# INNOVATIVE WORK BEHAVIOR – THE ROLE OF HUMAN RESOURCE MANAGEMENT AND AFFECTIVE COMMITMENT

# A Thesis

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#### Abstract

The aim of this thesis is to investigate the relationship between innovative work behavior, human resource management and affective commitment. This research uses correlation analysis, ANOVA and bootstrapping intervals methods to test the raised hypothesis in a sample of 101 employees in companies practicing highly developed human resource management. The results of empirical research indicate a positive relationship between employees' perceptions on human resource management and innovative work behavior. Ability-enhancing, motivation-enhancing and opportunity-enhancing human resource management have positive relationships with innovative work behavior construct and its' dimensions – idea generation, idea promotion and idea realization. Research findings confirmed a positive relationship between affective commitment and human resource management as well as innovative work behavior, however affective commitment did not mediate the relationship between human resource management and innovative work behavior. It was found that managers behave more innovatively than employees and managers are more affectively committed than employees. These findings extend the existing literature, provide a framework on the determinants of innovative work behavior and reveal that by using a package of complementary ability-enhancing, motivation-enhancing and opportunity-enhancing human resource management, innovative work behavior is fostered more, than by using separate human resource practices. Establishment of systematic human resource management is significant to foster innovative work behavior.

*Keywords:* innovative work behavior, human resource management, affective commitment, idea generation, promotion and realization, ability-enhancing HRM, motivation-enhancing HRM, opportunity-enhancing HRM.

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#### Introduction

As the environments and organizational processes become more complex, rapidly changing and challenging, the key priority of every organization is to maximize the innovative potentials (Park et al., 2013). Unique ideas increase differentiation and improvement of organizational processes, products and services. Value creating innovation initiatives tend to depend heavily on employees, who are the main source of knowledge, skills, abilities and are the instigators of innovative work behavior (Youndt et al., 1996; Chen & Huang, 2007; Prieto & Perez-Santana, 2013). Innovative work behavior is considered to be one of the most important factors in addressing emerging issues and sustaining competitive advantage. Consistent with this, there is a growing body of management literature on the determinants and key influences of innovative work behavior (Scott & Bruce, 1994; Tan & Nasurdin, 2011; Fernandez & Pitts, 2011; Xerri & Brunetto, 2013; Abstein & Spieth, 2014).

Innovative work behavior is a multistage process and refers to the creation, promotion and implementation of novel ideas (Kanter, 1988; Scott & Bruce, 1994; Xerri & Brunetto, 2013). Previous research indicated employees as the cornerstone and significant source of innovative behavior (Van de Ven, 1986), and human resource management as the principal mean by which companies can influence and shape skills, abilities and behaviors of employees (Chen & Huang, 2009; Prieto & Perez-Santana, 2013). For this reason, human resource management is important in fostering innovative work behavior of employees. Existing research studies focused mainly on isolated human resource practices: hiring and selection (Jiang, Wang and Zhao, 2012; Tsai, 2011), reward strategies (Fernandez & Pitts, 2011; Tan and Nasurdin, 2011), job design (Dorenbosh, van Engen and Verhagen, 2005; Abstein and Spieth, 2014), leadership (Scott & Bruce, 1994), as the antecedents of innovative work behavior. However, a systematic research, which would be oriented towards an

integrated approach of human resource practices is fragmented and needs deeper examination.

Scholars indicate that the adoption of a package of complementary human resource practices and policies would affect innovative work behavior more strongly and recognize three major groups of human resource management systems: control human resource management systems, high-commitment human resource management systems and high-involvement human resource management systems (Arthur, 1992; Snell & Youndt, 1996; Lepak et al., 2006; Jiang et al. 2012a; Jiang, Wang & Zhao, 2012; Zhou, Hong, and Liu; 2013). Control human resource management systems focus on rules, regulations and monitoring of employees, while high-commitment and high-involvement human resource management systems consist of different human resource practices, which influence the abilities, motivation and opportunities of individuals. According to various literature, ability-enhancing (selective staffing and extensive training), motivation-enhancing (incentive-based compensation and performance appraisal) and opportunity-enhancing (flexible job design and participation) human resource management are considered to be most influential in fostering innovative work behavior (Scott & Bruce, 1994; Fernandez & Pitts, 2011; Jiang, Wang & Zhao, 2012; Prieto & Perez-Santana, 2013).

As this research focuses on the attitudes and behavior of employees, attitudinal factor - affective commitment becomes imperative, due to its relation with positive attitudes and behaviors in the moments of change. Affective commitment is conceptualized as individuals' emotional attachment to the organization and signifies employees' willingness to stay within the company. Affective commitment in determined as a consequence of human resource management (Smeenk et al., Herrbach et al., 2009; Bal, Bozkurt & Ertemsir, 2014) and is considered to affect innovative work behavior positively (Jafri, 2010; Yesil & Sozbilir, 2013, Xerri, 2013; Bos, 2014).

The field of innovative work behavior is relatively new and still developing as well as the knowledge about the factors influencing innovative work behavior is fragmented. Thus, there is a plenty of prospects for further research on the determinants of innovative work behavior. There is no prevailing empirical study, which would fully examine human resource management in a systematic way and its impact on the dimensions of innovative work behavior. What is more, this thesis goes beyond the previous research in a way that attitudinal variable, affective commitment, is tested as a mediator between human resource management and innovative work behavior. Gaining deeper insights on the determinants of innovative work behavior would help to build a systematic conceptual model and fill in the existing gap in the literature.

In order to address prevailing gap, the following **research problem** was raised – what role does human resource management and affective commitment play in fostering innovative work behavior?

The main **research aim** is to investigate the human resource management and affective commitment role in fostering innovative work behavior among business companies practicing a highly developed human resource management.

In order to reach set research aim several **research objectives** were raised. They are the following:

- 1. To examine the conceptualizations of innovative work behavior, human resource management and affective commitment.
- 2. To develop theoretical grounding for innovative work behavior, human resource management and affective commitment relationship.
- 3. To empirically evaluate innovative work behavior, human resource management and affective commitment relationship.

4. To provide theoretical and practical implications how to foster innovative work behavior.

With the purpose to answer the research question and achieve set aim, quantitative empirical research will be performed among the business companies, practicing highly developed human resource management. Research will investigate the attitudes of individuals towards innovative work behavior, human resource management and mediating impact of affective commitment between those two constructs. Descriptive statistics will be used to describe data samples and measures. The internal reliability of the scales will be evaluated by using Cronbach's alpha. Correlation analysis, ANOVA and bootstrapping confidence intervals methods will be performed in order to test the hypotheses and to identify the relationships between the variables.

