miller, P. (2001) Governing by numbers: why calculative practices matter, *Social Research*, vol. 68, no. 2, pp. 379-396.
- Miller, R. (2003) Triangulation. In: Miller, R. and Brewer, J. (eds.), *The a-z of social research*, pp. 326-329. London: SAGE Publications.
- Miller, R. and Brewer, J. (2003) *The a-z of social research*. London: SAGE Publications, 345 p.
- Mingers, J. and Lipitakis, E. (2013) Evaluating a department's research: testing the Leiden methodology in business and management, *Information Processing & Management*, vol. 49, no. 3, pp. 587-595.
- Mirvis, P. H. and Hall, D. T. (1996) Psychological success and the boundaryless career. In: Arthus, M. B. and Rousseau, D. M. (eds.), *The boundaryless career: a new employment principle for a new organizational era*, pp. 237-255. New York: Oxford University Press.

- Mitchell, D. E. and Nielsen, S. Y. (2012) Internationalization and globalization in higher education. In: Cuadra-Montiel, H. (ed.), *Globalization - education and management agendas*, pp. 3-22. Rijeka: InTech.
- Mohammaditabar, D., Ghodsypour, S. H. and O'Brien, C. (2012) Inventory control system design by integrating inventory classification and policy selection, *International Journal of Production Economics*, vol. 140, no. 2, pp. 655-659.
- Molas-Gallart, J. and Castro-Martínez, E. (2007) Ambiguity and conflict in the development of "third mission" indicators, *Research Evaluation*, vol. 16, no. 4, pp. 321-330.
- Molas-Gallart, J., Salter, A., Patel, P., Scott, A., Duran, X. and University Sussex (2002) *Measuring third stream activities. Final report to the Russell Group of Universities*. Available online at http://www.academia.edu/532097/Measuring_third_stream_activities [accessed on 26 March 2015].
- Montesinos, P., Carot, J. M., Martínez, J. M. and Mora, F. (2008) Third mission ranking for world class universities: beyond teaching and research, *Higher Education in Europe*, vol. 33, no. 2/3, pp. 259-271.
- Morsing, M., Sauquet, A. and al., e. (2012) *Business schools and their contribution to society*. London: SAGE Publications, 254 p.
- Mortillaro, M. and Scherer, K. R. (2014) Stressed out: how stress develops and how to cope with it, *GfK-Marketing Intelligence Review*, vol. 6, no. 1, pp. 16-21.
- Mottis, N. (2008) Bologna and business education: far from a model, just a process for a while. In: Mazza, C., Quattrone, P. and Riccaboni, A. (eds.), *European universities in transition*, pp. 93-112. Cheltenham: Edward Elgar Publishing.
- Moya, S., Prior, D. and Rodríguez-Pérez, G. (2014) Performance-based incentives and the behavior of accounting academics: responding to changes, *Accounting Education: an international journal*, forthcoming paper.
- Musgrave, P. W. (1967) Towards a sociological theory of occupational choice, *Sociological Review*, vol. 15, no. 33-45.
- National Taiwan University (2015) *Performace ranking of scientific papers for world universities - background*. Available online at <http://nturanking.lis.ntu.edu.tw/BackgroundMethodology/Background-enus.aspx> [accessed on 21 March 2015].
- Neave, G. (2000) *The universities' responsibilities to society: international perspective*. Oxford: Pergamon, 289 p.

- Neave, G. and van Vught, F. A. (1994) Conclusions. In: Neave, G. and van Vught, F. A. (eds.), *Government and higher education relationships accross three continents - the winds of change*, pp. 269-271. London: Pergamon.
- Neely, A. (2002) Preface. In: Neely, A. (ed.), *Business performance measurement: theory and practice*, pp. xi-xiii. Cambridge: Cambridge University Press.
- Neely, A., Adams, C. and et al. (2002) *Business performance measurement: theory and practice*. Cambridge: Cambridge University Press, 366 p.
- NIAD-UE (2012) *Overview of the quality assurance system in higher education: France*. Available online at http://www.niad.ac.jp/english/overview_fr_e.pdf [accessed on 11 May 2014].
- Nigsch, S. and Schenker-Wicki, A. (2013) Shaping performance: do international accreditations and quality management really help?, *Journal of Higher Education Policy & Management*, vol. 35, no. 6, pp. 668-681.
- Nioche, J.-P. (2007) La montée en puissance des accréditations non étatiques, *Revue française de gestion*, vol. 9, no. 178-179, pp. 219-232.
- Noe, R. A. (1996) Is career management related to employee development and performance?, *Journal of Organizational Behavior*, vol. 17, pp. 119-133.
- North, D. C. (1989) Institutional change and economic history, *Journal of Institutional and Theoretical Economics*, vol. 145, pp. 238-245.
- North, D. C. (1990) *Institutions, institutional change and economic performance*. Cambridge: Cambridge University Press, 159 p.
- OECD (2002) *Frascati Manual. Proposed Standard Practice for Surveys on Research and Experimental Development*. Available online at http://www.tubitak.gov.tr/tubitak_content_files/BTYPD/kilavuzlar/Frascati.pdf [accessed on 11 May 2013].
- OECD (2007) *Higher education and regions: globally competitive, locally engaged*. Available online at http://www.radavs.cz/prilohy/PL_Day2_1000_Goddard_Paper.pdf [accessed on 7 June 2014].
- OECD-CERI (1982) *The university and the community: the problems of changing relationships*. Available online at [accessed on 7 June 2014].
- OED (2014) *Oxford dictionaries*. Available online at <http://www.oxforddictionaries.com/fr/> [accessed on 12 November 2014].

- Ong, B. K. (2012) Grounded theory method (GTM) and the abductive research strategy (ARS): a critical analysis of their differences, *International Journal of Social Research Methodology*, vol. 15, no. 5, pp. 417-432.
- Opthof, T. and Leydesdorff, L. (2010) Caveats for the journal and field normalizations in the CWTS (“Leiden”) evaluations of research performance, *Journal of Informetrics*, vol. 4, no. 3, pp. 423 - 430.
- Ornstein, S. and Isabella, L. (1993) Making sense of career: a review 1989-1992, *Journal of Management*, vol. 19, pp. 243-267.
- Otley, D. (2002) Measuring performance: the accounting perspective. In: Neely, A. (ed.), *Business performance measurement: theory and practice*, pp. 3-21. Cambridge: Cambridge University Press.
- Ouchi, W. (1980) Markets, bureaucracies, and clans, *Administrative Science Quarterly*, vol. 20, pp. 559-569.
- Oxelheim, L. and Rafferty, M. (2005) On the static efficiency of secondary bond markets, *Journal of Multinational Financial Management*, vol. 15, no. 2, pp. 117 - 135.
- Palmer, M. M., Dankoski, M. E., Smith, J. S., Brutkiewicz, R. R. and Bogdewic, S. P. (2011) Exploring changes in culture and vitality: the outcomes of faculty development, *The Journal of Faculty Development*, vol. 25, pp. 21-27.
- Parsons, F. (1909) *Choosing a vocation*. Houghton Mifflin, 192 p.
- Parsons, T. (1951) *The social system*. New York: The Free Press, 594 p.
- Parsons, T. (1953) A revised analytical approach to the theory of social stratification. In: Bendix, R. and Lipset, S. M. (eds.), *Class, status and power: a reader in social stratification* pp. 92-129. Glencoe: Free Press.
- Parsons, T. (1990) Prolegomena to a theory of of social institutions, *American Sociological Review*, vol. 55, pp. 319-339.
- Paulré, B. (2001) Pour une rénovation de l'enseignement des sciences économiques à l'université *L'Économie politique*, vol. 1, no. 9, pp. 77-89.
- Peiperl, M. A. and Baruch, Y. (1997) Back to square zero: the post-corporate career, *Organizational Dynamics*, vol. 25, pp. 7-22.
- Peirce, C. S. (1903) Harvard lectures on pragmatism. In: Peirce, C. S. and Turrisi, P. A. (eds.), *Pragmatism as a principle and method of right thinking*, pp. 71-172. Albany: State University of New York Press.

- Pelger, C. and Grottko, M. (2015) What about the future of the academy? Some remark on the looming colonisation of doctoral education, *Critical Perspectives on Accounting*, vol. 26, pp. 117-129.
- Perret, V. and Séville, M. (2003) Fondements épistémologiques de la recherche. In: Thietart, R.-A. and et coll. (eds.), *Méthodes de recherche en management*, pp. 13-33. Paris: DUNOD.
- Perrow, C. (1974) Is business really changing?, *Organizational Dynamics*, vol. summer, pp. 31-44.
- Peters, G. (1999) *Institutional theory in political science: the new "institutionalism"*. London: Pinter, 232 p.
- Phillips, S. D. (1982) Career exploration in adulthood, *Journal of Vocational Behavior*, vol. 20, pp. 129-140.
- Picard, E. (2012) Les enseignants-chercheurs : une évaluation centralisée. Du Comité consultatif de l'enseignement supérieur au CNU (1873-1992), *Spirales*, vol. 49, pp. 69-82.
- Porter, T. M. (1996) *Trust in numbers: the pursuit of objectivity in science and public life*. Princeton: Princeton University Press, 324 p.
- Powell, W. W. (1991) Expanding the scope of institutional analysis. In: Powell, W. W. and DiMaggio, P. J. (eds.), *The new institutionalism in organizational analysis*, pp. 183-203. Chicago: University of Chicago Press.
- Powell, W. W. and DiMaggio, P. J. (1991) *The new institutionalism in organizational analysis*. Chicago: The University of Chicago Press, 486 p.
- Power, M. (1997) *The audit society: rituals of verification*. Oxford: Oxford University Press, 183 p.
- Propper, C. and Wilson, D. (2003) The use and usefulness of performance measures in the public sector, *Oxford Review of Economic Policy*, vol. 19, no. 2, pp. 250-267.
- Pugés, L. (2012) European business schools and globalization. In: Morsing, M. and Sauquet, A. (eds.), *Business schools and their contribution to society*, pp. 57-62. London: SAGE Publications.
- Pumain, D. and Dardel, F. (2014) *L'évaluation de la recherche et de l'enseignement supérieur*. Available online at http://cache.media.enseignementsup-recherche.gouv.fr/file/Actus/98/8/Rapport_Pumain_Dardel_295988.pdf [accessed on 4 July 2014].

- QS (2012) *Citations per faculty - methodology*. Available online at <http://www.iu.qs.com/university-rankings/rankings-indicators/methodology-citations-per-faculty/> [accessed on 30 June 2013].
- Raghunadhan, T. (2009) Strategy: a pedagogy for efficient, accountable and socially responsive higher education, *Global Business and Management Research: An International Journal*, vol. 1, no. 1, pp. 36-49.
- Raineri, N. (2015) Business doctoral education as a liminal period of transition: comparing theory and practice, *Critical Perspectives on Accounting*, vol. 26, pp. 99-107.
- Redman, T. (2011) Performance appraisal. In: Redman, T. and Wilkinson, A. (eds.), *Contemporary human resource management*, pp. 57-97. Harlow: Prentice Hall.
- Reissman, L. (1953) Levels of aspiration and social class, *American Sociological Review*, vol. 18, pp. 233-242.
- Rhoades, G. (1987) Higher education in a consumer society, *The Journal of Higher Education*, vol. 58, no. 1, pp. 1-24.
- Ritti, R. and Goldner, F. (1979) Professional pluralism in an industrial organization, *Management Science*, vol. 16, pp. 233-246.
- Romainville, M. (2006) Introduction. In: Colet, N. R. and Romainville, M. (eds.), *La pratique enseignante en mutation à l'université*, pp. 7-18. Bruxelles: De Boeck Supérieur.
- Roth, A. (2012) Higher learning, *The Moscow News*. Available online at <http://themoscownews.com/russia/20120329/189574939.html> [accessed on 7 March 2013].
- Rousseau, D. (1989) Psychological and implied contracts in organizations, *Employee Responsibilities and Rights Journal*, vol. 2, pp. 121-139.
- Rousseau, R. (2008) Reflections on recent developments of the h index and h type indices, *COLLNET Journal of Scientometrics and Information Management*, vol. 2, pp. 1-8.
- Ruef, M. and Scott, R. (1998) A multidimensional model of organizational legitimacy: hospital survival in changing institutional environments, *Administrative Science Quarterly*, vol. 43, pp. 877-904.
- Rüegg, W. (1992) Foreword. In: de Ridder-Symoens, H. (eds.), *A history of the university in Europe. University in the middle ages.*, pp. xix-xxviii. Cambridge: Cambridge University Press.

- Salmon, E. (2008) Évaluation du personnel dans l'enseignement supérieur. Une étude comparée France-Finlande., *Politiques et gestion de l'enseignement supérieur*, vol. 20, no. 1, pp. 25-48.
- Samaha, S., Beck, J. and Palmatier, R. (2014) The role of culture in international relationship marketing, *Journal Of Marketing*, vol. 78, no. 5, pp. 78-98.
- Scherer, R. F., Javalgi, R. G., Bryant, M. and Tukel, O. (2005) Challenges of AACSB international accreditation for business schools in the United States and Europe, *Thunderbird International Business Review*, vol. 47, no. 6, pp. 651-669.
- Schreyer, P. (2012) Output, outcome, and quality adjustment in measuring health and education services, *Review of Income and Wealth*, vol. 58, no. 2, pp. 257-278.
- Schutz, A. (1967) *The phenomenology of the social world*. Evanston: Northwestern University Press, 255 p.
- Schutz, A. (1976) *Collected papers, vol. 2: studies in social theory*. The Hague: Martinus Nijhoff, 300 p.
- Scott, R. (1987) The adolescence of institutional theory, *Administrative Science Quarterly*, vol. 32, pp. 493-511.
- Scott, R., Ruef, M., Mendel, P. and Caronna, C. (2000) *Institutional change and healthcare organizations: from professional dominance to managed care*. Chicago: University of Chicago Press, 452 p.
- Scott, W. R. (2008) *Institutions and organizations ideas and interests*. London: Sage Publications, 266 p.
- Selznick, P. (1948) Foundations of the theory of organizations, *American Sociological Review*, vol. 13, pp. 25-35.
- Selznick, P. (1957) *Leadership in administration*. New York: Harper & Row, 162 p.
- Selznick, P. (1992) *The moral commonwealth: social theory and the promise of community*. Berkeley: University of California Press, 567 p.
- Silverman, D. (1971) *The theory of organizations: a sociological framework*. New York: Basic Books, 246 p.
- Simon, H. (1991) *Models of my life*. New York: Basic Books, 416 p.
- Simon, H. (1997) *Administrative behaviour: a study of decision making processes in administrative organization*. New York: The Free Press, 384 p.

- Simsek, H. and Seashore Louis, K. (1994) Organizational change as paradigm shift: analysis of the change process in large, public universities, *The Journal of Higher Education*, vol. 65, no. 6, pp. 670-695.
- Slocum, J. W. J. and Cron, W. L. (1985) Job attitudes and performance during three career stages, *Journal of Vocational Behavior*, vol. 26, no. 2, pp. 126-145.
- Smith, P. (1995) On the unintended consequences of publishing performance data in the public sector, *International Journal of Public Administration*, vol. 18, no. 2/3, pp. 277-310.
- Spencer, H. (1910) *The principles of sociology*. London: Appleton Century Crofts, 724 p.
- Spires, H. A. and Hervey, L. G. (2011) New technologies, new pedagogies: finding the grail in higher education, *Journal of Leadership Studies*, vol. 4, no. 4, pp. 54-56.
- Stolz, I., Hendel, D. and Horn, A. (2010) Ranking of rankings: benchmarking twenty-five higher education ranking systems in Europe, *Higher Education*, vol. 60, no. 5, pp. 507-528.
- Strang, D. and Meyer, J. (1993) Institutional conditions for diffusion, *Theory and Society*, vol. 22, no. 4, pp. 487-511.
- Strauss, A. and Corbin, J. (1998) *Basics of qualitative research: techniques and procedures for developing grounded theory, 2nd ed.* Thousand Oaks: Sage, 336 p.
- Sturges, J., Conway, N., Guest, D. and Liefoghe, A. (2005) Managing the career deal: the psychological career as a framework for understanding career management, organizational commitment and work behavior, *Journal of Organizational Behavior*, vol. 26, no. 7, pp. 821-838.
- Sturges, J., Geuest, D., Conway, N. and Mackenzie Davey, K. (2002) A longitudinal study of the relationship between career management and organizational commitment among graduates in the first ten years at work, *Journal of Organizational Behavior*, vol. 23, no. 6, pp. 731-748.
- Suchman, M. (1995) Managing legitimacy: strategic and institutional approaches, *Academy of Management Review*, vol. 20, pp. 571-610.
- Summer, W. G. (1906) *Folkways*. Boston: Ginn & Co, 736 p.
- Super, D. E. (1953) A theory of vocational development., *American Psychologist*, vol. 8, no. 5, pp. 185-190.

- Teixeira, P., Jongbloed, B., Amaral, A. and Dill, D. (2004) Introduction. In: Amaral, A., Meek, V. L. and Larsen, I. M. (eds.), *The higher education managerial revolution?*, pp. 1-30. Dordrecht: Kluwer Academic Publisher.
- Temponi, C. (2005) Continuous improvement framework: implications for academia, *Quality Assurance in Education*, vol. 13, no. 1, pp. 17-36.
- ter Bogt, H. J. and Scapens, R. W. (2012) Performance management in universities: effects of the transition to more quantitative measurement systems, *European Accounting Review*, vol. 21, no. 3, pp. 451-497.
- Thakur, M. (2007) The impact of ranking systems on higher education and its stakeholders, *Journal of Institutional Research*, vol. 13, no. 1, pp. 83-96.
- THE (2013) *THE methodology: the essential elements in our world-leading formula*. Available online at <http://www.timeshighereducation.co.uk/world-university-rankings/2012-13/world-ranking/methodology> [accessed on 28 June 2013].
- Thelen, K. (1999) Historical institutionalism in comparative politics, *Annual Review of Political Science*, vol. 2, pp. 369-404.
- Thelen, K. and Steinmo, S. (1992) Historical institutionalism in comparative politics. In: Steinmo, S., Thelen, K. and Longstreth, F. (eds.), *Structuring politics: historical institutionalism in comparative analysis*, pp. 1-32. Cambridge: Cambridge University Press.
- Thiéart, R. A. and associates (2003) *Méthodes de recherche en management*. Paris: DUNOD, 537 p.
- Thomson (2013) *Research analytics*. Available online at <http://www.highlycited.com/> [accessed on 19 June 2013].
- Thornton, P. H. and Ocasio, W. (1999) Institutional logics and the historical contingency of power in organizations: executive succession in the higher education publishing industry, 1958-1990, *American Journal of Sociology*, vol. 105, no. 3, pp. 801-843.
- Tolbert, P. and Zucker, L. (1996) The institutionalization of institutional theory. In: Clegg, S. R., Hardy, C. and Nord, W. R. (eds.), *Handbook of organization studies*, pp. 175-190. London: SAGE.
- Townley, B. (1997) The institutional logic of performance appraisal., *Organization Studies*, vol. 18, pp. 261-285.
- Trapnell, J. E. (2007) AACSB international accreditation, *Journal of Management Development*, vol. 26, no. 1, pp. 67-72.

