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# The relationship of perceived human resources management practices and innovative work behavior

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PSYCHOLOGIE DU TRAVAIL ET DES ORGANISATIONS

Par Gianluca ODOARDI

**THE RELATIONSHIP OF PERCEIVED HUMAN RESOURCES  
MANAGEMENT PRACTICES AND INNOVATIVE WORK  
BEHAVIOR**

Sous la direction de Professeur Adalgisa BATTISTELLI  
et de Professeur Riccardo SARTORI

Soutenue le 20/05/2016

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# **Titre : La relation entre les pratiques perçues de Direction de Ressources Humaines et le Comportement d'Innovation**

## **Résumé :**

Dans l'économie mondiale actuelle l'innovation est largement reconnue comme l'un des processus clés qui peuvent permettre le développement d'organisations. Cette thèse concentre l'attention sur le comportement innovateur des employés (IWB) et ses liens avec la perception de la gestion des ressources humaines (HRM). Plus précisément, les modèles de recherche explorent deux pratiques de HRM correspondant à l'apprentissage individuel et collectif et la participation à la prise de décision (PDM). Le choix de mettre l'accent sur deux pratiques est en lien avec les efforts des chercheurs dédiés à la perspective contingente. Par conséquent, l'expérimentation de plusieurs variables médiatrices a permis une meilleure compréhension de la relation entre les processus examinés. Cette thèse est également orientée à comprendre les facteurs psychosociaux mentionnés dans un contexte organisationnel assez inexplorés correspondant aux petites et moyennes entreprises. La première recherche explore la relation entre la perception des pratiques de HRM de l'apprentissage individuel et collectif, l'IWB et le rôle médiateur des normes et le climat propice à l'innovation. La seconde étude suppose que la perception de la pratique décisionnelle, conjointement avec le leadership participatif, est liée à l'IWB ; la relation indirecte est testée à travers le rôle de médiateur du climat psychologique pour l'innovation et le soutien de ses collègues. Ces résultats aident les chercheurs à diriger de nouveaux efforts dans la recherche sur le HRM. En plus, ils soutiennent l'optimisation des ressources investies dans l'innovation à travers la promotion de l'apprentissage et la PDM.

**Mots clés :** Comportement Innovateur des Employés ; perception de la Gestion des Ressources Humaines ; Apprentissage Individuel ; Apprentissage Collectif ; Participation à la Prise de Décision.

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# **Title: The relationship of perceived Human Resources Management practices and Innovative Work Behavior**

## **Abstract:**

In the globalized economies the innovation is widely recognized as one of the key processes that can allow the development of organizations. This thesis focuses the attention on the Innovative Work Behavior (IWB) and its links with the perception of Human Resources Management (HRM). More specifically, the research models explore two HRM practices corresponding to individual and team learning and the participation to decision-making (PDM). The choice to emphasize only two practices is in line with scholars' efforts dedicated to contingent perspective. Therefore, the experimentation of multiple mediating variables has allowed the better understanding of the relationship among the examined processes. This thesis is also oriented to understand the mentioned psychosocial factors in a quite unexplored organizational contexts corresponding to the small and medium enterprises. The first research explores the relationship among the perception of individual and team learning HRM practices, IWB and the mediating role of norms and supportive climate for innovation. The second study assumes that the perception of decision-making practice, conjointly with participative leadership, is related to IWB; moreover also the indirect relationship is tested through the mediating role of psychological climate for innovation and co-workers' support. These findings help scholars to direct new endeavors in HRM research. Moreover they support managers to optimize resources invested in innovation through the promotion of learning and PDM.

**Keywords :** Innovative Work Behavior; perception of Human Resources Management; Individual Learning; Team Learning; Participation to Decision-Making.

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## Résumé substantiel de thèse

Dans l'économie mondiale actuelle, la capacité à anticiper les besoins et les exigences des clients peut déterminer le développement ou le déclin des entreprises. Le haut degré de compétitivité oblige les organisations à mettre en œuvre simultanément plusieurs processus afin de stimuler leurs potentiels humains.

L'un des processus clés qui peut assurer la pérennité des entreprises est l'innovation. Dans la littérature, de nombreux efforts ont été employés pour comprendre l'effet de l'introduction de technologies innovantes sur la performance organisationnelle. Toutefois, dans les dernières décennies les chercheurs ont toujours plus attiré l'attention sur le rôle joué par le comportement innovateur au travail (IWB), ainsi que sur les relations entre les variables liées en termes d'antécédents et leurs conséquences (Anderson, Potočnik, & Zhou, 2014 ; Anderson, De Dreu, & Nijstad, 2004). Récemment, une partie importante de la recherche produite a pour but de comprendre comment l'entreprise peut inciter un comportement innovateur des employés pour faire face à de nouveaux défis comme le changement rapide des processus économiques, l'ouverture de nouveaux marchés et le processus d'internationalisation. De plus, le renouvellement des engagements scientifiques vise à élaborer des modèles empiriques englobant plusieurs variables liées à l'IWB avec un double objectif: le premier consiste à comprendre plus profondément la complexité des environnements organisationnels et, le second permet de montrer aux employeurs que les facteurs psychosociaux et les modèles peuvent améliorer le comportement innovant dans un contexte déterminé. Enfin, il est important de souligner que l'innovation est l'introduction de quelque chose de nouveau à un contexte ou rôle spécifique et qu'elle n'est pas strictement liée à la nouveauté absolue de l'élément innovant (King & Anderson, 2002). En effet, la mise en œuvre d'idées qui provoquent des avantages financiers ou sociaux à travers l'innovation peut être suggérée par l'application précédente de la même idée en d'autres circonstances.

Cette thèse, en s'appuyant sur les recherches antérieures de la littérature en psychologie du travail et des organisations, mais aussi en gestion et management, vise à comprendre les relations existantes entre les pratiques perçues de gestion des ressources humaines (HRM) et l'IWB. HRM et IWB bénéficient respectivement d'intérêt considérable dans la communauté scientifique, mais récemment seulement ces deux domaines ont été associées (Odoardi, Montani, Boudrias, & Battistelli, 2015; Sanders, Shipton, & Gomes, 2014). Toutefois, il est important de noter que la grande partie des documents universitaires se concentre sur les aspects liés à la mise en œuvre des pratiques de HRM plutôt que sa perception. Bien que dans la littérature la définition plus récente du comportement innovant est formulée par Anderson et ses collègues (2014), dans cette thèse la définition de West et Farr (1990) est adoptée car le premier considère conjointement la créativité et l'innovation. Au lieu de cela, la définition adoptée affirme que l'IWB est "l'introduction intentionnelle et l'application au sein d'une organisation des idées, des processus, des produits ou des procédures, qui sont nouveaux à l'unité d'adoption, visant à bénéficier de manière significative l'organisation ou de la société" (West & Farr 1990: 12). Selon cette argumentation, la promotion de l'IWB enferme l'adaptation de nouvelles solutions à des contextes spécifiques dans le but de surmonter les problèmes, de persuader ses collègues de soutenir les nouvelles idées et de mettre en œuvre les approches partagées. Par conséquent, les pratiques de HRM sont conceptualisées comme "une fonction symbolique en envoyant des messages que les employés utilisent pour donner un sens et pour définir la signification psychologique de leur situation de travail" (Bowen & Ostroff, 2004).

Ce travail de doctorat est fondé sur la nécessité de réduire l'écart assez inexploité dans les variables considérées. Ses contributions empiriques sont structurées dans deux études. Dans la littérature, de nombreuses publications ont souligné des systèmes de HRM, mais, selon Sumelius, Björkman, Ehrnrooth, Mäkelä et Smale (2014), ils ne doivent pas détourner les efforts dans la différenciation des pratiques simples, et dans l'approfondissement de

comment elles en sont perçues et quelles sont leurs contributions sur les résultats des travailleurs.

Le modèle délimité dans cette thèse de doctorat concourt à approfondir des nouveaux antécédents en méditant sur le test des deux pratiques perçues de HRM, à savoir l'apprentissage individuel et collectif et la participation à la prise de décisions (PDM). Les bases conceptuelles du modèle théorique proposé partent de publications depuis l'apprentissage et la prise de décisions, lesquelles sont bien enracinées dans la littérature, mais peu de tentatives pour les unifier dans le même cadre ont été mises en place. Des tentatives sont détectables dans la psychologie cognitive depuis Rolison, Hanoch et Wood (2011). Ils ont exploré le rôle de l'apprentissage et de la perception du risque dans la prise de décisions risquée selon l'âge de l'échantillon. De plus, l'environnement de centre de soin le programme basé sur l'apprentissage et l'amélioration aide les travailleurs à prendre une décision dans l'adaptation des directives de traitement pour la durée de vie quotidienne (Falzer & Garman, 2012). La structure du présente modèle théorique conceptualise la contribution simultanée de deux HRM sur la variable dépendante correspondant à l'IWB. Le choix de souligner ces deux pratiques correspond à la priorité déplacée des chercheurs de la perspective universaliste à la perspective contingente telle que cela a été rapporté dans l'état de l'art de Martin-Alcázar, Romeo-Fernandez et Sanchez-Gardey (2008). Les définitions adoptées d'apprentissage individuel et collectif les considèrent respectivement comme "la compétence, la capacité et la motivation individuelle à entreprendre les tâches requises" et comme "la dynamique de groupe et le développement de la compréhension commune" (Bontis, Crossan, & Hulland, 2002). En plus, la participation dans la PDM est conceptualisée comme le partage avec les autres collègues et dirigeants afin d'atteindre des objectifs communs (Knoop, 1991). Cette conceptualisation de la PDM est enracinée dans l'idée que l'apparition d'une nouvelle idée est liée à la possibilité donnée aux salariés d'externaliser leurs besoins et leurs opinions grâce à la participation à la PDM. Il a été décidé d'intégrer l'analyse de ces deux pratiques, elles peuvent

être évaluées par la perception individuelle, elles ont déjà reçu des contributions empiriques solides, elles devraient être liées directement et indirectement avec le comportement innovateur au travail innovateur, et il existe des mesures bien validées. En outre, le modèle proposé répond également à l'appel d'Anderson et ses collègues (2014) qui, dans leur état de l'art, encouragent les approfondissements de certains domaines de recherche peu développés. Bien que la présente thèse englobe différentes pratiques de HRM, l'expérimentation de plusieurs variables médiatrices est également appliquée permettant une meilleure compréhension de la relation entre les processus examinés. Souvent, les recherches ont exploré une ou plusieurs pratiques de HRM et les variables des résultats sans pour autant assez éclairer les constructions interposées et les processus intervenant (Piening, Baluch, & Ridder, 2014; Purcell & Kinnie, 2007). Dans ce cadre, la présente recherche suit l'appel de Tan et Mohd (2011) concentrant l'attention sur les liens indirects entre les pratiques de HRM et l'innovation. Outre, les pénuries d'études déjà mentionnées et ciblées, le temps est venu d'affiner notre connaissance des facteurs psychosociaux dans des contextes organisationnels assez inexplorés. En effet, les recherches empiriques sur l'IWB sont largement mises en œuvre en grande organisation en négligeant l'analyse dans les petites et moyennes entreprises (PME). En revanche, l'urgence d'intensifier la recherche dans les PME est représentée par les institutions européennes révélant qu'elles composent l'épine dorsale de l'économie européenne, pour atteindre la part de 99,8% dans l'environnement italien (Commission Européenne, 2013) dans lequel les deux études suivantes sont effectuées.

La première recherche explore la relation entre la perception des pratiques de HRM d'apprentissage individuel et d'équipe, le rôle de médiateur des normes et le climat favorable à l'innovation, une dimension du climat de l'équipe pour l'innovation (West, 1990). La première recherche pose les bases sur la littérature se référant aux pratiques de ressources humaines qui ont pour objectif le développement des connaissances et des capacités des employés qui, à leur tour, sont reliés à la capacité d'innovation (par exemple, Becker et

Matthews, 2008; Jørgensen, Becker, & Matthews 2009). Il est possible de supposer que l'apprentissage collectif peut encourager les employés à aller à la recherche de nouvelles perspectives, de recevoir plus de stimulus et d'échanger des informations et des expériences grâce à des possibilités d'interaction, par rapport à ce qui pourrait arriver si elles travaillaient seules. Les activités d'apprentissage de l'équipe, d'ailleurs, peuvent favoriser l'internalisation de nouvelles notions grâce à des possibilités d'échanges de connaissances entre pairs (Li & Hsieh, 2009). En tout cas, l'apprentissage individuel peut aussi agir de même puisque la recherche de nouvelles informations et de manière différente de travailler permet de répondre à la nécessité des travailleurs à apprendre dans l'immédiateté et à long terme afin d'actionner les comportements innovants. Par conséquent, les activités d'apprentissage individuel aident les travailleurs à chercher des lacunes spécifiques à combler par une formation ciblée ou à demander l'aide aux collègues. Comme mentionné précédemment, dans cette étude empirique l'attention est également portée sur l'étude du rôle de médiateur du climat au niveau de l'équipe (Sumelius, Björkman, Ehrnrooth, Mäkelä, & Smale, 2014). La dimension du climat de normes et de soutien à l'innovation est définie comme un ensemble d'attentes et supports pratiques visant à promouvoir un comportement innovateur (West, 1990). Il est prévu que la dimension climatique de normes et de soutien à l'innovation pourrait jouer un rôle médiateur parce qu'elle peut favoriser le partage de nouvelles informations ainsi que la discussion sur les meilleures façons de travailler et sur les erreurs à éviter. Les données ont été collectées à partir de 191 employés. Parmi les participants, 34,8% sont de sexe féminin. L'âge a été recueilli sur cinq tranches et la plus nombreuse en comprend 90 (47,1%) employés âgés de 36 et 45 ans. La présente étude a montré que les deux perceptions considérées des pratiques d'apprentissage sont directement et indirectement liés à l'IWB. On croit que la perception des pratiques d'apprentissage individuel peut stimuler les employés à élargir activement leurs connaissances et leurs capacités par le biais de leur exploitation et les contributions des pairs afin d'utiliser les nouveaux savoir-faire pour adopter un comportement innovateur. Plus

précisément, en favorisant le développement d'un apprentissage constant permet d'entrer en contact mutuel avec de nouvelles connaissances inhérentes à l'expérience professionnelle de chaque travailleur. En outre, la perception des pratiques d'apprentissage individuel peut être également considérée comme un effort de l'entreprise d'investir sur ses propres travailleurs qui, à leur tour, peuvent se sentir plus à l'aise à assumer les risques en termes de proposition et mettre en œuvre de nouvelles idées. En outre, le lien entre la perception des pratiques HRM d'équipe d'apprentissage et l'IWB dépend du climat de support à l'innovation puisque les travailleurs pourraient optimiser les avantages de l'activité d'apprentissage en groupe à travers les expériences précédentes des collègues.

La deuxième étude suppose que la perception de la pratique de PDM, conjointement avec le leadership participatif, est liée à l'IWB; en outre également la relation indirecte est testée à travers le rôle médiateur du climat psychologique pour l'innovation et le soutien de ses collègues. On pense que pendant l'actionnement de cette pratique de gestion des ressources humaines, l'augmentation de la diversité d'opinion peut transmettre la perception que les idées des individus sont significatives; à son tour, l'obtention d'un consensus largement partagé est plus probable et les travailleurs sont plus stimulés et engagés à investir plus d'énergie pour innover (West & Anderson, 1996; Hülsheger, Anderson, & Salgado, 2009). Par conséquent, la PDM peut favoriser l'introduction de l'innovation dans des contextes organisationnels (Zoghi, Mohr, & Meyer, 2007) et permet la circulation des idées et des informations (Adel Mohammad, 2010). L'échantillon de cette seconde recherche englobe 449 employés: ils sont répartis ainsi : 183 (40,8%) femmes et 258 (57,5%) hommes; en ce qui concerne l'âge, la majeure partie d'entre eux, à savoir 192 (42,8%) travailleurs, déclare avoir entre 36 et 45 ans. Afin de tester les hypothèses, le modèle d'équation structurelle (Bollen, 1989) est calculé et le modèle empirique révèle des indices satisfaisants. À partir des résultats il peut être déduit que les employeurs qui utilisent le style participatif obtiennent plus de chance d'encourager les travailleurs à produire des changements grâce à l'écoute de leurs

opinions et à la collecte de leurs contributions. Le soutien des collègues est essentiel car il est fourni par ceux qui ont le même niveau de hiérarchie et ils savent très bien quels sont les problèmes liés aux activités du travail (Chiaburu & Harrison, 2008). L'absence de formalité et de l'autorité entre collègues peut les inciter à accepter réciproquement les suggestions pour améliorer les résultats dans le processus d'innovation. En outre, la participation à la PDM peut conduire la perception que le climat organisationnel est orienté à innover car les directives de l'entreprise ne sont pas imposées par la direction, mais sont discutées avec les différentes parties intéressées de l'organisation. De cette façon, les employés se sentent plus responsables et sont plus orientés à chercher de nouvelles stratégies pour travailler.

A côté des conclusions spécifiques tirées des études individuelles, des conclusions générales peuvent être extraites. L'objectif principal de cette thèse concerne la compréhension de ce que mesurent les pratiques de HRM en relation directement et indirectement l'IWB; ces résultats permettent aux chercheurs et praticiens de diriger de nouveaux efforts dans la recherche en HRM et de soutenir les chefs d'entreprise, d'optimiser les ressources investies dans l'innovation à travers la promotion de l'apprentissage et des activités de PDM. De plus, en prêtant attention aux suggestions d'Anderson et ses collègues (2004) inhérentes à la routinisation de la recherche sur l'innovation, plusieurs préconisations ont été proposées en soulignant le rôle de la perception des travailleurs des pratiques de HRM au-delà de leur mise en œuvre. En troisième lieu, étant donné que la grande partie de la recherche sur les pratiques de HRM plonge ses racines dans la littérature managériale, les deux études expliquées sont soutenues par autant de modèles englobant les variables uniquement psychosociales.

Enfin, des suggestions proposées pour les employeurs et les praticiens peuvent être mises en évidence. La période de crise économique, dont l'Europe se prépare à sortir, a considérablement modifié la structure interne des organisations. Beaucoup de directeurs ont été confrontés à la nécessité de réduire le coût de possession de leur entreprise et, dans le même temps, l'expérimentation des solutions susceptibles de favoriser l'ouverture de

nouveaux marchés. L'innovation peut être une réponse efficace à la survie de l'entreprise, mais la mise en œuvre d'un comportement innovateur des travailleurs reste une opération délicate qui exige des efforts concernant la mise en œuvre et les résultats. C'est pourquoi la direction est appelée à créer un dialogue constructif entre les différents acteurs impliqués dans le but de combiner les multiples ressources, les connaissances, les compétences et les aptitudes. Afin de renforcer le capital d'innovation d'une entreprise, la direction doit planifier sa mission et ses stratégies en incluant le processus d'innovation sur une base continue et non sporadique en fonction des situations spécifiques. Pour ce faire, comme il a été montré, le climat ciblé peut jouer une valeur clé. Plus précisément, il peut non seulement améliorer les performances innovatrices des employés, mais aussi encourager les échanges fréquents entre les travailleurs et les superviseurs afin d'avoir des évaluations constantes sur leurs actions et leurs idées à mettre en œuvre pour obtenir des résultats économiques plus satisfaisants sur les différents types d'activités durant le travail. Dans la littérature, il est constaté que la mise en œuvre des pratiques de HRM implique l'investissement des ressources à court, moyen et long terme. Sels et ses collègues (2006) observent que, en particulier à court terme, les petites entreprises montrent une réduction de la création de valeur car leurs employés visent à consacrer leurs efforts dans les activités considérées comme non essentielles à leur travail. En tout cas, parmi ces activités, étiquetées contextuelles par opposition à celles de base (Borman & Motowidlo, 1997), peuvent être détectable des comportements du développement personnel et des comportements innovateurs. Les employeurs devraient accorder de l'attention sur l'utilisation du temps par les travailleurs afin de contrôler sa distribution sur les différents projets et, par conséquent, les résultats de l'organisation (Yakura, 2002; Evans, Kunda, & Barley 2004). Cependant, la façon dont cela a été mise en évidence dans cette thèse, la prévision de la gestion en recourant à des pratiques de HRM peut être récompensée au long terme en référence à la concurrence et l'optimisation des processus internes.

**A Valeria e alla tua adamantina certezza in Noi**

**A Valerio e al tuo immancabile supporto**

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## **Introduction**

In the last decades the capacity to understand and anticipate market developments has emerged always more often as a *conditio sine qua non* for competitive organizations. In order to maintain a high degree of competitiveness, firms must manage and execute multiple strategies and initiatives targeted toward like the catching of environmental stimulus and threat, the valorization of different strengths and resolution of weaknesses, and the awareness of the potential of their human resources. The declared actions can be employed in a synergic manner in prompting the innovation in organizational contexts, one of the most functional variables related to the competitiveness.

Innovation is viewed as a prominent variable in organizational development by multiple economic, managerial and social scholars. Although this research area is born to investigate the effect of innovative technologies, more recently it has also gained academic interest the related psycho-social factors because allows the flushing out and the redefining of internal potentialities to face actual economic situation. More specifically, internationalization processes, opening new markets and economic crisis impose the overcoming of traditional practices of work for the benefit of the search for innovative solutions. The finding of innovation advantages is effortful and time consuming. In order to optimize efforts, scholars' attention has produced different points of analysis without large and definite agreement for different aspects. However, from the literature examined, it could be deduced that the intrinsic value of innovation is unfolded through the employment of a more general strategies impacting the enhancement of firm situation at different levels; so it's crucial the fostering of innovation along the organizational life and encompassing individual and collective efforts. To reach this aim, managers should be susceptible to gather employees' suggestions, get involved in a perspective of change, encourage innovative behavior, encourage activities of

innovation and development and evaluate the pros and cons of innovations with those directly concerned.

It's important to underline that innovation is the introduction of something new to a specific context or role and is not strictly related the absolute novelty of innovative element (King & Anderson, 2002). Indeed, the implementation of ideas that makes financial or social benefits through the innovation can be originated by previous application of the same idea in other circumstances; conversely, the simple ideation of innovative strategy without the research of its practical application can't be considered an innovation since that idea remains at abstract level without repercussions on the hypothetical application system (King & Anderson, 2002).

## **Chapter 1 Theoretical Review of Innovative Work Behavior literature and Human Resources Management Practices**

### **1.1 Innovative Work Behavior in Organizational Contexts**

Since the ductility of the concept, innovation is suitable to multiple typologies of concepts like process innovation, environmental innovation, product innovation, organizational innovation and drivers of innovation (e.g., Triguero, Moreno-Mondéjar, & Davia, 2013).

The innovation, conceived like a psychosocial process, can be conceptualized as a complex process starting with the research of a new idea and aimed to reach the industrial application (Gupta, Tesluk, & Taylor, 2007; Rogers, 2010; Spontoni, 2005). Different theoretical approaches of multiple disciplines have flowed in conceptualizing differently the innovation since there is no scientific agreement. Recently, an authoritative and integrative definition is been proposed: "Creativity and innovation at work are the process, outcomes, and products of attempts to develop and introduce new and improved ways of doing things. The creativity stage of this process refers to idea generation, and innovation to the subsequent stage of implementing ideas toward better procedures, practices, or products. Creativity and innovation can occur at the level of the individual, work team, organization, or at more than one of these levels combined, but will invariably result in identifiable benefits at one or more of these levels-of-analysis" (Anderson, Potočnik, & Zhou, 2014: 1298). The given definition is based on a wide review encompassing the innovation and creativity areas since its authors affirm that the actual literature state of the art don't allow to draw definitively conclusion about the boundaries of the two variables. Actually, the other one remarkable definition is been conceptualized by West and Farr (1990). This definition is considered the first appeared in the literature of psychology of work and organizations and it's been adopted in this study because has obtained remarkable scientific evidences. According with this definition the innovative work behavior (IWB) is "the intentional introduction and application within an

organization of ideas, processes, products or procedures, new to the unit of adoption, designed to significantly benefit the organization or wider society" (West & Farr, 1990: 12). The choice to adopt in this thesis the West and Farr's (1990) definition is rooted in the following three reasons: innovative work behavior is been delineated since its starting until its realization, the definition has a huge theoretical and empirical supports and reveals substantiated external validity since its exploration in researches set in many countries. The promotion of IWB encases adapting new solutions to specific contexts in order to overcome problems, persuading colleagues to support the new ideas and putting into effect the shared approaches.