This research is beneficial as it builds a model of the determinants of innovative work behavior and provides the guidelines for human resource managers on how to stimulate innovative work behavior by practicing effective and systematic HRM.

This thesis begins with the literature review section, where conceptualizations of constructs and review of existing theories and research papers together with raised hypotheses are provided. Furthermore, the research methodology chapter focuses on defining variables and constructs as well as establishing a conceptual research design. Next, discussion on empirical research results and theoretical and managerial implications will be provided. Finally, the conclusions will be brought.

#### Literature review

In this section literature relevant to innovative work behavior, human resource management and affective commitment will be overviewed. Different theoretical conceptualizations of the notions will be provided together with the discussion on the results of empirical studies, which investigate the relationships between the phenomena. Suggested hypotheses on the relationship will be presented, grounded on the findings of the prior research.

The focal point of this thesis will be to find out what role human resource management (HRM) and affective commitment play in fostering innovative work behavior (IWB). The main research problem raised in this research is the relationship of these constructs among business companies practicing highly developed HRM. Knowledge about factors influencing innovative work behavior is fragmented, therefore, literature review section aims to address the existing gap and provide theoretical grounding for the creation of conceptual research model. The content of this section is as following:

- Conceptualizations of innovative work behavior, human resource management and affective commitment;
- Justification of the relationship based on previous empirical research;
- Identification of existing gap and contribution of this thesis.

Criteria used in selection of the relevant literature focused on the main problem of the research – the role of human resource management and affective commitment in fostering innovative work behavior. The most comprehensive academic databases, such as Emerald, EBSCO and Google Scholar were used to gather the information. Academic sources that investigate the relationship between the innovative work behavior, human resource management and affective commitment have been selected for review using keywords for search – Innovative Work Behavior, Human Resource Management, AMO theory,

Organizational Commitment, Affective Commitment. There were no restrictions made regarding the publication date, in order to retrieve all academic articles and research papers that examined the relationship between innovative work behavior, human resource management and affective commitment.

## **Conceptualizations of Innovative Work Behavior**

Innovative work behavior is considered to be one of the most important factors in managing rapid economic changes and increasing competitive advantage of organizations. IWB aims to improve the whole efficiency and effectiveness of organizational processes. The advantages and benefits of innovative work behavior include both - the overall better performance of the organization and also individual social benefits for employees or groups of workers, such as job satisfaction or improved interpersonal communications (Jannsen, 2000). The reason why IWB is crucial for companies' success lies in individuals - who are the main source of every innovation (Abstein & Spieth, 2014). Individuals are the ones who develop, enable, respond and adjust ideas, which are the fundamental requirements and critical success factors for innovation (Van de Ven, 1986). Innovative work behavior of employees can be seen as the cornerstone of every innovation. Innovative work behavior is the crucial asset for company's success in a dynamic environment, as it improves effectiveness of organizational processes, helps tackle emerging issues and sustains competitive advantage.

There is a growing body of literature on the concept of innovative work behavior. Innovative behavior of employees is considered to be a self-initiated activity, which seeks to improve existing conditions or create the new ones (Abstein & Spieth, 2014). To start with, it is important to note that in the past innovative work behavior has often been used interchangeably with creativity, but there are differences between the two notions (Scott & Bruce, 1994; Xerri & Brunetto, 2013). Creativity is less target-oriented and focuses on the

production of unique and useful ideas and could be considered to be simply a component of innovative behavior (Xerri & Brunetto, 2013; Abstein & Spieth, 2014), while the concept of IWB has a broader definition. Creativity is only a necessary part of IWB in the process of creating new and useful ideas. However, through the realization stage IWB is expected to generate innovative outputs, which would benefit the workers or the organization. "IWB has a clearer applied component and is expected to produce some kind of innovative output or benefit" (Afsar, Badir & Saeed, 2014, p.1273). For this reason, in this thesis the definition of creativity will not be used to determine the concept of innovative work behavior and literature on creativity will not be researched.

According to the definition, innovative work behavior is considered to be a multistage process and has to do with the generation, adoption and implementation of novel ideas (Kanter, 1998; Scott & Bruce, 1994; Xerri & Brunetto, 2013). Various examples of the definitions of IWB are presented in the sequential order in Table 1.

Table 1

Definitions of innovative work behavior

Authors	Definitions	
Kanter (1988)	"innovative work behavior is: (a) idea generation and activation of the drivers of the innovation; (b) coalition building and acquisition of the power necessary to move the idea into reality; (c) idea realization and innovation production, turning the idea into a model – a product or plan or prototype that can be used; (d) transfer or diffusion, the spreading of the model – the commercialization of the product, the adoption of the idea" (p.173).	
Scott and Bruce (1994)	"innovation is viewed as a multistage process, with different activities and different individual behavior necessary at each stage" (p.582).	
Jannsen (2000)	"we conceive innovative work behavior in the workplace as complex behavior consisting of a set of three different behavioral tasks: idea generation, idea promotion, and idea realization" (p.288).	
Dorenbosch, van Engen and Verhagen (2005)	"innovative work behavior – as intentional introduction and application of ideas, processes, products or procedures, within a role, group or organization" (p.130).	
Park, Song, Yoon and	"As a multistage process, innovative behavior is defined as	

Kim (2013)	actions that search for, develop, and apply new ideas and	
	solutions in the current situation" (p.78).	
Xerri and Brunetto	"innovative behavior as a process that should improve the	
(2013)	efficiency and effectiveness of problem-solving in the workplace"	
	(p.3167).	
Prieto and Perez-	"innovative work behavior as a complex behavior consisting of	
<b>Santana</b> (2014)	generation, introduction, or application of novel appropriate	
	ideas, processes, and solutions" (p.189).	
Abstein and Speith	"innovative behavior at work as a multistage process comprising	
(2014)	different behaviors that can be linked to distinct stages of the	
	innovation process" (p.212-213).	

Source: designed by author based on literature review.