- Urgel, J. (2007) EQUIS accreditation: value and benefits for international business schools, *Journal of Management Development*, vol. 26, no. 1, pp. 73-83.
- Vaivio, J. and Sirén, A. (2010) Insights into method triangulation and “paradigms” in interpretive management accounting research, *Management Accounting Research*, vol. 21, no. 2, pp. 130 - 141.
- van Dyke, N. (2005) Twenty years of university report cards, *Higher Education in Europe*, vol. 30, no. 2, pp. 103-125.
- van Maanen, J. (1977) Experiencing organization: notes on the meaning of careers and socialization. In: Van Maanen, J. (ed.), *Organizational careers: some new perspectives*, pp. 15-45. New York: Wiley.
- van Vught, F., Kaiser, F., File, J. M., Gaethgens, C., Peter, R. and Westerheijden, D. F. (2010) *U-Map: the European classification of higher education institutions*. Available online at http://www.u-map.eu/U-MAP_report.pdf [accessed on 12 January 2014].
- Vanberg, V. (1989) Carl Menger's evolutionary and John R. Commons' collective action approach to institutions: a comparison, *Review of Political Economy*, vol. 1, pp. 334-360.
- Veblen, T. (1909) The limitation of marginal utility, *Journal of Political Economy*, vol. 17, pp. 235-245.
- Vernimmen, P. (2000) Introduction au diagnostic financier. In: Quiry, P. and Ceddaha, F. (eds.), *Finance d'entreprise*, pp. 117-204. Paris: Dalloz.
- von Glasersfeld, E. (1988) Introduction à un constructivisme radical In: Paul, W. (ed.), *L'invention de la réalité - contributions au constructivisme*, pp. 19-43. Paris, France: Le Seuil.
- Waltman, L., Calero-Medina, C., Kosten, J., Noyons, E., Tijssen, R. J., van Eck, N. J., van Leeuwen, T. N., van Raan, A. F. J., Visser, M. S. and Wouters, P. (2012) The Leiden Ranking 2011/2012: data collection, indicators, and interpretation, *Journal of the American Society for Information Science and Technology*, vol. 63, no. 12, pp. 2419-2432.
- Waltman, L., Tijssen, R. J. and van Eck, N. J. (2011) Globalisation of science in kilometres, *Journal of Informetrics*, vol. 5, no. 4, pp. 574-582.
- Waltman, L., van Eck, N. J., van Leeuwen, T. N., Visser, M. S. and van Raan, A. F. J. (2011) Towards a new crown indicator: some theoretical considerations, *Journal of Informetrics*, vol. 5, no. 1, pp. 37 - 47.

- Watzlawick, P. (1988) Des prédictions qui se vérifient d'elles-mêmes In: Watzlawick, P. (ed.), *L'invention de la réalité*, pp. 109-130. Paris, France: Le Seuil.
- Weber, M. (1949) *The methodology of social sciences*. Glencoe: Free Press, 256 p.
- Weber, M. (1968) *Economy and society: an interpretative sociology*. Berkeley: University of California Press, 1712 p.
- Wedlin, L. (2006) *Ranking business schools: forming fields, identities and boundaries in international management education*. Cheltenham: Edward Elgar Publishing, 213 p.
- Weick, K. E. (1996) Enactment and the boundaryless career: organizing as we work. In: Arthur, M. B. and Rousseau, D. M. (eds.), *The boundaryless career*, pp. 40-57. New York: Oxford University Press.
- Whelan-Berry, K. S., Gordon, J. R. and Hinings, C. R. (2003) Strengthening organizational change processes, *Journal of Applied Behavioral Science*, vol. 39, pp. 186-207.
- Whitley, R., Gläser, J. and Engwall, L. (2010) *Reconfiguring knowledge production: changing authority relationships in the sciences and their consequences for intellectual innovation*. Oxford: Oxford University Press, 408 p.
- Williams, C. P. and Savickas, M. L. (1990) Developmental task of career maintainance, *Journal of Vocational Behavior*, vol. 36, pp. 166-175.
- Williams, G. (2004) The higher education market in the United Kingdom. In: Teixeira, P., Jongbloed, B., Dill, D. and Amaral, A. (eds.), *Markets in higher education*, pp. 241-269. Dordrecht: Springer
- Williamson, O. (1975) *Markets and hierarchies: analysis and antitrust implications*. New York: The Free Press, 286 p.
- Willmott, H. (1995) Managing the academics: commodification and control in the development of university education in the U.K., *Human Relations*, vol. 48, pp. 993-1027.
- Woodward, K. (2004) *Questioning identities: gender, class, ethnicity*. 167 p.
- Wuthnow, R. (1987) *Meaning and moral order: explorations in cultural analysis*. Berkeley: University of California Press, 450 p.
- Youtie, J. and Shapira, P. (2008) Building an innovation hub: a case study of the transformation of university roles in regional technological and economic development, *Research Policy*, vol. 37, no. 8, pp. 1188-1204.

- Zeit (2013) *CHE excellence ranking 2010*. Available online at <http://www.excellenceranking.org/eusid/EUSID> [accessed on 10 July 2013].
- Zikic, J. (2006) Career exploration. In: Greenhaus, J. H. and Callaman, G. A. (eds.), *Encyclopedia of career development*, pp. 103-107. Thousand Oaks: SAGE.
- Zucker, L. (1977) The role of institutionalization in cultural persistence, *American Sociological Review*, vol. 42, pp. 726-743.

Appendices

Appendix 1. Interview guide

CHOICE OF PROFESSION

1. How did you decide to be an academician (professor and/or researcher)? *Additional questions (if needed): What triggered your decision? What is your professional experience/trajectory? What were your expectations back then?*
2. How did you choose the university you wanted to apply for a job?

PHD TRACK

3. What was the trajectory of your PhD? How did you choose your mentor?
4. Are mentors important for an academic career development? *Additional questions (if needed): Do you consider it important to publish with others/your supervisor/your mentor? Do you consider it better to work with a full professor or with a more experienced assistant professor in terms of mentoring?*

PUBLISHING

5. How do you decide which journal is the more appropriate to send your article to?
6. What do you consider is the most appropriate structure of an article?
7. Does it matter to you if professionals read your papers? *Additional question (if needed): Do you consider they have interest in the implication of an academic article?*

RANKINGS

8. When did you first hear about rankings?
9. What do you think about them?
10. Are rankings present in the everyday discussions?
11. Do you agree that HEIs are prestigious only if they are listed in the university rankings?

NETWORKS

12. Do you consider networks as being important?
13. What is your strategy in meeting people and starting new projects?

TEACHING AND RESEARCH

14. What is the best balance between teaching and research?
15. What do you think about both of them (teaching and research)?

JOB EVALUATIONS

16. Does your institution evaluate the staff members? At what periods of time?
17. What performance measurements do they use?

LANGUAGE AND CULTURAL ISSUES

18. What are the difficulties of moving to another country? Do you find difficult to surpass cultural issues?
19. Do you consider the fact that you are not a native (France/English) speaker impacts your performance?
20. Do you consider there is a competition between academics?
21. How do you find teaching in a different language compared with teaching in your native language?

PROFESSIONAL AND PERSONAL LIFE

22. What is the state of the academic profession?
23. How do others (outsiders) see the profession? What do you think about the social importance of our work? Does it add value to society?
24. Is the institution helping you to understand how you are expected to perform? Does the institution help you to improve your capabilities?
25. How do you manage to balance your private life and your professional life?
Additional questions (if needed): Do you think you are efficient when you work? Are you distracted easily? Do you manage to disconnect yourself from your personal life when you are working?
26. What do you think is the key to being a successful professor? What do you consider are the qualities of a good academician?
27. Do you feel you have to work harder at the beginning of your career?
28. What does a typical day of work means to you? Do you feel the need to entangle your personal time with research time?
29. Do you consider yourself a scientist?

FUTURE

30. What does a successful career means for you?
31. How do you project yourself in ten years?

Appendix 2. The most known international rankings and their indicators

1. Indicators employed by CHE University Ranking

The *proportion of graduates in norm period of study* represents the proportion of students who completed their programme in the normal period of study (the average of three years). Faculties are self-reporting the data for the CHE analysis.

The *international orientation of programmes* is an indicator composed from different parts that show the international orientation of a HEI: double degree programmes, students' exchange, teaching in foreign languages, international experience of academic staff, international students, and so on. As for the previous indicator, the data is self-reported. Since the group size is not pre-determined, this indicator is presented as a rating against the pre-defined standards.

The *support for stays abroad* indicator represents a student survey during which students assess the opportunities their university offers for going abroad. Attractiveness of exchange programmes, support and guidance for preparing the departure, integration of their studies abroad are some of the elements included in this indicator.

The *completed PhD per professor* is a self-reported data that measures the average number of completed doctorates degrees per professor and year.

The *third party research funds per academic staff* is a self-reported data that counts the third party funds obtained from industry, foundations, public authorities, etc. in relation to the number of academics. This is a measure of HEIs ability to attract external research funds. For the fields where not all academic staff is involved in research, CHE uses a reference for the computation of the number of staff members involved in research. The data is self-provided by HEIs.

The *research orientation of teaching* is a student and graduate assessment on the level of research orientation of their teaching programme.

The *publication per academic staff* is a bibliometric indicator used only for the fields where adequate databases are available. The indicator counts the number of publications in a 3-year period per academic staff. For the fields where not all academic staff is involved in research, CHE uses a reference for the computation of the number of staff members involved in research. The data is self-provided by HEIs.

The **course content** indicator is an index obtained from student surveys, where students can choose from a scale of 1 (very good) to 6 (very poor). The indicator assesses a number of items, among which the variety of courses offered, the didactical quality of teaching, and the international orientation.

The **study organization** is an index obtained from student surveys, where students can choose from a scale of 1 (very good) to 6 (very poor). The indicator assesses a number of items, among which co-ordination of the course offered, congruence of teaching and examination, and access to compulsory classes.

The **support by teachers** is an index obtained from student and graduate surveys, where students and graduates can choose from a scale of 1 (very good) to 6 (very poor). The indicator assesses a number of items, among which accessibility of teachers, consulting hours, advice, and feedback for students.

The **contact among students** is an index obtained from student surveys, where students can choose from a scale of 1 (very good) to 6 (very poor). The indicator assesses the accessibility to other students and the possibility of cooperation with them.

The **teaching evaluation** is an index obtained from student surveys, where students can choose from a scale of 1 (very good) to 6 (very poor). This indicator measures the involvement of student in quality assurance within HEI by rating their participation in the process of teaching and the implementation of results.

The **e-learning** is an index obtained from student surveys, where students can choose from a scale of 1 (very good) to 6 (very poor). The indicator assesses a number of items, among which availability of materials for downloading, interactions with teachers, and the quality of e-learning classes.

The **integration of subfields** is an index obtained from graduate surveys, where graduates can choose from a scale of 1 (very good) to 6 (very poor). The indicator assesses the integration of different subfields of science in their programme.

The **courses offered** is an index obtained from graduate surveys, where graduates can choose from a scale of 1 (very good) to 6 (very poor). The graduate rates the scope and range of courses offered by HEIs.

The **set-up and structure of courses** is an index obtained from graduate surveys, where graduates can choose from a scale of 1 (very good) to 6 (very poor). The graduate rates the set-up and structure of the courses.

The **libraries** index is obtained from student surveys, where students can rate on a scale of 1 (very good) to 6 (very poor). The indicator assesses a number of items, among which the

availability of the required literature, the stock of books, electronic services and the possibility of literature research.

The **rooms** index is obtained from student surveys, where students can choose on a scale of 1 (very good) to 6 (very poor). The indicator assesses a number of items, among which the state of the lecture theaters and seminar rooms, the number of places available and the technical equipment.

The **IT-infrastructure** index is obtained from student surveys, where students can choose on a scale of 1 (very good) to 6 (very poor). The indicator assesses a number of items, among which availability of workstations, state of the computers and user support.

The **support during practical placement phase** index is obtained from student surveys, where students rate the quality of didactic materials used during their classes. The indicator assesses a number of items, among which how well practical phases are embedded into courses and quality of the project held in collaboration to practitioners.

The **teaching of basic subject** knowledge index is obtained from graduate surveys, where graduates rate on a scale of 1 (very good) to 6 (very poor) the extent to which the acquisition of basic subject knowledge was supported by teaching.

The **teaching of transferred skills** index is obtained from graduate surveys, where graduates rate on a scale of 1 (very good) to 6 (very poor) the extent to which the application of theory is supported by teaching.

The **teaching of problem solving skills** index is obtained from graduate surveys, where graduates rate on a scale of 1 (very good) to 6 (very poor) the extent to which the development of problem solving and analytical skills is supported by teaching.

The **teaching of independent work/learning** skill index is obtained from graduate surveys, where graduates rate on a scale of 1 (very good) to 6 (very poor) the extent to which the development of learning and independent work skills is supported by teaching.

The **teaching of team skills** index is obtained from graduate surveys, where graduates rate on a scale of 1 (very good) to 6 (very poor) the extent to which the development of team skills is supported by the course.

The **promotion of research competence** index is obtained from graduate surveys, where graduates rate on a scale of 1 (very good) to 6 (very poor) the level at which research competences were taught during their programme.

The **career orientation and practical relevance** of course index is obtained from graduate surveys, where graduates rate on a scale of 1 (very good) to 6 (very poor) the career orientation and practical relevance of the course.

The ***overall study situation*** index is obtained from student surveys and assesses the overall study situation as rated by students on a scale of 1 (very good) to 6 (very poor). The indicator is not obtained as a sum of other indicators, but represents the students' answer to one question enumerated in the questionnaire.

The ***preparation for work life*** indicator is an index obtained from graduate surveys, where graduates rate on a scale of 1 (very good) to 6 (very poor). The indicator assesses a number of items, among which assessments of labor market, work placement events offered by HEIs and the existence of dissertation in collaboration with enterprises.

The ***reputation in teaching and learning*** is an index obtained from professor surveys, where professors enumerate the higher education institutions they would recommend based on quality of teaching. The information was eliminated for data analysis if professors mentioned their own institution.

The ***research reputation*** is an index obtained from professor surveys, where professors enumerate the HEIs that are leaders in research. The information was eliminated for data analysis if professors mentioned their own institution.

The ***costs of accommodation*** represent the average monthly rent paid, including heating, electricity and so on. The indicator is obtained from student surveys.

The ***student sport*** is an index obtained from student surveys, where students rate on a scale of 1 (very good) to 6 (very poor) the length and quality of sport programmes.

Table 23. The list of indicators used by the CHE university ranking

Category	Indicators	Field specificity
Student profile	-	General
Study outcomes	Proportion of graduates in norm period of study	General
	Results in first national examination	Human medicine
	Failure rate at first medical examination	Human medicine
	Results of 2 nd section of medical examination	Human medicine
International orientation	International orientation of programmes	General
	Support for stays abroad	General

Research	Completed PhDs per professor	General
	Third party research funds per academic staff	General
	Research orientation of teaching – student survey	General
	Research orientation of teaching – graduate survey	General
	Publication per academic staff	General
	Internationally visible publications per academic staff	Business administration Economics Sociology Social sciences
	Citations per publication	Field where bibliometric data bases allow for it
	Inventions per FTE academic staff	Biology Chemistry Electrical Engineering Information Engineering Human medicine Mechanical Engineering Process Engineering Chemical Engineering Pharmacy Physics
Teaching & Learning	Courses content	General
	Study organization	General
	Support by teachers – students surveys	General
	Contact among students	General
	Teaching evaluation	General
	E-learning	General
	Integration of subfields	General
	Courses offered	General
	Set-up and structures of courses	General
	Support by teachers –graduate	General

	surveys	
	Students-staff-ratior	Valid only in fields with low linkages to other fields
	Attendance at private revision courses	Law
	Exam preparation courses	Law
	Support in bedside teaching	Dentistry Human medicine
	Dovetailing of pre-clinic and clinic students	Dentistry Human medicine
	Number of clinical cases per student	Dentistry Human medicine
	Training in empirical methods	Sociology Social sciences
	Excursions	Biology Geography Geoscience History
	Credits for laboratory courses	Science fields Technology fields
Facilities	Libraries	General
	Rooms	General
	IT-Infrastructure	General
	Laboratories	Engineering Natural sciences Computer sciences Medicine Dentistry
	Ratio/TV teaching studios	Media sciences Communication Sciences Journalism
	Beds in university hospitals per 100 students	Human medicine
	Clinical treatment rooms	Human medicine Dentistry

	Students per dental treatment unit	Dentistry
	Skill labs	Human medicine
	Sports facilities	Sport sciences
Labor, market, employability	Support during practical placement phase	General
	Links between theory and practice	Business administration
	Teaching of basic students knowledge	General
	Teaching of transferred skills	General
	Teaching of problem solving skills	General
	Teaching of independent work/learning skill	General
	Teaching of team skills	General
	Promotion of research competence	General
	Career orientation and practical relevance of courses	General
Overall assessment (students, professors)	Overall study situation	General
	Preparation for work life	General
	Reputation in teaching and learning	General
	Research reputation	General
City, university	Costs of accommodation	General
	Student sport	General

Source: CHE, 2010a

Although they do not represent the object of chapter 7's analysis, the specialization indicators were included in table 23 for future performance measurement field comparison. Yet, three of these indicators were encountered in other international university rankings as having a general purpose. As a result, their definition and methodology is explained below.

The *internationally visible publications per academic staff* is a bibliometric indicator that CHE uses only for the fields where adequate databases are available. The indicator counts the number of publications available in the international database per academic staff and year.

The *citation per publication* is also a bibliometric indicator that CHE uses only for the fields where adequate databases are available. The indicator counts the average number of citations per publication, measuring the impact of publications.

The *student staff-ratio* counts the number of students allocated per professor. This data is self-reported and computed only for fields with low linkages of teaching to other fields.

2. ARWU's indicators

The *Award* indicator measures the number of staff members, laureates of Nobel Prizes or Field Medals, which worked at HEIs while winning the prizes. Data is gathered only on laureates of Science based on the year of the award. Different weights are set according to the period of winning the prize: 100% for laureates winning after 2011, 90% for the period of 1991-2000, and so on (ARWU, 2010). If a winner was working for more than one institution, the weight is distributed equally between institutions. Each Fields Medalists gets three points for their institution regardless the number of winners, while Nobel Laureates get three points if there is only one winner. If multiple winners, then the three points are divided equally among them. For ranking purposes, ARWU assigns 100 points for the first ranked institution and then computes the final number of points assigned to all other HEIs in the ranking by using the following formula:

$$EST = 100 \sqrt{\frac{x}{H}}$$

EST is the final number of points assigned, *H* is the number of points obtained by the first institution in the ranking and *x* is the number of points obtained by other institutions. To exemplify, in 2011 Harvard was ranked first, with a number of initial points of 37.93 and 100 final points allocated by ARWU. The computations for the next institution in the ranking was 96.7 final points allocated by ARWU, since the institution obtained 35.45 initial points (Docampo, 2013).

The *Alumni* indicator measures the number of students that obtained bachelor, master or doctoral degrees and are laureates of Nobel Prizes or Fields Medals. Different weights are set according to time of graduation: 100% for alumni obtaining a degree after 2011, 90% for the period of 1991-2000, and so on (ARWU, 2010). Data is gathered on laureates on Science, Literature and Peace based on the year of graduation. If a graduate obtained several degrees from the same HEI, the institution is considered only once. The Nobel Laureates and Fields Medalists get one point for all the institutions they graduated. *Alumni* uses the same formula

as *Award* indicator, with the exception that x is the sum of points obtained by the institution for having graduates awarded as 1st, 2nd or 3rd for the prize.

The *HiCi* indicator measures the HEIs number of highly cited researchers in the 21 areas analyzed by ARWU (Table 24). The data is collected from the Institute of Scientific Information (ISI), also known as Thomson ISI, which compiles a list of 250 highly cited researchers for each subject category (Thomson, 2013). In computing the results for this indicator, Docampo (2013) identified the following formula:

$$EST = 100 \sqrt{\frac{NHici}{H}}$$

EST is the final number of points assigned, *H* is the number of points obtained by the first institution in the ranking and *NHiCi* is the number of highly cited authors of an institution.

Table 24. The 21 areas analyzed by ARWU

Agricultural Science	Engineering	Neuroscience
Biology & Biochemistry	Geosciences	Pharmacology
Chemistry	Immunology	Physics
Clinical Medicine	Materials Science	Plant & Animal Science
Computer Science	Mathematics	Psychology/Psychiatry
Ecology/ Environment	Microbiology	Social Sciences
Economics & Business	Molecular Biology & Genetics	Space Sciences

Source: adapted from *EUA, 2011, p.27*

The *N&S* indicator measures the number of articles published in Nature and Science during the last 5 years preceding the year of the ranking. ARWU uses different weights for multiple authors: 1 point to the institution of the corresponding author, 0.5 points to the institution of the first author, 0.25 points to the institution of the next author and 0.1 points to all institutions of the remaining authors. This ranking takes in consideration only articles and proceeding papers that were published and each institution can be scored only once for each paper. The same formula used for *Award* and *Alumni* is also provided for this indicator. The initial points obtained by each institution are computed by summing up the values for the corresponding author, first author, next author and remaining authors. Data on institutions was collected through Web of Knowledge (Docampo, 2013).