### 1.2 Three level of innovation and related antecedent variables

The innovation in psychological and managerial literature is studied on three levels: individual, group and organizational one (Table 1). Following the always more suggestions to increase the understanding of the relationships between the mentioned levels (e.g., Anderson, De Dreu, & Nijstard, 2004), recently some studies have also tried to lay the foundation in order to guide the research toward new frameworks (e.g., Gupta et al., 2007; Chen, Farh, Campbell-Bush, Wu, & Wu, 2013). However, as can be noticed by different reviews (Anderson et al., 2014; 2004), the level to which has been devoted the great part of research efforts is the individual one.

Table 1.

*Subdivision by organizational levels of the variables related to innovative behaviour.*

Individual level	Group level	Organizational level
Personality (George & Zhou, 2001; Frese, Teng, & Wijnen, 1999)	Team commitment (West & Wallace, 1991) Task and goal interdependence	HR practices (e.g., Sanders & Yang, 2015; Fu, Flood, Bosak, Morris, & O'Regan, 2015)

Autonomy (Axtell, Holman, Unsworth, Wall, Waterson & Harrington, 2000)	(Leung, Deng, Wang, & Zhou, 2015; Van der Vegt & Janssen, 2003)	Social network (e.g., Kijkuit & Van den Ende, 2010)
Cognitive differences (Ettlie, Groves, Vance, & Hess, 2014)	Longevity (West & Anderson, 1996)	Knowledge stock and transfer (Operti & Carnabuci, 2014; Van Wijk, Jansen, & Lyles, 2008)
Knowledge (Akhavan, Hosseini, Abbasi, & Manteghi, 2015)	Group dissimilarity (Van der Vegt & Janssen, 2003)	structure (Damanpour & Schneider, 2006; Shipton, West, Parkes, Dawson, & Patterson, 2006)
Job demand (Janssen, 2000)	Team collaboration (West & Wallace, 1991)	Organization strategy (He & Wong, 2004)
Motivation (Odoardi, 2015; Montani, Battistelli, & Odoardi, 2015)	Team climate (De Dreu & West, 2001; West, 1990; West & Anderson, 1996)	Size (Camisón-Zornoza, Lapiedra-Alcamí, Segarra-Ciprés, & Boronat-Navarro, 2004)
Job satisfaction (West, 1987)	Task conflict (e.g., De Dreu, 2006)	Presence and exploitation of resource (Srivastava & Gnyawali, 2011)
Span of control (Axtell et al. 2000)	Team leadership (e.g., Hogg & van Knippenberg, 2003)	Climate (Patterson et al., 2005; Baer & Frese, 2003)
Image outcome expectation (Yuan & Woodman, 2010)		Culture (Elenkov & Manev, 2005;)
Trust in organization (Ng & Lucianetti, 2015)		Environmental influence (e.g., Damanpour, 2010)
Transformational leadership (e.g., Kang, Solomon, & Choi, 2015; Afsar, Badir, & Saeed, 2014)		Innovation diffusion (Ferlie, Fitzgerald, Wood, & Hawkins, 2005)
Transactional leadership (e.g., Kang et al., 2015)		Transformational leadership (Ling, Simsek, Lubatkin, & Veiga, 2008)
Supportive leadership (e.g., Janssen, 2005)		
Leader-member exchange (e.g., Denti & Hemlin, 2015)		
Colleagues' support (Prieto & Pérez-Santana, 2014)		
Feedback (Battistelli, Montani, & Odoardi, 2013)		
Minority influence (De Dreu & West, 2011)		

### **1.3 Measurement issues related to innovation research**

Along the time and across the disciplines, different and often tailor-made scales (Anderson et al., 2014) are been developed to assess innovation. The multiple operationalizations of individual innovation are also be affected by the conceptual starting point since, for example, it's been considered as cognitive style (Kirton, 1976) or related to the personality (Hurt, Joseph, & Cook, 1977). The behavioral perspective of innovation postulates different dimensions that make it up. Following this orientation Kanter (1988) has published her conceptualization of innovation process structured on different stages; based on this theoretical contribution, Scott and Bruce (1998) developed the first scale to measure IWB. Therefore, one of the models often used is the activity-stage model (e.g., King & Anderson, 2002) that decomposes the process into multiple parts corresponding to the required activity to reach the innovation. However, in a multidimensional conceptualization the two phase model (generation and implementation of idea) has received great theoretical and empirical support (Anderson et al., 2014; 2004).

Although the IWB is conceptually treated as multi-dimensional, empirical studies have employed monodimensional scales. Trying to go further, De Jong and den Hartog (2010), resume and compared the existing scales reveling that, although with a different number of items, major efforts are been dedicated to build scales assessing one dimension (e. g., Basu & Green, 1997; Janssen, 2000) compared to the ones aimed to measure two dimensions (Krause, 2004; Dorenbosch, van Engen, & Verhagen, 2005). However three scales (Janssen, 2000; Burpitt & Bigoness, 1997; Scott & Bruce, 1994) benefit from greater scientific support. These scales, as the greater part of instruments, rely on workers' self-rating and are been employed in all the three level of analysis as well as in multilevel researches; however, taking into consideration this state and the statistical errors related like common method bias (Podsakoff, MacKenzie, & Podsakoff, 2012; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) more recent studies have overcome this limitation and answered to the call (e.g., De Jong & den Hartog,

2010) direct to consider also the perceptions of leaders, colleagues and peer rating (e.g., Yuan & Woodman, 2010) in evaluating the innovative work behavior.

#### **1.4 Overview of models available in literature**

Anderson and colleagues (2014) affirm that three theoretical perspective of innovative behavior are detectable: componential theory of organizational creativity and innovation, theory of climate for innovation and ambidexterity theory.

The componential theory of organizational creativity and innovation is based on Amabile's (1997) study in which is claimed that work environment can prompt individual and team creativity that in turn fosters organizational innovation. Moreover if on the one hand the creativity at individual and collective level is influenced by the intrinsic motivation, expertise and creative-thinking skill, on the other hand the innovation is developed at organizational level and is influenced by the organizational motivation to innovate, the managerial practices and the resources (Amabile, Conti, Coon, Lazenby, & Herron, 1999). Referring to the organizational variables, Amabile's (1997) conceptualization claims that managers should lead the innovation through motivational aspects like the orientation toward the risks, the attribution of value to the creativity and to the innovation, the development of the feeling of pride and enthusiasm in relation to what workers are engaged, and the elaboration of strategy focused to the future. At the same time, the developing of the innovation is prompted by active communication, fair assessment of accomplished tasks, recognition and reward for creative works while it is curbed by unproductive criticism, high control by leaders, formal structures and political problems. The other two variables that can have an effect on innovation at organizational level are resources and management practices. Amabile (1997) affirms that key resources are the right time to develop the innovation, the workers' expertise, the financial and material resources, the opportunity to attend training sessions and the

presence of relevant information. Lastly, the management practices that should be employed are inherent, for example, to the ability in creating effective work groups encompassing employees with different skills, in the actuation of supervisory encouragement, in the application of the appropriate match between the workers and the tasks assigned, and in developing the communication with the supervisors.

The second theory is conceptualized by West (1990) in which the innovation process is managed at team level and related variables are explored. West (1990) affirms that the development of innovation is encased in a four steps circle: recognition, initiation, implementation and stabilization. The recognition is the phase in which the organization chooses to adopt and insert external innovation in its work environment; the initiation phase starts with the spread of the selected innovation among employees that adapt and develop the innovation according with their contextual situations; the implementation phase is related to the actuation of the innovation and, lastly, the stabilization phase implies the standardization and the routinization of the innovation. This circle is influenced by four antecedent variables that are vision, task orientation, support for innovation and participative safety. More concretely, the related definitions are reported: the vision is defined like "an idea of a valued outcome which represents a higher order goal and a motivating force at work" (West, 1990: 310); the task orientation is conceptualized like "a shared concern with excellence of quality of task performance in relation to shared vision or outcomes, characterized by evaluations, modifications, control systems and critical appraisals" (West, 1990: 313); the support for innovation is surmised as "the expectation, approval and practical support of attempts to introduce new and improved ways of doing things in the work environment" (West, 1990: 38); lastly, the participative safety is defined like "a construct in which the contingencies are such that involvement in decision-making is motivated and reinforced while occurring in an environment which is perceived as interpersonally non-threatening" (West, 1990: 311).

Finally, the ambidexterity theory is conceptualized by Bledow, Frese, Anderson, Erez and Farr (2009) and juxtaposes the innovative behavior with the management of conflicting demands at different organizational level. Bledow, Frese, Anderson, Erez and Farr (2009) propose a new approach to explore the innovation process that they call "dialectic" moving toward three goals: to reach a more valid conceptualization that could be considered useful for the scholars and practitioners; to explain why multiple pathways can prompt the innovation process; to understand the role of conflicting demands in the development of innovation; to go beyond the static conceptualization of innovation process. Bledow and colleagues (2009) oppose their theory with the dichotomous one. More specifically they notice that the latter perspective manages separately the idea generation phase and the idea implementation one not only in terms of time but also in terms of workers. Therefore the staticity of this theory supposes that the end of the innovation process flows in the structuration of the new idea in the organizational assets. Instead the dialectic perspective considers that the two phases are intertwined and reciprocally dependent. Indeed the creativity is necessary not only in the starting step but also during all the process in order to manage incumbent problems that could happen; moreover it can allow reaching different aims and outcomes according with internal and external organizational factors (Bledow et al., 2009). Dialectic perspective sets the stage of conflicting demands and conflicting activities by which tensions (Lewis, Welsh, Dehler & Green, 2002), paradoxes (Miron, Erez, & Naveh, 2014), dilemmas (Benner & Tushman, 2003), contractions (King, Anderson, & West, 1991) and other aspect referring to the dark side of innovation process (Anderson & Gasteiger, 2007) originate. Tensions managed in organizations can concur in shifting routine performances to innovation actions, in activating different conflicting antecedents in order to trigger appropriately the idea generation and the innovation implementation, and in paving incremental or radical innovation.

## **Chapter 2 Psychosocial perspective of Human Resources Management Practices**

Nowadays the speed with which the productive and economic world is changing encourages scholars and professional consultants' efforts to enhance the global firm competitiveness stimulating employee's competence, knowledge, skills and behaviors. The competitive advance is a pivotal factor to gain market share, to create incomes and revenues, and to generate "isolation mechanism" namely a special differentiation that makes hard to be emulated by competitors (Stoffers, 2010). Moreover, especially in the last years, the optimization of human resources is been crucial also for a second reason represented by the actual economic crisis. The implications of these socio-economic factors have two types of repercussions inherent, on one side, the tightening of struggle among firms in launching new products and services, and, on the other one, in establishing new work conditions, employment contracts, and management of psychosocial constructs connected with individual and organizational outcomes. In the last 30 years psychological and managerial publications have grappled with the understanding of the potential effects of human resources management practices at different organizational levels (Sanders, Shipton, & Gomes, 2014). It's believed that these practices can prompt the businesses competitive edge leveraging on psychosocial processes and constructs like workers' commitment and on intellectual capital acquisition and development (Becker & Huselid, 1998). In HRM literature three flows of research are noticed corresponding to the systems of HRM practices like high-performance work practices (HPWPs) and strategic human resources management, the effects of specific HRM practices as recruitment and selection (Sanders et al., 2014), and, lastly, the sustainable HRM (Kramar, 2014).

Moreover Katou, Budhwar and Patel (2014) have recently summarized the latest developments of HRM studies splitting the contribution in two paths corresponding to the research of the best practices, consisting of the mutually independence between enterprises

environment and HRM practices focused to encourage organizational performance (Huselid & Becker, 1996) and the best fit, explained as the connection between specific HRM practices and organizational context (Schuler & Jackson, 1987; Wright & Snell, 1998). Therefore Katou and colleagues (2014) believe that the prominent approach to HRM has shifted the attention by single HRM practices to HRM systems of practices. In support of this change of focus, the meta-analysis of Combs, Liu, Hall and Ketchen (2006) drawn on 92 studies demonstrate that alone HRM practices are less effective rather considering them conjointly. According with this assertion, many studies that have followed different conceptualizations and have proposed articulated HRM systems of practices are detectable. These different theoretical choices are suggested by the attempt to shape the right configurations of HRM practices in relation to different contexts and organizational expected outcomes. For example Abdullah, Wahab and Shamsuddin (2010), following the approach of Mondy (2008), claim that HRM practices consist of five functional areas that are compensation, human resource development, recruitment and selection, safety and health and employee and labor relations. The same number of HRM practices is found in Tan and Mohd (2011) which related career management, performance appraisal, training, reward system, and recruitment to organizational innovation through management effectiveness. Instead to understand the main practices related to work environment, Verburg, Hartog and Koopman (2007) have proposed a model of configurations of HRM practices; more clearly HRM practices are been split in four bundles namely professional, bureaucratic, market and flexibility one according with the continuum of individual versus organizational responsibility for employability, and the compliance versus commitment.

In order to structure the previous articles and orientate the new ones, Bowen and Ostroff (2004) have proposed their conceptualization based on HRM practices definition according to which they "can be viewed as a symbolic function by sending messages that employees use to make sense of and to define the psychological meaning of their work

situation". Moreover the two authors claim the difference between the previous literature focused on the *content* of HRM system and the necessity to better explore the *process* of a HRM system; the definition of the two concepts proposed are, respectively, the "individual practices and policies intended to achieve a particular objective" and "how the HRM system can be designed and administered effectively by defining metafeatures of an overall HRM system" (p. 206). The two scholars believe that their framework can prompt organizational performance through the co-variation principle of attribution theory (Kelley, 1967). Indeed the messages conveyed through HRM practices and characterized by consensus, distinctiveness and consistency promote the workers' shared interpretation of the practices themselves; then, the HRM system could be perceived strongly and the implemented practices can flow in the sought effects. The explained conceptualization is been operationalized and has received psychometric support (Coelho, Cunha, Gomes, & Correia, 2012). Moreover other researches have increased its external validity through a study on Chinese hotels (Li, Frenkel, & Sanders, 2011) and Dutch hospitals (Sanders, Dorenbosch, & De Reuver, 2008). Although Bowen and Ostroff (2004) central article explores the difference between HRM process and content, other scholars clinch the necessity to explore also the existing divergence between structural implementation of HRM practices and workers' perception of them (Kehoe & Wright, 2013; Sanders et al., 2014; Wright & Nishii, 2013; Wright & Nishii, 2006). The articulated relation is well explored in Piening, Baluch and Ridder (2014) that, via multiple-case-study design, state the facilitating circumstances to promote the fit among intended, implemented and perceived HRM. At the state of the art investigations on intended and implemented HRM practices are prominent and these studies have deeply investigated the relationships with different measurements of performance (e.g., Green, Wu, Whitten, & Medlin, 2006; Chang & Huang, 2005). Recently a meta-analysis has confirmed the influence of HPWPs on performance remarking on the necessity to increase the publications based on longitudinal researches (Combs et al., 2006) as well as on assumption of different points of

view, gathering of differentiated sources and exploration of proximal outcomes (Guest, 2011; Wall & Wood, 2005; Paauwe, 2009).

## **2.1 Principal definitions of Human Resources Management Practices and related variables**

In literature different definition of HRM are detectable. One of the most appreciated was formulated by Wright and McMahan (1992) that define it like the planned HR deployments and activities aimed to enable the firm to reach its goals. The substantial consideration here offered is related the achieving of performance goals or organizational effectiveness through the arrangement of multiple practices.

Armstrong (1992) claims that HRM practices are related to the adoption of particular attention toward the management of workers spread along the time with the objective to increase organization competitiveness. One other definition is proposed by Bratton and Gold (2003) that are more focused on the employment relations and the prompting of employees' motivation, perception, behavior and ability. Lastly, one of the more inclusive and broad conceptualization affirms that the HRM practices are inherent the firm exploitation of the different workers' competences, knowledge and abilities in order to acquire the advantage on the competitors; in this view the reaching of this goal is strictly related to the creation of a specific set of practices reciprocally linked (Pettigrew & Whipp, 1991).

The emergence of different theoretical perspective is also related to the lack of theory about the HRM, the main outcome explored, i.e. the performance and their reciprocal connections (Guest, 1997). However, the aim of this thesis isn't to appreciate the HRM practices in relation to global models but in relation to specific practices. For this reason, targeted definitions are presented in the relative involved article.

In order to make the point of state of the art, Boselie, Dietz and Boon (2005) have collected and analyzed the main HRM articles published in the period starting to 1994 to 2003. Their analysis allows noticing that the recurrent HRM practices studied are 26, namely, (1) training and development, (2) contingent pay and rewards, (3) performance management, (4) recruitment and selection, (5) team working and collaboration motivation, (6) direct participation, (7) "good" wages, (8) communication and information sharing, (9) internal promotion opportunities and labor market, (10) job design, (11) autonomy and decentralized decision-making, (12) employment security, (13) benefits packages, (14) formal procedures, (15) HR planning, (16) financial participation, (17) symbolic egalitarianism, (18) attitude survey, (19) indirect participation, (20) diversity and equal opportunities, (21) job analysis, (22) socialization, induction and social activities, (23), family-friendly policies and work-life balance, (24) employee exit management, (25) professionalization and effectiveness of the HR function/department, (26) social responsibility practices.

In literature a growing number of publications aimed to explore the complex picture of the HRM role on positive work outcomes are also detectable. Some scholars have already laid the foundation to inquire into new directions allowing to affirm that time is ripe to explore also other work outputs. Until now HRM practices are been related to organizational commitment (Macky & Boxall, 2007; Kooij, Guest, Clinton, Knight, Jansen, & Dikkers, 2013; Innocenti, Pilati, & Peluso, 2011; Baptiste, 2008; Van De Voorde & Beijer, 2015), affective and continuance commitment (Innocenti, Peluso, & Pilati, 2012), creativity (Ehrnrooth & Björkman, 2012), financial outcomes, human capital, motivation and voluntary turnover (Jiang, Lepak, Hu, & Baer, 2012), organizational citizenship behavior (Alfes, Shantz, Truss, & Soane, 2013), organizational fairness (Kooij et al., 2013), service quality (Chand, 2010), trust in management (Macky & Boxall, 2007), work-life balance (Baptiste, 2008) and, finally, job satisfaction (Baptiste, 2008; Innocenti et al., 2012; Macky & Boxall, 2007; Kooij et al., 2013; Innocenti et al., 2011) and customer satisfaction (Chand, 2010).

## **2.2 Review of models encompassing single or multiple Human Resources Management Practices**

Boselie and colleagues (2005) retain that the great part of empirical research isn't based on structured theories but just is aimed to find relationship among HRM practices and other variables. However two dominant theoretical frameworks are detectable: the contingent framework and the resource-based view of the enterprises. The conceptual difference consists in putting the emphasis on the organizational environment and organizational system for the former, and on the workers considered as irreplaceable resources for the latter. In these theoretical frameworks the HRM practices aren't considered inimitable resources since they can be replied in other organizational contexts but are valued as the instrument with which employees can provide substantial advantage (Boxall & Steeneveld, 1999; Wright et al., 1994).

The HRM practices are often been related to the creation of value like performance and innovation. In this direction are been directed the effort of Boselie and colleagues' (2005) and Kang, Morris and Snell' (2003) models. More specifically the first model links the function of workers' motivation, opportunity to participate and ability aimed to reach the performance (AMO theory; Appelbaum, Bailey, Berg, & Kalleberg, 2000) to the high-performance work systems. The authors claim then that HRM system that prompts employees' psychosocial aspects can favor the firm goals. The second model is conceptualized by Kang et al. (2003) that start from the HR architecture model of Lepak and Snell (1999). HR architecture considers workers as the main resources to create value in organizational context through the management and allocation of human capital. The contribution of Kang et al. (2003) consists in extending this model with the introduction two frameworks of relational archetypes corresponding to entrepreneurial and cooperative; these two archetypes act in a

different way since the former incentives the creation of value from external partnerships and the latter enhances the creation of value from internal partnerships.

Liu, Combs, Ketchen and Ireland (2007) has reviewed HRM literature carrying out an inclusive theoretical model encompassing the main HRM practices. The scholars regroup the practices in three sets corresponding to the 1) knowledge, skills and abilities enhancing practices, 2) motivation-enhancing practices and 3) empowerment-enhancing practices. In turn the first group includes the compensation level, training and selection, the second one comprehends the incentive compensation and the internal promotion, and the last one comprises the grievance procedures, participation programs, flextime and employment security. Although this model doesn't benefit of empirical support, its utility is twofold: firstly it concur in suggesting to scholars and practitioners to explore the combined value of different HRM practices; secondly, the model suggests that the intersections of the aforementioned three sets is the foundation of HRM planning that correspond to how organizational leaders exploit HRM practices to reach firm goals.

Among the existing models, the one proposed by Katou (2008) try to encompass variables from macro to micro level. Although this model hasn't empirical support, it links HRM practices with organizational financial performance paying attention to HRM practices antecedents like external and internal environment and other contingencies and intermediate variables as workers skills, attitude and behaviors.

## **Chapter 3 Presentation of the research model**

### **3.1 Theoretical starting point of the macro-model**

The theoretical models analyzed in this thesis aim to deep two HRM practices, corresponding to the perception of individual and team HRM learning practices and participation in decision-making, that have already gained broad attention in past studies (Boselie et al., 2005). These three practices are defined respectively: 1) the "individual competence, capability, and motivation to undertake the required tasks" (Bontis et al., 2002: 443); the "group dynamics and the development of shared understanding" (Bontis et al., 2002: 443); and the sharing of decision-making with other co-workers and leaders in order reach common objectives (Knoop, 1991). Although these mentioned practices are well rooted in literature, only few studies have tried to explore their conjoint effect on dependent variables. Among these exception the research of Jitwasinkul, Hadikusumo and Memon (2016), Pelzer, Geertman and van der Heijden (2016) and Vallejo and Wehn (2015), Rolison, Hanoch and Wood (2012) and Falzer and Garman (2012) are remarkable. More in detail, Jitwasinkul and colleagues (2016) using the Bayesian Belief Network like framework, measure some aspects of learning and decision-making revealing that these two variables can improve workers' safe work behaviors in construction industry. Instead, considering the concept of Planning Support Systems, defined as "geo-information technology-based instruments that incorporate a suite of components that collectively support some specific parts of a unique professional planning task" (Geertman, 2008: 217), Pelzer and colleague (2016) found that its applications are related to both learning and group decision-making, while Vallejo and Wehn (2015) notice that the implementation of capacity development project in organizational context is based on different interventions like the promotion of experiential learning and that is in turn connected with the enhancement of decision-making. Some attempts are detectable also in cognitive psychology since Rolison and colleagues (2012) have explored the role of learning and perception of risk in risky decision-making according with the age of the sample. Lastly, in

care center environment, program based on learning and improvement facilitates workers to take decision in adapting treatment guidelines to daily working life (Falzer & Garman, 2012).

As already reported, looking at the review conducted by Boselie and colleagues (2005), the main HRM practices are detectable. Based on this review, two top practices are been selected namely the learning practices at individual and group level practices and the participation to decision-making one, and employed in the follow two empirical studies. This choice is carried out because the two variables (1) can be assessed through the individual perception, (2) have already received strong empirical contributions, (3) are expected to be linked directly and indirectly with the innovation behavior and (4) are available well-validated measures.