By reviewing the literature on the concept of innovative work behavior, it could be seen that different researchers agree on the definition, determine IWB as a multistage process and divide it into several dimensions. Dorenbosch, van Engen and Verhagen (2005) describe IWB as a two-stage process of invention and implementation of ideas. While, Kanter (1988), provides a broader definition of the concept and proposes that IWB has to be divided into four major stages, such as idea generation, partnership building, idea fulfillment and transfer or diffusion. However, most commonly researchers conceptualized innovative work behavior as a three-stage process, of idea generation, development and realization, which should encourage more effective problem solving in the workplace (Jannsen, 2004; Park et al., 2013; Xerri & Brunetto, 2013; Prieto & Perez-Santana 2014). Therefore, following the work of Jannsen (2000) in this research innovative work behavior is also referred as a multistage process of three different employee behaviors: idea generation, idea promotion and idea realization (see Figure 1).



Figure 1. Stages of innovative work behavior. Source: created by author.

**Idea generation.** Innovative work behavior starts with idea generation - the creation of novel and useful ideas in any area or domain (Jannsen, 2000). The major instigators of

unique ideas are the work-related problems, inconsistencies, gaps, and new emerging trends. Kanter (1988) stated that innovation is usually triggered by identification of a new prospect or problem, which exists because of the existing need. Therefore, within this idea generation stage employees create the new ways, how to address that need. It is argued that complexity — more relationships, openness to the environment, higher amount of information, more approaches to the problem — is essential for generation of novel ideas or adopted solutions that activate innovation (Kanter, 1988; Scott & Bruce 1994). Thus, Jong and Hartog (2008) argued that "good idea generators are individuals who can approach problems or performance gaps from a different angle" (p.7). In addition to that, broad job descriptions, with assignments focusing on results, support creation of new ideas, as employees who use a range of skills and perform more tasks, have a broader view of the whole situation in the organization (Kanter, 1988) and can propose more beneficial solutions to the problem. Idea generation is the first element of IWB and refers to coming up with unique ideas and procedures for the purpose of improvement, which could be enhanced by the greater complexity and combination of more knowledge, competences and sources of information.

Idea promotion. The next stage and relevant aspect of individual behavior is idea promotion – when innovative employee is looking for support for the idea and tries to mobilize a coalition of allies for it (Kanter, 1988; Scott & Bruce, 1994). Once the idea is generated, it must be sold. Therefore, in this stage, the idea is promoted throughout the company with the purpose to find support for further implementation. In order to promote the idea successfully, innovative worker has to socialize and look for friends, backers and sponsors surrounding an idea (Jannsen, 2000). To build coalitions and champion the idea successfully, innovative worker needs to be confident about the success of idea, be persistent and chose the right people to back the idea, who could include managers, members of other departments or close colleagues. Those influential allies would provide the necessary power

behind it. Idea promotion is an important task of innovative behavior in a workplace, as during this stage support for the unique idea is mobilized, approval acquired by persuading other colleagues or management.

Idea realization. The final stage of innovative work behavior is idea realization — transformation of innovative ideas into valuable, actual outcomes. When the idea is generated and finds support, it must be implemented and put into practice. Therefore, this stage of innovative behavior represents completion of the idea by turning it into useful application (physical or intellectual) that later on can be shifted to others. "The idea becomes a reality; prototype or model of the innovation is produced that can be touched or experienced, that can now be diffused, mass-produced, turned to productive use, or institutionalized" (Kanter, 1988 , p.191). There are a number of organizational issues, such as bureaucracy, scarce resources, unskilled workers that have to be overcome, in order to successfully transform those innovative ideas into valuable results. Individual employees can complete some simple innovations, but usually to accomplish more complex improvements successfully, they require teamwork, with workers of different skill, knowledge, abilities and competences (Jannsen, 2000). Idea realization is the last, but the most challenging behavioral task of innovative process, as it requires different skills, knowledge and communications with other colleagues or even departments.

The ability to continuously engage in innovative work behavior is crucial for organizations in order to sustain competitive advantage in a fast-changing business environment. Innovative work behavior is a subject of many researchers and could be defined as employee behavior to create, introduce, and apply new ideas intentionally within a work role, a group or an organization (Jannsen, 2000). There is an agreed opinion that IWB is a multidimensional concept. Even though some authors classified IWB as two-stage or four-stage process, the majority of researchers agreed that IWB could be identified as a three-stage

process of idea generation, idea promotion and idea realization. First of all, innovative workers produce unique and novel ideas, then try to champion the idea by finding support for it and, finally, they try to implement idea and transform it into valuable, actual outcome.

Based on the overview of the conceptualizations of IWB, in this research innovative work behavior will be considered as a three-stage process.

## **Conceptualizations of Human Resource Management**

Innovative work behavior has a huge impact on organization's innovativeness and due to this reason; factors influencing employees to generate, promote and implement novel ideas must be distinguished. Consequently, human resource management becomes important as it has the influence on employees' attitudes and behaviors at work. Human resource management is considered to be the principal mean, which helps company managers influence the behavior, knowledge, competences and skills of employees to perform assignments at work, which in turn makes the achievement of organizational goals more possible (Chen & Huang, 2009; Prieto & Perez-Santana, 2014). HRM empowers employees to use their knowledge, skills and abilities (KSA) to deliver value and it company's ability to bring innovative ideas is liked its human capital. Literature emphasizes that human resource management, together with strategy, organizational design, management style, is the determining aspect of companies' innovative behavior (Sanz-Valle, 2005). Human resource management is a function in organizations, which seeks to shape and maximize employee behavior and performance.

There are various ways how human resource management could be defined. For instance, Delery and Doty (1996) defined it as a bundle of consistent policies and practices created and applied to make certain that company's human capital contributes to the accomplishment of its business aims. While Tan and Nasurdin (2011) conceptualized HRM as specific, formal policies, which are created to attract, advance, motivate and retain

employees who ensure efficient and successful functioning and continuance of the organization. From the definitions mentioned above, it is clear that HRM is directed towards the management of employees (human capital), but it is important to find out what are the most effective ways to use HRM, in order to exert innovative work behavior of employees and ensure the successful functioning of organization. Literature highlights that one the most effective ways to use human resource management for individuals and organizations is through using a bundle, configuration or a system of HRM practices at the same time (Lepak et al., 2006). Therefore, it is of high importance to distinguish what those bundles or systems of HRM are.