The **PUB** indicator measures the number of papers indexed in SCIE¹²¹ and SSCI¹²² during the previous year. ARWU took into consideration only articles and proceeding papers that were published. For computing the total number of papers, the citations of SSCI is multiplied with two, while the citations of SCIE remained unchanged. After carrying out a regression analysis, Docampo (2005) concluded that ARWU assigns a weight of 2 to papers listed only in SSCI, 1.5 to papers listed in SSCI and SCIE, and 1 to papers listed only in SCIE. Summing up all the points per institution, he could then replicate the results of ARWU by using the formula presented above.

The last indicator, **PCP**, represents the weighted score of the previous five indicators, divided by the number of full-time equivalent academic staff combined. If the number of academic staff cannot be obtained for a HEI, the indicator will be computed as the weighted score of the five previous indicators (Liu and Cheng, 2005). Making use of assumptions and regressions, and getting access to the number of equivalent full-time faculty of some institutions listed in ARWU, Docampo (2013) provides the following formula as being used for the PCP's computation:

$$EST = 100 \sqrt{\frac{FTECT}{WSSCT}} \sqrt{\frac{WSSX}{FTEXT}}, \text{ where}$$

$$WSS = 0.1Alumni^2 + 0.2 (Award^2 + HiCi^2 + N\&S^2 + PUB^2)$$

WSSCT is the value of *WSS* for the institution with the highest score of *PCP*, *FTECT* is the value of Full Time Equivalent Staff (FTE) for the institution with the highest score of *PCP*, *WSSX* is the value of *WSS* for the institution for which the *PCP* is computed (institution X) and *FTEXT* is the value of *FTE* for the same X institution.

¹²¹ Science Citation Index -Expanded

¹²² Social Science Citation Index

Table 25. Criteria, indicators and the weights used by ARWU

	Indicator	Code	Weight
Quality of Education	Alumni of an institution winning Nobel Prizes and Fields Medal	Alumni	10%
Quality of Faculty	Staff of an institutions winning Nobel Prizes and Fields Medal	Award	20%
	Highly cited researchers in 21 broad subject categories	HiCi	20%
Research Output	Papers published in Science and Nature ¹²³	N&S	20%
	Papers indexed in Science Citation Index-expanded and Social Science Citation Index	PUB	20%
Per Capita Performance	Per capita academic performance of an institutions	PCP	10%
Total			100%

Source: ARWU, 2010

3. THE's performance measurements

The *academic peer review* indicator is obtained through an Internet survey, where peers are required to select the top 30 universities. The survey is distributed worldwide, peers information being selected from The World Scientific Database and the International Book Information Service. The survey included questions on national and foreign HEIs and only several fields are covered by THE: Arts & Humanities, Engineering & IT, Life Sciences & Biomedicine, Natural Sciences and Social Sciences.

The *employer review* indicator is obtained through an Internet survey, where participants are required to select the top 30 universities that produce first-degree graduates. The survey is distributed worldwide, employers information being selected from QS database, which includes a network of partners with whom QS cooperates.

The *citation per faculty* measures the number of citation per university staff. Due to variances in the definition of staff personnel among different countries, THE uses the full-time equivalent (FTE) to compute this indicator, without differentiating between teaching and research staff (EUA, 2011). Until 2006, THE used the Thompson Reuters database for this indicators data collection, but switched to Scopus in 2007. The argument for the change was that Scopus had a broader journal coverage (QS, 2012).

¹²³ For institutions specialized in humanities and social sciences the weight is relocated to other indicators.

The *faculty student ratio* is a proxy for teaching quality and measures the total number of students per academic staff. If the ratio is low, then students are assumed to get the required attention from the staff. The number of students is computed by summing undergraduate and postgraduate students. If data is not available, the total number of students is used. FTE is used to compute the total number of staff members.

The *international students'* indicator measures HEIs ability to attract international students, while *international faculty* measures the ability to recruit the best faculty members. Both indicators evaluate the internationality view of HEIs, which is considered as a key measurements for success (THE, 2013). The ratios are computed as the number of international faculty/students to total faculty/student numbers.

Table 26. THE – QS world university ranking's indicators

Indicator	Weighting
Academic peer review	40%
Employer review	10%
Faculty student ratio	20%
Citation per faculty	20%
International faculty	5%
International students	5%

Source: QS, 2012

The *research income from industry* measures the HEIs ability to help industry with consultancy, innovation and inventions and is computed by dividing the total research income coming from industry by the total number of academic staff.

The *ratio of international to domestic staff* is the renamed *international faculty* indicator described above.

The *ratio of international to domestic students* is the renamed *international students* indicator described above.

The *ratio of international research journal publication* counts the research publications during the last previous 5 years that have at least one international co-author.

The *reputational survey – teaching* is based on a survey of ‘experienced scholars’ (THE, 2013), term that is not further explained by THE. The methodology of both teaching and reputation surveys are vague, the type of questions, name and number of participant universities being unknown.

The *PhDs awarded* measures the commitment to nurture the next generation of academics. The indicator scales the number of PhDs diplomas awarded against the size of the institution, which is represented by the number of academic staff.

The *undergraduates admitted per academic* is the renamed *faculty student ratio* indicator used until 2009. Along with the change in name, the weight of this indicator dropped from 20% to 4.5%.

The *PhDs and bachelor awarded* represent the percentage of doctorate degrees out of the total number of degrees awarded by the institution.

The *income per academic* measures the general status of an institution by scaling the overall income against academic staff members. THE argues that the indicator gives a broad sense of the infrastructure and facilities available to students and staff (THE, 2013), without explaining how these information is incorporated within the ratio.

The *reputational survey – research* indicator measures the institution reputation in research excellence. The methodology is similar with the one for *reputational survey – teaching*, since only one questioner includes both teaching and research surveys. The weigh for this indicator dropped slightly in 2011 from 19.5% to 18%.

The *research income* indicator scales the research income against the number of academic staff members and is normalized to take into account the field area. By completely removing the *public research income/total research income* indicator, the weight of research income has increased in 2011 from 5.25% to 6%.

The *papers per academic and research staff* is a measure of research productivity and gives an idea about HEIs ability to publish in quality peer-reviewed journals (THE, 2013). Only papers published in academic journals indexed by Thomson Reuters are taken into consideration. The weight of this indicator increased slightly in 2011 from 4.5% to 6%.

The *citation impact* measures the ability to spread new knowledge that “push boundaries of [the] collective understanding” (THE, 2013). This is the most influential indicator, weighting 30% of the overall score. The weigh dropped in 2011 by 2.5%, when THE added a new

indicator in the International mix category. The value of this indicator is computed by counting the number of citations per paper, referenced in the 12,000 academic journals indexed by Thomson Reuters. More than 50 million citations from 6 million journal-articles were analyzed in 2013 for a five years period preceding the ranking (THE, 2013). The citations are normalized to reflect variation in volume between different field areas, meaning that citations for each paper are compared with the average number of citations received in the same subject area and year. Times Higher Education considered that institutions which publish just a few papers do not reflect the typical research performance, thus deciding to exclude from the ranking any institution that published less than 50 papers per year. In order to ensure statistically valid comparison, the minimum number of papers was increased at 200 in 2011.

Table 27. THE – Thomson Reuters world university ranking’s indicators

Category	Indicators	Weight
Economic activity & innovation	Research income from industry (academic staff member)	2.5%
International mix		7.5%
	Ratio of international to domestic staff	2.5%
	Ratio of international to domestic students	2.5%
	Ratio of international research journal publication	2.5%
Teaching		30%
	Reputational survey – teaching	15%
	PhDs awarded (scale)	6%
	Undergraduates admitted per academic	4.5%
	PhDs and bachelors awarded	2.25%
	Income per academic	2.25%
Research		30%
	Reputation survey – researching	18%
	Research income (scale)	6%
	Papers per academic and research staff	6%
Citation	Citation impact	30%

Source: THE, 2013

4. The CHE Excellence Ranking and its indicators

The *number of publications* is a size indicator that counts the number of papers included in the Web of Science database. A clear distinction is made between natural science, mathematics and other areas. For the former two, papers are being counted starting 1997, while the other areas are taken into consideration only from 1999 (CHE, 2007). CHE classifies publications per institution and field area, process followed by the formation of two categories of HEIs: institutions with the most publications that sum up together 50% of the total number of publications, and the remaining institutions. A *star* is awarded only to HEIs belonging to the first category (EUA, 2011).

The *citations* indicator relies on a normalization mechanism that aims to correct some differences among field: the average number of cited references per publication, the average age of cited references, the degrees to which references from other fields are cited (Waltman et al., 2011). Measuring the impact of papers on the world scientific community, the indicator focuses on the international positioning of HEIs' research. Also called the *crown indicator*, this measurement compares the actual number of citations per publication (CPP) with the average number of citations for similar publications (FCSm). If the ratio is above 1, then the papers of that HEI are cited more than the average number of citations and thus the institution is rewarded with a *star* (EUA, 2011).

The *outstanding researchers* indicator identifies HEIs with researchers that are Nobel Prize winners, Körber European Science Award winners or Fields medalists. If at least one outstanding researcher is currently working for the institution, the HEI is rewarded with a *star*.

The *number of projects* in Marie Curie programme highlights the European dimension by measuring the transfer of research competencies, the consolidation and opportunities of career prospects (CHE, 2010b). Data on IEF (Intra-European Fellowship for Career Development), IRG (International reintegration Grants), ITN (Initial Training Networks), ERG (European Reintegration Grants), IAPP (Industry-Academia Partnership and Pathways), IOF (International Outgoing Fellowship for Career Development), IIF (International Incoming Fellowship) and IRSES (International Research Staff Exchange Scheme) activity lines are collected from Cordis database, which belongs to the European Commission. In order to obtain a star, HEIs need minimum three projects in biology, two in physics, two in chemistry and one in mathematics (EUA, 2011).

The *student mobility* indicator highlights the European mobility dimension by measuring the mobility opportunities of postgraduate students. Similar with the methodology used for the *number of publications* indicator, HEIs are divided into categories. A *star* is awarded only to the group of HEIs that together equal 50% of the total number of mobile students in sciences and 80% for the other the fields (CHE, 2010b). The minimum number of students needed to obtain a star depends on the field and varies between 20 and 35 (EUA, 2011).

The *teaching staff mobility* indicator combines the teaching and European mobility perspectives, highlighting the international component of their activities. Although CHE doesn't explain how stars are being assigned for this indicator, it seems that a system was created for both sending and receiving HEIs in the context of the Erasmus programme (CHE, 2010b). The computation methodology is similar with the one for *student mobility*. A *star* is awarded only to the group of institutions that together equal 50% of the total number of teaching mobility in sciences and 80% for the other fields. Usually, minimum 3 or 4 mobile teaching staff are enough for obtaining a *star* (EUA, 2011).

The *Erasmus Mundus master* indicator measures the excellence of international joint master programmes that are previously selected by the European Union (EU) to receive financial support¹²⁴ (CHE, 2010b). Since master programmes are usually interdisciplinary, a *star* is awarded only to the departments that are identified as being part of an Erasmus Mundus master and that cover programmes in the academic field analyzed by the CHE Excellence Ranking (EUA, 2011).

The *European Research Council (ERC) grants* indicator highlights the research excellence of HEIs. The data on financial support given to research fellows¹²⁵ in various disciplines is obtained directly from ERC. As the scientist is the one deciding on his host institution, a *star* is awarded for each grant obtained for both the sending and receiving institutions (CHE, 2010b).

The *book citations* indicator was an effort made by CHE to avoid discrimination on fields where book publications constitute the main result of research projects. However, the use of this indicator was dropped in 2010. At the time, CHE (2010b) stated that *book citations* couldn't provide an analysis similar with the *crown indicator* due to lack of available data. Because only a small number of highly cited books were identified, this measurement was considered a plus for selection of HEIs and it was declared that the *book citations* indicator is

¹²⁴ The screening process is very competitive.

¹²⁵ The research fellows are selected through a very competitive screening process.

not self-reliant.

The *students' judgments* on the overall study situation, quality of courses, availability of advisors, library, laboratories IT infrastructure, etc. were requested at both doctoral and master level, but some detailed aspects were demanded based on the level of studies. For example, since the doctoral students are research oriented, they were also asked about support given by HEIs for conferences, workshops participation and paper publication. No methodology is provided on how *stars* are awarded for this indicator.

The *international staff ration* has a similar methodology with the *international faculty* indicator used by THE. The only exception is that CHE Excellence Ranking takes into consideration only the group of staff members that hold a PhD degree. No methodology is provided on how *stars* are awarded for this indicator.

The *international doctoral and master student ratio* has a similar methodology with the *international student* indicator used by THE. The only exception is that the CHE Excellence Ranking specifies the type of students that are taken into consideration in the computation of this indicator. No methodology is provided on how *stars* are awarded for the *international doctoral and master student ratio*.

The *gender balance* indicator measures the deviation from a 50-50 distribution of men and women among the staff members, doctoral and master students. No methodology is provided on how *stars* are awarded for this indicator.

The *available scientific journals* indicator counts the number of subject-specific journals available on print or e-journal subscription in HEIs libraries. No methodology is provided on how *stars* are awarded for this indicator.

The *membership in editorial journals* indicator scales the number of memberships in the editorial board of major scientific journals against the number of scientific staff members. No methodology is provided on how *stars* are awarded for this indicator.

The *scientific prizes* indicator scales the number of famous scientific prizes against the number of staff members. No methodology is provided on how *stars* are awarded for this indicator.

The *international conferences held/organized by the department* indicator counts the number of conferences held or organized by the department during the ranking's previous five years. No methodology is provided on how *stars* are awarded for this indicator.

The *scientific staff teaching in summer schools* indicator scales the number of average scientific staff teaching in summer schools against the total number of teaching staff. No methodology is provided on how *stars* are awarded for this indicator.

Table 28. The indicators used by the CHE Excellence Ranking

Steps	Indicators	Fields
Pre-selection	Number of publications	All
	Citations	All
	Outstanding researchers	Natural sciences Mathematics
	Number of projects	Natural sciences Mathematics
	Student mobility	All
	Teaching staff mobility	All
	Erasmus-Mundus-Master	All
	ERC grants	Natural sciences Mathematics
	Book citations	Economics Political science Psychology
In depth-analysis	Students judgments	All
	International staff ration	All
	International doctoral and master student ratio	All
	Gender balance	All
	Available scientific journals	All
	Membership in editorial journals	All
	Scientific prizes	Political science
	International conferences held/organized by the department	Political science
	Scientific staff teaching in summer schools	Political science

Source: data assembled from CHE, 2010b

5. Indicators employed by HEEACT

The *number of articles in the last 11 years* and *number of articles in the previous year* indicators scale the number of articles published in peer-review academic to the number of FTE staff members.

The *numbers of citations in the last 11 years* and *number of citations in the previous year* indicators scale the total number of citations of articles to the number of FTE staff members.

The data necessary to compute these two indicators are collected from SCI¹²⁶ and SSCI.

The *average number of citations of the last 11 years* indicator represents the each HEIs total number of citations divided by the HEIs total number of publications for the same period.

The *h-index* is defined as the number of papers with number of citations higher or equal to h , where h is ‘the intersection of the 45 degree line with the curve giving the number of citations versus the paper number’ (Hirsch, 2005, p. 16570).

The *number of highly cited papers in the last 11 years* indicator represents the number of papers included in the 1% most cited papers in ESI¹²⁷ in the last 11 years.

The *number of articles in high impact journals in the last year* indicator computes the number of articles published in the top 5% journals. The journals are listed in the order of their impact factor and only the first 5% are retained for the analysis of this indicator.

¹²⁶ Science Citation Index

¹²⁷ Essential Science Indicators

Table 29. Weights and indicators employed by HEEACT

Criteria	Performance indicators	Weight
Research productivity	Number of articles in the last 11 years*	10%
	Number of articles in the previous years	10%
Research impact	Number of citations in the last 11 years*	10%
	Number of citations in the last two year	10%
	Average number of citations of the last 11 years*	10%
Research excellence	H-index of the last two years	20%
	Number of highly cited papers in the last 11 years*	15%
	Number of articles in high impact journals in the last year	15%

Source: EUA, 2011, p. 41

* Note: the timeframe is consistent with ESI's timeframe, which provides cumulative data for the last 11 years.

6. The Leiden Ranking's indicators

The *mean citation score* indicator measures the average number of citations of the publications pertaining to each analyzed HEIs.

The *mean normalized citation score* indicator, also called the new *crown indicator*, measures the average number of citations for the total number of papers published by each analyzed HEIs. Being criticized in several papers (Lundberg, 2007; Opthof and Leydesdorff, 2010), CWTS decided to move toward a new crown indicator, which relies on Lundberg (2007) alternative mechanism. This new indicator normalizes for differences between scientific fields, differences between publication years and differences between document types (Waltman et al., 2012) by calculating an average ration:

$$MNSC = \frac{1}{n} \sum_{i=1}^n \frac{c_i}{e_i}$$

MNSC is the *mean normalized citation score*, n represents the total number of publications, c_i is the number of citations per each publication and e_i represents the average number of citations of all publications published in the same field as the i publication (Waltman et al., 2011).

The *proportion top 10% publications* indicator represents the proportion of HEIs publications that belong to the top 10% most frequently cited publications. For the computation of this indicator, the publications are scaled to other similar publications that were published in the same year in the same field area.

The *proportion collaborative publications* indicator measures the proportion of publications that have been co-authored with at least one other HEI.

The *proportion international collaborative publications* indicator measures the proportion of publications that have been co-authored with at least one foreign HEI.

The *mean geographical collaboration distance* indicator measures the average geographical collaboration distance of HEIs publications collaborations. To determine the results of this indicator, a geocoding procedures was put into place (Waltman et al., 2011), which was used to identify the geographical coordinates of addresses mentioned in the publications.

The *proportion long distance collaborative publications* indicator measures the proportion of publications that have a geographical collaboration distance of more than 1,000 kilometers.

Table 30. Leiden Ranking's indicators

Type	Indicator	Code
Impact	Mean citation score	MCS
	Mean normalized citation score	MNCS
	Proportion top 10% publications	$PP_{top\ 10\%}$
Collaboration	Proportion collaborative publications	PP_{collab}
	Proportion international collaborative publications	$PP_{int\ collab}$
	Mean geographical collaboration distance	MGCD
	Proportion long distance collaborative publications	$PP_{>1000km}$

Source: CWTS, 2014

7. Reitor's performance measurements

The *number of educational programmes* indicator counts the number of bachelor, master and doctoral programmes offered by HEIs.

The *student/staff ratio* scales the total number of students to the total number of staff members.

The *number of certificates on discoveries and patents* indicator computes the total number of patents and registered discoveries obtain by HEIs since 2011. The ranking uses Scopus to collect data for this indicator's measurement.

The *performance of the computer center of the university* indicator shows the universities research capability. To compute this indicator, Reitor uses data provided by Top 500 Supercomputing Sites¹²⁸.

The *h-index of universities* indicator is similar with the h-index indicator employed by HEEACT¹²⁹.

The *number of staff winning world-level awards* indicator counts the total number of Nobel Prizes, Field Medals, Descartes Prizes, Abel Prizes, the Lomonosov Medal and other similar awards obtained by employees of HEIs since 2011.

The *number of staff publications* indicator measures the total number of papers published in references journals starting from 2001.

The *citations and references to staff publications* indicators measures the total number of citations and references made since 2001 to the publications of HEIs.

The *total budget of the university per full time students* measures the financial capacity of HEIs available for full time students during the year previous to the ranking's publication.

The *international academic communities in which the university was involved in the last academic year* indicator measures the HEIs involvement in academic activities developed by different communities.

The *volume of web-products* measures the HEIs development IT tools employed in the preparation of scientific publications.

The *request popularity of the university* indicator measures the total number of queries received by the HEI's websites in the year previous to rankings publications.

The *page rank of the main page of the university's site* indicator represents the Google page rank allocated to the HEI's website.

¹²⁸ More information on this organization and its ranking is provided at www.top500.org.

¹²⁹ The *h-index* is presented in Appendix 2.