Considering the difference between the exploration of specific HRM practices and the HRM systems, the emphasis of this thesis is directed to the former. While in literature HRM systems are often be used to understand the relationship with performance (e.g., Delaney & Huselid, 1996), the employment of specific practices allows to explore more precisely the relationships attended since focused scales are administered. Anyway this statement doesn't exclude the conjointly application of different practices in the same context. By way of example and as stressed by Liu and colleagues (2007), the right application of selection practice can affect different psychosocial variables like organizational commitment and job satisfaction since allows to recruit workers with selected characteristics. However, although the selection is a crucial process to satisfy the fit between workers' contributions and organization's needs, the maintenance of high level of performance request the application of other HRM practices. More precisely, the adoption of learning practices can encourage the better employees not only to specialize themselves in their job activities but also to aim to get ahead in the corporate hierarchy. Simultaneously, the participation of decision-making practice can feel important the single contributions with positive repercussion on exchange of knowledge and loyalty to the company.

### **3.2 Innovative aspects of the research**

The present research model lays the foundation on the review of HRM practice and IWB literature but also on the research hypothesis rooted in the following two studies. However the choice to employ the two selected practices is related to the conviction that they can in parallel incentive innovative behaviors. This belief is rooted in the conceptualization that particularly the skilled workers can participate more actively in decision-making processes and in turn, can take better decisions (Wright, McCormick, Sherman, & McMahan, 1999). The involvement in these processes allows discussing, comparing and exchanging ideas and opinions among employees about tasks and job-related concerns (Liu et al., 2007); ultimately the flow of discussions can be also relevant to detect the needs for professional update or developments targeted at the group level or individual through the implementation of learning practices. Ascertained that learning and participation to decision-making practices can be mutually functional, they can also promote the adoption of innovative behaviors. Specifically the learning practices allow the acquisition of new point of views to make improvements to their work while, according with Liu and colleagues (2007), the participation to decision-making practice can bring attention of experienced workers on aspects of the work to modify.

Recently the setting in which HRM practices are explored assumes always more importance. As is ascertainable in Lengnick-Hall, Lengnick-Hall, Andrade and Drake' (2009) review always more research focus the attention in private, non-profit or public organization, as well as manufacturing or service organizations. Until now a huge amount of studies that have explored the antecedents of innovative work behavior (e.g., Montani, Odoardi, & Battistelli, 2012) but many of them are conducted in large enterprises (for a review, see Anderson et al., 2014). As it is reported by Koski, Marengo and Mäkinen (2012) the firm size

matters in promotion of innovation since condition the choice of what HRM should be employed. To overcome this limitation it's needful to enlarge the psychological research to contexts less explored like small and medium enterprises (SMEs) following the rare research that has tried to fill up this paucity (e.g., Montani, Odoardi, & Battistelli, 2014). According with the different national statistical systems, SMEs are described as "non-subsiary, independent firms which employ fewer than a given number of employees" (Organization for Economic Co-operation and Development; OECD, 2000). Generally firms employing until 250 workers are considered medium while them with 50 and less of 10 are considered respectively small and micro ones; moreover with the SMEs label are ascribable firm with financial annual turnover (corresponding to the attended investment for the next year) of 40 million of euro (OECD, 2000). Commonly SMEs and big organizations differ under aspects like economical and structural assets, and psychosocial constructs and processes can act differently on organizational and individual outcomes. Even though SMEs suffer the potential restrictions of resources to trigger positive psychological processes (Hausman, 2005), other characteristics like the capacity to satisfy better niche markets (Jeffcoate, Chappell, & Feindt, 2002), to take decisions quickly and to spread information more simply and to be less complex can balance their limitations. In SMEs contexts, economical resources optimization is crucial and the management of human resources should be dutifully treated. Contrary to big businesses, small and medium ones couldn't dispose of the R&D sector and the HRM practices could be directly managed by owner's firm or some of its subordinates; once again it's particularly important to be able in catching feedbacks coming from all the workers to increase reciprocally their effectiveness (Shipton et al., 2005). However it's usual to recognize, in actual labor market, organization systems in which large and smaller firms reach synchronously their aims (OECD, 2000).

The importance to develop and manage new knowledge in SMEs is already partially explored. For example Ngah and Ibrahim (2009) affirm that knowledge exploitation and

knowledge exploration can be directed to the enhancement of innovation in this type of businesses. OECD (2000) affirms that SMEs are more flexible to face the evolution of market situations responding more quickly to the client preferences. Notwithstanding this strength less of the 50% of SMEs reach own focus for more of five years and always less of them produce innovation.

The novelty of this research consists not only in the choice of a little examined context like SMEs is, but also in the setting of declared hypotheses in a quite new cultural framework corresponding to the Italy since the main part of these studies take place in English-speaking countries; moreover the used sample overcomes the actual limitation inherent to the execution of HRM researches in manufacturing environments (Combs et al., 2006). In the Italian scenario SMEs are a reality numerically very significant constituting the 99.8% of actual enterprises (European Commission, 2013). Especially in the last years many of them struggle against the world economic crisis and it's needed empirical scientific focuses to figure out how they can back to being competitive without wasting resources through as well as is been done by Katou, and colleagues' (2014) investigation in Greek businesses. The present research is developed in SMEs also because there is a spread consensus about their potential in generating innovations still considering different intrinsic hindrances (Freel, 2000) and not at least financial ones. SMEs need not only highly-educated employees but specific HRM practices too that make easy the increment and exploitation of knowledge, abilities, experiences and innovative capabilities. To encourage innovative behavior in SMEs it's also necessary to differentiate themselves from their direct competitors and become more attractive to the eyes of the customers as well as to new potential workers encouraged to work in an innovative context. Furthermore the potentiality of generating innovative ideas consists also in promoting the enlargement of sales in the own sector and in other unexplored areas and at the same time becoming more difficulty can be emulable by competitors (Coff, 1997).

### **3.3 Methodological overview**

In previous research it's been only partially examined the relationship between the innovative work behavior and the use of human resource management practices but are not found in the literature empirical work exploring the relationships between the variables presented in this thesis.

It is also necessary to stress that employed methodology is partial different for the two investigations. As for the similarities, both searches were conducted with self-administered questionnaires. Similarly the two studies structured hypothesis of direct and indirect relationship through the introduction of mediating variables.

It is necessary to be pointed out that while in the first study hypotheses were tested using multiple regression and the mediation tests, in the second study was used the Structural Equation Modeling. The choice in the implementation of a different statistical technique in the second work was dictated by the need to elaborate the theoretical model in its entirety since it contains two mediating variables that are simultaneously relate with the independent variables and the innovative work behavior.

## **Chapter 4 Study 1 - HRM practices in SMEs: the role of individual and team learning practices in stimulating innovative work behavior and the mediating effect of norms and supportive**

### **4.1 Abstract**

The human resource management practices are been deeply explored and applied in organizations spread throughout the world. Although the huge amount of detectable researches, it's necessary to better understand perception of HRM practices and not only their implementation. The aim of this research consists in shedding the light on the employees' perception of individual and team learning HRM practices. Moreover it's believed that this perception can directly be in relation with innovative work behavior and indirectly through the mediating role of norms and supportive climate for innovation. A sample of 191 participants SMEs located in North of Italy has been involved in this research. The data are collected via questionnaires and tests of mediation are conducted. The hypotheses receive empirical support because the perception of individual and team learning HRM practices is related to IWB through the partially mediating role of norms and supportive climate for innovation. The research have proved that the perception of individual and team learning HRM practices favors employees' enrichment in relation to knowledge and abilities that, in turn, encourage the adoption of innovative behavior. Moreover the mediating role of norms and supportive climate for innovation between the perception of learning HRM practices and IWB denotes the necessity to implement shared perception of support direct to innovation. The originality of the research resides in having enlarged the knowledge between HRM practices and IWB. Moreover the choice to set the investigation in Italian SMEs has allowed making inferences in a quite unexplored cultural context. Main limitations regard the employment of self-report measures and the adoption of cross-sectional framework.

## 4.2 Introduction

The actual state of the art doesn't allow drawing unequivocal conclusions about the relationship among HRM practices and other variables. Since that there isn't a shared HRM framework among scholars and that the intercorrelations among practices and organizational outputs aren't explained in a defined way (Sanders et al., 2014; Ichniowski, Shaw, & Prennushi, 1997), the actual state of the art suggests to increase our knowledge not only on a general HRM configuration but also on unique practices in order to deep their effects on specific output variables. For this reason the emphasis of this article is directed on learning HRM practice. The importance that the learning processes and activities have in organizational contexts is well explored by Noe, Clarke and Klein' (2014) review in terms of multiple level of analysis. Indeed the development of training activities is a top-down practice (Vrasidas & Glass, 2004) that allows organizations to predict changes, adapt themselves to the new conditions (Kraiger & Ford, 2006), to increase the organizational global performance (Aguinis & Kraiger, 2009), competitiveness (Noe et al., 2014) and organizational innovation (Tan & Mohd, 2011). Considering the analysis of literature carried out by Bednall, Sanders and Runhaar (2014), positive outcome are appreciable also at individual level in terms of job successfully (Smylie, 1988), learning goal orientation (Runhaar, Sanders, & Yang, 2010) and job satisfaction (Walker, 2002). Therefore other studies have also considered the effect on the creativity since it's been ascertained that the relationship with individual learning orientation is moderated by creative self-efficacy (Gong, Huang, & Farh, 2009) and team learning behavior (Hirst, Van Knippenberg, & Zhou, 2009). The role of learning has also been the subject of theoretical and empirical insights in relation to the innovative behavior. Theoretically, the model representing the pattern of bundles of HRM of Verburg and colleagues (2007) suggest that firms oriented toward a flexible bundles can encourage the innovation more than the ones inclined to the adoption of bureaucratic bundles. Instead, empirically, Walter and van der Vegt (2013) demonstrate the team learning behavior is related

to team innovation. Following and deepening the conceptualizations and empirical evidences, this study aims to explore the effect of how the perception of learning HRM activities is related with innovative work behavior.

Although individual characteristics can prompt learning activities (Berg & Youn, 2008), it's also necessary to create the best conditions in which own workers can enhance their capacity to learn; for this it's important to explore how these practices can drive also indirectly IWB through the mediating variable of norms and support for innovation (Figure 1). It's believed that the achieved results could be useful for managers which need to know what are the practical returns from their investment in training trying to avoid waste of resources (Aguinis & Kraiger 2009; Bunderson & Sutcliffe 2003) and to measure its impact over time (Arthur & Aiman-Smith, 2001). The understanding of learning activities role promoted by businesses could also help to better delineate, design and assess these HRM practices in relation to organizational strategic priorities.

### **4.3 Theoretical Background**

The prominent idea of this article is to focus the attention on a specific HRM practice represented by the learning at individual and team level. The definitions of individual and team learning adopted in the present article consider them respectively as "individual competence, capability, and motivation to undertake the required tasks" and as "group dynamics and the development of shared understanding" (Bontis et al, 2002: 443). The learning practice appears often in many publications since its relevance in organization work life. Scholars have considered different perspective to explore the learning activities in workplace. Among the main ones it's cited the informal and non-formal learning (Kyndt, Dochy, & Nijs, 2009; Marsick & Volpe, 1999), task-related learning (Wielenga-Meijer, Taris, Kompier, & Wigboldus, 2010), workplace participatory practices (Billett, 2004) and

development activities (Maurer, 2001). Excluding rare exceptions like Kostopoulos, Spanos and Prastacos (2013), the great efforts in uncovering these strands of research aren't compensated for encompassing empirical models focused in explaining employees' learning of its mutual influence in a multilevel model.

The actual publications allow to claim that some efforts on the relationship between HRM practices, and in particular learning ones, and innovation are already been carried out. Becker and Matthews (2008) have resumed the realized researches regarding the development of innovation capabilities and the adoption of HRM systems of practices; then the authors claimed that the main HRM practices are HR planning, reward systems, learning and development of abilities, attraction and selection, and performance management. Similarly, the results of Jørgensen, Becker and Matthews' (2009) qualitative research show that firms adopt heterogeneous HRM practices to support innovation and among them the ones that result more efficacy are: utilization of adequate selection criteria and processes, training and development activities offered at individual and group level, and performance management systems and performance-based incentive. Furthermore it's been found that HRM practices inherent the knowledge development at work demonstrate positive effect on the enhanced level of product innovation and innovation in technical systems (Shipton, West, Dawson, Birdi, & Patterson, 2005).

The emphasis of the present study is on innovative behavior since its importance on organizational response to change, creation of new products and maintenance of competitive advantage. In several countries many scholars of different disciplines have formulated models to analyze the key antecedents of IWB at different level (Anderson et al., 2014; Büschgens, Bausch, & Balkin, 2013; Gupta et al., 2007). The promotion of IWB encases adapting new solutions to specific contexts in order to overcome problems, persuading colleagues to support the new ideas and putting into effect the shared approaches. Taking in consideration the effect of HRM practices on IWB, Sanders and coworkers (2014) summarize the results of Shipton

and Escriba-Carda (2013) which claim that HRM system strength doesn't play a moderating role but HPWSs have a positive effect on IWB with a fully mediation of job engagement. However another study has demonstrated strong HRM system can moderate positively the relationship between high-quality of performance appraisal and the willingness to participate in informal learning activities corresponding to reflection, knowledge sharing and IWB (Bednall et al., 2014). However the only investigation about the presence or the implementation of HRM practices direct to the promotion of innovation could not be enough to understand their potential benefits. A fortiori that the fit between managers' intended practices and employees' perception of them (Wright & Nishii, 2013) cannot be taken for granted, the present contribution is specifically directed to progress in explaining how much IWB is driven by the perception of individual and group level learning. This research line is been already made a point of by Di Milia and Birdi' (2010) in which, with a longitudinal design, they have studied the perception of learning practices at individual, team and organizational levels related to objective and subjective firm financial performance.

According with the previous study, there are reasons to believe that the increased perception of learning practices could drive toward innovative behavior since the role of individual learning is began to be uncovered. Specifically it's denoted that recent and akin researches have examined the existing relation between two types of learning corresponding to occupational learning (Messmann, Mulder, & Gruber, 2010) and learning goal orientation (Montani et al., 2014; Chughtai & Buckley, 2011), and IWB. Following different frameworks, these investigations converge on the workers' necessity to learn in the short and long time to actuate innovative behaviors. Moreover, taking in account researches at collective level the precedent relation could be repurposed since that studies relate organizational learning (Park, Song, Yoon, & Kim, 2013) and learning organizational culture (Khan, 2012) with innovative behavior are been detected. Although investigations relating team learning and innovative work behavior aren't been recovered, it's possible to suppose that collective learning can

encourage employees to go in search of new perspectives, receive more inputs and exchange information and experiences through interaction opportunities, than what could happen if they are working alone; moreover workers in group can also benefit of other aspects like team work structure considered facilitative of learning (Noe et al., 2014). It' believed that workgroup aspects conduct to new knowledge and skills acquisitions that, in turn, help employees to develop ideas and solutions. For these reasons and considering that employees' perception of HRM practices are the foundation of their work outcomes (Wright & Nishii, 2007; Kinnie, Hutchinson, Purcell, Rayton, & Swart, 2005) the following hypotheses are proposed.

Hypothesis 1: the perception of individual learning practices is positively related to IWB.

Hypothesis 2: the perception of team learning practices is positively related to IWB.

After exploring the relationship between HRM practices and IWB, the attention is directed to investigate the mediating role of climate at team level (Sumelius, Björkman, Ehrnrooth, Mäkelä, & Smale, 2014). Often researches have explored single or bundle HRM practices and outcome variables without to shed the light sufficiently on constructs interposed or intervening processes (Piening et al., 2014; Purcell & Kinnie, 2007). Since it's already uncovered the role of strong organizational climate in relation with perception of HRM practices and organizational outcome (Sanders et al., 2014; Gerhart, 2005), could be supposed that similar effect could happen at group level. For this reason the present research consider specifically the mediating role of the team climate for innovation (TCI; West, 1990) between perception of learning HRM practices and IWB. The TCI is considered as a "multidimensional measure of proximal work group climate for innovation" (Anderson & West, 1998: 239) structured on the four factor model of climate for innovation of West

(1990). Specifically, among the four dimensions, namely norms and support for innovation, climate for excellence, vision and participative safety, the former, defined like a set of expectations and practical support aimed at promoting innovative behavior, is considered. The supposed mediating effect rests on previous empirical research since the effects of whole team climate or its specific dimensions are been largely explored in literature. For example climate dimensions are been related to positive outcomes like team trust, team commitment and team innovation performance (Zheng, Zhu, & Yang, 2010). Team climate has also effects at individual level like on stakeholders' job satisfaction in healthcare structures (Proudfoot et al., 2007). Lastly the team climate is been also explored in a multilevel fashion finding effects on individual and team innovation work behavior (Hülshager, Anderson, & Salgado, 2009), and individual and team innovative performance (Chen et al., 2013). It's expected that the climate dimension of norms and support of innovation could play a mediating role because it can favor the sharing of new information as well as the discussion on the better ways to work and on the mistakes to avoid. Past studies have already detected relationships between these practical supports in relation with team learning practices and IWB (e.g., Madinier & Ricci, 2010; Odoardi, Montani, Boudrias, & Battistelli, 2015).

Moreover HRM learning practices could have a direct relationship with IWB the perception referred to team learning activities can favor the internalization of new notions through opportunities of knowledge exchanges among peers (Li & Hsieh, 2009) while the perception inherent the individual learning activities help workers in searching specific gaps to be filled through targeted training or asking help to colleagues. Both these perceptions promote the creation and implementation of new ideas because upgrade the individual capacities to innovate thanks the perception of the supportive team climate.

Hypothesis 3: team climate dimension of norms and support for innovation mediates the relationship between perception of individual learning practices and IWB.

Hypothesis 4: team climate dimension of norms and support for innovation mediates the relationship between perception of team learning practices and IWB.

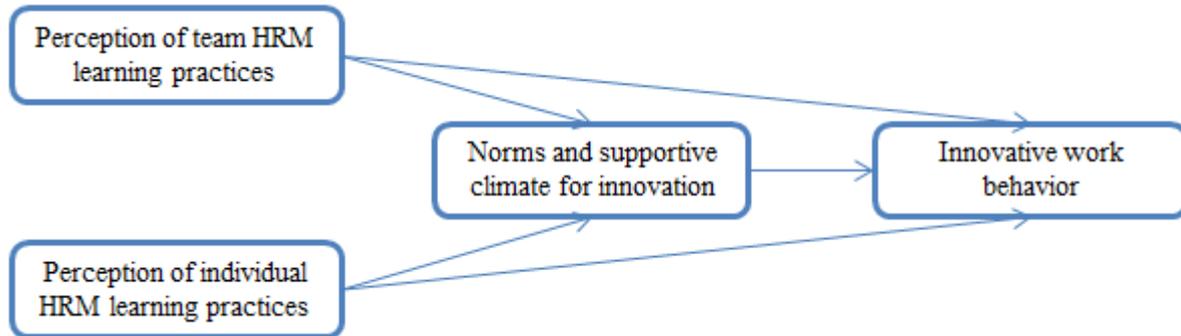


Figure 1. Research model with the mediating process of norms and supportive climate for innovation between perceptions of learning HRM practices and the outcome variable of innovative work behavior.

#### 4.4 Method

##### Participants

The data for this research is collected in SMEs located in the north of Italy. Respondents that completed the questionnaire were 191. Of the participants, 65 (34.8%) were females and the remaining 126 (65.2%) were males. The age was collected through five ranges and the most numerous one includes 90 (47.1%) workers aged between the 36 and 45 years old. The employees' educational background ranged from elementary school certificate to postgraduate qualification and the majority, comprising 106 (55.8%) workers, revealed to have reached the secondary school diploma. The questionnaire is been filled after the necessary explanations and the assurance that the data are analyzed in a collected manner and for scientific purpose. Finally, the first page of the instrument was dedicated to information for compiling.

In relation to characteristics of the engaged organizations, it's detectable an high degree of heterogeneity. Concretely they operate, for example, in the fabrication of doors, automatic devices, and construction of machine for industries. Moreover, other firms produce medications, sanitary and agricultural products. Lastly, the remaining SMEs are engaged in offering services like the reparation of cars and technological support.

## **Measures**

Employees have fulfilled an anonymous multidimensional questionnaire with 5-points of Likert scale ranged from 1 meaning strongly disagree to 5 meaning strongly agree for all the constructs. The constructs considered are individual learning practice, group learning practice, norms and support for innovation and IWB.

*Individual learning HRM practices.* Individual learning practices were measured with the scale adapted by Di Milia and Birdi (2010). The scale is formed by 12 items and sample item include: "how often, in the past 12 months, has participated in training on the job".

*Team learning HRM practices.* Team learning practices were assessed with the scale adapted by Di Milia and Birdi (2010), which is composed by seven items. Sample item include: "How often, in the past 12 months, it was conducted training to learn to work in groups".

*Norms and support for innovation.* Norms and support for innovation was assesses with the three items scale drawn from the short version of Anderson and West's (1998) Team Climate Inventory (Kivimäki & Elovainio, 1999). The Italian validation of this dimension has been confirmed in Ragazzoni, Baiardi, Zotti, Anderson and West (2007). An example of item is: "in this group is dedicated the necessary time to the development new ideas".

*Innovative work behavior.* Innovative work behavior was measured with the scale of nine item drawn up by Janssen (2000) including three subscales corresponding to idea generation, idea promotion and idea realization (Kanter, 1988). Since high correlation values

among factors (between .76 and .84) the present article consider the innovative work behavior like a single construct. The IWB scale adopted is validated in the Italian context by Picci and Battistelli (2008). Examples of items of the three dimensions are: "How often do you generate new ideas to solve difficult issues?" (idea generation), "How often do you mobilize the support of others for own innovative ideas?" (idea promotion) and "How Often do you turn innovative ideas into useful applications at work?" (idea realization).

## **Data Analysis**

Descriptive and correlation analyses through Pearson's  $r$  coefficient is been conducted to explore the presence of relationships among variables including control ones. In a second moment, confirmatory factor analysis is been computed with Mplus version 6.12 (Muthén & Muthén, 1998 - 2010) while mediation analyses using a bootstrapping approach (Preacher & Hayes, 2008) are been elaborated with SPSS version 19. To avoid the multicollinearity in conducting the statistical analyses, standardized variables are been employed.

## **4.5 Results**

### **Confirmatory Factor Analysis**

Confirmatory factor analysis is carried out to test the variables discriminant validity. Almost all items loaded significantly on the respective factors ( $p < .05$ , ranging from .34 to .87) with the exception of the fifth and twelfth ones of the perception of individual learning HRM practices scale and the second one of the perception of team learning HRM practices scale. A subsequent CFA have left out the cited three items showing significant item loadings ( $p < .05$ , ranging from .33 to .87) for the remaining ones. The hypothesized four-factor model is supported and demonstrates a better fit with the data in comparison with two alternative models in witch the first one enrolls a path between perception of individual and team

learning HRM practices according with the high value of correlation (Table 2) while the second one enroll a path between the previous perceptions of learning activities with the team climate dimension (Table 2).

Table 2.

*Comparison of hypothesized model with alternative ones.*

	$\chi^2$	<i>df</i>	$\Delta\chi^2$	$\Delta df$	AIC	CFI	TLI	RMSEA
Baseline model	2332.9	378						
Hypothesized model	827.1	344			17899.9	.8	.7	0.09
Alternative model 1	905	347	77.8	3	18015.2	.7	.7	0.09
Alternative model 2	1010.6	349	183.5	5	18165.9	.7	.6	0.1

*Note.* N = 191 for the Baseline model, Hypothesized model, and Alternative models 1 and 2.

## **Hypotheses Testing**

The main results of the present research are now summarized. Firstly in Table 4 descriptive statistics are also reported and correlations show accordance with the abovementioned hypotheses. Furthermore all the constructs obtain a Cronbach's Alpha value major of (.70) demonstrating an acceptable level of internal consistency according with the Nunnally's criterion (1978); these values are reported on the diagonal brackets.