Lepak et al. (2006) argue that HR activities can be conceptualized along three levels: HR practices, HR policies and HR systems. *HR practices* represent the lowest level and are designed to accomplish specific goals. There are a great variety of HR practices, such as staffing, selection based on interpersonal skills (Cabello-Medina, Lopez-Cabrales & Valle-Cabrera, 2011) compensation practices designed to promote knowledge sharing (Camelo-Ordaz et al., 2011) 360 degree performance feedback, (Lepak et al., 2006), but usually they are used in isolation with other practices and each of them aims different objectives. At the higher level of HR activities are the *HR policies*. They represent employee-focused programs. For instance, by using several different HR policies (e.g. commission or profit sharing) the pay-for-performance HR policies that are espoused to be internally consistent and reinforcing to achieve some overarching results" (Lepak et al., 2006). The Figure 2 below represents the hierarchy of HR activities described before.

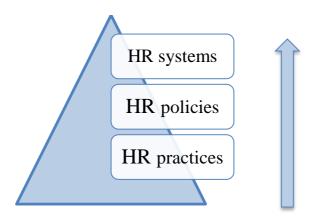


Figure 2. Hierarchy of HR activities. Source: created by author.

After identifying the conceptualizations of HR practices, HR policies and HR systems, a conclusion can be brought that compatible HR systems are the most influential and could bring the most effective results on IWB of employees. Becker and Matthews (2008) state, "recognition that HR practices cannot be simply viewed in isolation is growing".

Laursen and Foss (2003) argued that the adoption of a package of complementary HRM practices and policies could be expected to affect innovative behavior much more strongly, than only individual HRM practices or policies. It must be noted, that researchers agree on the definition of HR systems – a bundle of HR practices or HR policies, which are directed towards some central aim – but still there is lack of consensus regarding exact types of HR systems as well as the HR policies and practices that comprise them. Therefore, a deeper research is of high significance, in order to establish a broad view of which HRM systems could be most influential in shaping the innovative work behavior of employees. The examples of HRM systems and their components are provided in the Table 2 below.

Table 2

Examples of HRM Systems

Study	HRM systems	HRM practices
<b>Snell and Youndt</b>	Control HRM systems	<ul> <li>Standardized responsibilities</li> </ul>
(1996)		<ul> <li>Centralized decision making</li> </ul>
		<ul> <li>Monetary rewards based on</li> </ul>
		individual performance
		<ul> <li>Individual work vs. teamwork</li> </ul>

A (1 (4000)	C 1 IID)	
<b>Arthur (1992)</b>	Control HRM systems	Narrow, well-described job
		descriptions
		• Low wages
		Unskilled workers
	77.1	• Regulations
Zhou, Hong and Liu	High-commitment	• Selective hiring
(2013)	HRM systems	<ul> <li>Extensive training</li> </ul>
		<ul> <li>Performance appraisal</li> </ul>
		<ul> <li>Performance-based pay</li> </ul>
		<ul> <li>Job enrichment</li> </ul>
		<ul> <li>Teamwork</li> </ul>
		<ul> <li>Information sharing</li> </ul>
		<ul> <li>Career opportunities</li> </ul>
<b>Lepak et al. (2006)</b>	High-commitment	<ul> <li>Intensive training and development</li> </ul>
	HRM systems	<ul> <li>Socialization</li> </ul>
		<ul> <li>Promotion from within</li> </ul>
		<ul> <li>High level of compensation</li> </ul>
		<ul> <li>Selective staffing</li> </ul>
<b>Jiang et al. (2012a)</b>	High-involvement	<ul> <li>Selective staffing</li> </ul>
	HRM systems	<ul> <li>Extensive training</li> </ul>
		<ul> <li>Broad job descriptions</li> </ul>
		<ul> <li>Flexible job assignments,</li> </ul>
		performance-based compensation
		<ul> <li>Developmental and merit-based</li> </ul>
		performance appraisal
		<ul> <li>Encouragement of participation</li> </ul>
Jiang, Wang and	High-involvement	<ul> <li>Hiring and selection</li> </ul>
<b>Zhao</b> (2012)	HRM systems	<ul> <li>Training</li> </ul>
		<ul> <li>Performance appraisal</li> </ul>
		<ul> <li>Reward</li> </ul>
		<ul> <li>Job design</li> </ul>
		• Team work
Tan and Nasurdin	High-commitment	<ul> <li>Performance appraisal</li> </ul>
(2011)	HRM practices	<ul> <li>Career management</li> </ul>
		<ul> <li>Reward system</li> </ul>
		<ul> <li>Training</li> </ul>
		Recruitment

Source: designed by author based on literature review.

From examples of HRM systems provided in the Table 2, three major groups can be distinguished: control human resource management systems, high-commitment HRM systems and high-involvement HRM systems.

Control human resource systems are oriented to improve efficiency and organizational performance by implementing specific rules and procedures to make

employees compliant. Snell and Youndt (1996) indicated that control HRM systems comprise standardized responsibilities, which are imposed top-down, have centralized decision-making structure, monetary rewards are based on individual performance and less interdependence exists between the workers. Similarly, Arthur (1992) noted that the goal of control HRM systems is to reduce direct labor costs and they could be described as having narrow, well-defined job descriptions, little employee influence, relatively low wages and unskilled workers. Thus, it is evident that the main goal of control human resource management systems is to enhance efficiency and organizational performance "through greater emphasis on rules, regulations and close monitoring to regulate employee behavior" (Lepak et al., 2006). Therefore, these systems would not be suitable to enhance innovative behavior of employees, as innovative work behavior could be encouraged, when individuals have freedom to suggest and implement their novel ideas.

High-commitment human resource management systems focus on commitment of employees encouraging them to identify within the objectives of organization and then try to achieve them. Lepak et al. (2006) state that commitment human resource management systems are oriented to shape the behaviors and attitudes of employees by creating psychological relations between the goals of the organization and the goals of employee. Those systems place great emphasis on developing committed employees, who would be able to perform in a way that is in congruence with organizational objectives. Zhou, Hong and Liu (2013) distinguish that high-commitment systems include practices, such as selective hiring, extensive training, performance appraisal, performance-based pay, job enrichment, teamwork, information sharing and career opportunities. Correspondingly, Lepak et al. (2006) specify that commitment oriented HR systems consist of intensive training and development, socialization, promotion, increased compensation and careful staffing. High-commitment HRM systems involve practices that establish a stronger connection and align

employee interest with those of organization, consequently leading to ability to exercise innovative behaviors.