Table 31. The list of indicators used by Reitor

Category	Indicator	Weight
Educational Activity	Number of educational programmes	20%
	Student/staff ratio	
Research activity	Number of certificates on discoveries and patents	20%
	Performance of the computer center of the university	
	H-index of the university	
Professional competence of the faculty	Number of staff winning world-level awards	20%
	Number of staff publications	
	Citations and references to staff publications	
Financial maintenance	Total budget of the university per full time students	15%
International activity	International academic communities in which the university was involved in the last academic year	10%
	Proportion of foreign students in the previous year	
Internet audience	Volume of web-products	15%
	Request popularity of the university	
	Page rank of the main page of the university's site	

Source: EUA, 2011, p. 36

8. The U-Map classification and its indicators

The *degree level focus* indicator measures the mix of programmes offered by HEIs. The percentage of doctoral, master, bachelor and sub-degrees are scaled against the total number of degrees awarded to see where the focus of the teaching activities is located (van Vught et al., 2010). An institution is labeled with *doctoral focus* if the percentage of doctoral degrees awarded is minimum 5%, *master focus* if the percentage of master degrees awarded is minimum 25%, *bachelor focus* if the percentage of bachelor degrees awarded is minimum 40% and *sub-degree focus* if the percentage of sub-degrees awarded is minimum 5% (EUA, 2011).

The ***subject area covered*** indicator counts the number of field areas covered by HEIs. Institutions with more than six field areas are defined as *comprehensive*, those with three to six as *broad* and those with fewer than three as *specialized* (EUA, 2011). However, The European Commission uses an additional criterion to award points for this indicator. If the institution does not awards at least 5% of the total number of degrees in a field area then the field is not considered valid for this indicator (van Vught et al., 2010).

The ***orientation of degree*** indicator measures the HEIs profile by labeling the orientation of programmes as *certified or regulated*, *other career oriented* or *general formative*. An institution might have up to three orientation labels and each category needs at least 1/3 of the total number of graduates in order for the label to be awarded (EUA, 2011).

The ***expenditure on teaching*** indicator measures the institution commitment to teaching and learning. Based on the proportion of expenditure devoted to education, HEIs are labeled as having *major* (more than 40%), *substantial* (from 10% to 40%), *some* (from 1% to 10%) or *no* (less than 1%) involvement in teaching and learning activities.

The ***mature students*** indicator attempts to measure the HEIs orientation to students needs. Depending on the distribution of students' age, HEIs can focus on different type of programmes that answer to their needs. Lifelong learning, for example, requires a different educational experience for teachers, thus influencing the institutional decisions for education. Students are defined as mature if they are older than 30 and the indicator scales the number of mature students from the total number of students (van Vught et al., 2010). Based on the result, HEIs are labeled as having *major* (more than 20%), *substantial* (from 10% to 20%), *some* (from 5% to 10%) or *no* (less than 5%) proportion of mature students (EUA, 2011).

The ***part-time students*** indicator scales the number of part-time students against the total number of students. Similar with the previous indicator, based on the results of the measurements HEIs are labeled as having *major* (more than 20%), *substantial* (from 10% to 20%), *some* (from 5% to 10%) or *no* (less than 5%) part-time students.

The ***distance-learning students*** indicator scales the number of distance learning students against the total number of students. Similar with the previous two indicators, based on the results of the measurement, HEIs are labeled as having *major* (more than 20%), *substantial* (from 10% to 20%), *some* (from 5% to 10%) or *no* (less than 5%) distance-learning students.

The ***students enrolled*** indicator counts the total number of students enrolled in all the programmes available in HEIs. Based on the results, HEIs are labeled as *very large* (more

than 30,000 students), *large* (from 15,000 to 30,000 students), *medium* (from 5,000 and 15,000 students) and *small* (less than 5,000 students).

The ***peer reviewed publications*** indicator uses the HEIs self-reported number of peer review publications per academic staff. Based on the reports, HEIs are labeled as having a *major*, *substantial* or *some* contribution in peer review publications.

Trying to avoid the size bias, the ***doctorate production*** indicator scales the total number of doctorate degrees, which include PhD degrees and professional degrees, against the number of FTE academic staff. The labeling process is similar with the previous indicator, HEIs having *major*, *substantial* or *some* contribution to doctoral production.

Seen as an important indicator of HEIs involvement on research activities, the ***expenditure on research*** measures the proportion of total institutional resources spent for research activities. HEIs are labeled as having a *major* (the expenditure surpasses 40%), *substantial* (between 10% and 40%), *some* (1% and 10%) or *no* (less than 1%).

The ***patent applications field*** indicator is a traditional measurement of HEIs innovativeness and implication in knowledge transfer. Defined as a novel and useful invention, patents are scaled against the total number of academic staff in order to avoid the size bias. Data is collected from national and institutional electronic databases, such as the database of the European Patent Office which lists the institutions with exclusive rights of patents (van Vught et al., 2010). Based on the result, HEIs are labeled as having *major* (more than 10), *substantial* (from 5 to 10), *some* (from 1 to 5) or *no* (less than 1) disclosure of inventions (EUA, 2011).

The ***start-up firms*** indicator measures the relative innovative character of an institution by scaling the average number of start-up firms¹³⁰ against 1,000 FTE academic staff (van Vught et al., 2010). Similar with the previous indicators, institutions are labeled as having *major*, *substantial*, *some* or *no* disclosure of knowledge transfer (EUA, 2011).

The ***cultural activities*** indicator counts the number of exhibitions, concerts and performances organized by HEIs and that are opened to the public. This is an indicator used for arts and architecture fields and measures the level of involvement of institutions on the cultural knowledge exchange activities (van Vught et al., 2010). If more than 100 cultural activities

¹³⁰ Start-up companies are new enterprises founded by HEIs or its employees in order to commercialize and transfer the invention right resulted from the research development (Wintjes et al., 2002). Moreover, firms that have received the license to use technology created in HEIs and companies where HEIs participate in equity are also included in this category (CHERPA, 2011).

are registered, HEIs are considered as having a *major* cultural impact on the society. Furthermore, HEIs can be labeled as having *substantial* (between 50 and 100 cultural activities) or *some* (less than 50) involvement in the cultural knowledge exchange (EUA, 2011).

The *income from knowledge exchange activities* shows HEIs involvement to the social and economic life. This indicator is measured as a percentage of income from licensing agreements, contracts, copyrighted products and donations from the total income. Based on the results of the measurement, HEIs are labeled as having a *major* (more than 40%), *substantial* (11%-40%), *some* (1%-10%) or *no* (less than 1%) involvement in knowledge exchange activities.

The *foreign degree-seeking students* indicator reflects HEIs attractiveness to international students. The indicator scales the number of non-national students against the total number of students (van Vught et al., 2010) and based on the results, HEIs are labeled as having a *major* (more than 7.5%), *substantial* (from 2.5% to 7.5%), *some* (from 0.5% to 2.5%) or *no* (less than 0.5%) international orientation (EUA, 2011).

A high *incoming students* indicator shows a strong international orientation of institutions. Measured as a percentage of incoming students from international exchange programmes in the total number of enrolments, the indicator was initially focused only on European exchange programmes. Yet, the European Commission expanded the data collection to non-European exchange programmes as it was proved the initial database was restrictive and disadvantageous for HEIs welcoming students from all over the world (van Vught et al., 2010). Based on the results, HEIs are labeled as having *major* (more than 2%), *substantial* (from 1% to 2%), *some* (from 0.5% to 1%) or *no* (less than 0.5%) international orientation (EUA, 2011).

The methodology for *outgoing students* indicator is identical with the one for *income students*, except it measures the proportion of outgoing students from exchange programmes to the total number of enrolments.

The *international academic staff* indicator measures the international orientation of HEIs by scaling the number of foreign staff against the total number of academic staff. For the measurement of this indicator, both the permanent academic staff of foreign nationality and the foreign academics that joined the HEI through exchange programmes are taken into consideration (van Vught et al., 2010). Based on the results of this indicator, HEIs are labeled

as having *major* (more than 10%), *substantial* (from 5% to 15%), *some* (from 1% to 5%) and *no* international orientation (EUA, 2011).

The ***international income sources*** indicator scales HEIs income from non-national sources to the overall income. Based on the results of the measurement, HEIs are labeled as having *major* (more than 10%), *substantial* (5% to 10%), *some* (1% to 5%) or *no* (less than 1%) international orientation.

The ***graduates working in the region*** indicator measures the percentage of graduates that have found jobs in the close proximity of HEIs. Based on the results of this measurement, HEIs are labeled as having *major* (more than 10%), *substantial* (5% to 10%), *some* (1% to 5%) or *no* (less than 1%) regional engagement.

The ***importance of regional income sources*** indicator scales HEIs income from local sources to their overall income. Based on the results of the measurement, HEIs are labeled as having *major* (more than 10%), *substantial* (5% to 10%), *some* (1% to 5%) or *no* (less than 1%) regional engagement.

The ***first year bachelor regional students*** indicator measures the percentage of regional students enrolled in the first year of studies to the total number of students enrolled in the first year of studies. Based on the results of the measurement, HEIs are labeled as having *major* (more than 10%), *substantial* (5% to 10%), *some* (1% to 5%) or *no* (less than 1%) regional engagement.

Table 32. The U-map classification and its indicators

Category	Indicator
Educational profile	Degree level focus
	Subject area covered
	Orientation of degree
	Expenditure on teaching
Student profile	Mature students
	Part-time students
	Distance learning students
	Students enrolled
Research	Peer reviewed publications
	Doctorate production
	Expenditure on research
Knowledge transfer	Patent application filed
	Start-up firms
	Cultural activities
	Income from knowledge exchange activities
International orientation	Foreign degrees seeking students
	Incoming students
	Outgoing students
	International academic staff
	International income sources
Regional engagement	Graduates working in the region
	Regional income sources
	First year bachelor regional students

Source: CHEPS, 2011

French summary

L'impact des systèmes de mesure de la performance sur la gestion des carrières dans l'enseignement supérieur

Claudia URDARI, Doctorante

Directeurs de thèse

Prof. Alain BURLAUD

Prof. Adriana TIRON- TUDOR

L'enseignement supérieur a toujours été d'une importance primordiale pour le développement économique et social (Burlaud, 2007). Les établissements d'enseignement supérieur ont assuré le transfert des connaissances à la jeune population et ils ont toujours travaillé dans le sens du progrès mondial. Pourtant, au cours des dernières décennies, le domaine de l'enseignement supérieur a connu de nombreux changements qui ont conduit à sa transformation fondamentale.

Premièrement, la demande pour les activités éducatives a éclaté et les établissements d'enseignement supérieur ont ouvert leurs portes à tous ceux qui souhaitent acquérir de nouvelles connaissances (Kogan et al., 1994). Pourtant, les gouvernements n'étaient pas prêts financièrement pour soutenir l'éducation de masse (Teixeira et al., 2004). Pour couvrir cette incapacité, ils ont encouragé les établissements d'enseignement supérieur à développer une approche de type commercial et à attirer des fonds d'autres parties intéressées (Amaral et al., 2003). En conséquence, le domaine de l'enseignement supérieur a été inondé de pratiques commerciales et est rapidement devenu un environnement très concurrentiel. En outre, cette chaîne de changements a conduit au développement d'un marché de l'enseignement supérieur (Thornton et Ocasio, 1999), dans lequel les institutions qui réussissent sont définies par leur capacité à attirer des fonds et des clients.

C'est dans cet environnement que les classements internationaux des universités et les systèmes d'accréditation ont émergé comme des outils d'évaluation de la performance de l'enseignement supérieur. En particulier, les classements internationaux des universités ont bénéficié d'une énorme attention en raison de leur capacité à assurer le contrôle sur l'enseignement supérieur en employant des mesures simples pour créer un ordre social (Ruef et Scott, 1998). Au prétexte de refléter la réalité de l'enseignement supérieur, ils sont devenus

un emblème de la légitimité. Aujourd'hui, les établissements d'enseignement supérieur les utilisent pour construire leur réputation et pour accroître leur « taux de survie » (Meyer et Rowan, 1991).

Jusqu'à aujourd'hui, la question de la mesure de performance est considérée comme un domaine sous-étudié dans l'enseignement supérieur (ter Bogt et Scapens, 2012). La plupart des études qui portent sur ce sujet soulignent la transformation du champ concerné, sans s'intéresser à l'impact sur les individus. En outre, les quelques études qui traitent du niveau individuel portent sur l'influence et le rôle des classifications sur le domaine de l'enseignement supérieur et ne couvrent pas les changements survenus dans la gestion de la carrière des universitaires.

Par conséquent, cette étude vise à combler cette lacune en fournissant un aperçu sur *la façon dont les systèmes de mesure de la performance dans l'enseignement supérieur influencent la gestion de la carrière dans l'enseignement supérieur*. Cette thèse se concentre sur trois sous-questions interdépendantes de recherche qui visent à fournir une réponse sur la manière dont les carrières universitaires se construisent et évoluent :

Quelles sont les mesures de performances utilisées par les classements internationaux et les systèmes d'accréditation?

Quel est leur impact sur les actions réalisées par les établissements d'enseignement supérieur?

Comment les systèmes d'évaluation des performances façonnent-ils la gestion de la carrière des universitaires ?

À notre connaissance, et jusqu'à aujourd'hui, aucune étude traitant le sujet du développement de la carrière à travers la lentille de l'institutionnalisation des systèmes de mesure du rendement n'a été effectuée. Quelques études en ressources humaines analysent les attitudes d'emploi, la performance des individus (Slocum et Cron, 1985) et l'impact de la gestion des ressources humaines sur la performance organisationnelle (Delaney et Huselid, 1996). Pourtant, il nous semble que dans le contexte mondial actuel, l'attention devrait être portée aux techniques de comptabilité et à la façon dont elles sont utilisées pour contrôler le développement de la carrière des individus dans des contextes particuliers.

Quelques études envisagent l'impact des mesures de la performance sur les organisations et les individus (ter Bogt et Scapens, 2012; Pelger et Grottko, 2015; Raineri, 2015), mais ne l'associent pas avec les classements internationaux et les systèmes d'accréditation. Ces études attirent l'attention sur le développement de programmes de doctorat et les erreurs des

programmes d'études, mais elles ne vont pas plus loin en liant la formation doctorale au développement de la carrière académique.

En France, quelques chercheurs se sont intéressés au thème des classements internationaux et de leur impact sur l'environnement de l'enseignement supérieur (Burlaud, 2007; Courpasson et Guedri, 2007; Nioche, 2007; Lussier, 2014). Certains discutent le choc des institutions françaises face à la massification, la mondialisation et l'internationalisation, ainsi que leur difficulté à s'aligner sur les normes internationales de l'enseignement supérieur et à développer des programmes qui attirent les étudiants étrangers. D'autres études soulignent que l'émergence des classements internationaux produit un impact sur le champ académique français et suggèrent que les croyances fondamentales des universitaires sont sur la voie d'être transformées. Une étude en particulier (Lussier, 2014) a porté sur la question de la nature changeante des pratiques d'évaluation et sur l'ajustement du comportement des universitaires.

Néanmoins, aucune de ces études n'a regardé ce que les classements internationaux des universités et les systèmes d'accréditation mesurent. Si nous devons comprendre pourquoi le comportement des individus est en train de changer et comment leurs carrières sont touchées, l'analyse du contenu des systèmes internationaux de mesure de la performance les plus connus est obligatoire. Leur lien avec les systèmes d'évaluation internes doit être souligné, ainsi que la pression que les établissements d'enseignement supérieur font porter sur les membres de leur corps professoral.

En outre, la perception des individus change grâce à leur interaction avec les autres. La découverte et l'institutionnalisation des pratiques réussies sont atteintes rapidement grâce à l'information diffusée par la bouche à oreille, par le biais duquel la jeune génération d'universitaires apprend des individus plus expérimentés ce que sont la réussite et la manière de l'atteindre. Pourtant, l'information peut ne pas être entièrement transmise, et une sélection est donc faite naturellement en fonction de ce qui est considéré comme important à un certain moment dans le temps.

Ces phénomènes expliquent que la perspective interprétative ait joué un rôle important dans le développement de ma recherche. Les changements dans le domaine universitaire ne peuvent pas être complètement expliqués par une recherche quantitative, ni par une autre qualitative (Perret et Séville, 2003). Pourtant, la réalisation d'une étude prenant en considération la perception individuelle est d'une importance primordiale. La façon dont les acteurs comprennent et réagissent à différents stimuli affecte la construction du champ. La réalité sociale peut être regardée au travers de différentes lentilles, chacune d'entre elles

ajoutant aux connaissances existantes sur la façon dont la réalité est formée. Ainsi, dans le but d'ajouter à l'état actuel des connaissances, cette recherche a porté sur les individus, la façon dont ils comprennent leur environnement et les actions qu'ils réalisent à la suite de cette compréhension.

Dans ce contexte de recherche, la recherche interprétative autorise à construire un raisonnement qui commence à partir de la description du champ. Pour ne pas imposer les conclusions de mon étude, je laisse les données et la littérature guider ma recherche. Voilà pourquoi le format de cette thèse ne correspond pas à la structure conventionnelle d'une thèse de doctorat. Comme la question de recherche a émergé de ma propre curiosité, je trouvais que le développement de mes recherches, progressivement, comme il est arrivé, était plus approprié que de suivre un modèle.

Les premières enquêtes sur les classements, les systèmes d'accréditation et sur la gestion de carrière étaient de simples curiosités d'une jeune étudiante en doctorat. En progressant dans l'étude de la littérature, je remarquai les activités réalisées par des universitaires, et la question de recherche sur la façon dont les systèmes de mesure de la performance influencent la gestion de carrière dans l'enseignement supérieur a grandi en moi. Ainsi, pour répondre à la question, je n'ai pas suivi le chemin de recherche « standard », mais différentes étapes mixtes afin de développer la thèse. Le choix méthodologique a été l'une des décisions les plus importantes dans l'avancement de la recherche. La technique d'entrevue a été l'élément que je voulais absolument inclure dans mon développement méthodologique, mais dans le même temps, je savais que cette technique ne suffit pas pour valider la recherche. Ainsi, je comptais sur la littérature pour découvrir d'autres méthodes complémentaires qui pourraient être le sujet d'une approche interprétative et m'aideraient à enrichir la collection de données. Voilà comment l'observation des établissements d'enseignement supérieur et l'analyse du contenu des classements internationaux des universités et des systèmes d'accréditation ont vu le jour et sont venues jouer un rôle d'égale importance dans l'interprétation des résultats de la recherche.

Le fondement théorique a suivi la même logique. Quand je conduisais la phase exploratoire des interviews, j'ai laissé les données me conduire vers des concepts théoriques appropriés. Le cadre conceptuel qui permet une compréhension approfondie du sujet de recherche est construit sur un triple fondement théorique. Partout dans le monde, les institutions utilisent des systèmes, tels que les classements des universités et les systèmes d'accréditation, afin de former et de diffuser un modèle réduit (Strang et Meyer, 1993) des institutions internationales d'enseignement supérieur en fixant des critères sur la façon d'évaluer les organisations. La

classification et la mesure sont des techniques qui contribuent activement à l'établissement de standards normatifs (Power, 1997) en ce qui concerne le type d'activités qui sont permises et évaluées dans les institutions académiques. Pour développer et légitimer un modèle réduit, l'institutionnalisation des normes et des valeurs joue un rôle important (Strang et Meyer, 1993). En répondant à la pression normative et aux exigences du marché international de l'enseignement supérieur, les universitaires ont progressivement adapté leur gestion de carrière. Ainsi, les concepts de mesure de la performance ont été utilisés pour comprendre pourquoi les classements des universités et les systèmes d'accréditation deviennent une coutume mondiale.

La réponse semble venir de leur emploi comme des mécanismes comptables. Comme tous ces outils, les mesures de performance ont la capacité de transformer les processus complexes en les simplifiant. En outre, grâce à leur institutionnalisation, elles aident les gouvernements à contrôler les activités exercées par les établissements d'enseignement supérieur. Ainsi, la théorie institutionnelle était nécessaire pour comprendre comment les pratiques d'évaluation des performances sont répandues partout et ce que les établissements d'enseignement supérieur cherchent à gagner en suivant les pratiques isomorphes.