Table 4.

*Descriptive statistics and correlations.*

Variables	M	SD	1	2	3	4	5	6	7
1. Age	---	---	---						
2. Sex	1.65	.48	.00	---					
3. Educative level	---	---	-.08	-.34**	---				
4. Individual learning practices	2.01	.89	.13	.17*	-.18*	(.87)			
5. Team learning practices	2.58	.99	.04	.10	-.23**	.63**	(.87)		
6. Norms and support for innovation	3.19	.89	.13	-.04	-.05	.26**	.36**	(.78)	
7. Innovative work behaviour	3.22	.82	.26**	.04	-.06	.42**	.38**	.47**	(.92)

Note. N = 191. The internal consistency coefficients (Cronbach's Alpha) appear in the diagonal brackets.

\*  $p < .05$ ; \*\* $p < .01$ .

Thus, multiple regressions and mediation tests are computed to verify empirically the hypotheses stated (Table 3). The multiple regressions show that only the age has a significant relation with IWB contrarily to sex and educational level.

Results show accordance with the hypotheses 1 and 2 since the perception of individual and team learning HRM practices are related to IWB. Furthermore also the hypotheses 3 and 4, related to the mediation effects, are confirmed. The first mediation test is direct to assess the relationship between the perception of individual learning HRM practices and IWB mediated by supportive climate to innovation. It's detectable that the supposed relationship is partially mediated since individual practices are directly related to IWB. Moreover the second mediation test evidences that the relationship between the perception of team learning HRM practices and IWB is mediated by supportive climate to innovation. Also in this case the hypothesized relationship is partially mediated since the direct effect of team practices is verified. These results are relevant since, following Katou, and colleagues' (2014)

suggestion, although learning activities could encouraged innovative behaviors a new mediator is been uncovered.

Table 3.  
*Test of mediation.*

Variables	$\beta$	B	SE	t	p
Age	.26	.24	.06	3.65	.00
Sex	.03	.05	.13	.4	.69
Educational level	-.03	-.03	.08	-.34	.73
Individual learning HRM practices	.39	.42	.06	6.43	.00
Team learning HRM practices	.31	.38	.06	5.61	.00
Norms and supportive climate	.36	.39	.06	6.2	.00
				LI %95	UL 95%
Effect of individual learning HRM practices	.09	.10	.03	.04	.17
Effect of team learning HRM practices	.11	.14	.03	.06	.18

*Note.* N=191. LI and UL are referred to the 95% Confidence Interval.

Summarizing the analyses conducted it's possible to claim the results demonstrate the relationship between the perception of individual and team learning HRM practices and IWB partially mediated by norms and support for innovation.

#### 4.6 Discussion

Actual firms struggle in international contexts to gain new markets and costumers. Often the price reduction of the offered products and services isn't enough to be competitive since could be necessary to understand markets needs and master innovative capacities. Especially about this latter factor, many managers should act in the manner of creating unique sources and know-hows that guarantee competitive strategies hardly reproducible in other

organizational contexts (Wright et al., 1994). HRM practices act in this direction since can flow in building inimitable conditions and potentialities (Ferris et al., 1999).

Against this backdrop, the aim of this research was to explore two antecedent of IWB, namely workers' perception of learning HRM practices at individual and team level, and the mediating effect of norms and support for innovation climate dimension within Italian SMEs. The understanding on what measure HRM practices influence directly and indirectly IWB helps scholars to direct new endeavors in HRM research and supports managers and practitioners to optimize resources in promotion learning activities. As already cited, many articles are been published in relation to HRM practices and work outcomes (Combs et al., 2006) like performance and innovation but some specific areas are underestimated (Birkinshaw, Hamel, & Mol, 2008). Specifically until now there is a paucity of efforts on the encouragement of the innovative behavior through HRM practices. On the other hand even though many scholars have clearly proved the presence or the absence of HRM practices effects on a broad set of variables and so emphasizing it's pivotal importance in actual organizations (i.e., Shipton et al., 2006), there are still some shadow zones about HRM functioning (Sanders et al., 2014). The present research, rooted in these considerations, have also followed Tan and Mohd' (2011) suggestion in focusing the attention on indirect links among HRM practices and innovation.

According with Sumelius and colleagues (2014) the great attention dedicated recently to bundles of HRM practices shouldn't divert efforts in differentiating the single practices and in deepening how they are perceived and what their contributions to organizational and individual outcomes are. The present study has showed that both the considered perceptions of learning practices are directly and indirectly linked to IWB. It's believed that the perception of individual learning practices can stimulate employees to actively enlarge their knowledge and abilities through their exploitation and the peers' contributions in order to utilize the new know-hows to enact innovative behavior. Moreover the perception of

individual learning practices can be also considered like a firm effort to invest on own dependents which, in turn, can feel more comfortable to assume risks in terms of proposing and implementing new ideas. In addition, the link between perception of team learning HRM practices and IWB is also mediated by the supportive climate to innovation since workers could optimize benefits of learning activity in group through colleagues' progressed experiences. In summary, organizations that have a good supportive climate and good learning practices are more likely to prompt employees' IWB than those who do not show these engagements.

The empirical support reported in this investigation doesn't make doable to draw generalizable conclusions and the role of cultural effect cannot be underestimated. However as already reported by Sanders and colleagues (2014) in comparing Netherlands results of Sanders, Dorenbosch, and De Reuver (2008) and Chinese ones of Li et al. (2011) with respective coworkers, cultural differences can carry on discordances. In a similar vein Janssens, Brett and Smith (1995) claim that cultural differences can affect innovation antecedents. The present article follows the patch outlined and, following the indications of a certain number of publication (e.g., Katou et al., 2014; Abdullah et al., 2010; Jørgensen et al., 2009) took place in Italian SMEs. One of the implications of this choice consists in supporting the external validity of the employed HRM constructs since that the great part of this research area is rooted in Anglophone organizations (Combs et al., 2006). Referring specifically to the perception of learning HRM practices, in literature it's detectable only one research that is set in Australian organizations (Di Milia & Birdi, 2010); this is why new explorations are recommended to increase not only the understanding of how much cultural influence impacts on the relationships here considered but also to check the applicability of results on another situations.

#### **4.7 Theoretical and Practical Implication**

The present research suggests several theoretical and practical implications. Regarding the theoretical ones, this empirical work is pushed into the little probed understanding of the perception of HRM practices, rather than their effect, on IWB. As already highlighted, the mere provision of learning practices by the organization could be not necessary in order to achieve their desired results (Piening et al., 2014). Moreover the present investigation has the importance also in having supported a relatively unexplored approach: concretely, following the suggestion of Van den Broek (2014), it's developed in Italian SMEs. Although further confirmatory studies are necessary to obtain a replication of the achievement, the results open the door to further investigations regarding the learning practices in a multilevel fashion overcoming this paucity evidenced in literature (Wright & Haggerty, 2005). In this perspective, it can be stated that the considered HRM practices are related to the creation, dissemination and implementation a new idea.

Furthermore, one of the main practical hints looks at the potentiality that working environment has on stimulating directly innovative behaviors and indirectly through the conversion of perception of HRM practices on fruitful demeanors. It's suggested that a supportive climate for innovation encourages the transfer of knowledge and abilities acquired with specific HRM practices toward positive outcomes, potentially also through other psychosocial processes like the socialization (McClaren, Adam, & Vocino, 2010).

The important of this stream of researches, in which the present publication is enclosed, resides in deepening the role of HRM practices related to innovative behavior in the specific setting of SMEs. It's believed that their managers need of clear and applicable suggestions, based on research, since their firms are more damageable by external phenomena like globalization or market changes. Especially for the small and medium enterprises can be difficult to arrange an internal HRM department. For this reason it's necessary the managers'

assumption of responsibilities to pursue well-managed learning HRM practices directed to employees' needs. Managers have responsibility to develop the employees' perception that the organization accepts and promotes learning practices and related implications on innovative behavior in order to encourage workers to actively take part in these practices also sharing knowledge among them (Katou et al., 2014). Especially for group practices, they may be perceived as particularly useful when the group members exploiting those HRM practices to create mutual inspiration of new ideas, integrate information and propose improvements. In this regard it's important highlight that different learning activities haven't the same effect and the acquisition of new knowledge is more probably prompted through work tasks rather learning in the classroom (Stern & Sommerlad, 1999). Additionally practices of group learning can promote new ways of thinking and thwart any processes opposed to innovation; group learning practices could be specifically useful to prevent the occurrence of groupthink that, in the long-lived and homogeneous groups, discourages innovation (West & Anderson, 1996). Lastly, it's desirable for managers to pay particular attention to the considered antecedents in order to avoid discordances between the practices implemented and the results attended with repercussion on desirable outcomes (Bowen & Ostroff, 2004; Kehoe & Wright, 2013).

Furthermore, also HR practitioners play a determinant role in promoting IWB through HRM practices although the contingent and inherent difficulties (Van den Broek, 2014). As well as managers are called to create strong individual and team perception regarding employees' behavior favored by HRM practices in order to help firms in emerging from the actual economic crisis (Katou et al., 2014). This aim can be reached in different manners like the adoption of an effective communication (Van den Broek, 2014). According with Shipton and colleagues (2006), HR practitioners can prompt desirable outcomes encouraging the development of necessary abilities and knowledge and recognizing new occasions to explore different ways to work.

#### **4.8 Limitation and Future Researches**

This research is affected by specific limitations that is necessary elucidate. Although the empirically evidences supporting the hypotheses, intrinsic characteristics of the sample could have influenced the paper contribution. It's advisable to reproduce the conceptualizations here presented in other cultural context and with a bigger and differentiated sample. Although the sample is composed by workers of different firms, the results generalizability is confined to the Italian context. One other important limitation is inherent the methodological framework adopted since cross-sectional framework doesn't allow to verify the role of perception of learning practices on IWB along the time. Other researches could employ longitudinal research or experimental approaches in order to observe the variable in different point of time (Ployhart & Vandenberg, 2010). Lastly, the data are collected with a self-report questionnaire exposing analysis to multiple biases.

Future studies can trigger a better understanding about the effect of perception of other HRM practices on innovative behavior. Could be interesting to explore, for example, the role of HRM practices related to reward system on the ideation and adoption of new ideas in work place since, for the effect of compensation, employees efforts to innovate can be balanced by perception of job benefits. Likewise, the HRM practices here explored can be structured with other ones in a more holistic model. Moreover the time is ripe to consider also more mediating and moderating variables between the perception of HRM practices and outcomes; other climate dimensions could play specific contributions especially regarding the perception of collective practices. Lastly, it's believed that a precise comprehension of HRM practices is strictly linked with the replication of obtained knowledge in different cultural contexts; for this reason it's desirable that a greater amount of researches will be conducted not only in Anglophone countries but also in Latin and Asiatic ones.

In the end it's suggested to replicate the study considering other methods to collect data like perception of supervisors or managers and the employment of objective measures. Moreover self-report data and lack of replications expose the results to the common method bias and invalidate the external validity. Then, the relationships found cannot be considered causal and data doesn't allow drawing conclusive evidence.

## **Chapter 5 Study 2 - The innovative work behaviour driven by the perception of participation in relation to HRM and leadership style**

### **5.1 Abstract**

Past researches have uncovered the huge effects of participative leadership and the practice of human resource management corresponding to the participation in decision making in determining different organizational aspects. However anyone study has tried to understand the jointly value of these predictors in small and medium enterprises. The focus of this investigation consists in uncovering the employees' participation in decision making perception and the participative leadership as a way to drive innovative work behaviour. It was also expected that the psychological climate for innovation and colleagues' support mediate the aforementioned relationships. Lastly the relationship between co-worker support and psychological climate for innovation was explored. The respondents for this study were 449 all of whom were hired in six SMEs located in North of Italy. The data was collected through questionnaires and empirical model is computed with Structural Equation Modelling. Almost all the stated hypotheses are supported making possible to declare that the participative leadership and the presence of participation in decision-making are directly and indirectly related to innovative work behaviour. The supposed relationship between co-worker support and psychological climate for innovation is not been ascertained.

### **5.2 Introduction**

In literature there is turmoil on the understanding of participation aspects in organizations since they prompt a better comprehension of the problems and a more effective application of the right solution (Helms, 2006). This article encompasses the role of participation through two variables represented by the participation in decision-making practice and the participative leadership. Additionally, the mediating role of two contextual

factors, i.e. psychological climate for innovation (PCI) and the colleagues' support, is been considered in the relationships between the participation and the IWB. Keeping this aim, past studies have already reported that contextual factors can influence the innovative performance leveraging on workers' motivation (e.g., Shalley, Zhou, & Oldham, 2004). To sum up, the literature doesn't show shortage of research on the single variables here considered but the scope of the present article consists in integrate the disaggregated stream of research in the cohesive proposed model.

### **5.3 Theoretical background**

#### **Psychological climate for innovation**

In literature is possible to find analyses of climate depending on the specific focus examined like climate for work–family balance (Thompson, Beauvais, & Lyness, 1999) and climate for teamwork (Lindell & Brandt, 2000). This variable has received particular attention since its capacity to influence many organizational processes like organizational citizenship behaviour (Moorman, 1991), commitment, learning and motivation (Thakare & Prakash, 2015), burnout (McIntosh 1995) and job involvement (Brown & Leigh 1996).

Climate scholars have drawn theoretical conceptualizations to discern organizational climate (e.g., James & Jones, 1974) and psychological one (e.g., James & Sells, 1981): the scholars retain that the substantial difference consists in the emphasis on organizational attribute or on individual characteristics. Summing up the literature, Thakare and Prakash (2015) found 23 climate dimensions but the focus on this article is only directed toward the psychological climate for innovation. The PCI can be conceptualized as the shared perception of the practices, values and norms rooted in a determined organizational environment and that are connected to innovation (West & Anderson, 1996; King, de Chermont, West, Dawson, & Hebl, 2007). Additionally researches affirm that climate for innovation can be viewed as an

interposed construct between the organizational environment and employees' behaviour (Patterson et al., 2005). Moreover specifically, the PCI is employed by the workers to understand the work environment and to act consequently in order to achieve the specific goals (Parker et al., 2003). The importance of this perception is rooted in workers' cognitive representation rather in its objective presence which in turn is linked to the behavioural expectation (James & Sells, 1981).

In literature PCI is been empirically related with job and organizational outputs. For example, the PCI is positively associated also with organization performance and negatively with demanding work (King et al., 2007). Kanter (1988) claims that climate can direct the attention and efforts toward the innovation and, more recently, in the meta-analysis conducted by Hammond, Neff, Farr, Schwall and Zhao (2011) the climate for innovation is been considered as one of the main factor in promoting the innovation process. According with Isaksen and Ekvall (2010), the climate for innovation can boost an optimistic environment related to the promotion of an open ways of thinking and the elaboration of new ideas without bothering of possible failures. Moreover, according with the job demands-resources model of Bakker and Demerouti (2007), the PCI can be interpreted by the employees like a resource and then it can act as a motivational thrust to innovate. Lastly, Scott and Bruce (1994) have noticed that individuals' perception of dimensions of organizational climate is related to the IWB.

Supposing that PCI can support the development and the implementation of new ideas and that, as already explained, it's connected with behavioural expectations, the following hypothesis is formulated:

H1: Psychological climate for innovation is related to innovative work behaviour.

### **Co-workers' support**

Researchers have profuse great effort in literature to investigate the nature of social support in private sphere of live like illness recovery (e.g., Lugton, 1997) but it's necessary also to uncover its role in work-life (Parris, 2003). Different definitions are been proposed and the one considered in this research defines social support as “an exchange of resources between at least two individuals perceived by the provider or the recipient to be intended to enhance the well-being of the recipient” (Shumaker & Brownell, 1984: 13). Theoretical and empirical investigations have also tried to understand the monodimensional (e.g., Thoits, 1995) or the multidimensional aspect of this variable (e.g., Ducharme & Martin, 2000). Supporting the latter point of view, the effort of Parris (2003) and Langford, Bowsher, Maloney and Lillis (1997) draws conclusions claiming that four dimensions can be enucleated as emotional support, instrumental support, informational support, and appraisal support. Briefly, emotional support is defined as a “subjective feeling of belonging, of being accepted, of being loved, of being needed all for oneself and not for what one can do” (Moss, 1973: 237); instrumental support is expressed through the supplying of tangible goods, service or aids (Langford et al., 1997); informational support is related to the given information and the shared of abilities and knowledge in case of need (Parris, 2003; Langford et al., 1997); lastly, appraisal support is inherent the transmissions of information relevant to evaluate of our work (Langford et al., 1997) and, potentially, promoting also the sense-making (Parris, 2003). However since that in literature there is no accord about the number of dimensions of social support variable, the present study contemplates it as a unidimensional variables because enclose its different facets.

Past studies have moved the attention on different organizational levels of social support and in relation to different social actors. Often it's been considered like a resource like in Demerouti, Bakker, Nachreiner and Schaufeli (2001). Demerouti et al. (2001) assume that job resources, including also the social aspect of the job, are antecedents of job outcomes like performance. In this direction, empirical evidence can be found in Greenberger, Strasser,

Cummings and Dunham (1989). According with these researches, Chen and Kao (2014) affirm that social support helps in reaching work-related goals and in performing tasks more effectively and efficiently while Schaubroeck and Fink (1998) believe that, in presence of low level of job control, co-worker support is related to job performance and extra-role and in-role prosocial behaviour. Referring to extra-role performance, co-worker support moderates also its relationship with job insecurity (Schreurs, van Emmerik, Günter, & Germeys, 2012). Moreover, since the colleagues' support moderates the relationship between employees' personality and job performance (Chen & Kao, 2014), a high level of peers' support can help in balancing the negative effects of problematic personality traits (Lee & Sukoco, 2008). Social support can also be indirectly related to cognitive absorption, job satisfaction and job performance through the intensity of social media use at work (Charoensukmongkol, 2014). More specifically, Ducharme and Martin (2000) find that affective and instrumental social support exerts independently an effect on job satisfaction.

Additionally, in work environment, social support can help in avoiding risk behaviour (Schwarzer & Leppin, 1991), experiencing strain (Beehr, 1995), and reducing source of stressors (Beehr, 1995) and distress severity like post-traumatic stress or depression symptom severity (Smith, Benight, & Cieslak, 2013). Following the conservation of resources model, Hobfoll (1988) found also a balancing effect of social support on burnout. However, in a more extensive research conducted by Kim and Stoner (2008), the authors relieve that social support decreases the effect of turnover intention but doesn't reduce the burnout. Other positive effects of social support are inherent its impact on well-being. Efforts in this direction were made by Linnabery, Stuhlmacher and Towler (2014) that have demonstrated the effect of social support on career satisfaction, job-role strain, and life satisfaction.

Finally, although social support can be viewed in relation to different type of relationships, as superficial or neutral, (Elfering, Semmer, Schade, Grund, & Boos, 2002), in this research it's considered as a heterogeneous category (Henderson & Argyle, 1985).

Numerous articles have dealt co-worker support conjointly with supervisor support (e.g., Rousseau & Aubé, 2010) but the present research treats only the support provided by colleagues since it's considered as the more important source of support (Sarason, Sarason, Brock, & Pierce, 1996). Empirical researches have provided support to the idea that support in organization is related to outcomes aims (Scott & Bruce, 1994). Authors like Hammond et al. (2011) have ascertained that support in organizational environment provided through technical support or instrumental one can stimulate innovative behaviours. However, in order to have a more complete picture of role of support could be useful to deep the role of colleagues' support in the development of innovation process. This relationship could be supposed because, through the exploitation of the social support, employees can share and compare information and, at same time, better understand the principal job aspects that are worthy to be modified. Furthermore the co-worker support can stimulate the perception of reciprocal protection from the risks linked to the generation as well as implementation of a new idea. Thirdly, colleagues' support and IWB can also be conceptually related through affective commitment; past studies have showed that social support is linked to affective commitment (Rousseau & Aubé, 2010) that, in turn, influences innovative behaviour (Vinarski-Peretz, Binyamin, & Carmeli, 2011). Finally it's also supposed that the innovative behaviour can rise in a supportive environment because rewarding relationships with co-worker could increases the perception of interconnection in exchange ideas and opinion to get better a specific activity or task. Then, the support among colleagues can be pivotal during the promotion of idea since it can encourage the consensus, the collaboration and the reciprocal sustain for the efforts during the innovation process.

H2: Co-workers' support is related to innovative work behaviour.

The proposed model of this article encompass also one other relationship in which is engaged the co-worker' support. Past studies have already explored the link between organizational climate and social support. For example Gillen, Baltz, Gassel, Kirsch and

Vaccaro (2002) have shed the light on the correlation between co-worker support and workplace safety climate. In the present research is hypothesized that the psychological climate for innovation can be related to social support. This sentence is based on the belief that the promotion of spread co-workers aids in day-by-day activities could play a role in changing the personal perception of the available social resources and then in realizing that subsist a climate aimed to sustain the efforts related to the actuation of new ways to work. According with these reasons, the following hypothesis is postulated:

H3: Co-worker support is related to psychological climate for innovation.

### **Participative leadership**

Scholars agree that firm management is a key element to prompt organizational outputs like innovation (i.e., Mumford, Scott, Gaddis, & Strange, 2002) because acts on many contextual and mediating variables. For example the participative leadership has greatly demonstrated its function in enhancing the performance. Specifically Benoliel and Somech (2014) affirm that this leader style can encourage the in-role performance also in function of employees' personality traits. More precisely, rooting the research on the Big Five typology dimensions of extroversion, conscientiousness, agreeableness and neuroticism the results show that these personality traits moderate the relationship between in-role performance and participative leadership.

Participative leadership is defined as joint decision making by superior and his or her employees, or a shared influence on the process of decision-making (Koopman & Wierdsma, 1998). This leadership style improves multiple workers' outcomes like job satisfaction (Aryee & Chen, 2006), job performance, job satisfaction, turnover (Cotton, Vollrath, Froggatt, Lengnick-Hall, & Jennings, 1988) and innovative behaviour (Somech, 2005). To date different leadership styles are been studied in relation to IWB (for a review Anderson et al., 2014; Hammond et al., 2011). Following the available findings and in order to deep in which

measure the leadership style can be related to innovative work behaviour, this article examines the role of the participative leadership conjointly with the PDM in a global empirical work. For long time it subsisted a vacuum of investigations conjointly on HRM practices, leadership style and IWB and only recently studies have started to shed the light on their relationships. More precisely Odoardi et al. (2015) claim that participative leadership, team work and information sharing practices are indirectly connected with the innovative behaviour.

According with Durham, Knight and Locke (1997) the role of the leader based on the participatory predisposition can directly help to resolve issues come up during the carrying out of the work activities via the problem anticipation. Instead Somech (2005) demonstrate that this leadership style prompt more efficiently the engagement in innovative behaviour rather the directive approach because the workers have available an increased pool of ideas and methods. Finally, it can be supposed that the actuation of participative attitude by the leader can be linked to subordinates' innovative demeanour since it can offer the guidance, support and motivation needful to establish mutual trust with the aim to overcome hindrances.

Moreover this research puts in relation participative leadership and co-worker' support because this leadership style owns the intrinsic capacity to stimulate social bonds as well as the sharing of ideas. Therefore the participative leadership could be also indirectly related to IWB through the co-workers support because could prompt workers in useful interchanges aimed to search new solutions to innovate.

H4: Participative leadership is related to co-worker support.

H5: Co-workers' support mediates the relationship between participative leadership and innovative work behaviour.