High-involvement human resource management strategies are similar and related to high-commitment HRM strategies, but their main focus is on certain HR practices, that influence the jobs employees perform, mainly on the scope and nature of responsibilities. As Jiang et al. (2012a) and Jiang, Wang and Zhao (2012) propose, those practices are: selective staffing, extensive training, broad job descriptions, flexible job assignments, performance-based compensation, developmental and merit-based performance appraisal and encouragement of participation. Prieto and Perez-Santana (2014), argued that "the effects of high-involvement HRM systems should encompass an empowerment of employees leading to productive behaviors that benefit the organization" (p.185). High-involvement HRM systems are the ones, which shape and influence the behavior and attitudes of employees and lead to innovative work behavior.

After reviewing various literatures on HRM systems, three major groups of HRM systems, comprising different HRM practices, could be identified: control human resource management systems, high-commitment human resource management systems and high involvement human resource systems. Control human resource systems are based on rules, regulations and high monitoring of employees, while high-commitment and high-involvement HRM systems emphasize employees' alignment with the organization and shape and influence behavior and attitudes of employees in way that fosters innovative work behavior. As the main focus of this thesis lies on the determinants of IWB, high-commitment and high-involvement systems will be examined in more detail.

Based on the previous research on HRM systems, it is argued that high-commitment and high-involvement HRM systems consist of different practices, which influence abilities, motivation and opportunities of employees. Tan and Nasurdin (2011) distinguished that

Ability, Motivation and Opportunity (AMO) theory is the most popular in the studies, that link HRM and innovative work behavior. AMO theory indicates that skillful, motivated employees, who have opportunities to use their knowledge and competences, are likely to perform better, more innovatively and improve whole company performance. Lepak et al. (2006) argue that AMO theory is one of the mechanisms, through which HRM systems can influence employee performance. HRM systems can influence employees' abilities and skills by using HRM practices, such as specific selection, recruitment and training (Lepak et al., 2006; Bos-Nehles & Looise, 2015). Employees' motivation to perform can be enhanced by shaping company climate perceptions and using incentive-based compensation and performance appraisal practices. While opportunities to perform should be provided according to their skills and motivation, as employees who do the job, which best fits with their skills, knowledge and competences, will be able to show best results and increase company competitive advantage (Lepak et al., 2006). Opportunities to contribute could be enhanced through job design and involvement and participation practices. Figure 3, created by Lepak et al. (2006), shows, which HRM practices are oriented towards enhancement of employee abilities, motivation and opportunities.

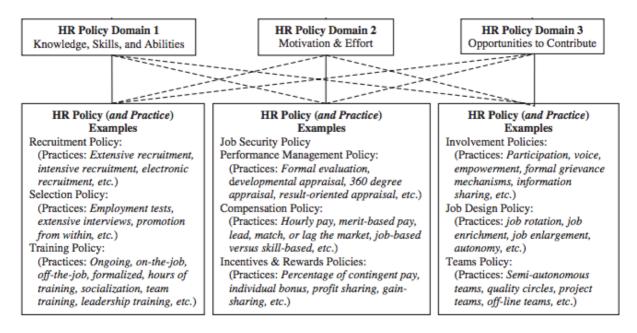


Figure 3. Categorization of HRM practices. Source: Lepak et al. (2006).

As ability-enhancing, motivation-enhancing and opportunity-enhancing HRM are considered to be the ones fostering innovative work behavior (Lepak et al., 2006; Jiang et al., 2012a; Prieto & Perez-Santana, 2014), a more thorough conceptualizations of those practices will be provided.

Ability-enhancing HRM. The ability-enhancing practices are designed in way that guarantees that properly skilled employees are hired and trained (Perez-Santana, 2014; Jiang et al., 2012b). Therefore, this HR policy domain involves a bundle of HR policies and practices, which emphasize the HR practices that stimulate the competencies of employees (Lepak et al., 2006; Jiang et al. 2012a). There are various ways how organizations enhance and develop employee skills and competences. Lepak et al. (2006) in their model of relationships among HR systems, HR policy domains and HR practices, determined three general HR policies with examples of HR practices: recruitment policy, selection policy, and training policy (Figure 3). According to Perez-Santana (2014), more developed human abilities can be attained by focusing on selective staffing (when required characteristics of the workforce are determined before recruiting), or on extensive training practices – when the developmental actions are performed on current employees. In addition, Jiang et al., (2012b) determined ability-enhancing HRM as a composition of comprehensive recruitment, rigorous selection and extensive training. Therefore, these practices usually include selective staffing and extensive training.

Motivation-enhancing HRM. Motivation-enhancing HR practices are applied with the purpose to increase employee motivation. According to Jiang et al. (2012a), this policy field comprises specific HR policies that are used to enhance employee motivation and effort during their work performance. Instrumental policies in this domain are performance management policy, compensation policy and incentives and rewards policies (Lepak et al., 2006). These HR policies could be implemented by using various HR practices, such as

formal evaluations, result-oriented appraisals, skill-based pay, profit sharing, individual bonuses. Motivation-enhancing HRM is applied in order to influence employees' motivation to perform by influencing their views and by providing direct encouragements and returns to work towards certain responsibilities.

Opportunity-enhancing HRM. Opportunity-enhancing HR practices are implemented in a way, that stimulates employees to use their competences, knowledge skills and motivation in order to reach set organizational goals. Therefore, "beyond improving employees' KSAs and motivation required to perform well, an organization needs to design work in a way that allows them to exert their KSAs and efforts via opportunities contribute HR domain" (Jiang et al., 2012a, p.75). Lepak et al., (2006) distinguished three policies in this domain: involvement policies, team policies and job design policies, together with examples of HR practices that fall in this domain (e.g. project teams, information sharing, job rotation, autonomy and etc.). Opportunity-enhancing HRM is used to enable employees to practice their abilities and use motivation to accomplish managerial goals.

It is argued that managing human resources is the most difficult task, as employees are considered to be complex individuals with different attitudes, abilities and competences. However, they are believed to be the most influential resource in the organization, which helps to sustain competitive advantage. Therefore, human resource management is very important in shaping employee behaviors to complete their work and achieve desired organizational outcomes. There is a great variety of HRM practices, which can influence employee behavior and attitudes, but in this thesis the greatest emphasis is put on the HRM practices fostering innovative work behavior. HRM practices, which can have greatest impact on IWB, are the ones that help organizations provide employees with "necessary skill levels to successfully perform their jobs, encourage them to use appropriate level of discretionary effort toward organizational goals and provide opportunities to maximize their potential

contributions will outperform organizations that fail to do so" (Lepak et al., 2006, p.221). Therefore, in this thesis it is argued that HRM should be oriented towards some strategic aim and function by influencing (1) employee knowledge, skills, and abilities, (2) employee motivation and effort, and (3) opportunities for employees to contribute. The HRM practices included in these domains are: selective staffing, extensive training, incentive-based compensation, performance appraisal, job design and participation.