En outre, la littérature montre que le lien entre les mesures de la performance et les systèmes d'incitations et d'opportunités conduit à des changements dans les comportements individuels (Moya et al., 2014). Ainsi, afin de saisir le sens derrière les changements survenus au niveau individuel, il était important d'appréhender ce qu'est la gestion de carrière et de développement de carrière. Alors que la mondialisation a eu lieu, les possibilités de carrière ont évolué et les individus se sont retrouvés dans un marché international de l'enseignement supérieur. Avec la transformation globale du domaine de l'éducation supérieure, leur perception a également changé. Être sous pression institutionnelle influe sur la façon dont ils considèrent leur réalité sociale. Les choix de carrière universitaires se sont diversifiés et les individus ont maintenant le choix entre devenir des pédagogues, des chercheurs ou un mélange des deux.

Comme l'examen de la littérature était entrelacé avec les parties épistémologiques, méthodologiques et théoriques, il était nécessaire d'expliquer brièvement les raisons pour lesquelles j'ai fait certains choix de recherche. Ainsi, avant de plonger dans une analyse du contenu des classements internationaux des universités et des systèmes d'accréditation, il était crucial de discuter de l'existence d'un marché de l'enseignement supérieur et d'expliquer comment celui-ci a été formé, ainsi que de décrire les trois missions essentielles des

établissements d'enseignement supérieur. En outre, et parce que la troisième partie de la thèse porte sur l'image institutionnelle des organisations académiques, il n'a pas été nécessaire de présenter les spécificités de l'environnement de l'enseignement supérieur français et les institutions d'évaluation françaises accréditées avant la quatrième partie de la thèse.

En étudiant les classements des universités et des systèmes d'accréditation je vise à comprendre ce qu'ils mesurent et les raisons de leurs choix méthodologiques. Ainsi, afin de trouver les réponses, j'ai poursuivi une analyse de contenu de leurs méthodologies et étudié les informations fournies sur les pages Web officielles de leurs organisations. Je comptais sur la littérature pour améliorer ma compréhension des classements, des systèmes d'accréditation et les indicateurs qu'ils emploient. Le résultat de cette première analyse montre d'une part que les mesures les plus populaires de performance sont liées aux activités de recherche, de nombreux classements reliant la performance uniquement aux activités de recherche. D'autre part, les systèmes d'accréditation se concentrent davantage sur les activités pédagogiques et ils poussent les écoles à faire attention à leur contribution à la société. Pourtant, cette dernière mission est souvent considérée comme un outil marketing d'affichage, et les gouvernements continuent à préférer les mesures faciles employées par les classements des universités pour déterminer l'ordre des établissements d'enseignement supérieur. Par conséquent, ces organisations considèrent également que les classements sont plus pertinents.

Le même résultat peut être observé au niveau individuel, où les universitaires sont devenus plus préoccupés par leur recherche et « orienté » par celle-ci. Lorsqu'on leur demande de se définir comme des pédagogues ou des chercheurs, mes résultats montrent qu'un niveau d'importance différente est donné à chacun de ces choix de carrière. En outre, il est apparu au cours des entretiens que les universitaires âgés lient toujours la recherche aux activités d'enseignement, tandis que les plus jeunes ont massivement tendance à se concentrer uniquement sur la recherche. Ainsi, deux choix de carrière universitaires distincts ont progressivement émergé. La transition vers des universités indépendantes, autonomes et compétitives et la prolifération rapide des classements ont créé un écart entre la position du chercheur et celui du pédagogue, modifiant l'image de la carrière universitaire. Dans ce qui suit, je vais vous présenter la conception de la thèse présentée ci-dessus (Figure 1) et je procéderai à la présentation des quatre parties de la thèse.

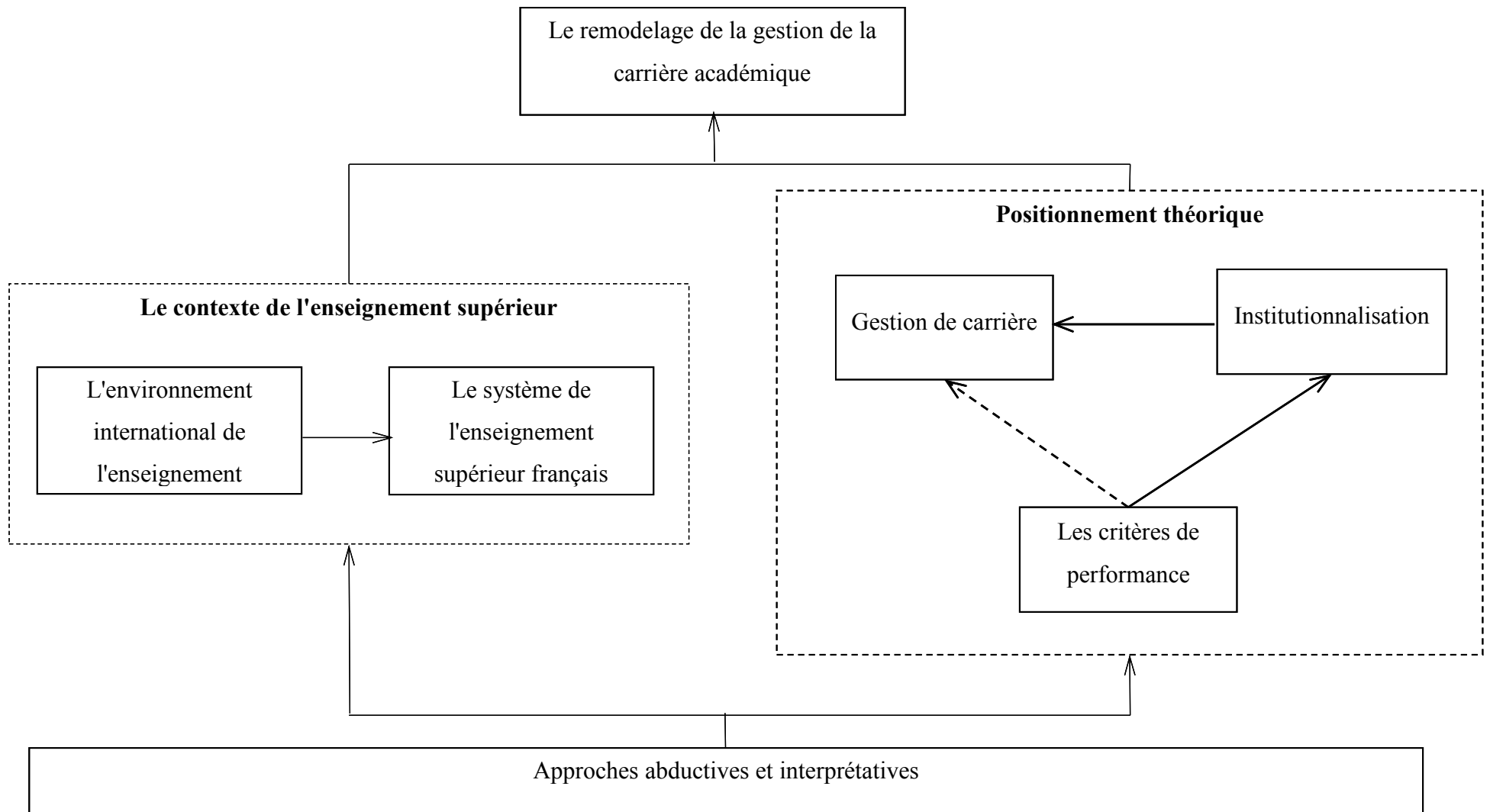


Figure 1. La conception de thèse
Source: auteur

Première partie. Positionnement de la recherche

La première partie de la thèse a pour but de présenter les choix épistémologiques et d'expliquer comment le plan de recherche a été mis en place. Ainsi, les deux chapitres inclus ici décrivent le processus logique qui a été suivi: le plan de la recherche, l'hypothèse choisie et les méthodes de recherche. En combinant différents concepts de la sociologie (par exemple Giddens, Bourdieu), de la philosophie (par exemple, Foucault, Super), et de la comptabilité (par exemple Power, Hopwood, Miller) je vise à montrer comment l'internationalisation et la relation à trois entre les classements, les écoles et les universitaires a conduit à des changements dans le domaine de l'enseignement supérieur. Dans ma recherche d'éléments qui contribuent à la réponse à la façon dont les systèmes de mesure de la performance influencent la gestion de carrière dans l'enseignement supérieur, je regarde les conditions sociales et les convictions qui affectent les décisions des acteurs (Baillie, 2003).

Pour comprendre les classements internationaux des universités comme des systèmes de mesure de la performance et 'observer leur rôle dans le domaine académique, je choisis de placer mes recherches dans une perspective interprétative (Baker et Bettner, 1997; Llewellyn, 2007). Pourtant, l'accès à la pratique a été médiatisée par plusieurs sources de données: les données secondaires, des observations directes et des interviews. La triangulation de ces différentes méthodes de recherche a donné un aperçu en profondeur de la signification sociale du milieu universitaire et a assuré la stabilité de mes conclusions. Cependant, tout en prêtant foi aux propos de mes interlocuteurs, je devais développer une attitude critique m'aidant à procéder à une comparaison entre ce que les classements mesurent, la vérité subjective des acteurs et la réalité du terrain. En conséquence, les processus épistémologiques et méthodologiques ont ouvert la voie vers les parties suivantes de ma recherche.

La découverte et le développement de nouvelles connaissances doit commencer avec la perspective à travers laquelle les chercheurs regardent leur domaine d'études et les méthodes qu'ils mettent en pratique afin de trouver les concepts qui peuvent prédire l'avenir ou aider à comprendre, construire et expliquer la réalité actuelle (Martinet, 1990). Ainsi, la réflexion sur les choix pour étudier les changements intervenus dans le domaine de l'enseignement supérieur ajoutée à mon intérêt de recherche visant à construire des études qualitatives dans le champ de la comptabilité en mettant l'accent sur la gestion de la performance m'ont guidée pour positionner mon travail dans le paradigme interprétatif. Cette approche m'a permis de poser des questions sur les raisons qui conduisent les acteurs à se comporter d'une certaine manière et qui donnent le pouvoir à leur compréhension de la société (Perret et Séville, 2003). Enraciné dans l'herméneutique (Llewellyn, 1993), l'interprétativisme suppose que les

acteurs comparent, contrastent et redéfinissent les réalités subjectives pour rationaliser la façon dont leur monde est construit (Elharidy et al., 2008). En conséquence, cette perspective adopte une approche relativiste, où le chercheur estime que «la réalité sociale est émergente, subjectivement créée, et objectivée par l'interaction humaine" (Chua, 1986, p. 615).

Selon le paradigme interprétatif, la réalité ne peut jamais être complètement déchiffrable (Perret et Séville, 2003). Il n'y a pas de méthode directe qui permette de mesurer et d'expliquer. En outre, cette approche ne concerne pas l'existence de la «réalité» elle-même (von Glasersfeld, 1988). Elle ne rejette ni accepte le concept de la «réalité», mais se concentre plutôt sur la façon dont la réalité est construite par la compréhension des acteurs (Perret et Séville, 2003). Par conséquent, la «réalité» est l'image réfléchie de la perception individuelle. Les premières recherches ont affirmé que l'interprétation implique la mesure de la «subjectivité pure» (Chua, 1986; Johnson et al., 2006; Lukka et Modell, 2010), tandis que de nouvelles méthodes de recherche prétendent que chercher à comprendre la réalité objective représente une vision idéaliste (Perret et Séville, 2003). Ainsi, ontologiquement, la réalité sociale est prétendue être soit objective soit subjective (Johnson et al., 2006). Cependant, des études récentes ont souligné que la différence entre les paradigmes subjectif et objectif pourrait être plus petit que précédemment supposée (Kakkuri-Knuuttila et al, 2010; Vaivio et Siréne, 2010). Llewellyn (2007) soutient que la réalité sociale présente de multiples facettes et que si quelqu'un veut comprendre le monde dans lequel nous vivons, il / elle doit considérer l'existence de «réalités différenciées» (p. 55).

Bien que le subjectivisme soit difficile à isoler lorsque le chercheur fait partie du champ (Baumard et Ibert, 2003), cette perspective est nécessaire afin de comprendre les contextes sociaux, politiques et institutionnels dans lesquels nous nous situons. Les perceptions des répondants sont un point de départ en donnant un sens aux données et ils ne devraient pas être ignorés (Brewer, 2003b). Par conséquent, l'approche interprétative traite les sujets comme des objets rationnels qui peuvent à tout moment transformer le système dans lequel ils coexistent (Lorino et al., 2011). Comme Berger et Luckmann le soulignent, la réalité sociale est définie par des faits objectifs qui sont façonnés par des actions subjectives (Berger et Luckmann, 1966). Les acteurs jouent un rôle majeur dans la construction de mondes objectifs sociaux (Perret et Séville, 2003). Ils acceptent les pressions institutionnelles (Berger et Luckmann, 1966) et les exécutent comme des prophéties auto-réalisatrices (Watzlawick, 1988). En conséquence, les acteurs donnent naissance à des actions qui conduisent aux résultats attendus. Cependant, "la prévisibilité du comportement ne serait pas liée à un déterminisme

en dehors des acteurs mais à la soumission des acteurs à un emprisonnement dans un jeu sans fin qu'ils ont eux-mêmes créé " (Watzlawick, 1988, p. 109).

En résumé, l'approche interprétative a assuré la richesse des données et a fourni des informations précieuses (Baker et Bettner, 1997) dans le domaine de l'enseignement supérieur. En outre, cette perspective a permis de développer une recherche qui tente de «décrire, comprendre et interpréter les significations que les acteurs humains donnent aux symboles et à la structure de l'environnement dans lequel ils se trouvent» (Baker et Bettner, 1997, p. 293). Dans le même temps, l'interprétativisme me permet de représenter les perceptions et les actions qui mènent à la construction de nouvelles réalités sociales, il m'a aidée à expliquer la construction et la séparation des missions de l'enseignement supérieur, et m'a permis d'adopter une approche critique, ce qui signifie que je veux changer quelque chose dans le statu quo, même si je ne suis pas en position de réaliser ce changement (Laughlin, 1995).

Les règles et les procédures que j'ai construites au fil du temps pour guider mon étude sont également incluses dans cette partie de la thèse. Concevoir l'approche méthodologique a aidé à structurer mon enquête et à différencier mes résultats de ceux d'autres études dans les domaines de la gestion de la performance et de l'enseignement supérieur. La méthodologie fournit des outils pour créer de nouvelles connaissances et souligne les techniques utilisées pour analyser les données. Cependant, elle détaille également la façon dont les notions générales sont conceptualisées et émergent dans le développement de la théorie. Ainsi, la méthodologie ne représente pas seulement une façon d'organiser les idées et les observations, mais aussi une forme de communication des résultats de la recherche (Daly, 2003).

Comme l'objectif principal était de rechercher des significations et de comprendre comment le domaine de l'enseignement supérieur se transforme progressivement, cette recherche a été conçue comme une recherche qualitative. Toutefois, certaines méthodes quantitatives de base ont été employées dans la présentation des résultats de l'analyse de contenu, des observations et des entretiens. Leur seul but était de soutenir et de clarifier certains aspects de mes résultats, donnant un aperçu sur les dimensions de la recherche. Les méthodes utilisées dans cette thèse ont été construites à l'aide de l'analyse des sources secondaires et de mes observations sur le terrain. Comme la perspective interprétative et la théorie institutionnelle ont joué un rôle central dans le développement de ma recherche, le raisonnement abductif a fourni les outils nécessaires pour construire des théories qui sont incorporées dans la vie quotidienne de mes répondants (Ong, 2012). Cette stratégie a permis de représenter un large

éventail de significations, des arguments et des activités caractéristique à ce champ et d'identifier ce qui était jusque-là caché derrière les choix de carrière universitaire.

Mon étude ne cherche pas à aller au-delà des frontières des enquêtes actuelles, mais cherche à comprendre le même phénomène à travers une perspective différente. Comme beaucoup d'autres avant moi, je considère que les acteurs ont la clé pour donner un aperçu en profondeur sur la façon dont la réalité sociale est construite et que leurs perceptions peuvent compléter l'image du champ. Par conséquent, ma recherche vise à ajouter à la littérature actuelle en examinant l'impact des classifications utilisées comme des systèmes de mesure de performance sur la gestion de la carrière des universitaires.

De plus, j'ai laissé l'objet de ma recherche et la littérature guider le développement du cadre conceptuel. Ce fait conduit à la construction d'une méthodologie complexe qui permet de déterminer les caractéristiques des individus et celles de leur environnement. Pour ces raisons, afin d'assurer que la collecte de données fournit suffisamment d'informations pour parvenir à une conclusion valable, j'ai triangulé systématiquement les revues, les observations directes et les entretiens semi-structurés dans une méthode de recherche unique.

Dans la recherche qualitative, l'interprétation joue un rôle majeur dans la création de nouvelles connaissances et les chercheurs "ne partagent aucun des canons, des règles de décision, algorithmes, ou même des accords heuristiques pour indiquer si les résultats sont valides et les procédures robustes" (Miles et Huberman, 1994, p. 262). Ainsi, la fiabilité et la validité des choix méthodologiques reposent essentiellement sur les compétences du chercheur (Drucker-Godard et al., 2003), qui doit documenter et expliquer en détail les méthodes et les techniques utilisées dans le développement de l'étude. En outre, Drucker-Godard et al. (2003) affirment qu'une autre façon de valider la méthodologie de la recherche qualitative est de comparer les résultats obtenus grâce à des techniques de recherche différentes. Ces auteurs affirment que le chercheur doit utiliser différentes sources de données, décrire les méthodes de recherche employées dans l'étude et valider les résultats avec l'aide d'acteurs clés. Toutes ces actions visent à renforcer le fait que la méthodologie est appropriée pour mesurer les dimensions spécifiées dans le cadre conceptuel.

Ainsi, dans la première partie de la thèse, je décris les méthodes de recherche et les sources de données. L'étude a été initiée par un examen systématique des méthodes employées par les classements des universités, elle se poursuit avec une observation directe de six établissements d'enseignement supérieur, qui a été suivie par des entretiens avec quarante universitaires et doctorants. Ensuite, j'utilise les résultats de l'analyse de contenu afin de développer les observations directes et les entretiens semi-structurés, mais aussi d'ajuster le

guide d'entrevue. En outre, afin de valider les choix méthodologiques et les résultats préliminaires, j'ai présenté mon étude à certains acteurs clés du domaine de l'enseignement supérieur en développant une phase d'entretien exploratoire, durant laquelle j'interviewais des universitaires expérimentés. Outre la collecte des données, j'ai également discuté avec eux de mes premières conclusions et des futures pistes à suivre dans mes recherches. Par conséquent, je crois avoir pris toutes les mesures nécessaires afin de valider et de prouver la fiabilité de ma méthodologie et de mes résultats.

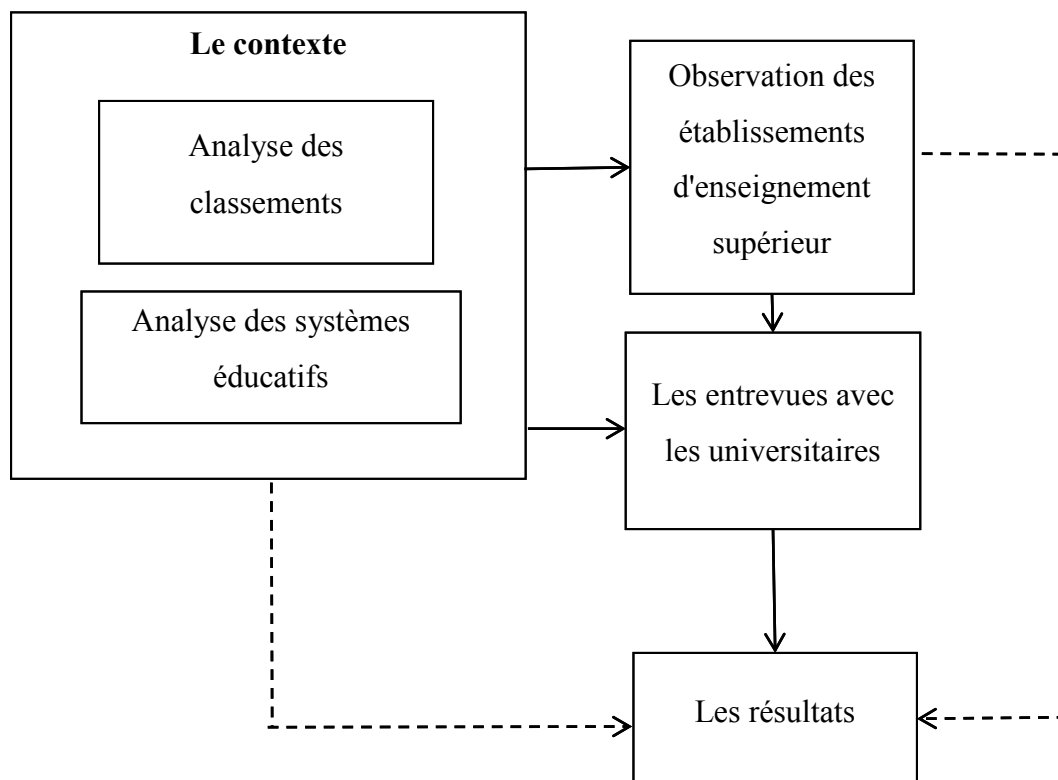


Figure 2. La méthodologie de la recherche

Source: auteur

Deuxième partie. Le cadre conceptuel

La deuxième partie de la thèse traite des questions théoriques et conceptuelles qui fonctionnent en association étroite avec les interprétations émergentes du champ. Différents concepts provenant de différents courants de recherche (par exemple comptables, comportement organisationnel, ressources humaines) sont présentés ici dans le contexte de l'enseignement supérieur. En suivant le domaine de l'étude, trois principaux courants de recherche, l'institutionnalisme, la gestion de carrière et des mesures de performance, ont été choisis pour le rôle crucial qu'ils jouent dans l'explication du domaine. La théorie

institutionnelle est primordiale dans la création et le maintien de convictions qui structurent notre environnement (Lawrence et al., 2009). Elle explique comment les modèles sont établis et le rôle qu'ils ont sur le changement du comportement individuel et organisationnel.