Likert (1967) believes that leader' beliefs are conveyed to employees via the climate and subsequently many researches have demonstrated the relation between these two

variables (e.g., Hammond et al., 2011). Dragoni (2005) claims that leaders can act in order to create, and consequently exploit, psychological climate: indeed the climate creation leans on practices that are perpetuated over time in the leader's behavior and in a second moment the established climate can orient the followers in reaching the goal. Deepening the relationship between leader's behavior and climate, Zohar and Luria (2004) affirm that the former variable influences the latter one through three patterns: pattern orientation (i.e. the leader's conduct to direct the attention of workers on desired aims), pattern variability (i.e. the leader's efficacy on focalize the efforts on specific targets among the employees and over time), and pattern simplicity (corresponding to the environmental attributes that cause the employment of certain patterns over others).

H6: Participative leadership is related to psychological climate for innovation.

The aim of this research goes beyond the analysis of the just explained relationship since the mediation role of PCI between the participative leadership and IWB is also explored. At actual state of the art it's possible to formulate this hypothesis of mediation since the participative leadership can lower barriers among workers establishing communication processes among the different areas of the company. The communication flows could have a double function because it could increase the sharing of ideas among social parts and could encourage the widespread perception of a climate in which innovation is promoted and failures are not sanctioned (West, 2002). Then the instauration of PCI can promote the increment of exchanged views and additional effort in implement the ideas. Lastly, PCI has been already studied like in directing the leader role expectation and the leader-member exchange and on innovative work behavior (Subramaniam, 2012).

H7: Psychological climate for innovation mediates the relationship between participative leadership and innovative work behaviour.

### **Participation in decision-making**

HRM practices is a research field widely developed and often their relationship with organizational outputs are been demonstrated (e.g., Amin, Ismail, Rasid, & Selemani, 2014). Following the conceptualization of firm resource-based view exposed in Barney (1991) copious publications have tried to understand how the employees' attitude and behaviour react to the HRM practices (Macky & Boxall, 2007).

Among the multiple analysed of HRM practices, theoretical and empirical researches have depth the role of the participation by virtue of the high level of social interaction in organizational contexts (e.g., Sagie & Aycan, 2003; Harley, Ramsey, & Scholarios, 2000). In literature the participation is been differently examined according with theoretical points of view (e.g, Schreurs, Guenter, Schumacher, van Emmerik, & Notelaers, 2013; Wegge, 2000). Here, the adopted definition of participation in decision-making (PDM) is conceptualized as the sharing of decision-making with other co-workers and leaders in order reach common objectives (Knoop, 1991). This definition is employed because this study is directed to investigate the participation in decision-making both in the day-to-day operations both in the resolution of organizational issues and troubles. Past studies have explored PDM practice according with different prospective. For example, as reported by Markey, McIvor and Wright (2015), Blyton and Turnbull (2004) have analysed this concept through the depth and the scope of workers' participation: the depth is ranged between the completely absence of employees' involvement to their full control while the scope is the interval in which they are asked to make decisions. In a similar vein, Wilkinson, Gollan, Marchington and Lewin (2010) affirm that different degrees of participation in working environments exist and Markey and colleagues (2015) in a dichotomous way differentiate the consultative approach from the substantive approach since only in the latter the decisions that come up from the participation of employees are effectively implemented. Moreover decision-making is been also explored in relation to its frequency and the recurrence. More specifically Moorhead and Griffin (2004) declare that the degree of novelty of the situations determine the employment of programmed

or not-programmed decisions. Taking in consideration the decision-making at several organizational levels, Bennet (1997) detects the next four ones: policies, operational decisions, tactical decisions and strategic decisions. The four levels encompass, differently, both the extent of the repercussion from micro to macro organizational aspect both the employment position occupied by the decision maker. In a similar vein, other scholars assume that the process of decision-making can produce advance in a different manner depending on the established formal or informal level between the involved actors and the built relationships (Cotton et al., 1988).

However, paying attention to the differences, specifically theoretical concepts and variables are been employed to enlarged our knowledge inherent PDM practice and its outcomes. These efforts are been focused on individual, group and organizational level. More in detail, at individual level positive and negative relationships are detectable since the former are included the motivation (Pearson & Duffy, 1999; Spector, 1986), proactivity (Tummers, Kruyen, Vijverberg, & Voeselek, 2015); job satisfaction (Scott-Ladd, Travaglione, & Marshall, 2006; Pearson & Duffy, 1999; Muindi, 2011; Yammarino & Naughton, 1992), empowerment (Kappelman & Prybutok, 1995), availability of communication (Anderson & McDaniel, 1999), involvement (Spector, 1986) commitment (Scott-Ladd et al., 2006; Appelbaum et al., 2000); job control (Mulder, 1971), vitality (Tummers et al., 2015), while the latter are inherent to the intention to quit and turnover (Spector, 1986), and role conflict and ambiguity (Daniels & Bailey, 1999; Spector, 1986; Jackson, 1983). At group level Daniels and Bailey (1999) have proved that PDM interact with one other HRM practice corresponding to the teamwork. Lastly, organizational scholars have showed that relation between PDM and organizational effectiveness (Antonio, Prado, & Jesùs García, 2000), organizational commitment (Pearson & Duffy, 1999), organizational citizenship behaviour (Van Yperen, van den Berg, & Willering, 1999; Boselie, 2010) and organizational performance (Amin et al., 2014); in relation to organization behaviours, and considering the

green HRM literature, it's also noticed that this HRM practice can allow a reduction of carbon emission. Considering this macro level of analysis, Wickramasinghe and Wickramasinghe (2012) claim that the perceived organizational support can mediate the relation between the affective aspect of commitment and PDM.

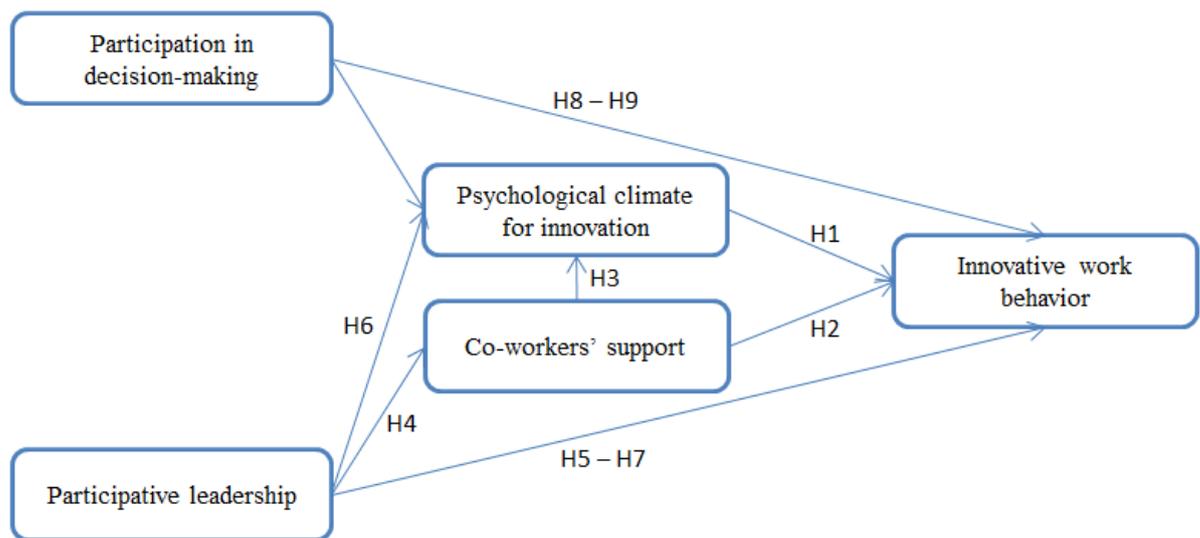
Although the PDM practices is been considered by Schreurs and colleagues (2013) as one of the two dimensions of high employee-involvement climate (the second dimension is the information sharing), the present research deals the PDM like an antecedent direct of PCI and indirect of IWB. This conceptualization is rooted in the idea that the insurgence of a new idea is related to the possibility given to the employees to externalize their needs and opinions thanks to the participation in decision-making. During the actuation of this HRM practice, the increased diversity of opinion can convey the perception that individuals' ideas are meaningful; in turn the reaching of a consensus widely shared is more probably and workers are more stimulated and committed to invest more energy to innovate (West & Anderson, 1996; Hülshager et al., 2009). Therefore PDM can favour the introduction of innovation in organizational contexts (Zoghi, Mohr, & Meyer, 2007) and permits the flow of ideas and information (Adel Mohammad, 2010).

H8: Participative decision-making is related to innovative work behaviour.

Therefore it can be also supposed that the climate for innovation could take benefit from the encouraging employees in PDM activities since the workers more inclined to acquire hints during the interchanges could generate and implement more innovative ideas.

H9: Psychological climate for innovation mediates the relationship between participation in decision-making and innovative work behaviour.

Figure 2. Proposed conceptual model.



This research is carried out in SME context. The great part of researches on participation is been conducted in English-speaking settings and large organizations (Keegan & Boselie, 2006). The present work, instead, tries to bring new empirical evidences to the HRM domain considering the Italian contexts and the intrinsic characteristics of SMEs. More specifically the SMEs allow more opportunities to participate in decision-making because the workers are called more frequently to interaction among them and exchange information. Moreover Connor (1992) claims that the reduced company size permits workers' involvement in a higher number of activity, like decision-making, compared to big firms. This idea is confirmed by the Koski and colleagues' research (2012) which, exploring the PDM in large and small organizations, finds that PDM activities in small ones influence more the innovation.

## 5.4 Method

### Participants

The research was conducted in six SMEs situated in north of Italy. The sample encompasses 449 workers that have fulfilled in almost 30 minutes the questionnaire in anonymous and voluntary way.

The sample is split in 183 (40.8%) females and 258 (57.5%) males. Regarding the age, the major part of employees, corresponding to 192 (42.8%) of them, declared to have between 36 and 45 years. It's been relieved also the educational background ranged from elementary school certificate to postgraduate qualification and the organizational tenure. In reference to such information the greater part of the sample declared that 192 (42.8%) of them have reached the secondary school diploma and 160 (35.6%) have an organizational tenure of more than 14 years.

The employees have fulfilled the questionnaire after receiving the required information and assurance on the scientific purpose of data collection. Further information are also been reported in the front page of the dispensed instrument.

Paying attention to the six engaged firms, they offer different products namely wine (58 employees), milk (48 employees), solar panels (59 employees) and medication (128 employees). Instead, the others offer services related to business consultants companies (83 employees) and reparation of cars (73 employees).

## **Measures**

Workers have filled in anonymously a questionnaire with 5-points of Likert scale encompassing the value 1 (meaning strongly disagree) to 5 (meaning strongly agree) for all the constructs. The questionnaire measures the perception of participative leadership, participation in decision making, psychological climate for innovation, colleagues' support and innovative work behavior.

Participative leadership. Participative leadership was measured with the six items scale drawn from Arnold, Arad, Rhoades and Drasgow (2000). An example of the items is: "my direct superior gives the opportunity to all members of the department to express their opinions".

Participation in decision making. Most previous researches related to this variable have been considered it as a multidimensional construct; for example Black and Gregersen (1997) retain that PDM is composed of six dimensions. However in this study the participation in decision-making is considered monodimensional because the scale employed collapse to fit the research aim. Participation in decision-making was assessed with Steel & Mento (1987) scale. The scale is formed by five items and an example item is: "within my work-group the people most affected by decisions frequently participate in making the decisions".

Psychological climate for innovation. It was used an adaptation of Patterson et al. (2005) Organizational Climate Questionnaire already tested in Montani, Odoardi and Battistelli (2014). The employed scale was composed by 14 items which include: "my leader helps us to create new ideas or working methods by providing all the necessary tools".

Co-workers' support. Colleagues' support scale was adapted by Eisenberger, Huntington, Hutchison & Sowa (1986). The scale is formed by four items and an example item is: "my colleagues come to my aid in my work in moments of difficulty".

Innovative work behavior. Innovative work behavior was measured through the nine item Janssen' scale (2000). This scale encloses three subscales namely idea generation, idea promotion and idea realization (Kanter, 1988). The assessed correlation among the dimensions shows that the values are quite high and ranged between 0.76 and .81. For this reason the IWB scale is been considered as monodimensional. Example items are: "how often do you generate original solutions to the problems?" (idea generation), "how often do you

obtain the approval of others for innovative ideas?" (idea promotion), and "how often do you evaluate the usefulness of the innovative ideas proposed?" (idea realization).

## **Data analysis**

The model proposed in this research was assessed through the structural equation modelling (SEM) procedures (Bollen, 1989). Before to compute the assessment of the global model, the confirmatory factor analysis (CFA) is been computed in order to assure the weight of single item on the corresponding scales. The software used was Mplus 6.12 (Muthén & Muthén, 1998-2010) and the fit indexes of the hypothesized model got a good degree of accordance with Kline's (2005) and Hu and Bentler's (1999) recommendations. More specifically the indexes considered was comparative fit index (CFI), Tucker–Lewis index (TLI), root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR). Moreover the proposed model is been compared with alternative models through the  $\Delta\chi^2$ .

## **5.5 Results**

### **Descriptive statistics**

Firstly, descriptive statistics are elaborated to compute the mean, standard deviation and correlation matrix (Table 5). Workers report a moderately high level of participation in decision-making, psychological climate for innovation, colleagues' support, innovative work behavior, and an average level of participative leadership. Anyone of the employed variables shows a low level. Additionally the considered variables got a Cronbach's Alpha value major of (.70) and, according with the Nunnally's criterion (1978), they demonstrate an acceptable level of internal consistency. The correspondent values are reported on the diagonal brackets.

Table 5.

*Descriptive statistics and correlations.*

Variables	M	SD	1	2	3	4	5
1. Participative leadership	2.85	.94	(.83)				
2. Participation in decision-making	3.47	1.02	.63**	(.89)			
3. Psychological climate for innovation	3.06	1.06	.75**	.74**	(.96)		
4. Co-workers' support	3.49	.95	.38**	.38**	.40**	(.86)	
5. Innovative work behaviour	3.05	.94	.49**	.40**	.43**	.32**	(.92)

Note. N = 449. The internal consistency coefficients (Cronbach's Alpha) appear in the diagonal brackets.

\*  $p < .05$ ; \*\* $p < .01$ .

### Confirmatory Factor Analysis and assessment of common method variance

In order to test discriminant validity among the employed variables (i.e., participative leadership, participation in decision-making, psychological climate for innovation, co-workers' support and innovative work behavior), confirmatory factor analysis is carried out with the maximum likelihood estimation method with robust standard errors and a Satorra-Bentler scaled test statistic. The software employed for the computations is Mplus, version 6.12 (Muthén & Muthén, 1998-2010). All the items loaded significantly on the correspondent variable ( $p < .001$ , ranging .36 to .92). These results confirms the structure of the conceptualized five-factor model ( $\chi^2 = 1986.96$ , CFI = .90, TLI = .89, SRMS = .05, RMSEA = .06).

Therefore, since the data were collected with self-report questionnaire in only one time, empirical results can be spoiled by common method bias (Podsakoff et al, 2003). The employed method to verify this evidence is the unmeasured latent method factor approach that

consists in adding a first order factor with all the indicators of the hypothesized measurement. The added factor account for only the 20% of the variance that is lower of average percentage of self-report research corresponding to 26% (Podsakoff et al., 2003). Then, it's possible to draw that, definitively, the common method bias doesn't invalidate this study.

### **Test of the hypothesized model**

Table 5 shows the goodness-of-fit statistics and the results demonstrate an adequate level of fit. Moreover the two alternative models tested demonstrate a decrement of the goodness-of-fit then the hypothesized model is more parsimonious of the alternative ones.

The hypotheses of the proposed model are all significant with the exception of hypothesis 3 representing the relationship between co-workers' support and PCI (Figure 3).

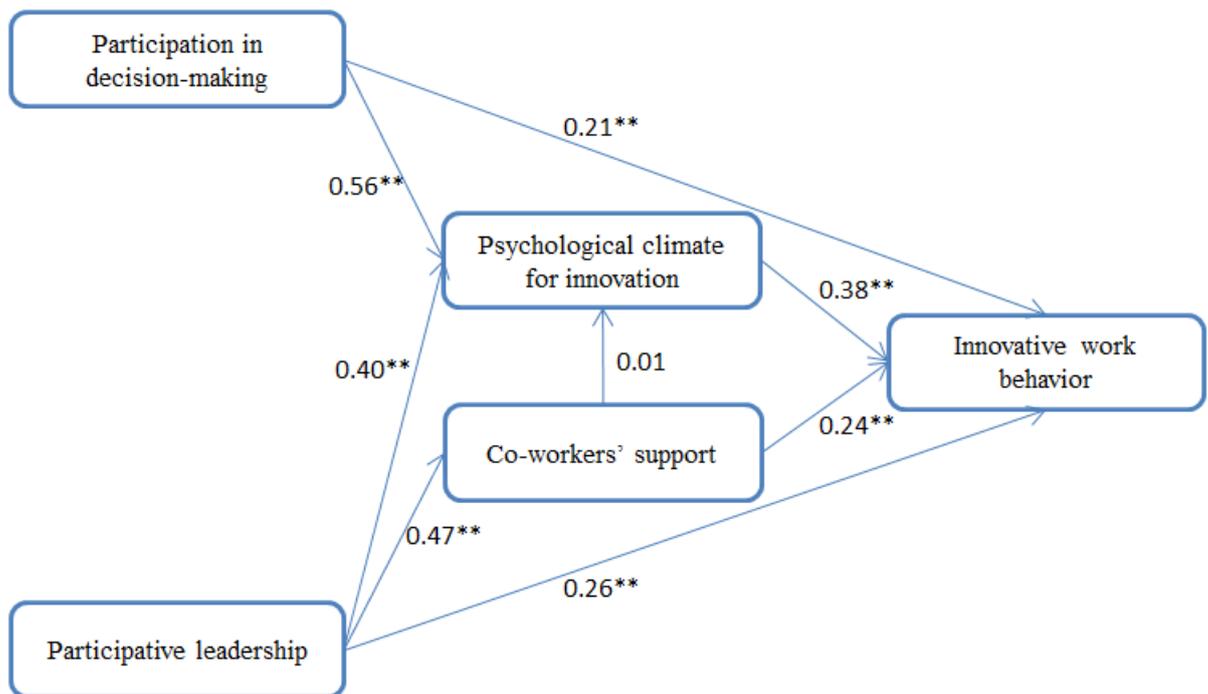
Table 5.

*Comparison of hypothesized model with alternative ones.*

	$\chi^2$	<i>df</i>	$\Delta\chi^2$	$\Delta df$	AIC	CFI	TLI	RMSEA	SRMR
Baseline model	14085.52	703							
Hypothesized model	2023.47	658			43439.89	.9	.89	.07	.06
Alternative model 1	2387.86	660	364.39	2	43800.28	.87	.86	.08	.06
Alternative model 2	3133.78	663	1110.31	5	44540.20	.82	.80	.09	.08

*Note.* N = 449 for the Baseline model, Hypothesized model, Alternative model 1 and Alternative model 2.

Figure 3. Results of the Structural Equation Modeling analysis of the hypothesized model. N = 449. \* p < .05; \*\*p < .01.



## 5.6 Discussion

The role played by the innovative efforts in actual organizations is intrinsically linked to the firm survivors.

The present study complements the literature because concurs to enlarge the comprehension of examined variables in several ways. First of all, the understanding of the role played by the participation in explaining the IWB process answers to the double needs to uncover the contribution of participation in decision-making HRM practice and the participative leadership. Secondly, by considering the mediating role of co-workers' support and psychological climate for innovation, it has been done a step forward to uncover the interposed variable between participation and IWB relationship. Thirdly, the present research answers to the call of Hammond et al. (2011) relating the investigation of multiple situational characteristics in a global model instead to explain separately the respective relationships. Fourthly, the nature of the sample belonging to Italian SMEs and the measurement of the

perception of the PDM, instead of the HRM policies as advocated by Macky and Boxall (2007), is a further innovative element.

This study reveals that the participation in organizational contexts can be indirectly related to innovative work behavior through the mediating role carried out by the psychological climate for innovation and the colleagues' support. This means that participative leadership style can boost the communication among employees and, consequently, the awareness of the mutual possession of information. In this way, workers are more likely to be supported by colleagues that could have the information and the right tools to solve problems inherent their job through the promotion of innovation. Then, the employers that use participative style obtain more chance to encourage workers to produce changes thanks to the listening of their opinions and the collecting of their inputs. Moreover participative leadership and the participation in decision-making can drive the perception that the organizational climate is oriented to innovate since company directives are not imposed by the management but are discussed with the multiple industry interested parties. In this way employees feel more responsible and are more oriented to seek new strategies to work. The construction of psychological climate for innovation can be related to innovative behavior because the employees perceive that the orientation to ideate new ways to work is accepted positively.

The probability to innovate can be enhanced in presence also of affiliative and practical support coming from colleagues. The focused situation-related support is pivotal since is provided by those who have the same level of hierarchy and know very well what are the problems related to work activities (Chiaburu & Harrison, 2008). The lack of formality and authority among colleagues can prompt them to reciprocally accept suggestion to ameliorate results through the ideation and implementation of ideas. This result is in line with Parris (2003) that affirms social support can determinate employees' work conditions; moreover the

author retains that the lack of perceived support can result in negative emotion and, consequently, in an impoverishment of ideas generation.

Contrary to what is expected, colleagues' support isn't related to psychological climate for innovation. It's possible to explain this evidence supposing the presence of a third mediating variable doesn't considered in the proposed model. Else, although the co-worker support is considered like the principal source of support (Sarason et al., 1996), in this case the role of the leader support could better orient the workers' PCI.

### **5.7 Theoretical and practical implication**

The international context where SMEs today are struggling is always changing, more dynamic and requires responses in terms of acquired flexibility and problem-solving capacity aimed to cope the markets requests.

To face this situation, some tips for managers are offered. Nowadays SMEs try to improve their competitiveness through the adoption of specific intervention. The promotion of innovation in organizational contexts could impart a thrust of renewal of the procedures and work processes. However the simple adoption of technological and bureaucratic innovation can't assure to overcome the competitors. For this reason the employment of strategies aimed to stimulate a virtuous loop of innovative behavior become crucial.

The creation of a new product or service in a specific organizational environment can be due to the continuous innovation by a single or group of employees. In order to help this insurgence, the attention paid by the leaders on employees' innovative behavior is expected to continue over time. Along the development of the innovation process, different variables determine its facilitation or obstruction. According to the results shown in this article, the process of innovation can be encouraged by relying on building the climate specifically oriented to innovation, on the orientation targeted to decision-making, on the enhancement of the perception of support among colleagues and perception of a high level of participation

offered by the leader. This research helps to address the practical efforts made by the leaders of businesses because it provides a point of view on different aspects that could be implemented in the company. Practically, entrepreneurs can develop the perception of support among colleagues through activities that encourage effective and reciprocal aids. Also the support among colleagues can be stimulated either through explication of activities related to work but also through the tasks to be carried out in informal situations. The renewed and mutual support can then be transferred in working environments in order to facilitate the entire innovation process.

The participation in decision-making can be promoted discouraging an excessive hierarchical structure. In this way, workers will feel more valued and perceive that their ideas, including those related to the development and implementation of new ideas, are actually taken into account by its leader. Additionally, Luthans (2005) affirms that the participation can be fomented thanks to unstructured tasks and work experiences. Moreover, since Rice (1998) suggests putting the decision-making close to the point of delivery, according with this article can be suggested to increment activities of PDM especially during the innovation process.

Lastly, in order to help the insurgence of the PCI, managers should tolerate the development of heterogeneous sets of points of view. In these way workers can employ the plurality of ideas and reciprocally exchange them.

This empirical work offers also some suggestion for scholars. Next researches can use these results as a basis for future investigations and may consider whether other aspects of the psychological climate can be interposed between the participating organizations and the innovative work behavior. In addition, the empirical model presented in this research could be extended further considering the contribution given by the perception of leaders' support and the contribution offered by the interaction of co-workers and leaders' support. As noticed above, past publications have already highlighted the relationship existing between

participative leadership and the IWB and new ones may consider the role of these different support. In relation to the exposed model, it could be interesting to study the role played by the support offered by entities outside the company as suppliers and customers in order to build a network of support and cross-exchange of ideas that will give new energy to the innovation process. In the end, since the proposed model is based on private firms, it would be newsworthy to verify it in public sector in order to compare the overall results.