### **Conceptualizations of Organizational Commitment**

As this research focuses on the attitudes and behavior of employees, affective commitment becomes an important factor. The concept of organizational commitment is examined widely in the literature and is determined as a consequence of HRM practices in many research studies. "Organizational commitment has received attention from academics and practitioners, and is viewed as an important variable in facilitating the understanding of an employee's workplace behavior" (Pinho, Rodrigues & Dibb, 2014, p.8). Consequently, organizational commitment is important in fostering innovative work behavior of employees and for this reason in this section conceptualizations of organizational commitment will be provided.

Organizational commitment is one of the key factors of the relationship between individual and the organizations. Organizations are emphasizing the importance of the concept and are promoting commitment among employees, due to various benefits it provides. The concept of organizational commitment is viewed as a substantial variable in understanding how employees behave in their workplace (Swailes, 2004) and is considered to be the driving force behind organizational performance (Bal, Bozkurt & Ertemsir, 2014). Not only commitment reduces employee turnover (the higher commitment – the lower employee turnover), but also improves overall employee performance (Bal, Bozkur & Ertemsir, 2014). It has attracted much attention, suggesting that society as a whole benefited due to lower job

movement and higher national productivity (Rashid, Sambasivan & Johari, 2003). Also, it is believed that employees, who are aligned with the mission and values of the organization, tend to be more motivated, leading to greater effectiveness of whole organization (Pinho, Rodrigues & Dibb (2014). Therefore, organizational commitment, being at the center of designing management strategy, is an important factor that reduces employee turnover, improves organizational performance and increases overall organizational success.

Different researchers identified various definitions of organizational commitment. Organizational commitment is defined as a positive employee's attitude towards the organization – its values, beliefs, mission and goals, meaning that the beliefs and values of an employee are in congruence with those of the organization. Bal, Bozkur and Ertemsir (2014) defined organizational commitment as individual's psychological attachment to the organization. Xerri (2013) suggests that "organizational commitment is a global psychological state that defines the correlation between employees and the organization" (p.2). Mowday (1998) suggest that organizational commitment has three major components: (1) "a strong belief in and acceptance of the organization's goals and values"; (2) "a willingness to exert considerable effort on behalf of the organization"; (3) "a definite desire to maintain organizational membership". In addition to that, Mowday (1998) considers the concept of organizational commitment in two approaches – attitudinal and behavioral. Attitudinal commitment emphasizes the importance of the process, when employees distinguish their association to the organization – to what extent they consider their own values and goals are in line with those of the organization. While behavioral commitment is related to the situation when employees are locked to some organization and how they behave in this kind condition (Mowday, 1998). These definitions represent one-dimensional approach to organizational commitment and emphasize individual's identification within the company.

Whereas, Meyer and Allen (1991) proposed a multidimensional approach, which identifies organizational commitment as an emotional condition and which is comprised of three components. "This model proposes that organizational commitment is experienced by the employee as three simultaneous mindsets encompassing normative, continuance and affective organizational commitment" (Meyer & Allen, 1991, p.57). The normative commitment refers to employee's feelings of obligation to continue employment with the organization. This type of commitment depends on employee's experiences in the organization. For instance, if individual is working in a family business, the organization loyalty will be important and employee would have strong normative commitment to stay. Employee stays in the organization, because he/she is "ought to". The continuance commitment is such kind of commitment, which is grounded on sacrifices the employees have to make when leaving the organization (Rashid, Sambasivan & Johari, 2003). This type of commitment depends on the possible alternatives employee has. For example, an individual has specialized, firm-specific knowledge, which is unique and not valuable in other organizations, therefore the stronger will be the continuance commitment to stay in current workplace. Employee stays within the organization, because he/she "has to".

Affective commitment. The *affective commitment* is considered to be "employee's emotional attachment to, identification with and involvement in, the organization" (Rashid, Sambasivan & Johari, 2003, p.714). It signifies to what extent individual is emotionally attached to the organization by aligning the beliefs with companies' values and aims. Employee stays in the organization, because he/she "wants to". Affective commitment can be built in the organizations while encouraging socializing, communication, providing information and allowing individuals to participate in decision-making (Suma & Lesha, 2013). This, in turn, leads to increased innovative work behavior.

In this thesis, the major focus is based on affective commitment, because employees, who are affectively committed to the organizations, are more loyal and stay in the company as they "want to", while, employees who have normative or continuance commitment continue to work for companies, because they "need to" or "ought to" (Carmelo-Ordaz et al., 2011). Thus, affectively committed employees are more productive and effective in achieving company goals. In addition to that, "affective commitment is considered to exert the strongest influence on general attitudes and behaviors at work (Carmelo-Ordaz et al., 2011, p.1447), consequently meaning that affectively committed employees are more beneficial for the organization. To sum up, attitudinal factor – affective commitment is being examined in this thesis, as it represents employee willingness to stay within the company as well as brings significant benefits.

To sum up, in the conceptualizations section, definitions of innovative work behavior, human resource management and affective commitment were provided, with the aim to establish a background for better understanding of this field. Innovative work behavior was found to be a multidimensional concept and consists of idea generation, idea promotion and idea realization. Human resource management was defined as a bundle of HRM practices, which aim to enhance abilities, motivation and opportunities of employees and affective commitment was determined as individuals emotional attachment and willingness to stay within the company. After defining the concepts empirical justification for the relationship between them will be provided in the following section.

## **Empirical justification for the relationship**

The fact that innovative work behavior, human resource management and affective commitment are interrelated was noticed when conceptualizing the notions. Human resource management could be the key factor that influences innovative work behavior of employees, and affective commitment could be the desired consequence of human resource management

strategies. Thus, this section aims to develop theoretical grounding for innovative work behavior, human resource management and affective commitment relationship and based on this grounding hypotheses will be raised.

Innovative work behavior and human resource management. As stated in the section of conceptualizations, human resource management systems, which have the greatest impact on innovative work behavior are targeted towards the enhancement of employees' abilities, motivation and opportunities, therefore the literature analyzed will be based on those systems, comprising HRM practices such as selective staffing and extensive training, incentive-based compensation, performance appraisal, job design and participation.