D'autre part, la gestion de carrière est concernée par les tours et détours qui ont lieu lors de l'élaboration d'une stratégie de carrière efficace. Le processus de gestion, le contexte du développement de carrière, l'intégration des vies personnelles et professionnelles sont tous pris en considération par les individus au moment où ils choisissent le cheminement de carrière qu'ils veulent suivre (Greenhaus et al., 2010). Pourtant, le lien entre l'institutionnalisme et la gestion de carrière n'est pas évident. Le lien est modéré par l'utilisation de mesures de performance. Ces outils comptables sont d'une importance primordiale dans le modelage, la motivation et le contrôle des organisations et des individus (Miller, 1994) et donc ils sont souvent employés pour institutionnaliser certains comportements.

Les institutions et leurs interactions ont été un sujet d'intérêt durant de nombreuses années. Les premiers chercheurs se sont concentrés sur la définition des forces institutionnelles et sociales en analysant leur impact sur les comportements (Scott, 2008), tandis que plus tard les théoriciens ont analysé les questions d'organisation à partir d'un point de vue institutionnel (Lawrence et al., 2009). Tous ces scientifiques ont perçu les institutions comme étant plus que des organisations. En plus de l'entité organisationnelle, ils ont inclus les comportements communs qui sont socialement reconnus. Le concept d'institutionnalisation a été introduit pour définir le processus qui se déroule dans le temps et qui transfère l'ensemble des convictions sur plusieurs générations (Tolbert et Zucker, 1996).

Pour survivre, les entreprises ont besoin non seulement de ressources et d'information, mais aussi de l'acceptabilité et de la crédibilité sociale (Scott et al., 2000). Ces conditions sont assurées par la légitimité, qui est la «perception généralisée ou l'hypothèse que les actions d'une entité sont souhaitables, ou opportunes au sein de certains systèmes socialement construits ou normes, valeurs, croyances et définitions» (Suchman, 1995, p. 574), et l'institutionnalisme propose les mécanismes pour légitimer leur comportement. Le jeu des acteurs, organismes et institutions concentre un flux de recherches prédominantes dans les études institutionnelles des organisations (Lawrence et al., 2009). Bien que de nombreux théoriciens aient mis l'accent sur la façon dont le processus institutionnel affecte les pratiques et les structures (Meyer et Rowan, 1977) de l'organisation, des travaux plus récents ont porté sur la façon dont les acteurs changent les pratiques institutionnelles dans lesquelles ils opèrent (DiMaggio, 1988).

Ainsi, «les contraintes institutionnelles agissent de deux manières principales: en l'amenant dans un ordre normatif, et en le rendant otage de sa propre histoire" (Selznick, 1992, p 232.). Elles fournissent un cadre où les modèles d'action et les mécanismes qui imposent les actions sont créés et peuvent être affectés par les actions que les acteurs prennent comme une réponse à ces mécanismes (Lawrence et al., 2009).

Pourtant, le travail est un autre facteur déterminant dans la vie de beaucoup de gens (Greenhaus et al., 2010). Il donne un sens à leur existence et définit leur identité (Baruch et al., 2014). En conséquence, les études liées au poste de travail, la vocation et la gestion de carrière ont augmenté de façon constante au cours des dernières décennies. De multiples théories sur le choix et le développement de carrière ont émergé, certaines d'entre elles étant noyées dans la psychologie (Super 1953; Pays-Bas, 1985), tandis que d'autres présentent des racines sociologiques (Reissman, 1953; Musgrave, 1967). Elles couvrent un large éventail de sujets, parmi lesquels l'orientation professionnelle, le développement de carrière et la réussite professionnelle. Comme cette thèse se concentre sur la compréhension de la modalité par laquelle les mesures de performance affectent la gestion de la carrière des universitaires, ces théories ont été fondamentales dans le développement de ma recherche. Les facteurs institutionnels, l'environnement organisationnel et les antécédents personnels influencent le développement de la carrière des individus. Cependant, les acteurs sont ceux qui décident en fin de compte de la façon de gérer leur vie professionnelle.

Des études ont montré que les acteurs visent à maximiser leur succès en suivant les objectifs institutionnels (Palmer et al., 2011). Selon Greenhaus et al. (2010), ils gèrent leur carrière soit en transformant leur environnement soit en changeant leurs attentes, leurs valeurs ou leurs objectifs. Dans cet esprit, ils développent un processus de gestion de carrière, au travers duquel ils s'interrogent eux-mêmes, explorent leur environnement de travail, se fixent des objectifs de carrière, élaborent des stratégies de carrière et réalisent des activités qui les aident à progresser professionnellement. En outre, ils continuent à explorer le monde professionnel en échangeant des opinions avec leurs pairs. Ils accordent une attention particulière au comportement de leurs collègues, à la réaction de leurs supérieurs et aux attentes de leur organisation. Ainsi, ils recueillent des commentaires et rassemblent les informations qui les aident à comprendre les changements qu'ils ont à réaliser dans leurs plans de carrière afin d'atteindre leurs objectifs. Comme ils se battent pour s'adapter aux environnements professionnels et personnels (Mirvis et Hall, 1996), ils répondent à des procédures institutionnalisées, comme les mesures de performance et les évaluations.

Au cours des dernières décennies, une profonde transformation a eu lieu dans la recherche comptable. Au lieu d'être considéré comme un constituant secondaire des relations sociales, la comptabilité est perçue comme une activité profondément ancrée dans le développement de l'environnement social (Miller, 1994). Définie comme une pratique qui transforme les individus, les organisations et les processus, la comptabilité affecte la façon dont la vie personnelle et professionnelle sont gérées, influe sur la construction et la structuration des activités de l'organisation et dirige l' 'écriture [du] monde' (Miller, 1994, p. 21). Des mécanismes comptables étudiés par les scientifiques contemporains, la mesure de la performance représente la pratique organisationnelle la plus commune (ter Bogt et Scapens, 2012). De nombreuses institutions l'utilisent pour améliorer leur propre performance, mais aussi pour récompenser leurs employés pour leurs bons résultats (Meyer, 2007) ou les pénaliser pour les mauvais. Toutefois, comme le penseur français Michel Foucault le souligne, nous devons prêter attention aux "pratiques les plus ennuyeuses [parce qu'elles] jouent souvent un rôle non reconnu mais fondamental dans la vie sociale» (cité par Power, 1997, p. Xi).

La question de la mesure des performances est devenue d'un grand intérêt pour la communauté universitaire (Neely, 2002), les chercheurs contemporains discutent de ses rôles multiples et de ses conséquences sur le comportement organisationnel et individuel. En outre, même si l'attention a été portée sur les grandes problèmes liés à l'utilisation de systèmes de mesure de la performance (McGowan et Poister 1985; Smith, 1995; LAPSLEY, 1996; Berman, 2002), le sujet a continué de croître et la mise en œuvre de ces systèmes a continué à se répandre (ter Bogt et Scapens, 2012). En conséquence, les mesures de la performance représentent un sujet très diversifié qui couvre de multiples domaines: la comptabilité, le marketing, les opérations, la gestion et ainsi de suite (Neely et al, 2002).

Jusqu'à aujourd'hui, peu de recherches ont traité de questionnements sur la nature et les conséquences de l'utilisation de mesures de la performance dans l'environnement de l'enseignement supérieur (ter Bogt et Scapens, 2012). En outre, les auteurs qui ont suivi cette voie ont abordé les questions de l'évaluation de la recherche (Ashton et al., 2009), les classements de revues (Dill et Soo, 2005) et l'impact des classements sur l'allocation des ressources gouvernementales (Martin et Whitley, 2010), sans regarder les conséquences de ces pratiques sur le comportement individuel et le développement de carrière.

Pour combler cette lacune, ma thèse porte sur les changements survenus dans l'enseignement supérieur, en regardant la façon dont l'évaluation des activités académiques affecte les individus et leurs professions. La concurrence croissante entre les établissements

d'enseignement supérieur a conduit à des fusions et des réorganisations internes de ces institutions. En outre, les emplois universitaires ont été restructurés et un grand nombre de travailleurs temporaires ont été utilisés pour effectuer certaines activités du système de l'enseignement supérieur. En conséquence, le niveau de sécurité de l'emploi a diminué de manière significative et la carrière académique est en pleine mutation.

Le point de départ de cette transformation a été l'institutionnalisation des mesures de la performance. En raison de la naissance d'un marché académique de l'enseignement supérieur, les organisations ont découvert qu'elles peuvent accroître leur légitimité et leur perspective de survie en développant des pratiques institutionnelles isomorphes (Meyer et Rowan, 1991). Au contraire, les organisations qui ont échoué à le faire sont restées vulnérables aux évolutions d'un contexte très concurrentiel (Townley, 1997). Cet isomorphisme coercitif est susceptible de se produire lorsque les organismes sont financièrement dépendants des autres et qu'ils ont un objectif ambigu (DiMaggio et Powell, 1983). Bien que les établissements d'enseignement supérieur soient autonomes, une proportion élevée de leur activité est financée par des fonds publics (Croham, 1987) et donc, ils sont piégés dans une bulle institutionnelle où ils doivent obéir à des règles et prouver qu'ils agissent sur des valeurs collectives.

Certaines études ont souligné que les théories de carrière fournissent les outils pour étudier l'effet du changement organisationnel sur le comportement individuel (Lips-Wiersma et Hall, 2007) et que le concept de carrière peut être utilisé pour étudier l'influence des facteurs institutionnels sur les rôles et la construction d'identité des individus (Arthur et al., 2005). Cependant, les acteurs ne sont pas de simples marionnettes qui respectent sans remettre en cause les pratiques. Ils interprètent et réinterprètent le résultat de leurs actions et ils répondent à la pression sociale (Van Maanen, 1977). L'acceptation des systèmes de mesure par la communauté universitaire et l'ordonnancement des activités exercées dans l'environnement de l'enseignement supérieur ont conduit à la transformation de la carrière universitaire. Ainsi, cette thèse vise à fournir des réponses sur la façon dont les mesures de la performance sont utilisées pour aligner le comportement et la carrière des individus. Un double impact des mesures de la performance a été dépeint dans les travaux théoriques. Dès que le critère de performance change, les individus réagissent aux nouvelles exigences. Pourtant, ces changements se produisent au niveau organisationnel. L'effet d'une telle transformation à grande échelle est obtenu par un processus d'institutionnalisation, ce qui représente un processus plus lent, mais qui a un impact fort sur la gestion de la carrière des individus.

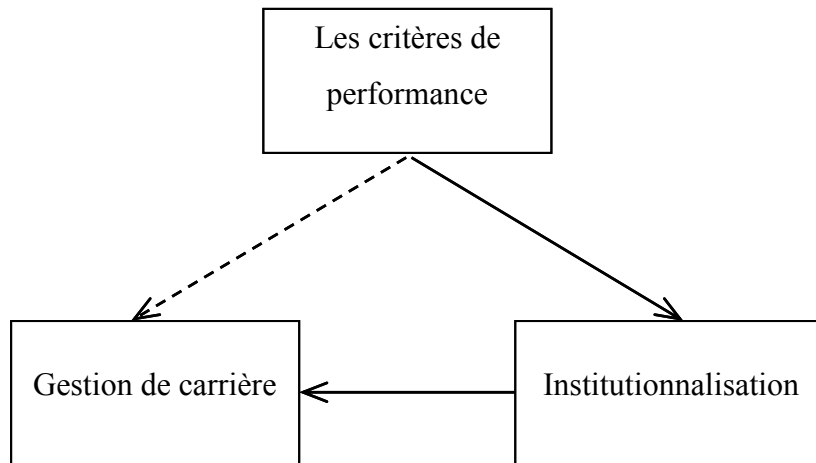


Figure 3. Influence des mesures de performances

Source: auteur

En conséquence des changements dans l'environnement de l'enseignement supérieur, la profession universitaire a été contrainte d'évoluer. Grâce à un effort soutenu de certaines organisations externes, tels que les gouvernements et les médias, ainsi qu'aux actions isomorphes des établissements d'enseignement supérieur, la gestion de carrière universitaire et le processus de recrutement dans les institutions d'enseignement supérieur ont énormément changé. Ainsi, une recherche sur la perception des individus peut souligner la transformation qui a eu lieu dans le paysage académique. Comme les acteurs influent sur le développement de leur environnement au travers de leurs actions, ils aident à définir la réalité à travers la compréhension qu'ils ont du champ. Ils veulent réussir, ils utilisent leur intuition pour construire leurs objectifs, et ils apprennent que leurs actions sont prises en compte seulement si elles sont reflétées dans leur performance. En conséquence, les acteurs apprennent à agir sur la base de ce que les systèmes d'évaluation mesurent.

Troisième partie. L'évaluation des activités d'enseignement supérieur

Ce que la société accepte aujourd'hui comme normal et évident ne fut pas toujours ainsi (Power, 1997). Comme l'activité d'audit, l'évaluation des établissements d'enseignement supérieur soulève des doutes pour beaucoup d'individus concernés par ces pratiques. Dans les dernières années, les classements internationaux des universités et les systèmes d'accréditation sont devenus d'une importance primordiale pour l'enseignement supérieur (Wedlin, 2006; Nigsch et Schenker-Wicki, 2013). Avec l'intention d'évaluer objectivement la qualité des établissements d'enseignement supérieur (Lukman et al., 2010), ces systèmes de

mesure de la performance se sont imposés aux gouvernements et sont devenus utiles pour les futurs étudiants. Cependant, de nombreux auteurs affirment que l'utilisation de ces systèmes d'évaluation sous la forme qu'ils prennent maintenant est nuisible pour l'environnement académique (Rousseau, 2008; EUA, 2011; Kuan et al, 2011). Pourtant, jouer un jeu de classements (Watzlawick, 1988; North, 1990) est extrêmement tentante. Comme le dit le célèbre Earl Nightingale, «l'excellence vend toujours », et ces systèmes de mesure de la performance mettent en avant leur capacité à identifier les établissements d'enseignement supérieur qui offrent la meilleure qualité de service et une présente une excellente réputation.

Ainsi, la troisième partie de la thèse porte sur le thème des systèmes d'évaluation externes utilisés dans le secteur de l'enseignement supérieur et analyse les classements universitaires internationaux les plus connus et les systèmes d'accréditation. Les multiples rôles des établissements d'enseignement supérieur sont abordés: l'éducation, la recherche et l'engagement envers la société, ainsi que l'existence d'un marché de l'enseignement supérieur. En outre, les mesures utilisées par les systèmes d'évaluation externes sont comparées et une conclusion est tirée sur le type d'activités mesurées et commercialisées dans le domaine de l'enseignement supérieur. Cette troisième partie est de première importance car elle prépare le terrain pour les observations et les interviews réalisées sur le terrain. Comme ter Bogt et Scapens (2012) le soulignent, l'usage des classements des universités et des systèmes d'accréditation peuvent avoir de graves répercussions sur les futurs universitaires.

Les établissements d'enseignement supérieur ont toujours été le moteur de base pour le développement économique et social (Burlaud, 2007) et leur rôle primordial était de transférer des connaissances et des pratiques innovantes vers les étudiants (Paulré, 2001). Pourtant, à partir du siècle dernier, le processus éducatif a connu d'énormes transformations (Romainville, 2006). Comme la société informationnelle a émergé (Castells, 1996), la demande pour l'enseignement supérieur a augmenté de manière significative et les établissements d'enseignement supérieur ne devraient plus nourrir seulement l'élite de la société (Romainville, 2006), mais alimenter la compétitivité économique et assurer la survie de l'organisation. Ce fait a conduit à la massification de l'enseignement supérieur (Kogan et al., 1994), ce qui signifie que les établissements d'enseignement supérieur ont ouvert leurs portes à tous ceux qui désiraient poursuivre des études supérieures (Altbach, 2013).

La transformation de l'environnement de l'enseignement supérieur a pris la forme de politiques globales et d'échanges internationaux entre les établissements d'enseignement supérieur. Aujourd'hui, nous voyons des étudiants et des membres du corps professoral se

déplacer librement entre les pays à la recherche de défis intellectuels supérieurs (Mitchell et Nielsen, 2012). Ainsi, un marché de l'enseignement supérieur a lentement émergé (Marginson, 2004) et les établissements d'enseignement supérieur sont entrés dans une société de consommation (Rhoades, 1987). Ils ont été forcés de réaliser des changements stratégiques et de reconfigurer leurs objectifs en conformité avec les exigences du marché. Ils différencient leurs activités, et leurs missions ont évolué, passant de transfert de connaissances à la recherche et aux interactions avec l'environnement socio-économique.

Les médias, les gouvernements et le public ont commencé à devenir de plus en plus intéressés par l'activité exercée par les établissements d'enseignement supérieur (Propper et Wilson, 2003; Pugés, 2012). En conséquence, la rivalité entre ces institutions est apparue, qui a porté notamment sur la réputation des établissements, les fonds alloués et les clients. Dans un effort pour établir un marché crédible pour l'enseignement supérieur, l'utilisation de systèmes de mesure de la performance a prospéré (Wedlin, 2006). Le but de ces systèmes était d'offrir une preuve fiable sur la qualité des activités des établissements d'enseignement supérieur (Townley, 1997) et de construire un tableau de réputation (Bok, 2004). Plus connus pour leur capacité à définir des critères d'évaluation (Charle, 2009) et pour leur aptitude à ordonner les établissements d'enseignement supérieur sur la base de leurs résultats de performance (Wedlin, 2006), les classements des universités sont souvent utilisés comme mécanismes de gestion ou de prise de décisions politiques.

Les gouvernements les utilisent pour allouer des fonds, tandis que les étudiants les utilisent pour choisir l'école la plus appropriée à leurs besoins (Thakur, 2007). Pourtant, la prolifération des classements des universités a atteint un point où ils influencent fortement le comportement des établissements d'enseignement supérieur et de leurs employés. Dans leur lutte pour créer une image forte, les établissements d'enseignement supérieur ont aligné leurs activités sur la demande des classements en adaptant leurs systèmes d'évaluation internes aux mesures de performance utilisées par les classements universitaires. Ainsi, l'analyse des classements universitaires internationaux les plus populaires peuvent apporter des réponses sur la façon dont le rôle des établissements d'enseignement supérieur a été modifié. Les résultats doivent relever le niveau d'importance accordé à chacune des trois grandes activités et expliquer la perception actuelle des universitaires sur l'enseignement supérieur, la gestion de carrière et leurs attentes pour l'avenir. L'analyse de contenu fournit un outil parfait de la recherche, car il montre les mesures de performance utilisées et l'importance accordée à chacun d'elles, tout en permettant le lien avec l'objet de leurs mesures, c'est-à-dire les trois missions essentielles des établissements d'enseignement supérieur.