### **5.8 Limitation and future researches**

This study has some limitations that are necessary to notice. First of all, as Parnell, Koseoglu and Dent (2012) have declared, the cultural context can determine different level of experienced PDM; for this reason the results drawn in the present research should be checked in nations with a cultural background that differ from the Italian one. Secondly, this investigation is cross-sectional and no causal inferences among the variables can be drawn; at this regards, longitudinal approach is more proper. Thirdly all the item answers are been collect on the single respondent and, according with Chan (2009), self-report measures are justifiable when the constructs are self-referential; however although a positive value of common method bias is been observed, the results should be carefully interpreted before of a new empirical confirmation.

## **Chapter 6 Conclusion**

### **6.1 Discussion of the main result**

The actual economic scenario imposes continuous mutation in organizational processes in order to reach customers' trend, satisfaction and need. The rapidity of these changes encourage the attention on multiple aspects that, according with Informest (2011), are the investment on new technologies and on automation, the right balancing between cost and quality of offered product, business process redesign, creation of networking, attention to the customer requirements and the product design, training, lifelong learning, customer relationship management and processes innovation. All these reported processes can better favor the survivor of business if are synchronously treated.

The SMEs are the backbone of the States enrolled in Organization for Economic Co-operation and Development economies since represent more of 95% of all operating businesses (OECD, 2000). For this reason their growing and the survivor need always renewed attention by national governments and social science scholars. In literature different approach are been carried out considering the role of numerous and heterogeneous variables like intellectual capital management (e.g., Marzo & Scarpino, 2016), training (e.g., Mansor, Abu, & Nasir, 2015) and collaboration with other organizations (e.g., Whittaker, Fath, & Fiedler, 2016). However one of the more transversal variables that mark successful organizations is the innovation since it's interconnected with multiple actors and processes. More specifically it isn't limitable in specific task or role activities and interacts with psychosocial process (Anderson et al., 2014; West, 2002).

In recent years, innovation has occupied a central role in organizations in order to promote their survival and to determine their performance. The challenge aimed to the understanding its antecedent variables was picked up by different social sciences which have increased our knowledge inherent to this area of study. How it is shown in this thesis, in work and organizational psychology several contributions are been developed. Starting from these

researches, in recent years scholars have failed to broaden scientific horizons developing new theoretical frameworks that regroup different theories so far known. Moreover, according to Anderson and colleagues (2004), scientific development has tended more to the routinization of research in the sense of not being able to overcome its methodological limitations, such as the adoption of self-report, and in conceptual vein, as the repetition of already existing conceptualizations. The aim of this thesis has consisted in trying to meet these challenges taking into account the intrinsic limitations of the past and already highlighted studies. More precisely, this work has explored new antecedents of innovative behavior expanding the understanding of the role played by human resources practices. The HRM received remarkable response in managerial sciences in relation to different types of innovation but there is little research that investigated specifically the workers' innovative behaviors.

## **6.2 Main contributions**

Huselid (1995) claims that human resources management practices act on performance in three different ways related to the employees' motivation, enhancement of skills and abilities and empowering the workers to reach firm aims. Liu and colleagues (2007) believe that the increased stock of knowledge is crucial to encourage workers to go beyond the routine functions; however HRM practices can motivate them to engage in additional efforts. This research has the aim to understand if the workers' perception of explored HRM practices can optimize the time and the other resources in order to encourage innovative behaviors. The detected contributions are analogous to past research like Lepak and Snell (1999) in which the scholars declare that the investment in HRM practices has effects on the employees' commitment. According with Boon and colleagues (2014), these relationships are detectable because employees consider the firm efforts in HRM practices as the promotion of a long-term investment in human resources. This virtuous circle can also be justified by the social

exchange theory (Blau, 1964) since workers are more inclined to act in direction to the management expectations if they feel valorized and appreciated. In a similar manner, Snape and Redman (2009) and Morrison (1996) claim that to spur employees to work behind the routinized way, it's necessary provide HRM practices aimed to develop their abilities and competences.

The present doctoral work has explored the following HRM practices: individual and group learning practices and participation in decision-making. The psychological processes of learning and decision-making are well rooted in literature but they have rarely received conjointly attention as explored in chapter 3 of this thesis. The two examined studies did not just stop to the exploration of relationships between HRM and the innovative behavior but they also sought to understand the role of different variables mediators through the structuring of two empirical researches. The first study puts the emphasis on the perception of the practices of HRM related to learning at individual and group level. This research has a twofold result: first, it shows that the two practices examined are directly related to innovative behavior; secondly, these relationships are mediated in part by the dimension of group climate for innovation referring to norms and supportive climate for innovation. In summary, the individual and collective learning can increase the knowledge and skills which a worker requires to implement innovative behaviors. The perception that the firm supports the workers' need to acquire new abilities, knowledge and competences through learning HRM practices enhances the probability to activate the employees' motivational lever to act over the agreed contractual arrangements. Furthermore intervening action of climate explicates the need to create common perceptions with the aim of promoting innovation.

The second study analyzes the combined relationships between the participative leadership, the participation in decision-making HRM practice and the innovative behavior. The drawn conclusion has allowed inferring that the IWB antecedents are mediated by the perception of organizational climate for innovation and the support offered by colleagues. The

positive effect of coworkers' support is in line with previous papers like the Harrison and Martocchio' (1998) one that found the relationship between reduce job absences and social factors. Moreover, contrary to expectations, the only relationship that is not found significant concerns the link between the climate for innovation and the support of colleagues.

These two empirical studies have an additional element of novelty comparing to the previous research since they are conducted in SMEs. According with Anderson et al. (2014) these types of organizations are not yet properly explored in psychosocial studies. Especially in the Italian context, where the investigations are been conducted, SMEs are almost all the companies operating. Currently these companies are living in a changing environment that is likely to become particularly difficult due to the current economic crisis that has hit many sectors. The value of innovation has received recognition from multiple disciplines as a tool to cope the globalization of markets and to push firms out of the economic crisis.

### **6.3 Practical implication**

The current period of crisis has led many entrepreneurs to review the strategy for the future of their organization and their internal management plans. Far too many times it was thought only to make solutions to cut what was considered wasteful and to restructure particularly fields deemed less productive. These solutions hide the risk of sapping the potential of employees and creating a downward spiral characterized by an increasingly less comfortable environment in which to work to the fullest. In fact, the history of entrepreneurship focuses on innovation as a key asset in times of crisis because, through the questioning of the inner workings, it is possible to seize suggestions deriving as much from workers themselves as from external parties such as customers and stakeholders. The cues coming from these two sources are both valuable because, synergistically combining them, allow them to develop new responses to crisis conditions without losing sight the conditions

required by the labor market. From the above it is clear how to innovate means to engage in a broader process in which different social partners contribute to business development. So it is not developed by the genius and creativity of the individual but rather is a challenge that often involves the entire organization. To develop innovative process the leadership is called upon to create a constructive dialogue between the various actors in order to join multiple resources, knowledge, skills and abilities.

In order to enhance the innovation capital of a company, the management has to plan its mission and its strategic activities including the innovative process on an ongoing basis and not sporadic, depending on specific situations. To do this, the climate for innovation can play a key value. The establishment of this climate can not only boost the innovative performance of employees but also encourage frequent exchanges between workers and supervisors in order to have constant feedback on their actions and ideas to be implemented to achieve more satisfactory business results. In addition, the constant innovation process deserves attention even through the structuring of measurement and evaluation methods (Informest, 2011) that they can enable balancing the staff resources between the progress of their work and the testing of new ideas.

Implement an innovative process allows taking a deep awareness of the ever-changing market in which the company operates. It can be placed in a renewed production process, in a corporate organization change, in the promulgation of a new service or in its sales, and in the adoption of a new technology. This process is completely transversal in relation to the area of specialization of the company as well as for its size because the change makes it possible to optimize the profits of new products anticipating competitors. Just by way of example with respect to what was stated. Recovering as quickly as previously set out in the first research of this thesis, introducing management processes of human resources related to learning can foster innovation but, in some cases, may it be regarded as such. The development of a constant learning allows coming into contact new knowledge with the intrinsic professional

background of each worker. The promotion of innovation can take place through various types of training and, by way of example, among the most famous may include social learning, learning by doing and learning by using, learning by interacting (McGuinness, O'Connell, & Kelly, 2014). Also, some tips can be formulated regarding the foster decision-making in small and medium companies. This category of companies is characterized by more fluid organization of work and various functions can be performed by the workers themselves. In these cases the manager's task is to have a global view of both the overall process of decision making both of the individual parts that compose it. Unlike what happens in large companies where management oversees the process of decision-making, in small and medium business leaders should be part of decision-making processes in order to better direct the workers to innovate by following the objectives of company. This will optimize the resources of all employees for the development of innovations produced in a consistent manner and in line with the company's strategy. Specifically with regard to workers, Informest (2011) recommends managers to encourage sharing and a clear understanding of business objectives in order to allow employees to avoid the development of ideas does not relate to the mission of the company; alike should be encouraged motivation, specific and non-specific knowledge in its sector, and evaluation of the ideas promoted during the process. In addition emphasis is placed on the role played not only by external consultants but also by external moderators to innovative group since they can favor the generation of ideas and their implementation avoiding hindering dynamics such as groupthink.

In literature it's ascertained that the implementation of HRM practices implies resources investment at short, medium and long term. Sels et al. (2006) observe that particularly in the short run the small firms show the reduction in the creation of value since their workers aimed to consecrate efforts in activities considered not pivotal of their job. Anyway among these activities, labeled contextual in opposition to core ones (Borman & Motowidlo, 1997), can be detectable the personal development and the innovation behaviors. Employers should pay

attention on the modality of time employment by workers in order to monitor the time distribution on the different projects and, consequently, the organizational outcomes (Yakura, 2002; Evans, Kunda, & Barley, 2004). How it's stood out in this thesis, the foresight of management in employing HRM practices can be rewarded in during the long run in term of competitively and optimization of internal processes. Moreover the adoption of HRM practices can affect also other organizational variables like culture and structure and, then, can create a unique combination of knowledge hardly reproducible in other organizational environment; this crucial asset can determine both high level of performance (Cravens & Oliver, 2006) and innovation. Comparable effect is been examined by Boon, Belschak, Den Hartong and Pijnenburg (2014) who, rooting in motivational approach-avoidance mechanism (Maertz & Griffeth, 2004), claim that HRM practices have effects on workers absenteeism and the allocation of time in work life.

#### **6.4 Suggestion for future research**

It is important to stress that, although these studies pursue the opening of research on innovative behavior towards new lines of research responding to the call of Anderson and colleagues (2014, 2004), the understanding of how HRM management are relate to the behavior innovative yet should remain the subject of intense involvement by the psychological and managerial scholars. This statement is based on the belief that the innovative behavior is a process certainly related to the practices of human resource management but that needs further investigation with regard to the creation of holistic models that include a larger number of practices and the mediating variables. Therefore new empirical research could reconsider the showed results with different subject population, including other potential mediating and moderator variable, and try to replace the empirical models employing different operationalization of the variables. In a similar vein, a

challenging and confirmatory task consists in replace the obtained results through the structuring of a qualitative research rather than quantitative one.

Moreover, the research deserves more efforts to integrate results from the management and psychology literature in order to assess the value of not only the implementation of the human resources practices but also of how they are perceived by workers. Following the conceptualization of Liu and colleagues (2007), it's supposed that how HRM practices are perceived could avoid the dispersion of own talents into companies' competitors, with consequent waste of economic efforts in training, and thus could increase the possibility of having in their staff the best workers to start the process of innovation.

Lastly, the ethical implication related to the adoption of HRM practices should better grab the attention of scholars in following studies. This aspect could be particularly relevant in relation to the effect of different practices on various groups of employees, the workers' fatigue coming from continuous efforts to keep updated knowledge (Kaye, 1999; Liu et al., 2009).

## References

- Abdullah, N. H., Wahab, E., & Shamsuddin, A. (2010). Human resource management practices as predictors of innovation among Johor SMEs. In *International Conference on Science and Social Research (CSSR)*, December 5 - 7, 2010. Kuala Lumpur, Malaysia.
- Adel Mohammad, A. B. (2010). Office layouts and employee participation. *Facilities*, 28(7), 348-357.
- Afsar, B., Badir, Y. F., & Saeed, B. B. (2014). Transformational leadership and innovative work behavior. *Industrial Management & Data Systems*, 114(8), 1270-1300.
- Aguinis, H., & Kraiger, K. (2009). Benefits of training and development for individuals and teams, organizations, and society. *Annual Review of Psychology*, 60, 451-474.
- Akhavan, P., Hosseini, S. M., Abbasi, M., & Manteghi, M. (2015). Knowledge-sharing determinants, behaviors, and innovative work behaviors: An integrated theoretical view and empirical examination. *Aslib Journal of Information Management*, 67(5), 562-591.
- Alfes, K., Shantz, A., Truss, K., & Soane, E. (2013). The link between HR practices and employee engagement and behaviour: A moderated mediation model. *International Journal of Human Resource Management*, 24(2), 330-351.
- Amabile, T. M. (1997). Motivating creativity in organizations: On doing what you love and loving what you do. *California Management review*, 40(11), 53-1997.
- Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of Management Journal*, 39, 1154-1184.

Amin, M., Ismail, W. K. W., Rasid, S. Z. A., & Selemani, R. D. A. (2014). The impact of human resource management practices on performance. *The TQM Journal*, 26,(2), 125-142.

Anderson, N. R, De Dreu, C. K. W., & Nijstad, B. A. (2004). The routinization of innovation research: A constructively critical review of the state-of-the-science. *Journal of Organizational Behavior*, 25, 147-173.

Anderson, N. R., & West, M. A. (1998). Measuring climate for work group innovation: Development and validation of the team climate inventory. *Journal of Organizational Behavior*, 19, 235-258.

Anderson, N., & Gasteiger, R. M. (2007). Helping creativity and innovation thrive in organizations: Functional and dysfunctional perspectives. In J. Langan-Fox, C. L. Cooper, & R. J. Klimoski (Eds.), *Research companion to the dysfunctional workplace: Management challenges and symptoms* (pp. 422-440). Cheltenham: Edward Elgar Publishing.

Anderson, N., Potočnik, K., & Zhou, J. (2014). Innovation and creativity in organizations: A state-of-the-science review and prospective commentary. *Journal of Management*. 40(5), 1297-1333.

Anderson, R. A., & McDaniel, R. R. Jr (1999). RN participation in organizational decision-making and improvements in resident outcomes. *Healthcare Management Review*, 24(1), 7-16.

Antonio, G. L., Prado, J. C. P., & Jesùs Garcìa, A. (2000). Continuous improvement and employee participation in SMEs. *The TQM Magazine*, 12(4), 290-294.

Appelbaum, E., Bailey, T., Berg, P., & Kalleberg, A. (2000). *Manufacturing advantage: why high-performance work systems pay off*. Cornell University Press, Ithaca, NY.

Armstrong, M. (1992). *Strategic Human Resource Management. A guide to action.* Kogan Page: London and Philadelphia.

Arnold, J. A., Arad, S., Rhoades, J. A., & Drasgow, F. (2000). The empowering leadership questionnaire: the construction and validation of a new scale for measuring leader behaviors. *Journal of Organizational Behavior, 21*(3), 249-269.

Arthur, J., & Aiman-Smith, L. (2001) Gainsharing and organizational learning: An analysis of employee suggestions over time. *Academy of Management Journal, 44*, 737-754.

Aryee, S., & Chen, Z. X. (2006). Leader-member exchange in a Chinese context: antecedents, the mediating role of psychological empowerment and outcomes. *Journal of Business Research, 59*, 793-801.

Axtell, C. M., Holman, D. J., Unsworth, K. L., Wall, T. D., Waterson, P. E., & Harrington, E. (2000). Shopfloor innovation: facilitating the suggestion and implementation of ideas. *Journal of Occupational and Organizational Psychology, 73*(3), 265-286.

Baer, M., & Frese, M. (2003). Innovation in not enough: climates for initiative and psychological safety, process innovation, and firm performance. *Journal of Organizational Behaviour, 24*, 45-68.

Bakker, A. B., & Bal, P. M. (2010). Weekly work engagement and performance: A study among starting teachers. *Journal of Occupational and Organizational Psychology, 83*, 189-206.

Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: state of the art. *Journal of Managerial Psychology, 22*(3), 309-328.

Baptiste, N. R. (2008). Tightening the link between employee wellbeing at work and performance: A new dimension for HRM. *Management Decision, 46*(2), 284-309.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*, 99-120.

Basu, R., & Green, S. G. (1997). Leader-member exchange and transformational leadership: an empirical examination of innovative behaviors in leader-member dyads. *Journal of Applied Social Psychology, 27*(6), 477-99.

Battistelli A., Montani F., & Odoardi C. (2013). The impact of feedback from job and task autonomy in the relationship between dispositional resistance to change and innovative work behaviour. *European Journal of Work and Organizational Psychology, 22*, 26-41.

Becker, K. L., & Matthews, J. H. (2008). Linking HRM and innovation: formulating the research agenda. In 22nd ANZAM Conference 2008, *Managing in the Pacific Century* (pp. 2-5). New Zealand: Auckland.

Bednall T. C., Sanders, K., & Runhaar, P. (2014). Stimulating informal learning activities through perceptions of performance appraisal quality and human resource management system strength: a two-wave study. *Academy of Management Learning and Education, 13*(1), 45-61.

Beehr, T. A. (1995). *Psychological stress in the workplace*. Routledge: London.

Benner, M. J., & Tushman, M. L. (2003). Exploitation, exploration and process management: the productivity dilemma revisited. *Academy of Management Review, 28*(2), 238-256.

Bennet, R. (1997). *Organizational Behavior* (3<sup>rd</sup> ed). London, UK: Pearson Education.

Bolton, B. (1986). A Review of the Minnesota Satisfaction Questionnaire. In D. J. Keyser and R. C. Sweetland (Eds.). *Test critiques, Vol. V* (pp. 255-265). Kansas City, MO: Test Corporation of America.

Benoliel, P., & Somech, A. (2014). The health and performance effects of participative leadership: Exploring the moderating role of the Big Five personality dimensions. *European Journal of Work and Organizational Psychology, 23*(2), 277-294.

Berg, S. A., & Youn S. C. (2008). Factors that influence informal learning in the workplace. *Journal of Workplace Learning, 20*(4), 229-244.

Billett, S. (2004). Learning through work: workplace participatory practices. In H. Rainbird, A. Fuller, and A. Munro (Eds), *Workplace Learning in Context* (pp. 109-125). London: Routledge.

Birkinshaw, J., Hamel, G., & Mol, M. J. (2008). Management innovation. *The Academy of Management Review, 33*, 825-845.

Black, J.S. & Gregersen, H.B. (1997). Participative decision making: an integration of multiple dimensions. *Human Relations, 50*, 7, 859-879.

Blau, P. M. (1964). *Exchange and power in social life*. New York, NY: Wiley.

Bledow, R., Frese, M., Anderson, N., Erez, M., & Farr, J. (2009). A dialectic perspective on innovation: conflicting demands, multiple pathways, and ambidexterity. *Industrial and Organizational Psychology, 2*(3), 305-337.

Blyton, P., & Turnbull, P. (2004). *The dynamics of employee relations*. Basingstoke: Palgrave Macmillan.

Bontis, N., Crossan, M., & Hulland, J. (2002). Managing an organizational learning system by aligning stocks and flows. *Journal of Management Studies, 39*, 437-69.

Boon, C., Belschak, F. D., Den Hartog, D. N., & Pijnenburg, M. (2014). Their effect on employee absenteeism and time allocation at work. *Perceived Human Resource Management Practices, 13*(1), 21-33.

Borman, W. C., & Motowidlo, S. J. (1997). Task performance and contextual performance: The meaning for personnel selection research. *Human Performance, 10*, 99-109.

Boselie, P. (2010). High performance work practices in the health care sector: a Dutch case study. *International Journal of Manpower, 31*(1), 42 – 58.

Boselie, P., Dietz, G., & Boon, C. (2005). Commonalities and contradictions in research on human resource management and performance. *Human Resource Management Journal, 15*(3), 67-94.

Bowen, D. E., & Ostroff, C. (2004). Understanding HRM-firm performance linkages: The role of the “strength” of the HRM system. *Academy of Management Review, 29*, 203-221.

Brown, S. P., & Leigh, T. W. (1996). A new look at psychological climate and its relationship to job involvement, effort and performance. *Journal of Applied Psychology, 81*(4), 358-68.

Boxall, P., & Steeneveld, M. (1999). Human resource strategy and competitive advantage: A longitudinal study of engineering consultancies. *Journal of Management Studies, 36*(4), 443–463.

Bratton, J., & Gold, J. (2003) *Human Resource Management: Theory and Practice*, 3rd edition. Hampshire: Palgrave Macmillan.

Brown, S. P., & Leigh, T. W. (1996). A new look at psychological climate and its relationship to job involvement, effort, and performance. *Journal of Applied Psychology, 81*, 358-368.

Bunderson, J. S., & Sutcliffe, K. M. (2003). Management team learning orientation and business unit performance. *Journal of Applied Psychology, 88*(3), 552-560.

Burpitt, W. J., & Bigoness, W. J. (1997). Leadership and innovation among teams: The impact of empowerment. *Small Group Research*, 28, 414-423.

Büschgens, T., Bausch, A., & Balkin, D. B. (2013). Organizational culture and innovation: A meta-analytic review. *Journal of Product Innovation Management*, 30(4), 763-781.

Camisón-Zornoza, C., Lapedra-Alcamí, R., Segarra-Ciprés, M., & Boronat-Navarro, M. (2004). A meta-analysis of innovation and organizational size. *Organization Studies*, 25(3), 331-361.

Chan, D. (2009). So why ask me? Are self-report data really that bad? In C. E. Lance & R. J. Vandenberg (Eds.), *Statistical and methodological myths and urban legends: Doctrine, verity and fable in the organizational and social sciences* (pp. 311-338). New York: Routledge.

Chand, M. (2010). The impact of HRM practices on service quality, customer satisfaction and performance in the Indian hotel industry. *The International Journal of Human Resource Management*, 21(4), 551-566.

Chang, W. J. A., & Huang, T. C. (2005). Relationship between human resource management and firm performance. *International Journal of Manpower*, 26(5), 434-449.

Charoensukmongkol, P. (2014). Effects of support and job demands on social media use and work outcomes. *Computers in Human Behavior*, 36, 340-349.

Chen, C. F., & Kao, Y. L. (2014). Investigating the moderating effects of service climate on personality, motivation, social support, and performance among flight attendants. *Tourism Management*, 44, 58-66.

Chen, G., Farh, J. L., Campbell-Bush, E. M., Wu, Z., & Wu, X. (2013). Teams as innovative systems: multilevel motivational antecedents of innovation in R&D teams. *Journal of Applied Psychology, 98*(6), 1018-1027.

Chughtai, A., & Buckley, F. (2011). Work engagement: Antecedents, the mediating role of learning goal orientation and job performance. *The Career Development International, 16*(7), 684-705.

Coelho, J. P., Cunha, R. C., Gomes, J. F. S., & Correia, A. G. (2012). *Developing and validating a measure of the strength of the HRM system: Operationalizing the construct and relationships among its dimensions*. Working Paper 0562, Nova School of Business and Economics.

Coff, R. W. (1997). Human assets and management dilemmas: Coping with hazards on the road to resource-based theory. *Academy of Management Review, 22*, 374-402.

Combs, J., Liu, Y., Hall, A., & Ketchen, D. (2006). How much do high performance work practices matter? A meta-analysis of their effects on organizational performance. *Personnel Psychology, 59*, 501-528.