Scott and Bruce (1994) in their study tried to integrate a great quantity of previous research on the determinants of innovation and tried to develop and test the possible model of individual innovative behavior, as the most important foundation of innovation is unique ideas, and the people – employees - who develop, generate and promote those ideas (Van de Ven, 1986). In their developed model "leadership, work group relations, and individual attributes were hypothesized to affect individual innovative behavior directly and indirectly, through climate perceptions" (Scott & Bruce, 1994, p.600). The study provided evidence that leadership, support for innovation, career stage, managerial role expectations and systematic problem-solving style are significantly related to individual innovative behavior, however exchanging of information between team workers was not associated with innovative behavior and climate perceptions. The research of Scott and Bruce (1994) tried to conceptualize and build a model for innovative behavior.

HRM practices that are ability-enhancing, motivation-enhancing and opportunity-enhancing are expected to encourage the innovative work behavior of employees.

Prieto and Perez-Santana (2013) examined how high-involvement human resource practices affect the innovative work behavior of employees. In addition to that, they tried to investigate

if supportive work environment conditions are mediating the relationship. A regression analysis was performed in order to test the hypotheses. The sample of 198 Spanish companies was researched. The results of the study show that the ability-enhancing, motivationenhancing and opportunity-enhancing human resource practices have a positive relationship with innovative work behaviors and two work environment variables: management support and coworkers support are playing a mediating role in the relationship. However no direct relationship between motivation-enhancing HR practices and innovative work behavior was found, due to that Prieto and Perez-Santana (2013) indicated that effective compensation and incentive-based systems for innovation require more research. Whereas, Fernandez and Pitts (2011) in their work tried to find what factors encourage employees' motivation to innovate and found that individuals will feel more encouraged to innovate, as their expectations to be rewarded increase, as they can participate in decision-making process and when they receive higher amount of training and development within the company. Therefore, the conclusion can be brought that motivation-enhancing HRM could influence innovative work behavior, when the compensation strategies are more appreciated and clearly acknowledged to the employees.

Jiang, Wang and Zhao (2012) examined how human resource management practices affect employee creativity and innovative behavior. The researchers used a sample of 106 firms in China and found that hiring and selection, reward, job design and teamwork was positively related to innovative behavior of employees. What is more, Jiang, Wang and Zhao (2012) built a model, which predicted that creativity would mediate the relationship between the hiring and selection, training, performance appraisal, reward, job design and teamwork human resource practices ant innovative behavior. The authors found that employee creativity fully mediated between hiring and selection, reward, job design and teamwork and innovative behavior. As Jiang, Wang and Zhao (2012) proposed, extensive search and

selection allow companies to hire the most creative ones and this leads to the overall creativity in organization. In addition, autonomy is increased through flexible job design, and teamwork promotes socializing and idea promotion, thus these HRM practices encourage innovative behavior. However, the authors did not find significant relations with training and performance appraisal. These findings contradict the one of Fernandez and Pitts (2011), as they indicated that development and training stimulates employees to engage in innovative behavior. Authors propose: "training and development have been linked to new ideas and innovations as well as the generation of innovative proposals (Fernandez & Pitts, 2011, p.209). In addition, Bysted and Jespersen (2012) argue that when employees' skills and abilities are developed, they might trigger innovative working behaviors. Therefore, they proposed, that there is a positive relationship between competence development and IWB and their finding confirmed their hypothesis. The results of the studies of Bysted and Jespersen (2012) and Fernandez and Pitts (2011) confirm that extensive training influences innovative work behavior.

Tan and Nasurdin (2011), examine the relationship between human resource management practices, such as performance appraisal, career management, training, reward system and recruitment, the mediating role of knowledge management and innovative behavior in innovative manufacturing companies in Malaysia. The statistical results researchers obtained showed that HRM practices have a significant positive impact on innovative behavior. The results of the study imply in order to foster innovation in Chinese organizations; HRM practices must be applied effectively (Tan & Nasurdin, 2011). However, surprisingly, in their study recruitment was found to be unrelated to innovative behavior. While on the contrary, Prieto and Perez-Santana (2013) found a strong relationship between staffing processes and innovative work behavior. They argue that "if staffing processes are carefully done and focus on selecting people with a proper fit to the company, it is more

likely to select and support people with innovative abilities" (Prieto & Perez-Santana, 2013, p.200). What is more, the empirical results in the study written by Tsai (2011) show that employees tend to be engaged in innovative behavior more, when they are hired from internal rather than external environment. As a result, it could be summarized that selective staffing and training development if done properly, can foster innovative behavior of employees.

In the work of "Exploring HRM meta-features that foster employees' innovative work behavior in times of increasing work-life conflict" Abstein and Spieth (2014) aim to enhance the understanding of how human resource management can be applies to endorse employees' engagement in innovative activities and to reduce work-life conflict (WLC). The authors' pursued qualitative, interview-based research in German manufacturing and service industries and questioned 21 professionals for HR issues. The findings of the research revealed that "HRM contributes to IWB and reduces WLC mainly through the four meta-features: "individual orientation", 'discretion orientation", 'effort orientation' and 'expectancy orientation" (Abstein & Spieth, 2014, p. 215). 'Discretion orientation' meta-feature could be conceptualized in two dimensions: involvement and autonomy. Abstein and Spieth (2014) found, that autonomy and participation encourage employees' innovative work behavior, as "the greatest possible freedom along with high degree of responsibility is an essential prerequisite for developing employees' innovative potential" (Abstein & Spieth, 2014, p. 217). Therefore, it could be concluded, that participation and job design HRM practices encourage innovative work behavior of employees.

Dorenbosch, van Engen and Verhagen (2005) aimed to investigate the relationship between flexible job design, commitment-oriented HRM activities and individual work behavior. Researchers performed a quantitative research in Dutch local government organization, with the sample of 132 respondents. The major findings constituted, that "multifunctional job design and the perceived HRM system promote employee involvement

in innovative activities" (Dorenbosch, van Engen & Verhagen, 2005 p.129). The results of their research confirm the findings of Abstein and Spieth (2014) and conclude that multifunctional job design has a positive relationship with innovative work behavior.

After reviewing the findings of previous academic studies and research papers, a Table 3 representing the key findings in summary is provided below.