De plus, le processus d'accréditation vise à déterminer l'engagement envers la qualité et l'amélioration continue des activités éducatives. Définis comme une série d'actions menées par des organisations ou agences pour reconnaître un établissement d'enseignement supérieur ou un programme ayant satisfait l'ensemble des normes prédéterminées (Hedmo, 2002), les systèmes d'accréditation apportent une perspective qualitative à l'évaluation des performances des établissements d'enseignement supérieur. Ils envisagent plusieurs critères, tels que l'internationalisation, l'éthique, la responsabilité et la durabilité, et mettent l'accent sur les activités pédagogiques et la contribution à la société des établissements d'enseignement supérieur. Pourtant, même si des avantages peuvent être tirés en passant par un processus d'accréditation, la perception des établissements d'enseignement supérieur européen est que les systèmes d'accréditation internationaux sont de simples outils stratégiques (Scherer et al., 2005)

Dans des marchés très concurrentiels, comme l'enseignement supérieur, les institutions sont obligées de réagir rapidement aux changements continus et, par conséquent, elles se concentrent souvent sur le renforcement de leur réputation (D'Aveni et al., 2010). Même si l'importance des systèmes d'accréditation a considérablement augmenté au cours des trois dernières décennies (Nioche, 2007), cela ne signifie pas que l'intérêt pour la qualité pédagogique s'est accru. Tel que rapporté par plusieurs auteurs, les établissements d'enseignement supérieur utilisent les systèmes d'accréditation comme un outil supplémentaire pour obtenir un avantage face à leurs rivaux et pour accroître leur prestige et perspectives internationales (Temponi, 2005). Ainsi, dans cette thèse, j'analyse les méthodes d'évaluation utilisées par les deux systèmes d'accréditation les plus populaires afin de trouver si ces derniers influencent le comportement des universitaires et celui des établissements d'enseignement supérieur. Comme les organismes d'accréditation sont considérés comme des concurrents des gouvernements en ce qui concerne l'évaluation de l'enseignement supérieur (Nioche, 2007), l'analyse du contenu des méthodologies des systèmes d'accréditation a permis une compréhension en profondeur des raisons pour lesquelles les gouvernements préfèrent les classements des universités pour l'allocation des fonds.

Comme le progrès technologique a imposé la massification de l'enseignement supérieur et l'augmentation de la demande pour un niveau de connaissance plus élevé pour la population mondiale, l'environnement socio-économique a fait peser une pression sur les établissements d'enseignement supérieur pour établir leur rôle dans le développement d'une société meilleure. Lorsque le marché mondial de l'enseignement supérieur a émergé, les étudiants voulaient fonder leurs décisions sur un système simple qui pourrait fournir des informations

sur les capacités des établissements d'enseignement supérieur à améliorer leurs connaissances personnelles. En outre, l'augmentation du nombre des élèves a conduit les gouvernements à questionner l'allocation de fonds, car il était impossible de soutenir un développement éducatif massif au niveau national. Ainsi, ils ont dû trouver un mécanisme qui permette une distribution rationnelle des deniers publics et, dans le même temps, assurer un processus d'allocation transparent.

Dans ce contexte, la hausse des classements d'universités a été considérée comme une solution possible aux attentes sociales et économiques. Bénéficiant de l'avantage puissant des chiffres, les classements ont rencontré un grand succès auprès du public et sont devenus extrêmement influents au niveau mondial (Charle, 2009). Les résultats de leurs processus d'évaluation ont été considérés comme un outil de responsabilisation parfait, permettant la création de l'étiquette de «modèles d'excellence d'établissements d'enseignement supérieur» et la légitimation des activités d'enseignement supérieur mesurées. Pourtant, comme le prouve l'analyse de contenu, les classements se concentrent sur la mesure de la performance des écoles d'une manière quantitative. Visant à créer un modèle international des établissements d'enseignement supérieur, ils déterminent les résultats des activités d'éducation en utilisant le même ensemble d'indicateurs pour toutes les écoles incluses dans leur analyse, sans prendre en considération la spécificité de chaque établissement d'enseignement supérieur. Pourtant, les méthodes d'évaluation devraient également se concentrer sur les questions de qualité, car on ne peut pas compter tout ce qui est important. Les classements d'universités ont tenté d'ajouter la mesure de la qualité, en recueillant par exemple des enquêtes provenant soit de membres du corps professoral soit d'étudiants. Pourtant, ils ont échoué dans cette mesure de la qualité, parce que le nombre de questionnaires rassemblés était extrêmement faible par rapport au nombre de membres du corps professoral et d'étudiants du monde entier. Certains organismes de financement des classements internationaux des universités (par exemple THE) ont même reconnu que la mesure de la qualité des activités des établissements d'enseignement supérieur est une tâche très difficile et qu'ils sont loin d'atteindre cet objectif.

Contrairement aux classements internationaux des universités, qui emploient des indicateurs composées afin de déterminer la qualité des activités établissements d'enseignement supérieur, les organismes d'accréditation ont visé à assurer l'existence d'un système d'enseignement supérieur de qualité et l'amélioration continue des activités éducatives. Leur objectif est d'améliorer le transfert des connaissances, développer une meilleure recherche et une implication continue des établissements d'enseignement supérieur dans les

environnements sociaux et économiques locaux. Ainsi, ils ont construit leurs procédures d'évaluation autour de la mission spécifique des établissements d'enseignement supérieur, en accordant une attention particulière aux objectifs de chaque école, et à la méthode par laquelle ils lient la stratégie et les activités à la mission de chaque établissement d'enseignement supérieur.

En d'autres termes, les classements représentent l'image du domaine universitaire, à un moment donné, tandis que les systèmes d'accréditation visent à assurer un avenir meilleur pour la société et la croissance économique à travers une implication constante et l'amélioration des activités des établissements d'enseignement supérieur dans leur contexte local et national. Ainsi, le classement se concentre sur les activités passées et les résultats obtenus par les établissements d'enseignement supérieur, tandis que le système d'accréditation s'intéresse aux activités actuelles, méthodes et fonctions en projetant une amélioration constante de leurs résultats dans l'avenir.

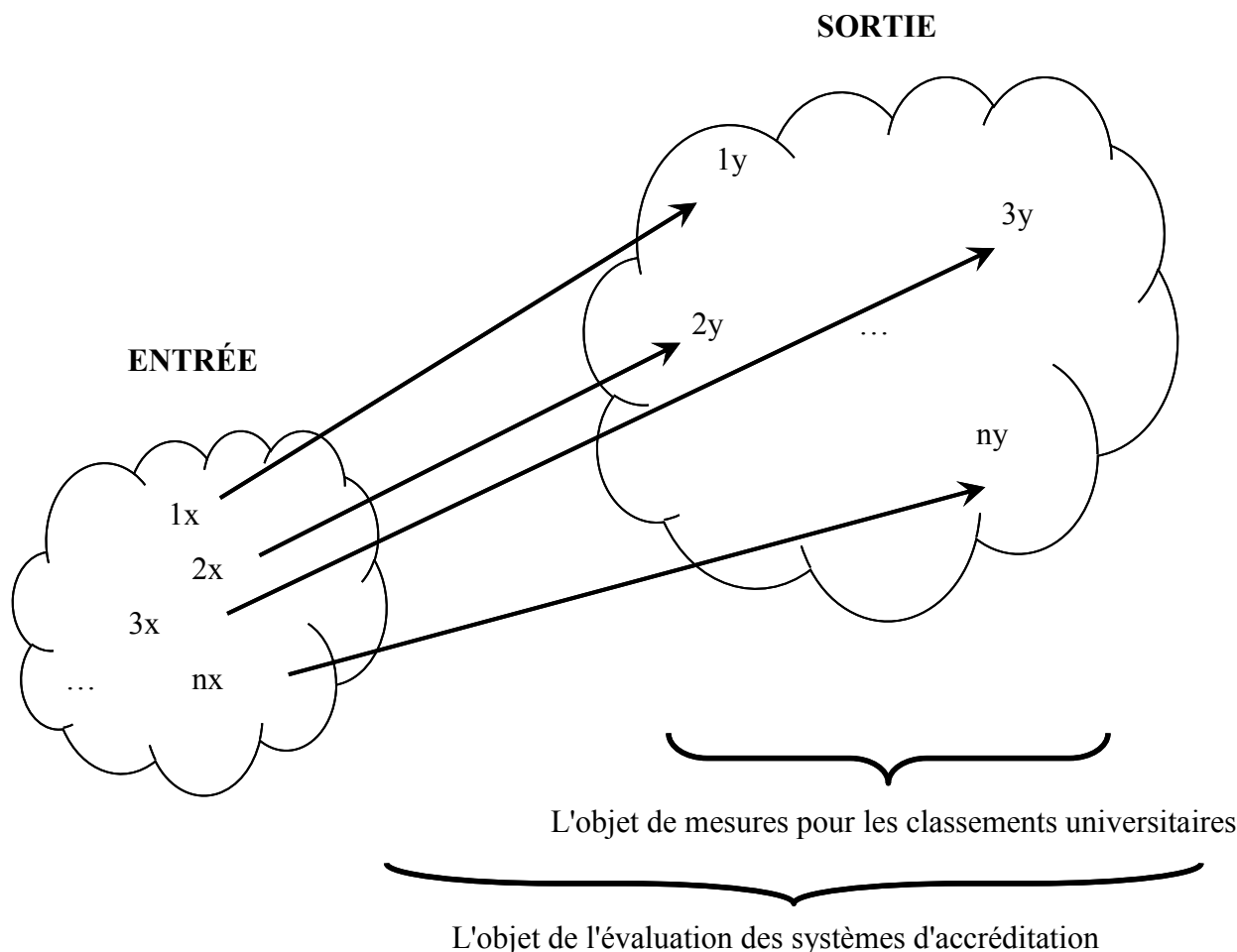


Figure 4. L'objet de l'évaluation des systèmes d'accréditation et des classements des universités¹³¹

Source: auteur

Charle (2009) prétend que les classements ont plus de succès que tout autre mécanisme d'évaluation en raison de leur «idéologie dominante». Ils sont faciles à utiliser et permettent de comparer les institutions dans le monde de l'éducation supérieure concurrentiel. En outre, comme tout autre système de mesure de la performance, ils aident les gestionnaires et les administrateurs des établissements d'enseignement supérieur à reconnaître activités sur lesquelles ils devraient concentrer leur attention, celles qui peuvent être abandonnées et celles auxquelles on peut porter moins d'attention. Néanmoins, Merchant (2010) souligne qu'il voit "un nuage noir [...] à l'horizon [universitaire], sous la forme de classements et des tableaux de classement» (p. 119). En raison de la façon dont ils sont construits et de leur utilisation mondiale intensive pour l'allocation des fonds, les classements sont utilisés comme mécanisme primordial de l'évaluation dans le domaine de l'enseignement supérieur, alors que

¹³¹ x représente les ressources et les efforts fournis par l'école et y exprime les résultats des activités spécifiques aux établissements d'enseignement supérieur. x et y sont liés par une fonction qui représente la procédure choisie par les écoles pour atteindre le résultat qu'elles désirent.

le système d'accréditation ne fait qu'ajouter à la visibilité et à la réputation des écoles. Ainsi, les classements ont le pouvoir de transformer le système éducatif, de changer la mentalité des universitaires. En conséquence, bien que le but des établissements d'enseignement supérieur soit de préparer "les étudiants à une vie enrichissante, du point de vue professionnel, social et personnel" (AACSB International, 2015, p. 2), les plus réputés des établissements d'enseignement supérieur concentrent de plus en plus leurs missions sur des activités de recherche.

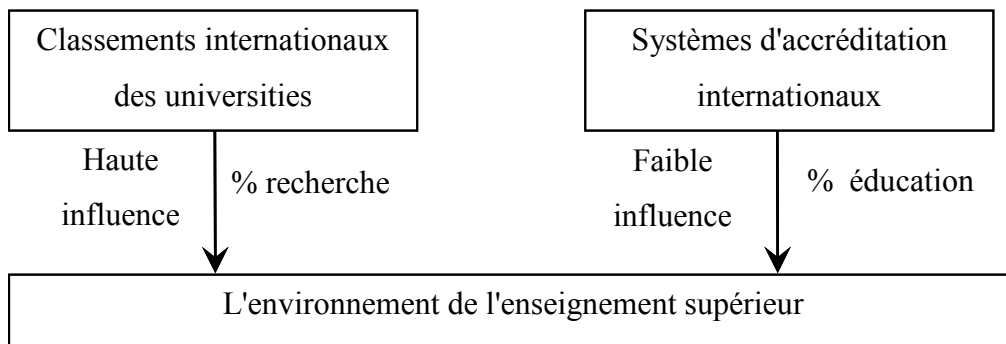


Figure 5. L'influence des classements et des systèmes d'accréditation sur l'environnement de l'enseignement supérieur

Source: auteur

Les résultats montrent que la cognition, la rationalité et le choix stratégique des établissements d'enseignement supérieur sont inextricablement liés les uns aux autres dans l'auto-désir de survivre sur le marché. Ce fait donne une indication sur le processus par lequel les établissements d'enseignement supérieur qui réussissent sont capables de maintenir leur avantage concurrentiel: en donnant une plus grande importance relative aux mesures de performance utilisées par les systèmes de mesure externes, tels que les classements universitaires. Pendant le délai durant lequel cette étude de champ a été entreprise, les établissements d'enseignement supérieur de bonne réputation (rencontrant le succès) ont massivement investi dans les activités de recherche et ont embauché prioritairement du personnel académique en mesure d'entreprendre des activités de recherche. Ainsi, l'analyse conjointe des classements et des systèmes d'accréditations ainsi que les observations des établissements d'enseignement supérieur montrent que les établissements d'enseignement supérieur qui réussissent sont capables de protéger leur image en agissant en fonction de la pression de l'évaluation externe, fait qui augmente la sensibilisation des universitaires à la

valeur élevée des activités de recherche et à l'importance que ces dernières ont dans leur avancement de carrière.

Quatrième partie. Gestion de carrière dans le milieu universitaire

La dernière partie de la thèse porte sur la gestion de carrière dans le milieu universitaire. Les changements survenus dans le secteur de l'enseignement supérieur ont affecté non seulement les institutions, mais aussi leurs employés. Lorsque les classements des universités et des systèmes d'accréditation se sont développés à l'international, les établissements d'enseignement supérieur ont reconstruit leurs systèmes d'évaluation interne selon les nouvelles exigences internationales. Ils sont alors passés d'un rôle de développement à un rôle de jugement (ter Bogt et Scapens, 2012), où les mesures quantitatives sont devenues d'une importance primordiale dans l'évaluation des activités académiques.

Utilisés comme mécanismes de motivation et de contrôle, les systèmes de mesure de la performance visent à orienter et harmoniser les actions des membres du corps professoral autour d'une norme mondiale d'excellence. Pourtant, l'importance accordée à certains types d'activités a changé la stratégie des individus ainsi que leur choix de carrière. Les classements universitaires sont devenus un outil puissant dans le processus d'évaluation des établissements d'enseignement supérieur, même s'ils se concentrent principalement sur la performance des activités de recherche. En conséquence, l'utilisation de leurs mesures sur la performance individuelle a fait peser une pression sur les membres actuels et sur les futurs enseignants en les forçant à développer un intérêt plus élevé pour les activités de recherche.

L'harmonisation de l'enseignement supérieur européen a été mis à l'ordre du jour des gouvernements depuis une longue période (Crêt, 2011). Depuis 1999, une série de réunions et des accords entre les pays européens ont été programmés et on a souligné la volonté commune de plusieurs pays de parvenir à une plus grande comparabilité et la compatibilité entre les systèmes d'enseignement supérieur européens (Espace européen de l'enseignement supérieur, 1999). Aujourd'hui, ces efforts sont largement connus comme le processus de Bologne.

Pourtant, bien que les pays impliqués aient réalisé des ajustements majeurs pour s'aligner sur les exigences européennes, chaque système d'enseignement supérieur présente ses propres particularités. En conséquence, les ministères de l'éducation ont adopté les changements imposés par la déclaration de Bologne en les adaptant à leur contexte culturel et à leurs traditions académiques (Mottis, 2008). Cela signifie que les systèmes éducatifs européens ne sont pas identiques et que des différences existent entre eux.

Les observations et les entretiens semi-structurés recueillis pour le développement de cette thèse ont été effectués dans les institutions européennes, et plus particulièrement dans celles françaises. Par conséquent, même si les résultats de l'étude pourraient être appliqués à d'autres institutions européennes ou non-européennes, il est nécessaire de décrire le contexte et les particularités de l'environnement de l'enseignement supérieur français. Ainsi, la dernière partie de la thèse comprend un bref historique du système de l'enseignement supérieur français, deux modèles de développement de carrière, ainsi que la description du champ construite à travers la lentille des perceptions des universitaires. Bien que la recherche se déroule autour des particularités des établissements d'enseignement supérieur français, les résultats sont applicables au niveau mondial. Ce fait a été confirmé par plusieurs entretiens avec des universitaires qui ont travaillé dans différents pays européens et non européens. Et même si la confirmation de cette transposition possible des résultats dans le monde entier n'était pas une condition d'avancement de mon étude, je fis cette phase de recherche par simple curiosité pour les développements futurs possibles de cette recherche doctorale.

Nous avons mentionné précédemment que les systèmes de mesure de la performance actuels ont influencé les établissements d'enseignement supérieur, leurs missions et leurs stratégies. Pourtant, l'institutionnalisation de ces systèmes n'a pas seulement transformé le champ académique, mais ils affectent également la perception des membres du corps professoral et créent une culture de comportements mimétiques. Avant d'entrer dans le domaine de l'enseignement supérieur, les individus construisent une projection de leur vie professionnelle, des activités qui seront effectuées et des relations professionnelles qu'ils vont développer avec les différents acteurs du système éducatif. Pourtant, immédiatement après avoir été intégré au champ, les individus entrent en contact avec d'autres universitaires et s'aperçoivent d'une contradiction entre leurs attentes et la réalité. Les conversations qu'ils ont avec d'autres apportent à la vie un contexte différent de celui qu'ils envisageaient. En conséquence, ils ont dû s'adapter à ce « nouvel » environnement afin de poursuivre leur carrière académique.

Ainsi, les fonctions des universitaires ont considérablement changé. Débutant par une approche pédagogique, destinée à assurer le transfert des connaissances, les universitaires ont terminé en se concentrant principalement sur les activités de recherche, indépendamment du type d'établissements universitaires pour lequel ils travaillent. L'écart entre l'image du champ et la réalité perçue est dû principalement à l'utilisation des systèmes de mesure de la performance. Ces types de mécanismes de contrôle ont aidé les entreprises à s'assurer que leurs objectifs et leurs plans sont atteints. Par leur adoption dans l'environnement

universitaire, les gouvernements et les institutions d'évaluation ont pour but de garantir le bon fonctionnement de l'environnement de l'enseignement supérieur. Pourtant, ils ont oublié que ces outils de gestion doivent être constamment corrigés et améliorés afin d'atteindre l'objectif initial et de ne pas modifier complètement le champ.

Tous les êtres humains aspirent à bâtir une carrière fructueuse. Pourtant, la stratégie qu'ils développent et mettent en œuvre est basée sur les exigences institutionnelles. De nombreuses études montrent comment les individus s'adaptent à de nouveaux rôles et "la façon dont leurs organisations leur enseignent les ficelles au travers d'expériences sociale formelles et informelles " (Ibarra, 2003, p. 173). La littérature contemporaine décrit les éléments qui comptent pour le développement et l'avancement de carrière. En outre, certaines études montrent l'influence de l'environnement social sur les décisions de carrière prises par les individus (Brousseau et al., 1996) et le rôle joué par les systèmes de mesure de performance externe dans la construction de la réputation (Wedlin, 2006).