Connor, P. E. (1992). Decision-making participation patterns: The role of organizational context. *The Academy of Management Journal, 35*(1), 218-231.

Cotton, J. L., Vollrath, D. A., Froggatt, K. L., Lengnick-Hall, M. L., & Jennings, K. R. (1988). Employee participation: Diverse forms and different outcomes. *Academy of Management Review, 13*, 8-22.

Cravens, K. S., & Oliver, E. G. (2006). Employees: the key link to corporate reputation management. *Business Horizons, 49*(4), 293-302.

Damanpour, F. (2010). An integration of research findings of effects of firm size and market competition on product and process innovations. *British Journal of Management*, 21, 996-1010.

Damanpour, F., & Schneider, M. (2006). Phases of the adoption of in organizations: effects of environment, organization and top managers. *British Journal of Management*, 17, 215-236.

Daniels, K., & Bailey, A. (1999). Strategy Development Processes and Participation in Decision-Making: Predictors of Role Stressors and Job Satisfaction. *Journal of Applied Management Studies* 8(1), 27-42.

De Dreu, C. K. W. (2006). When too much and too little hurts: Evidence for a curvilinear relationship between task conflict and innovation in teams. *Journal of Management*, 32, 83-107.

De Dreu, C. K. W., & West, M. A. (2001). Minority dissent and team innovation: The importance of participation in decision making. *Journal of Applied Psychology*, 86, 1191-1201.

De Jong, J., & Den Hartog D. (2010). Measuring innovative work behaviour. *Creativity and Innovation Management*, 19, 23-36.

Delaney, J. T., & Huselid, M. A. (1996). The impact of Human Resource Management practices on perceptions of organizational performance. *Academy of Management Journal*, 39(4), 949-969.

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499-512.

Denti, L., & Hemlin, S. (2012). Leadership and innovation in organizations: a systematic review of factors that mediate or moderate the relationship. *International Journal of Innovation Management*, 16(3), 1-20.

Di Milia, L., & Birdi, K. (2010). The relationship between multiple levels of learning practices and objective and subjective organizational financial performance. *Journal of Organizational Behavior*, 31, 481-498.

Dorenbosch, L., Van Engen, M.L., & Verhagen, M. (2005). On-the-job innovation: The impact of job design and human resource management through production ownership. *Creativity and Innovation Management*, 14(2), 129-141.

Dragoni, L. (2005). *Understanding the emergence of state goal orientation in organizational work groups: The role of leadership and multilevel climate perceptions*. Retrieved from Cornell University, ILR School site: <http://digitalcommons.ilr.cornell.edu/articles/185/>

Ducharme, L. J., & Martin, J. K. (2000). Unrewarding Work, Coworker Support, and Job Satisfaction. *Work and Occupations*, 27(2), 223-243.

Durham, C. C., Knight, D., & Locke, E. A. (1997). Effects of leader role, team-set goal difficulty, efficacy, and tactics on team effectiveness. *Organizational Behavior and Human Decision Processes*, 72, 203-231.

Ehrnrooth, M., & Björkman, I. (2012). An integrative HRM process theorization: Beyond signaling effects and mutual gains. *Journal of Management Studies*, 49, 1109-1135.

Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71(3), 500-507.

Elenkov, D. S., & Manev, I. M. (2005). Top management leadership and influence on innovation: the role of sociocultural context. *Journal of Management*, 31(3), 381-402.

Elfering, A., Semmer, N. K., Schade, V., Grund, S., & Boos, N. (2002). Supportive colleague, Unsupportive supervisor: The role of provider-specific constellations of social support at work in the development of low back pain. *Journal of Occupational Health Psychology, 7*(2), 130-140.

Erhardt, N. (2011). Is it all about teamwork? Understanding processes in team-based knowledge work. *Management Learning, 42*, 87-112.

Ettlie, J. E., Groves, K. S., Vance, C. M., & Hess, G. L. (2014). Cognitive style and innovation in organizations. *European Journal of Innovation Management, 17*(3), 311-326.

European Commission (2013). *Imprese e industria. Scheda Informativa SBA 2013*. Retrieved from [http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/performance-review/files/countries-sheets/2013/italy\\_it.pdf](http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/performance-review/files/countries-sheets/2013/italy_it.pdf)

Evans, J. A., Kunda, G., & Barley, S. R. (2004). Beach time, bridge time, and billable hours: The temporal structure of technical contracting. *Administrative Science Quarterly, 49*, 1-38.

Falzer, P. R., & Garman, D. M. (2012). Optimizing clozapine through clinical decision making. *Acta Psychiatrica Scandinavica, 126*(1), 47-58.

Ferlie, E., Fitzgerald, L., Wood, M., & Hawkins, C. (2005). The nonspread of innovation: the mediating role of professionals. *Academy of Management Journal, 48*(1), 117-134.

Ferris, G. R., Arthur, M. M., Berkson, H. M., Kaplan, D. M., Harrel-Cook, G., & Frink, D. D. (1998). Toward a social context theory of the human resource management–organization effectiveness relationship. *Human Resource Management Review, 8*(3), 235-264.

Freel, M. S. (2000). Barriers to product innovation in small manufacturing firms. *International Small Business Journal, 18*(2), 60-80.

Frese, M., Teng, E., & Wijnen, C. J. D. (1999). Helping to improve suggestion systems: Predictors of making suggestions in companies. *Journal of Organizational Behavior*, 20, 1139-1155.

Fu, N., Flood, P. C., Bosak, J., Morris, T., & O'Regan, P. (2015). How do high performance work systems influence organizational innovation in professional service firms? *Employee Relations*, 37(2), 209-231.

Geertman, S. (2008). Planning support systems: a planner's perspective. In R. Brail (Ed.), *Planning support systems for cities and regions* (pp. 213–230). Cambridge MA: Lincoln Institute for Land Policy.

George, J. M., & Zhou, J. (2001). When openness to experience and conscientiousness are related to creative behavior: An interactional approach. *Journal of Applied Psychology*, 86(3), 513-524.

Gerhart, B. (2005). Human resources and business performance: findings, unanswered questions, and an alternative approach. *Management Review*, 16, 174-85.

Gillen, M., Baltz, D., Gassel, M., Kirsch, L., & Vaccaro, D. (2002). Perceived safety climate, job demands, and coworker support among union and nonunion injured construction workers. *Journal of Safety Research*, 33(1), 33-51.

Gong, Y., Huang, J. C., & Farh, J. L. (2009). Employee learning orientation, transformational leadership, and employee creativity: The mediating role of employee creative self-efficacy. *Academy of Management Journal*, 52, 765-778.

Green, K. G., Wu, C., Whitten, D., & Medlin, B. (2006). The impact of strategic human resource management on firm performance and HR professionals' work attitude and work performance. *International Journal of Human Resource Management*, 17(4), 559-579.

Greenberger, D. B., Strasser, S., Cummings, L. L., & Dunham, R. B. (1989). The impact of personal control on performance and satisfaction. *Organizational Behavior and Human Decision Processes*, 43, 29-51.

Guest, D. (2011). Human resource management and performance: still searching for some answers. *Human Resource Management Journal*, 21, 3-13.

Guest, D. E. (1997). Human resource management and performance: a review and research agenda. *The International Journal of Human Resource Management*, 8, 263-276.

Gupta, A. K., Tesluk, P. E., & Taylor, M. S. (2007). Innovation at and across multiple levels of analysis. *Organization Science*, 18, 885-897.

Hammond, M. M., Neff, N. L., Farr, J. L., Schwall, A. R., & Zhao, X. (2011). Predictors of individual-level innovation at work: A meta-analysis. *Psychology of Aesthetics, Creativity, and the Arts*, 5, 90-105.

Harrison, D. A., & Martocchio, J. J. (1998). Time for absenteeism: A 20-year review of origins, offshoots, and outcomes. *Journal of Management*, 24, 305-326.

Hausman, A. (2005). Innovativeness among Small Businesses: Theory and Propositions for Future Research. *Industrial Marketing Management*, 34(8), 773-782.

He, Z. L., & Wong, P. K. (2004). Exploration vs. exploitation: An empirical test of the ambidexterity hypothesis. *Organizational Science*, 15(4), 481-494.

Helms, M. M. (2006). Theory X and Theory. *Encyclopedia of Management Education*.

Hobfoll, S. E. (1998). *Stress, culture, and community: The psychology and philosophy of stress*. New York, NY: Plenum.

Hogg, M. A., & van Knippenberg, D. (2003). Social identity and leadership processes in groups. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology*, vol. 35 (pp. 1 – 52). San Diego, CA: Academic Press.

Hu, L. T., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, 3, 424-453.

Hülshager, U. R., Anderson, N., & Salgado, J. F. (2009). Team-level predictors of innovation at work: A comprehensive meta-analysis spanning three decades of research. *Journal of Applied Psychology*, 94(5), 1128–1145.

Hurt, H. T., Joseph, K., & Cook, C. D. (1977). Scales for the measurement of innovativeness. *Human Communication Research*, 4(1), 58-65.

Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38, 635-670.

Huselid, M. A., & Becker, B. E. (1996). Methodological issues in cross-sectional and panel estimates of the human resource-firm performance link. *Industrial Relations: A Journal of Economy and Society*, 35, 400-422.

Ichniowski, C., Shaw, K., & Prennushi, G. (1997). *The effects of human resource management practices on productivity*. National Bureau of Economic Research Working Paper No. 5333, November.

Informest (2011). *Gestione della creatività e dell'innovazione nelle piccole e medie imprese*. Retrieved from [http://www.icon-project.eu/docs/wp/3/gestione\\_creativita\\_innovazione\\_pmi.pdf](http://www.icon-project.eu/docs/wp/3/gestione_creativita_innovazione_pmi.pdf)

Innocenti, L., Peluso, A. M., & Pilati, M. (2012). The interplay between HR practices and perceived behavioural integrity in determining positive employee outcomes. *Journal of Change Management*, 12(4), 399-415.

Innocenti, L., Pilati, M., & Peluso, A. M. (2011). Trust as moderator in the relationship between HRM practices and employee attitudes. *Human Resource Management Journal* 21(3), 303–317.

Isaksen, S. G., & Ekvall, G. (2010). Managing for innovation: the two faces of tension in creative climates. *Creativity and Innovation Management*, 19(2), 73–88.

Jackson, S. E. (1983). Participation in decision making as a strategy for reducing job-related strain. *Journal of Applied Psychology*, 68, 3-19.

James, L. R., & Jones, A. P. (1974). Organizational climate: a review of theory and research. *Psychological Bulletin*, 81, 1096-1112.

James, L., & Sells, S. (1981). Psychological climate: Theoretical perspectives and empirical research, in Magnussen, D. (Ed.), *Toward a psychology of situations: An interactional perspective*, (pp. 275-295) Erlbaum, Hillsdale, NJ.

Janssen, O. (2000). Job demands, perceptions of effort-reward fairness, and innovative work behavior. *Journal of Occupational and Organizational Psychology*, 73(1), 287-302.

Janssen, O. (2005). The joint impact of perceived influence and supervisor supportiveness on employee innovative behaviour. *Journal of Occupational and Organizational Psychology*, 78, 573-579.

Janssens, M., Brett, J., & Smith, F. (1995). confirmatory cross-cultural research: Testing and viability. *Academy of Management Journal*, 38(2), 364-376.

Jeffcoate, J., Chappell, C., & Feindt, S. (2002). Best practice in SME adoption of e-commerce. *Benchmarking: An International Journal*, 9(2), 122-132.

Jiang, K., Lepak, D. P., Hu, J., & Baer, J. (2012). How does human resource management influence organizational outcomes? A meta-analytic investigation of the mediating mechanism. *Academy of Management Journal*, 55, 1264-1294.

Jitwasinkul, B., Hadikusumo, B. H. W., & Memon, A. Q. (2016). A Bayesian Belief Network model of organizational factors for improving safe work behaviors in Thai construction industry. *Safety Science*, 82, 264-273.

Jørgensen, F., Becker, K., & Matthews, J. (2009). Human Resource Management and Innovation: What are Knowledge-Intensive Firms Doing? In Enhancing the innovation environment: *Proceedings of the 10th International CINet Conference*, 6-8 September 2009, Australia Queensland: Brisbane.

Kang, J. H., Solomon, G. T., & Choi, D. Y. (2015). CEOs' leadership styles and managers' innovative behavior: investigation of intervening effects in an entrepreneurial context. *Journal of Management Studies*, 52(4), 531-554.

Kanter, R. M. (1988). When a thousand flowers bloom: structural, collective, and social conditions for innovation in organizations. In B. M. Staw & L. L. Cummings (Eds). *Research in Organizations*, vol. 10 (pp. 169-211). Greenwich, CT: JAI Press.

Kappelman, K., & Prybutok, V. (1995). Empowerment, motivation, training, and TQM program implementation success. *Industrial Management*, 37(3), 12-15.

Katou, A. A. (2008). Human resource management and performance in the hospitality industry: methodological issues. *International Journal of Hospitality & Tourism Systems*, 1(1), 11-24.

Katou, A. A., Budhwar, P. S., & Patel, C. (2014). Content vs. process in the HRM-performance relationship: an empirical examination. *Human Resource Management, 53*(4), 527-544.

Kaye, L. (1999). Strategic human resources management in Australia: The human cost. *International Journal of Manpower, 20*(8), 577–587.

Keegan, A., & Boselie, P. (2006). The lack of dissensus-inspired analysis on developments in the field of human resource management. *Journal of Management Studies, 43*(6), 1491-511.

Kehoe, R. R., & Wright, P. M. (2013). The impact of high performance human resource practices on employees' attitudes and behaviors. *Journal of Management, 39*, 366-391.

Kelley, H. H. (1967). Attribution theory in social psychology. In D. Levine (Ed.), *Nebraska symposium on motivation* (pp. 192–240). Lincoln, NE: University of Nebraska Press.

Khan, M. A. (2012). An empirical study on effects of learning organizational culture on employees' job related outcomes. *Actual Problems of Economics, 135*(9), 230-237.

Kijkuit, B., & van den Ende, J. (2010). With a little help from our colleagues: A longitudinal study of social networks for innovation. *Organization Studies, 31*(4), 451-479.

Kim, H., & Stoner, M. (2008). Burnout and turnover intention among social workers: effects of role stress, job autonomy and social support. *Administration in Social Work, 32*, 5-25.

King, E. B., de Chermont, K., West, M., Dawson, J. F., & Hebl, M. R. (2007). How innovation can alleviate negative consequences of demanding work contexts: The influence of climate for innovation on organizational outcomes. *Journal of Occupational and Organizational Psychology, 80*, 631–645.

King, N., & Anderson, N. (2002), *Managing innovation and change: a critical guide for organizations*. London: Thomson.

King, N., Anderson, N., & West, M. A. (1991). Organizational innovation in the UK: A case study of perceptions and processes. *Work & Stress*, 5, 331-339.

Kinnie, N., Hutchinson, S., Purcell, J., Rayton, B., & Swart, J. (2005). Satisfaction with HR practices and commitment to the organization: Why one size does not fit all. *Human Resource Management Journal*, 15(4), 9-29.

Kirton, M. J. (1976). Adaptors and innovators: a descriptive measure. *Journal of Applied Psychology*, 61, 622-629.

Kivimäki, M., & Elovainio, M. (1999). A short version of the Team Climate Inventory: Development and psychometric properties. *Journal of Occupational and Organizational Psychology*, 72(2), 241-246.

Kline, R. B. (2005), *Principles and Practice of Structural Equation Modeling* (2nd Ed.). New York: The Guilford Press.

Knoop, R. (1995). Influence of participative decision-making on job satisfaction and organizational commitment of school principals. *Psychological Report*, 76(2), 379-382.

Knoop, R. T. (1991). Achievement of work values and participative decision making. *Psychological Reports*, 58, 775-81.

Kooij, D. T., Guest, D. E., Clinton, M., Knight, T., Jansen, P. G., & Dijkers, J. S. (2013). How the impact of HR practices on employee well-being and performance changes with age. *Human Resource Management Journal*, 23, 18-35.

Koopman, P. L., & Wierdsma, A. F. M. (1998). Participative management. In P. J. D. Doentu, H. Thierry, & C. J. de-Wolf (Eds.), *Personnel psychology: Handbook of work and organizational psychology* (pp. 297–324). Hove, UK: Psychology Press.

Koski, H., Marengo, L., & Mäkinen, I. (2012). Firm size, managerial practices and innovativeness: Some evidence from Finnish manufacturing. *International Journal of Technology Management*, 59(1-2), 92-115.

Kostopoulos, K.C., Spanos, Y. E., & Prastacos, G. P. (2013). Structure and function of team learning emergence: a multilevel empirical validation. *Journal of Management*, 39(6), 1430-1461.

Kraiger., K., & Ford, J. K. (2006). The expanding role of workplace training: themes and trends influencing training research and practice. In L. L. Koppes (Ed.), *Historical Perspectives in Industrial and Organizational Psychology* (pp. 281-309). Mahwah, NJ: Erlbaum.

Kramar, R. (2014). Beyond strategic human resource management: is sustainable human resource management the next approach? *The International Journal of Human Resource Management*, 25(8), 1069-1089.

Kyndt, E., Dochy, F., & Nijs, H. (2009). Learning conditions for non-formal and informal workplace learning. *Journal of Workplace Learning*, 21, 369-383.

Langford, C. P. H., Bowsher, J., Maloney, J. P., & Lillis, P. P. (1997). Social support: A conceptual analysis. *Journal of Advanced Nursing*, 25, 95–100.

Lee, L.-Y., & Sukoco, B. M. (2008). The mediating effects of expatriate adjustment and operational capability on the success of expatriation. *Social Behavior & Personality: An International Journal*, 36(9), 1191-1204.

Lengnick-Hall, M. L., Lengnick-Hall, C. A., Andrade, L. S., & Drake, B. (2009). Strategic human resource management: The evolution of the field. *Human Resource Management Review, 19*, 64-85.

Lepak, D. P., & Snell, S. A. (1999). The human resource architecture: Toward a theory of human capital allocation and development. *Academy of Management Review, 24*, 31-48.

Leung, K., Deng, H., Wang, J., & Zhou, F. (2015). Beyond risk-taking: Effects of psychological safety on cooperative goal interdependence and prosocial behavior. *Group & Organization Management, 40*, 88-115.

Lewis, M. W., Welsh, A. W., Dehler, G. E., & Green, S. G. (2002). Product development tensions: Exploring contrasting project management styles. *Academy of Management Journal, 45*, 546-564.

Li, C.-Y., & Hsieh, C.-T. (2009). The impact of knowledge stickiness on knowledge transfer implementation, internalization, and satisfaction for multinational corporations. *International Journal of Information Management, 29*(6), 425-435.

Li, X., Frenkel, S., & Sanders, K. (2011). Strategic HRM as process: How HR system and organizational climate strength influence Chinese employee attitudes. *International Journal of Human Resource Management, 22*, 1825-1842.

Likert, R. (1967). *The human organization: Its management and value*. New York: McGraw-Hill.

Lindell, M. K., & Brandt, C. J. (2000). Climate quality and climate consensus as mediators of the relationship between organizational antecedents and outcomes. *Journal of Applied Psychology, 85*, 331-348.

Ling, Y., Simsek, Z., Lubatkin, M. H., & Veiga, J. F. (2008). Transformational leadership's role in promoting corporate entrepreneurship: Examining the CEO-TMT interface. *The Academy of Management Journal*, *51*(3), 557-576.

Linnabery, E., Stuhlmacher, A. F., & Towler, A. (2014). From Whence Cometh Their Strength: Social Support, Coping, and Well-Being of Black Women Professionals. *Cultural Diversity and Ethnic Minority Psychology*, *20*(4), 541-549.

Liu, Y., Combs, J. G., Ketchen, D. J. Jr., & Ireland, R. D. (2007). The value of human resource management for organizational performance. *Business Horizons*, *50*, 503-511.

Lugton, J. (1997). The nature of social support as experienced by women treated for breast cancer. *Journal of Advanced Nursing*, *25*(6), 1184-1191.

Luthans, F. (2005). *Organisational Behavior* (10th ed). New York, McGraw-Hill Irwin.

Macky, K., & Boxall, P. (2007). The relationship between high-performance work practices and employee attitudes: An investigation of additive and interaction effects. *The International Journal of Human Resource Management*, *18*(4), 537-567.

Madinier, H., & Ricci, F. (2010). Team learning 2.0: Knowledge sharing implementation among undergraduate Swiss students. In *Proceedings of the European Conference on Knowledge Management*. Norte, Portugal.

Maertz, C. P. Jr., & Griffeth, R. W. (2004). Eight motivational forces and voluntary turnover: A theoretical synthesis with implications for research. *Journal of Management*, *30*(5), 667-683.

Mansor, M. F., Abu, N. H., & Nasir, H. (2015). The powerful of training, development and compensation, rewards in sustaining small medium enterprises performance. *Advanced Science Letters*, *21*(5), 1426-1429.

Markey, R., McIvor, J., & Wright C. F. (2015). Employee participation and carbon emissions reduction in Australian workplaces. *The International Journal of Human Resource Management*, 1-19.

Marsick, J., & Volpe, M. (1999). The nature and need for informal learning. *Advances in Developing Human Resources*, 1(3), 1-9.

Marzo, G., & Scarpino, E. (2016). Exploring intellectual capital management in SMEs: an in-depth Italian case study. *Journal of Intellectual Capital*, 17(1), 27-51.

Maurer, T. J. (2001). Career-relevant learning and development, worker age, and beliefs about self-efficacy for development. *Journal of Management*, 27(2), 123-140.

McClaren, N., Adam, S., & Vocino, A. (2010). Investigating socialization, work-related norms and the ethical perceptions of marketing practitioners. *Journal of Business Ethics*, 96(1), 95-115.

McIntosh, N. J. (1995). Exhilarating Work: An Antidote for Dangerous Work? In *Organizational Risk Factors for Job Stress*, (pp. 303-316) Steven L. Sauter and Lawrence R. Murphy, eds., Washington, DC: American Psychological Association.

Messmann, G., Mulder, R. H., & Gruber, H. (2010). Relations between vocational teachers' characteristics of professionalism and their innovative work behavior. *Empirical research in vocational education and training* 2(1), 21-40.

Miron-Spector, E., Erez, M., & Naveh, E. (2011). Team composition and innovation: The importance of conformists and attentive-to-detail members. *Academy of Management Journal*, 54(4) 740-760.

Mondy, R. W. (2008). *Human Resource Management*. 10th Ed. Upper Saddle River: Prentice Hall.

Montani, F., Odoardi, C., & Battistelli, A. (2012). Explaining the relationships among supervisor support, affective commitment to change, and innovative work behavior: The moderating role of coworker support. *Bollettino di Psicologia Applicata*, 264, 43-57.

Montani, F., Odoardi, C., & Battistelli, A. (2014). Individual and contextual determinants of innovative work behaviour: Proactive goal generation matters. *Journal of Occupational and Organizational Psychology*, 1-26.

Montani, F., Battistelli, A., & Odoardi, C. (2015). Proactive goal generation and innovative work behavior: The moderating role of affective commitment, production ownership and leader support for innovation. *The Journal of Creative Behavior*, 1-27.

Moorhead, G., & Griffin, R. (2004). *Organisational Behaviour: Managing People and Organisations*, (7th ed) Boston: Houghton Mifflin Company.

Moorman, R. H. (1991). Relationship between organizational justice and organizational citizenship behaviors: do fairness perceptions influence employee citizenship? *Journal of Applied Psychology*, 76(6), 845–855.

Morrison, E. W. (1996). Organizational citizenship behavior as a critical link between HRM practices and service quality. *Human Resource Management*, 35, 493–512.

Moss, E. G. (1973). *Illness, Immunity and Social Interaction*. New York: Wiley.

Muindi, F. K. (2011). The Relationship between Participation in Decision Making and Job Satisfaction among Academic Staff in the School of Business, University of Nairobi. *Journal of Human Resources Management Research*, 1-34.

Mulder, M. (1971). *Power equalization through participation? Administrative Science Quarterly*, 16, 31-39.

Mumford, M. D., Scott, G. M., Gaddis, B., & Strange, J. M. (2002). Leading creative people: Orchestrating expertise and relationships. *The Leadership Quarterly*, 13, 705-750.

Muthén, L. K. and Muthén, B. O. (1998-2010). *Mplus user's guide*, Muthén & Muthén. Los Angeles, CA.

Ng, T. W. H., & Lucianetti, L. (2015). Goal striving, idiosyncratic deal, job behavior. *Journal of Organizational Behavior*, 101(1), 14-34.

Ngah, R., & Ibrahim, A. R. (2009). The relationship of intellectual capital, innovation and organizational performance: a preliminary study in malaysian SMEs. *International Journal of Management Innovation Systems*, 1(1).

Noe, R., Clarke, A., & Klein, H. J. (2014). Learning in the twenty-first-century workplace. *Annual Review of Organizational Psychology, & Organizational Behavior*, 1(1), 245-275.

Nunnally, J. C. (1978). *Psychometric theory*. New York, NY: McGraw-Hill.

Odoardi, C. (2015). The relationship between proactive goal generation and innovative behaviour at work. *Journal of Management Development*, 34(5), 553-565.

Odoardi, C., Montani, F., Boudrias, J. S., & Battistelli, A. (2015). Linking managerial practices and leadership style to innovative work behavior. *Leadership & Organization Development Journal*, 36(5), 545-569.

OECD (2000). *Small and medium-sized enterprises: local strength, global reach*. Retrieved from <http://www.oecd.org/cfe/leed/1918307.pdf>

Operti, E., & Carnabuci, G. (2014). Public knowledge, private gain: The effect of spillover networks on firms' innovative performance. *Journal of Management*, 40(4), 1042-1074.

Paauwe, J. (2009). HRM and performance: Achievements, methodological issues and prospects. *Journal of Management Studies*, 46, 129-142.

Park, Y.K., Song, J.H., Yoon, S.W., & Kim, J. (2014). Learning organization and innovative behavior: The mediating effect of work engagement. *European Journal of Training and Development*, 38(1/2), 75-94.

Parker, C. P., Baltes, B. B., Young, S. A., Huff, J. W., Altmann, R. A., Lacost, H. A., & Roberts, J. E. (2003). Relationship between psychological climate perceptions and work outcomes: a meta-analytic review. *Journal of Organizational Behavior*, 24(4), 389–411.

Parnell, J. A., Koseoglu, M. A., & Dent, E. B. (2012). Propensity for participative decision making (PPDM) in Turkey and the USA. *Int. J. Business Excellence*, 5(3), 278-304.

Parris, M. A. (2003). Work Teams: Perceptions of a Ready-Made Support System? *Employee Responsibilities and Rights Journal*, 15(2), 71-83.

Patterson, M. G., West, M. A., Shackleton, V. J., Dawson, J. F., Lawthom, R., Maitlis, S., Robinson, D. L., & Wallace, A. M. (2005). *Development and validation of an organizational climate measure*. Unpublished manuscript. Aston University.

Pearson, C. A. L., & Duffy, C. (1999). The importance of the job content and social information on organizational commitment and job satisfaction: a study in Australian and Malaysian nursing contexts. *Asia Pacific Journal of Human Resources*, 36(3), 17-30.

Pelzer, P., Geertman, S., & van der Heijden, R. (2016). A comparison of the perceived added value of PSS applications in group settings. *Computers, Environment and Urban Systems*, 56, 25-35.

Pettigrew, A., & Whipp, R. (1991). *Managing change for competitive success*. Oxford: Basil Blackwell.

Picci, P., & Battistelli, A. (2008). Motivational antecedents of individual innovation. In G. Minati, M. Abram, & E. Pessa (Eds.), *Processes of emergence of systems and systemic properties. Towards a general theory of emergence* (pp. 163-180). Singapore: World Scientific.

Piening, E. P., Baluch, A. M., & Ridder, H-G. (2014). Mind the intended-implemented gap: understanding employees' perception of HRM. *Human Resource Management, 53*(4), 545-567.

Ployhart, R. E., & Vandenberg, R. J. (2010). Longitudinal research: The theory, design, and analysis of change. *Journal of Management, 36*, 94-120.

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *The Annual Review of Psychology, 63*, 539-569.

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*, 879-903.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*, 879-891.

Prieto, I. M., & Pérez-Santana, M. P. (2014). Managing innovative work behavior: The role of human resource practices. *Personnel Review, 43*(2), 184-208.

Proudfoot, J., Jayasinghe, U. W., Holton, C., Grimm, J., Bubner, T., Amoroso, C., Beilby, J., & Harris, M. F. (2007). Team climate for innovation: what difference does it make in general practice? *International Journal for Quality in Health Care, 19*(3), 164-169.

Purcell, J., & Kinnie, N. (2007). HRM and business performance. In P. Boxall, J. Purcell, & P. Wright (Eds.), *The Oxford handbook of human resource management* (pp. 533-551). Oxford, UK: Oxford University Press.

Ragazzoni, P., Baiardi, P., Zotti, A. M., Anderson, N., & West, M. (2002). Italian validation of the team climate inventory: a measure of team climate for innovation. *Journal of Managerial Psychology*, *17*(4), 325-336.

Rolison, J. J., Hanoch, Y., & Wood, S. (2012). Risky decision making in younger and older adults: the role of learning. *Psychology and aging*, *27*(1), 129-140.

Rousseau, V., & Aubé, C. (2010) Social Support at Work and Affective Commitment to the Organization: The Moderating Effect of Job Resource Adequacy and Ambient Conditions. *The Journal of Social Psychology*, *150*(4), 321-340.

Runhaar, P., Sanders, K., & Yang, H. (2010). Stimulating teachers' reflection and feedback asking: An interplay of self-efficacy, learning goal orientation, and transformational leadership. *Teaching and Teacher Education*, *26*, 1154-1161.

Sagie, A., & Aycan, Z. (2003). A cross-cultural analysis of participative decision-making in organizations. *Human Relations*, *56*(4), 453-473.

Sanders, K., Dorenbosch, L., & De Reuver, R. (2008). The impact of individual and shared employee perceptions of HRM on affective commitment: Considering climate strength. *Personnel Review*, *37*, 412-425.

Sanders, K., Shipton, H., & Gomes, J. F. S. (2014). Guest editors' introduction: is the HRM process important? Past, current and future challenges. *Human Resource Management*, *53*(4), 489-503.

Sanders, K., & Yang, H. (2015). The HRM process approach: The influence of employees' attribution to explain the HRM-performance relationship. *Human Resource Management, 55*(2), 201-217.

Sarason, I. G., Sarason, B. R., Brock, D. M., & Pierce, G. R. (1996). Social support: current status, current issues. In C. D. Spielberger and I. G. Sarason (eds), *Stress and Emotion: Anxiety, Anger and Curiosity*, Vol. 16, pp. 3–28. Washington, DC: Taylor and Francis.

Schaubroeck, J., & Fink, L. S. (1998). Facilitating and inhibiting effects of job control and social support on stress outcomes and role behavior: A contingency model. *Journal of Organizational Behavior, 19*, 167-195.

Schreurs, B. H. J., Hetty, I. J., van Emmerik, H., Günter, H., & Germeys, F. (2012). A weekly diary study on the buffering role of social support in the relationship between job insecurity and employee performance. *Human Resource Management, 51*(2), 259-280.

Schreurs, B., Guenter, H., Schumacher, D., van Emmerik, I. J., & Notelaers, G. (2013). Pay-Level Satisfaction and Employee Outcomes: The Moderating Effect of Employee-Involvement Climate. *Human Resource Management, 52*(3), 399-421.

Schuler, R. S., & Jackson, S. E. (1987). Linking competitive strategies with human resource management practices. *Academy of Management Executive, 1*(3), 207-219.

Schwarzer, R., & Leppin, A. (1991). Social support and health: A theoretical and empirical overview. *Journal of Social and Personal Relationships, 8*, 99-127.

Scott-Ladd, B., Travaglione, A., & Marshall, V. (2006). Causal inferences between participation in decision making, task attributes, work effort, rewards, job satisfaction and commitment. *Leadership & Organization Development Journal, 27*, 5, 399-414.

Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal*, 37, 580-607.

Scott, S. G., & Bruce, R. A. (1998). Following the leader in R&D: The joint effect of subordinate problem-solving style and leader-member relations on innovative behavior, *IEEE Transactions on Engineering Management*, 45(1), 3-10.

Sels, L., De Winne, S., Maes, J., Delmotte, J., Faems, D., & Forrier, A. (2006). Unravelling the HRM-performance link: Value-creating and cost-increasing effects of small-business HRM. *Journal of Management Studies*, 43, 319-342.

Shalley, C. E., Zhou, J., & Oldham, G. R. (2004). The effects of personal and contextual characteristics on creativity: Where should we go from here? *Journal of Management*, 30, 933-958.

Shipton, H., & Escriba-Carda, N. (2013). *HPWS in Nigeria and Tanzania: The role of HRM system strength*. Nottingham, UK: HR Symposium Series.

Shipton, H., Fay, D., West, M., Patterson, M., & Birdi, K. (2005). Managing people to promote innovation. *Creativity and Innovation Management*, 14(3), 118-128.

Shipton, H., West, M. A., Dawson, J., Birdi, K., & Malcolm, P. (2006). HRM as a predictor of innovation. *Human Resource Management Journal*, 16(1), 3-27.

Shumaker, S. A., & Brownell, A. (1984). Toward a theory of social support: closing conceptual gaps. *Journal of Social Issues*, 40(4), 11-36.

Smith, A. J., Benight, C. C., & Cieslak, R. (2013). Social support and post deployment coping self-efficacy as predictors of distress among combat veterans. *Military Psychology*, 25(5), 452-461.

Smylie, M. A. (1988). The enhancement function of staff development: Organizational and psychological antecedents to individual teacher change. *American Educational Research Journal*, 25, 1-30.

Snape, E., & Redman, T. (2009). HRM practices, organizational citizenship behaviour, and performance: A multi-level analysis. *Journal of Management Studies*, 47, 1219–1247.

Somech, A. (2005). Directive versus participative leadership: two complementary approaches to managing school effectiveness. *Educational Administration Quarterly*, 41(5), 777-800.

Spector, P. E. (1986). Perceived control by employees: A meta-analysis of studies concerning autonomy and participation at work. *Human Relations*, 39, 1005-1016.

Spontoni F. (2005). Importanza dell'innovazione nell'impresa. *Affari Sociali Internazionali*, 2, 61-98.

Srivastava, M. K., & Gnyawali, D. R. (2011). When do relational resources matter? Leveraging portfolio technological resources for breakthrough innovation. *Academy of Management Journal*. 54(4), 797-810.

Steel, R. P., & Mento, A. J. (1987). The participation-performance controversy reconsidered. *Group & Organization Studies*, 12, 411–423.

Stern, E., & Sommerlad, E. (1999). *Workplace learning, culture and performance*, in *Issues in People Management*, London: CIPD.

Stoffers, J. M. M., & Van der Heijden, B. I. J. M. (2009). Towards an HRM model predicting organizational performance by enhancing innovative work behavior: a study among Dutch SMEs in the Province of Limburg. *Business Leadership Review*, 6(4), 1-13.

Subramaniam, I. D. (2012). Determinant of Innovative Behavior in the Workplace: A Case Study of a Malaysian Public Sector Organisation. *American Journal of Social Issues & Humanities*, 2(6), 384-397.

Sumelius, J., Björkman, I., Ehrnrooth, M., Mäkelä, K., & Smale, A. (2014). What determine employee perception of HRM process feature? The case of performance appraisal in MNC subsidiaries. *Human Resource Management*, 53(4), 569-592.

Tan, C. L., & Mohd, N. (2011). Human resource management practices and organizational innovation: assessing the mediating role of knowledge management effectiveness. *The Electronic Journal of Knowledge Management*, 9(2), 155-167.

Thakare, V. B., & Prakash, G. (2015). Climate for innovation in public funded R&D laboratory. *Social and Behavioral Sciences*, 189, 153-162.

Thoits, P. A. (1995). Stress, coping, and social support processes: Where are we? What next? *Journal of Health and Social Behavior*, 35, 53-79.

Thompson, C. A., Beauvais, L. L., & Lyness, K. S. (1999). When work-family benefits are not enough: The influence of work-family culture on benefit utilization, organizational attachment, and work-family conflict. *Journal of Vocational Behavior*, 54, 392-415.

Triguero, A., Moreno-Mondéjar, L., & Davia, M. A. (2013). Drivers of different types of eco-innovation in European SMEs. *Ecological Economics*, 92, 25-33.

Tummers, L., Kruijven, P. M., Vijverberg, D. M., & Voesenek, T. J. (2015). Connecting HRM and change management: the importance of proactivity and vitality. *Journal of Organizational Change Management*, 28(4), 627-640.

Vallejo, B., & Wehn, U. (2015). Capacity development evaluation: The challenge of the results agenda and measuring return on investment in the global south. *World Development*, 79, 1-13.

Van De Voorde, K., & Beijer, S. (2015). The role of employee HR attributions in the relationship between high-performance work systems and employee outcomes. *Human Resource Management Journal* 25(1), 62-78.

Van den Broek, J. (2014). *Taking care of innovation. The HRM innovation process in healthcare organizations*. Netherlands: Ridderkerk.

Van de Vegt, G. S., & Janssen, O. (2003). Joint impact of interdependence and group diversity on innovation. *Journal of Management*, 29(5), 729-751.

Van Wijk, R., Jansen, J. J. P., & Lyles, M. A. (2008). Inter- and intra-organizational knowledge transfer: A meta-analytic review and assessment of its antecedents and consequences. *Journal of Management Studies*, 45(4), 830–853.

Van Yperen, N. W., van den Berg, A. E., & Willering, M. C. (1999). Towards a better understanding of the link between participation in decision making and organizational citizenship behaviour: a multi-level analysis. *Journal of Occupational and Organizational Psychology*, 72, 392.

Verburg, R. M., Hartog, D. N. D., & Koopman, P. L. (2007). Configurations of human resource management practices: a model and test of internal fit. *The International Journal of Human Resource Management*, 18(2), 184.

Vinarski-Peretz, H., Binyamin, G., & Carmeli, A. (2011). Subjective relational experiences and employee innovative behaviors. *Journal of Vocational Behavior*, 78, 290-304.

Vrasidas, C., & Glass, G. V. (2004). *Online professional development for teachers*. Greenwich, CT: Information Age Publishing.

Walker, S. K. (2002). Predictors of family child care providers' intentions toward professional development. *Child, & Youth Care Forum*, 31, 215-231.

Wall, T. D., & Wood, S. J. (2005). The romance of human resource management and business performance, and the case for big science. *Human Relations*, 58, 429-462.

Walter, F., & van der Vegt, G. S. (2013). Harnessing members' positive mood for team-directed learning behaviour and team innovation: The moderating role of perceived team feedback. *European Journal of Work and Organizational Psychology*, 22(2), 235-248.

Wegge, J. (2000). Participation in group goal setting: some novel findings and a comprehensive model as a new ending to an old story. *Applied Psychology: An International Review*, 49(3), 498-516.

West, M. A. (1990). The social psychology of innovation in groups. In M. A. West & J. L. Farr (Eds.), *Innovation and Creativity at Work: Psychological and Organizational Strategies* (pp. 4-36). Chichester: Wiley.

West, M. A. (2002) Sparkling fountains or stagnant ponds: An integrative model of creativity and innovation implementation in work groups. *Applied Psychology: An International Review*. 51, 355-87.

West, M. A., & Anderson, N. R. (1996). Innovation in top management teams. *Journal of Applied Psychology*, 81, 680-693.

West, M. A., & Farr, J. L. (1990). Innovation at work. In M. A. West e J. L. Farr (Eds.), *Innovation and creativity at work: Psychological and organizational strategies* (pp. 3-13). Chichester: Wiley.

Whittaker, D. H., Fath, B. P., & Fiedler, A. (2016). Assembling capabilities for innovation: Evidence from New Zealand SMEs. *International Small Business Journal*, 34, 123-143.

Wickramasinghe, D., & Wickramasinghe, V. (2012). Effects of perceived organisational support on participation in decision making, affective commitment and job satisfaction in lean production in Sri Lanka. *Journal of Manufacturing Technology Management* 23(2), 157-177.

Wielenga-Meijer, E. G., Taris, T. W., Kompier, M. A., & Wigboldus, D. H. (2010). From task characteristics to learning: A systematic review. *Scandinavian Journal of Psychology*, 51(5), 363-375.

Wilkinson, A., Gollan, P., Marchington, M., & Lewin, D. (2010). Conceptualizing employee participation in organizations. In A. Wilkinson, P. Gollan, M. Marchington, & D. Lewin (Eds.), *The oxford handbook of participation in organizations*. Oxford: Oxford University Press.

Wright, P. M., & Nishii, L. H. (2006). *Strategic HRM and organizational behavior: Integrating multiple levels of analysis* (CAHRS Working Paper 06-05). Ithaca, NY: Center for Advanced Human Resource Studies, Cornell University.

Wright, P. M., & Nishii, L. H. (2013). HRM and performance: The role of effective implementation. In J. Paauwe, d. Guest, & P. Wright (eds.), *HRM, & performance. Achievements, & challenges*. Chichester, United Kingdom: John Wiley & Sons.

Wright, P. M., & Snell, S. A. (1998). Toward a unifying framework for exploring fit and flexibility in strategic human resource management. *The Academy of Management Review*, 23(4), 756-772.

Wright, P. M., McMahan, G. C., & MacWilliams, A. (1994). Human resources and sustained competitive advantage: a resource based perspective. *International Journal of Human Resource Management*, 5(2), 301-326.

Wright, P. M., McCormick, B., Sherman, W. S., & McMahan, G. C. (1999). The role of human resource practices in petro-chemical refinery performance. *International Journal of Human Resource Management*, 10(4), 551-571.

Wright, P., & Haggerty, J. (2005). *Missing variables in theories of strategic human resource management: Time, cause, and individuals*. (CAHRS Working Paper #3). Retrieved from <http://digitalcommons.ilr.cornell.edu/cahrswp/3>

Wright, P., & Nishii, L. (2007). *Strategic HRM and organizational behavior: Integrating multiple levels of analysis* (CAHRS Working Paper #07-03). Ithaca, NY: Cornell University, School of Industrial and Labor Relations, Center for Advanced Human Resource Studies. Retrieved from <http://digitalcommons.ilr.cornell.edu/cahrswp/468>

Yakura, E. K. (2002). Charting time: Timelines as temporal boundary objects. *Academy of Management Journal*, 45, 956-970.

Yammarino, F. J., & Naughton, T. J. (1992). Individualized and group-based views of participation in decision-making. *Group and Organization Management*, 17(4), 398-413.

Yuan, F., & Woodman, R. W. (2010). Innovative behavior in the workplace: The role of performance and image outcome expectations. *Academy of Management Journal*, 53(2), 323-342.

Zheng, M., Zhu, X. P., & Yang, J. (2010). The influence of the team climate on team innovation performance: An empirical study based on Chinese high technology innovation teams. International Conference on Information Management, Innovation Management and Industrial Engineering. *IEEE Computer Society*, 245-249.

Zoghi, C., Mohr, R. D., & Meyer, P. B. (2007). *Workplace, organization and innovation*. Retrieved from <http://www.bls.gov/ore/pdf/ec070040.pdf>

Zohar, D., & Luria, G. (2004). Climate as a social-cognitive construction of supervisory safety practices: scripts as proxy of behavior patterns. *Journal of Applied Psychology*, 89, 322-333.

## **Annex 1: Questionnaire Study 1**

### *Perception of individual learning practices*

How often, in the last 12 months, he has participated in...

1. Training on the job;
2. Training off the job;
3. Formation of e-learning type or at a distance with the use of computer technology;
4. Rotation of the work namely the change of jobs / role;
5. Transfers to other companies or business units;
6. Visits to other organizations / companies;
7. Multi-functional groups to improve processes;
8. Open learning centers (i.e. the structures dedicated to the development of learning and skills);
9. Assessment of the performance (i.e. if the Company implements evaluation of staff at year end);
10. Personal development plans;
11. Assessment Center (i.e. for evaluating the professional potential);
12. Monitoring systems (i.e. how to verify the professional services).

### *Perception of team learning practices*

How often, in the last 12 months...

1. It was conducted training by the direct manager;
2. Training has been conducted in order to learn to work in groups;
3. They were provided regular feedbacks to the groups on their performance and results;
4. It is made that the groups could decide how to carry out the work:

5. Tools / processes have been provided to help the self-evaluation groups;
6. Regular evaluation processes were guaranteed for a continuous improvement of the groups;
7. It is done that the groups had objectives related to the company's plans.

#### Norms and support for innovation

1. This group is always looking for new ways to tackle problems;
2. This group dedicates the necessary time to develop new ideas;
3. The group collaborates to try to develop and apply new ideas.

#### Innovative work behavior

How often it's happen to...

1. Generate new ideas to solve difficult issues;
2. Mobilize the support of others for his innovative ideas;
3. Turn innovative ideas into useful applications at work;
4. Create new working methods, techniques or tools;
5. Introduce new ideas at work in a systematic way;
6. Make sure that relevant people in the company are enthusiastic for innovative ideas;
7. Evaluate the usefulness of the proposed innovative ideas;
8. Obtain the approval of others for innovative ideas;
9. Generate original solutions to the problems.

## **Annex 2: Questionnaire Study 2**

### *Participative Leadership*

My leader...

1. Encourages the people of the working group to express ideas and suggestions;
2. Listens the ideas and the advice from the members of the group;
3. Uses tips from members of the group to make decisions that affect the group itself;
4. Gives the opportunity to all members of the group to express their opinions;
5. Takes into account the group's ideas even when he does not agree with them;
6. Takes decisions only on the basis of his ideas.

### *Perception of Participation in decision-making*

In my company...

1. People often participate in decisions that affect them;
2. There is a great opportunity to get involved in the resolution of the problems affecting the company;
3. I am allowed to participate in decisions affecting my job;
4. I am allowed a significant degree of influence on decisions that affect my work;
5. My leader asks me ideas and opinions in decisions affecting my job.

### Psychological Climate for Innovation

My leader...

1. Consults us concerning the introduction of innovative ideas in the work environment;
2. Encourages us to communicate with each other new ideas and opinions;
3. Rates ideas that we propose giving us suggestions on how to improve them;

4. Provides the time needed to create solutions or innovative ideas;
5. Asks each of us ideas and opinions on how to perform a different task of work;
6. Discusses together with us on the ways in which new ideas can be introduced in the workplace;
7. Has confidence in our ability to find new and useful solutions to work problems;
8. Helps us to create new ideas or working methods by providing all the necessary tools;
9. Helps us to introduce new ideas in the workplace;
10. Works with us to conceive new methods or working solutions;
11. Gives us the resources to transform our ideas into useful applications to be introduced in the workplace;
12. Demands that we work together, rather than alone, to develop new ideas;
13. Congratulates those who commit themselves to devise new solutions or working methods;
14. Wants to communicate his ideas and opinions on how we could play a different work task.

#### Co-workers' support

My colleagues...

1. Consider my contribution;
2. Take account of my goals and my competences;
3. Take really care about my needs;
4. Come to help on my work in times of trouble.

#### Innovative Work Behavior

How often it's happen to...

1. Generate new ideas to solve difficult issues;
2. Mobilize the support of others for his innovative ideas;
3. Turn innovative ideas into useful applications at work;
4. Create new working methods, techniques or tools;
5. Introduce new ideas at work in a systematic way;
6. Make sure that relevant people in the company are enthusiastic for innovative ideas;
7. Evaluate the usefulness of the proposed innovative ideas;
8. Obtain the approval of others for innovative ideas;
9. Generate original solutions to the problems.