Malgré l'impact que les médias et les classements jouent dans la redéfinition du rôle de l'organisation, nous connaissons peu de choses sur la façon dont les carrières sont touchées par ces outils externes. Cette recherche innove en se concentrant sur la façon dont chacun gère sa carrière en se fondant sur ce que la société dans laquelle il vit définit comme étant «réussi». Le corollaire des mesures de performance externes est analysé et les conditions qui permettent de se projeter dans une carrière individuelle différente dans la même profession sont discutées. En outre, cette recherche se distingue des précédents en se concentrant sur la façon dont les systèmes de mesure de la performance agissent comme un outil, influencent les choix des personnes dans leur vie professionnelle et remodelent leur gestion de carrière. Les demandes et les aspirations en matière de responsabilisation et de contrôle (Power, 1997) ont mené à la séparation de la carrière académique. Ainsi, bien que la législation française permette l'existence de pédagogues et de d'enseignants-chercheurs au sein des établissements d'enseignement supérieur, la tendance croissante est de gérer les carrières académiques vers la formation des chercheurs parce que la carrière de recherche est perçue comme ayant un statut social plus élevé que celle pédagogique. La direction vers laquelle les établissements d'enseignement supérieur se dirigent semble être l'élimination de la position traditionnelle de "lecteur" (dont l'activité est exclusivement pédagogique) et des activités d'enseignement pour les « professeurs » permanents. Cependant, il se pourrait que ces phénomènes ne soient ni le résultat attendu par l'organisation externe (notamment le gouvernement) ni le désir des établissements d'enseignement supérieur. Ces phénomènes pourraient être juste un résultat inattendu de l'effet boule de neige que les classements universitaires ont créé. Pourtant, les

changements ne sont pas limités à des attitudes et des comportements des individus, mais entraînent aussi une réorganisation plutôt drastique des priorités des universitaires qui contredit la mission traditionnelle et le rôle des établissements d'enseignement supérieur.

En conséquence, bien que les classements universitaires affirment qu'ils se concentrent de façon égale sur les deux activités, pédagogiques et de recherche, la recherche semble gagner continuellement de l'importance dans le monde entier, tant au niveau organisationnel qu'individuel. Le résultat des entretiens insiste fortement sur ce grand changement qui a eu lieu dans l'état d'esprit des universitaires. Au cours des dernières années, leur comportement était de plus en plus orienté vers l'écriture des articles, la liberté de pensée étant contrainte à un niveau scientifique. Certains participants affirment même que ce qui manque de l'image des activités de recherche est le travail intellectuel non scientifique. En d'autres termes, ils soulignent la rareté des vrais penseurs faisant la distinction entre eux et les intellectuels qui se concentrent sur la publication des articles.

Les résultats de l'analyse qualitative des indicateurs combinés avec l'examen de la documentation sur le classement et les systèmes de mesure de la performance montrent que l'éducation s'est estompée parmi les missions des établissements d'enseignement supérieur, et que l'existence de classements a redistribué l'équilibre entre les activités pédagogiques et celles de recherche. Une raison de mes conclusions pourrait être que les indicateurs de recherche sont facilement mesurables et sont disponibles à l'échelle mondiale, ce qui est en opposition flagrante avec les indicateurs de l'éducation. Il est convenu que les systèmes d'évaluation actuels comportent des erreurs (Charle, 2009), mais ils ne peuvent pas être complètement abandonnés. Il semble plutôt que les meilleures pratiques internationales peuvent être améliorées grâce à des observations recueillies sur le champ. Afin d'éviter la séparation de la recherche et de la pédagogie dans l'enseignement supérieur, les universitaires doivent prendre activement part à l'élaboration des propositions d'évaluation. Au lieu d'utiliser seulement des nombres abstraits pour expliquer la performance universitaire, des facteurs qualitatifs doivent être ajoutés aux systèmes d'évaluation. L'analyse du contexte en profondeur devrait être une priorité et les efforts doivent être mis pour comprendre le lien entre les mesures et les résultats finaux (« outcomes »). De telles pratiques peuvent assurer que les mesures produisent bien l'effet désiré sur le résultat final. Comme Charle (2009) le souligne, "le moment est venu d'agir".

Conclusion générale

L'intérêt principal de cette recherche était d'analyser la réaction des universitaires aux systèmes de mesure de la performance et les mesures qu'ils prennent pour remodeler la gestion de leur carrière. Des recherches antérieures ont étudié la transformation des environnements d'enseignement supérieur et le rôle de la classification dans la formation du champ. Pourtant, bien que certaines études aient mis l'accent sur le niveau de l'individu, aucune n'a utilisé les théories de la gestion de carrière en expliquant l'impact que les classements internationaux des universités et les systèmes d'accréditation produisent sur les membres du corps professoral. Visant à expliquer la transformation qui a eu lieu dans le milieu universitaire, à comprendre comment ces changements ont eu lieu et quels effets ils pourraient produire dans l'avenir de l'enseignement supérieur, cette thèse fournit en particulier des éléments qui soulignent l'importance accrue des activités de recherche et le faible statut accordé à celles pédagogiques. Ces résultats sont en contradiction avec le rôle traditionnel des établissements d'enseignement supérieur, c'est-à-dire leur devoir social pour assurer le transfert de connaissances.

La recherche actuelle cherche à enrichir les débats théoriques et empiriques sur l'enseignement supérieur en reliant les mesures de performance avec les concepts de la théorie institutionnelle et ceux de la gestion de carrière, approche qui permet de montrer quelle est la profondeur de l'impact des systèmes de mesure de la performance dans l'environnement universitaire. Dans ce qui suit, la contribution scientifique de cette thèse est résumée et divisée en six sections. La première section décrit la conception de la thèse, tandis que la deuxième présente les contributions pragmatiques de la thèse, qui consistent en une meilleure compréhension de ce que les classements internationaux des universités et des systèmes d'accréditation signifient, ce qu'ils mesurent et leur impact sur la gestion de la carrière des universitaires. La troisième section présente les apports méthodologiques, qui consistent en l'utilisation de l'approche abductive et interprétative pour expliquer le développement de la carrière universitaire et la construction du champ. La quatrième section présente les contributions théoriques, qui sont primordialement basées sur la construction d'une ample base théorique qui met en lien la gestion des performances et des concepts et des théories de différents domaines d'études. La cinquième section présente les limites de cette recherche, tandis que la sixième et dernière section décrit les futures perspectives de recherche.

La conception de thèse

L'idée de cette thèse a commencé à partir des observations du champ et donc la conception de recherche s'est développée dans une manière non conventionnelle. Comme les données ont guidé mes recherches, les approches épistémologiques et méthodologiques sont présentées dans la première partie de la thèse. Les deux stratégies de recherche abductive et interprétative ont joué un rôle majeur dans la construction de la théorie, dans la sélection et la présentation du contexte de l'enseignement supérieur et enfin dans l'émergence d'une gestion de carrière universitaire remodelée.

La deuxième partie de la thèse présente le cadre conceptuel, qui se concentre sur trois approches théoriques principales. Bien que les mesures de performance jouent le rôle central, les données ont montré l'existence d'une relation à trois entre l'institutionnalisation, la gestion de carrière et les mesures de performance. En conséquence, dans la présentation de l'approche théorique, je présente tout d'abord la théorie néo-institutionnelle, qui explique comment les mesures de performance ont « pris le pouvoir » par leur institutionnalisation et comment elles parviennent à changer la perception des individus sur une grande échelle. Pourtant, les changements en matière de gestion de carrière peuvent également être ressentis au niveau individuel et organisationnel dès que les critères de performance sont modifiés. Ces changements ont toutefois peu d'impact sur le comportement des acteurs. Cela est la raison pour laquelle les théories de gestion de carrière ont été présentées après celles institutionnelles et sont suivies de près par les concepts de mesure de la performance.

L'environnement international de l'enseignement supérieur est présenté dans la troisième partie de cette thèse, avec l'analyse du contenu des classements internationaux des universités et des systèmes d'accréditation. Comme tous ces concepts concernent le point de vue international sur l'enseignement supérieur, il est apparu opportun de les présenter ensemble. Cependant, le système de l'enseignement supérieur français a été présenté dans la quatrième partie, avec les observations et les témoignages recueillis auprès des établissements d'enseignement supérieur français et des universitaires travaillant dans le milieu de l'enseignement supérieur français.

Les données, les méthodes, les théories et la revue de la littérature ont conduit à la conclusion que des transformations majeures ont eu lieu dans la gestion de la carrière des universitaires. En raison de la pression normative, les classements ont changé la perception sur le champ actuel de l'enseignement supérieur et ont abouti une rupture et une différenciation sociale entre les identités des chercheurs et celles des pédagogues.

Contribution pragmatique

Une première contribution apportée par cette recherche tient à une meilleure connaissance de ce que les classements internationaux des universités et les systèmes d'accréditation représentent, ce qu'ils mesurent et quel est leur but dans l'environnement de l'enseignement supérieur. Bien qu'ils ne se réfèrent pas spécifiquement aux établissements d'enseignement supérieur français, il a été démontré qu'ils ont un impact majeur sur les systèmes d'enseignement supérieur à travers le monde. Leurs mesures et indicateurs faciles à utiliser ont gagné une énorme popularité parmi les gouvernements et les établissements d'enseignement supérieur, et la France est parmi les pays qui les emploient.

Les connaissances acquises grâce à des observations et 40 entretiens montrent que les universitaires français ont tendance à suivre un « chemin de recherche », même lorsqu'ils ne font pas partie d'instituts de recherche, comme le CNRS. Ces résultats pourraient être porteurs d'enseignement pour le gouvernement français, ainsi que pour les membres du corps professoral et des établissements d'enseignement supérieur français. Pour la première des parties prenantes, à savoir le gouvernement, les résultats de cette recherche pourraient fournir des informations précieuses sur la façon dont les activités d'enseignement supérieur pourraient évoluer à l'avenir et quelles mesures devraient être prises pour corriger les effets indésirables de leurs mesures. En outre, les deux prochaines catégories de parties prenantes, à savoir les établissements d'enseignement supérieur et les membres du corps professoral, pourraient se faire une meilleure idée sur la manière dont ils sont évalués, afin qu'ils puissent améliorer leur capacité de réaction à ces types de mesures.

Apport théorique

Bien que les études sur l'enseignement supérieur aient fleuri au cours de la dernière décennie, la contribution des systèmes de mesure de la performance dans la transformation du domaine est encore un domaine sous-étudié (ter Bogt et Scapens, 2012). En outre, les quelques études développées qui adoptent une perspective individuelle visent principalement à expliquer les changements survenus dans le domaine et l'impact des classements, sans tenter d'expliquer la transformation du développement de la carrière universitaire, ou celle des stratégies employées pour les gérer. Pour cette raison, la thèse actuelle sert de grille d'interprétation pour les futurs développements de la recherche sur la reconstruction de l'environnement de l'enseignement supérieur.

La conception théorique utilisée dans cette recherche est innovante, réunissant les concepts et les théories de différents domaines et les liant avec les concepts de gestion de la performance.

Cette approche permet de mieux expliquer le rôle et l'impact du système de mesure de la performance sur la vie des gens ; elle souligne les irrégularités qui émergent par l'utilisation abusive des mesures quantitatives. En outre, la recherche se concentre non seulement sur les perceptions des individus, mais aussi sur celle des institutions et des organisations. Ainsi, cette conception théorique spécifique facilite la construction d'une photographie détaillée de l'environnement de l'enseignement supérieur et montre sous différents angles la façon dont les systèmes de mesure de la performance influencent le domaine de l'enseignement supérieur.

Contribution méthodologique

L'approche interprétative joue un rôle majeur dans la création de nouvelles connaissances, car elle permet d'interroger le raisonnement des acteurs et donne le pouvoir à leur compréhension de la société. Les acteurs ne sont pas de simples pions, mais ils contribuent à la création de leur environnement en acceptant la pression normative ou s'y opposant. Ainsi, leur perception subjective est d'une importance primordiale pour comprendre comment la réalité sociale émerge.

L'utilisation d'une stratégie de recherche abductive ajoutée au développement méthodologique fournit un pont entre le champ et la construction théorique. Bien que plusieurs études de comptabilité et de gestion aient déjà utilisé cette approche méthodologique, elles ne sont pas aussi développées que ma thèse, qui de ce fait peut être considérée comme un travail d'avant-garde. En outre, le raisonnement abductif et l'interprétativisme ont facilité l'intégration de la subjectivité de la recherche et de l'autoréflexivité du chercheur, en laissant aussi l'espace nécessaire pour le développement de différentes approches méthodologiques qui, utilisés conjointement, ont assuré la validité de la recherche de cette thèse.

Comme cela a été présenté dans la première partie, une attention particulière a été donnée à la construction du cadre conceptuel. Une variété de méthodes de recherche ont été employées, qui ont permis de compléter la photographie détaillée de l'environnement de l'enseignement supérieur présentée. L'analyse du contenu des classements internationaux des universités et des systèmes d'accréditation, les observations recueillies auprès des établissements d'enseignement supérieur et les entretiens riches ont aidé à démêler les anciennes identités des individus, de leurs désirs et de la pression normative, des éléments qui mènent ensemble à la conclusion que leur gestion de carrière a été remodelée.

En outre, la triangulation des méthodes de recherche valide la conclusion de l'étude et accorde à cette thèse une perspective unique, car aucune autre recherche n'a encore regardé la gestion de carrière à travers la lentille de mesures de la performance.

Limites

Cette recherche présente plusieurs limites. La première est la subjectivité inhérente à toute recherche interprétative. Cependant, le fait que j'ai une bonne connaissance à la fois du statut de candidats au doctorat, et de celui des chercheurs et des pédagogues m'a aidée à surmonter le danger de ne pas être capable de mettre mes résultats de recherche dans une perspective objective.

Une deuxième limite est donnée par l'attention portée aux acteurs et à la façon dont ils construisent leur environnement. La réalité des acteurs pourrait être différente de celle du phénomène social qui a lieu dans le domaine. Cependant, comme je le souligne dans la thèse, les théoriciens attirent de plus en plus l'attention sur le fait que les acteurs ont également un impact sur le changement institutionnel à travers les actions qu'ils entreprennent (DiMaggio, 1991; Powell, 1991).

Une troisième limite est due à l'approche méthodologique, qui ne permet pas de mettre l'accent sur les types de programmes éducatifs. La thèse a été construite autour de la question de la gestion de carrière dans le milieu universitaire et de l'influence de la mesure de la performance sur cette situation particulière. Ainsi, des enquêtes et des entretiens avec les étudiants ont été ignorés à ce point. Pourtant, cette lacune peut être facilement corrigée par l'élaboration d'une étude scientifique supplémentaire.

La quatrième limite est également liée aux choix méthodologiques. La thèse a été développée sur des documents et des données fournies par les classements internationaux des universités, les systèmes d'accréditation, les établissements d'enseignement supérieur et les universitaires. Ainsi, l'opinion des autres parties prenantes de l'activités éducatives n'a pas été prise en considération. La solution qui peut corriger cette restriction méthodologique est le développement du cadre normatif en ajoutant les structures européennes normatives, les comparaisons entre les différents établissements d'enseignement supérieur européens, ainsi que la mise en évidence des similitudes et des différences entre les structures nationales et européennes d'enseignement supérieur, tous ces éléments pouvant conduire à une meilleure construction et utilisation de systèmes de mesure de la performance dans l'environnement de l'enseignement supérieur.

Perspectives

Cette thèse n'est que le début de ma vie en tant que chercheur et représente les premières étapes de mon travail vers le développement d'une tâche plus complexe. Pour moi, la thèse sert de fondement méthodologique et théorique et contribue à accumuler des connaissances qualitatives et quantitatives sur le champ choisi. Pourtant, par sa validation, le chercheur acquiert une formation et peut plonger dans les vagues passionnantes de la recherche avec des collègues.

Une future recherche à entreprendre pourra porter sur le comportement opportuniste des établissements d'enseignement supérieur qui apparut après la mise en œuvre des classements des universités et des systèmes d'accréditation. Beaucoup de ces organisations choisirent de se concentrer sur certains systèmes de mesure de performance, choisis parmi ceux qui leur permettaient de présenter les résultats les plus avantageux. Cette observation confirme les résultats des travaux sur la transition de la gouvernance par le droit à la gouvernance par les chiffres (par exemple, le travail d'Alain Supiot).

Une deuxième piste serait le développement d'une étude sur la perception des étudiants en ce qui concerne les changements survenus dans l'environnement de l'enseignement supérieur et le comportement des universitaires en classe. Une telle étude pourrait apporter un complément précieux aux résultats actuels, en approfondissant les connaissances sur les effets des systèmes de mesure de performance sur le système scolaire.

Un troisième sujet de recherche serait la compréhension du rôle et de la position prise par l'Union Européenne concernant la prolifération des mesures de performance utilisées dans l'évaluation des activités d'enseignement supérieur. Analysant trois classements européens d'universités et un système d'accréditation internationale, il est clair que les institutions européennes ont une perspective différente sur la façon dont les trois principales activités académiques devraient être mesurées. Bien que ces quatre systèmes de mesure soulignent l'importance des activités pédagogiques, les données recueillies auprès de membres du corps professoral montrent une forte tendance vers des activités de recherche. Comme résultat, une telle étude pourrait apporter une nouvelle lumière sur les réussites et les échecs des institutions européennes dans l'arrêt de la propagation rapide du système d'évaluation américain.

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Claudia URDARI

The impact of performance measurement systems on career management in higher education

Abstract

Performance measurement systems impact the higher education field and influence the career management of academics. This dissertation aims to provide some elements in explaining how the academic world has changed and what academics aspire to do in the future. Particular attention is paid to the meaning of university ranking measurements and to the individual perception of the current academic environment. Content analysis of rankings and accreditation systems, observation of higher education institutions (HEIs) and semi-structured interviews with Full Professors, Assistant Professors, Lecturer, and PhD candidates were used as a reliable database for the current research.

The institutionalization of performance measurement systems plays an important role in the transformation of the academic field. Used intensively in the marketization of HEIs, they lead to the development of a snowball effect. The proliferation of rankings has pushed forward certain activities performed by HEIs, forcing the transformation of academic practices and the development of image inequalities among different academic career paths. As normative pressure guided institutions to align to international demands, major transformations occurred at the individual level, where faculty members underwent significant change in their understanding of what an academic career meant.

The question on how performance measurements impact the academic career management emerged as I observed international rankings and accreditation systems, as well as HEIs actions and academics behavior. My findings corroborate one of the management accounting key concepts, ‘you get what you measure’, and bring to light the emphasis placed by the academic community on research activities. This dissertation emphasizes the drawbacks of using such measurements in search for standardization of academic activities. In particular, I highlight that the improper use of the current performance indicators lead to several anomalies, such as the obscuration of the pedagogical career, which has lost its status and is now often regarded as a limited and shameful career choice.

Keywords: higher education, career management, university rankings, performance measurement

Claudia URDARI

L'impact des systèmes de mesure de la performance sur la gestion des carrières dans l'enseignement supérieur

Résumé

L'impact des systèmes de mesure de performance sur l'enseignement supérieur et sur la gestion des carrières des universitaires est vraiment puissant. Cette thèse vise à fournir quelques éléments qui expliquent la transformation de ce secteur et les changements des aspirations des universitaires. Une attention particulière est portée sur les significations de la mesure de la performance au-delà des classements et sur la manière selon laquelle les universitaires perçoivent leur environnement actuel. L'analyse du contenu des classements et des systèmes d'accréditation, l'observation des établissements d'enseignement supérieur et des entretiens avec des professeurs, des maîtres de conférences, des PRAG, des vacataires et des doctorants ont permis de constituer une base de données fiable pour la recherche actuelle.

L'institutionnalisation des systèmes de mesure de performance joue un rôle important dans la transformation du monde universitaire. La prolifération des classements a privilégié en avant certaines activités exercées par les établissements d'enseignement supérieur, imposant la transformation des pratiques académiques, ainsi que le développement des inégalités d'image entre les différents cheminements des carrières universitaires. La pression normative a incité les institutions à s'aligner sur les exigences internationales, fait qui a conduit à des grandes transformations au niveau individuel, où les membres du corps professoral ont changées leur perception sur la carrière universitaire.

Le sujet de cette thèse a émergé en observant les classements internationaux et les systèmes d'accréditation, ainsi que les actions des établissements d'enseignement supérieur et le comportement des universitaires. Mes résultats mettent en lumière la grande importance accordée par la communauté universitaire aux activités de recherche en soulignant quelques conséquences dues à la normalisation des activités académiques. En fait, l'utilisation inadéquate des indicateurs de performance conduit à plusieurs anomalies, comme par exemple l'affaiblissement de la carrière pédagogique.

Mots clés : l'enseignement supérieur, gestion des carrières, classements universitaires, mesure de la performance