Table 3
Summary of most important findings on HRM and IWB relationship

Author (Year)	Variables	Most important findings
Scott and Bruce (1994)	<ul> <li>Innovative work behavior</li> <li>Leadership</li> <li>Work group relations</li> <li>Individual attributes</li> <li>Psychological climate for innovation</li> </ul>	Modeling of IWB; Leadership, support for innovation, career stage, managerial role and systematic problem solving significantly related to IWB.
Prieto and Perez- Santana (2013)	<ul> <li>Ability-enhancing HR practices</li> <li>Motivation-enhancing HR practices</li> <li>Opportunity-enhancing HR practices</li> <li>Coworkers support</li> <li>Management support</li> </ul>	Ability-enhancing and motivation enhancing and opportunity-enhancing HR practices are positively related to innovative work behaviors with the mediation of two work environment variables: management support and coworkers support. No direct relationship between motivation-enhancing HR practices and innovative behavior
Jiang, Wang and Zhao (2012)	<ul> <li>Hiring and selection</li> <li>Training</li> <li>Performance appraisal</li> <li>Reward</li> <li>Job design</li> <li>Teamwork</li> <li>Employee creativity</li> <li>Innovative behavior</li> </ul>	Employee creativity fully mediated between hiring and selection, reward, job design, teamwork and innovative behavior.
Fernandez and Pitts (2011)	<ul> <li>Motivation to innovate</li> <li>Rewards for innovation</li> <li>Empowerment</li> <li>Involvement</li> <li>Job satisfaction</li> <li>Vertical communication</li> <li>Training and development</li> </ul>	Motivation to innovate is encouraged by rewards for innovation, employee training and development, employee empowerment and involvement in decision making.
Tan and	Performance appraisal	Recruitment was found to be

Nasurdin (2011)	<ul> <li>Career management</li> <li>Training</li> <li>Reward system</li> <li>Recruitment</li> <li>Knowledge management</li> <li>Innovative behavior</li> </ul>	unrelated to innovative behavior. Knowledge management mediates between HRM practices and innovative behavior.
Abstein and Spieth (2014)	<ul> <li>Individual orientation</li> <li>Discretion orientation</li> <li>Effort orientation</li> <li>Expectancy orientation</li> </ul>	Autonomy and involvement are essential for developing employees' innovative potential

*Source:* designed by author based on the literature review.

From the literature review on the relationship between innovative work behavior and human resource management, it could be concluded that there are many academic studies, which examine the relationship between different individual HRM practices and their relationships with IWB. Major findings of previous research show that there are positive relationships between staffing, training and development, performance appraisal, participation and job design HR practices and innovative work behavior. However, it is important to notify, that only one academic paper was analyzing human resource management in a systematic way, by dividing HRM into three major domains: ability enhancing HRM, motivation-enhancing HRM and opportunity-enhancing HRM. Therefore, to broaden the understanding, expand the literature on the relationship between IWB and HRM and determine the factors fostering innovative work behavior, the first hypothesis was raised:

**H1:** There is a positive relationship between employees' perceptions of human resource management and their innovative work behavior.

**Human resource management and affective commitment.** In this section literature review and empirical justification of the relationship between human resource management and affective commitment will be provided.

The study of Herrbach et al. (2009) contributes to the understanding of how HRM practices affect organizational commitment in voluntary early retirement. This study is

distinctive, as it examines the behavior of 514 French late-career managers, "as only a few studies have investigated the role of HRM practices in older workers' attitudes" (Herrbach et al., 2009, p.897). This research paper examines the relationship between the provision of training opportunities and new roles for older workers, flexible work conditions, encouragement of early retirement and organizational commitment, specifically affective and continuance commitment. The findings of the study show that the training opportunities encouraged greater affective and high-sacrifice commitment, and reduced voluntary early retirement, however flexible job design had an opposite effect and did not reduce the possibility of voluntary early retirement. Herrbach et al. (2009) explain this finding in a way that those late-career "workers may actually want to escape from the stereotype of older workers' needing specific attention because of declining skills and performance" (p.907). Therefore, the findings of the research suggest that in order to increase older employees' commitment HR managers should focus on providing training opportunities and this would lead to lower early age retirement.

Smeenk et al. (2006) in their work on "The effects of HRM practices and antecedents on organizational commitment among university employees" examine which factors affect organizational commitment in two different faculties (separatist versus hegemonist) of Dutch university. The findings of the study reveal that "organizational commitment is affected differently among faculties with different identities". In separatist faculty decentralization, compensation, training, position tenure and career mobility have significant effects, while in hegemonist faculty age, organizational tenure, level of autonomy, working hours, social involvement and personal importance significantly affect the employees' organizational commitment. As in this study, the major emphasizes is put on affective commitment, the results of Smeenk et al. (2006) study revealed, that participation, decentralization and

performance appraisal have the greatest influence on affective commitment. The conclusion, could be made, that opportunity-enhancing HRM influences affective commitment.

In the paper published in Management, Knowledge and Learning International conference in 2014, Bal, Bozkurt and Ertemsir (2014) aim to determine the influence of HRM practices on fostering organizational commitment. 88 employees working in different private companies participated in the research and findings of the research revealed, that HRM practices have a positive relationship with the organizational commitment of employees. In addition to that, the relationship between employees' perceptions on HRM practices' dimensions and their organizational commitment's dimensions were investigated. The strong relationship was found between involvement, training and development, performance appraisal HRM practices and affective commitment, while no significant relationship between "continuance commitment" and HRM practices was found. Normative commitment correlated strongly with involvement and performance appraisal HRM practices. The conclusion could be made, that HRM has the greatest influence on affective commitment.

After reviewing the findings of previous academic studies and research papers, a

Table 4 representing the key findings in summary is provided below.

Table 4

Summary of most important findings on HRM and affective commitment relationship

Author (Year)	Variables	Most important findings
Herrbach et al. (2009)	<ul> <li>Affective commitment</li> <li>Continuance commitment</li> <li>Providing of training opportunities</li> <li>Assigning older workers to ne roles</li> <li>Flexible work conditions</li> <li>Early retirement</li> </ul>	The provision of training opportunities was related to higher affective and high-sacrifice commitment. Flexible job design did not reduce the possibility of early voluntarily retirement.
Smeenk et al.	Organizational commitment	In separatist faculty: decentralization, compensation, training, position tenure

(2006)	• Separatist vs. hegemonist faculty	and career mobility have significant effects.
	<ul> <li>Decentralization</li> <li>Compensation</li> <li>Training</li> <li>Position tenure</li> <li>Career mobility</li> <li>Age</li> <li>Organizational tenure</li> <li>Level of autonomy</li> <li>Working hours</li> <li>Social involvement</li> <li>Personal importance</li> </ul>	In hegemonist faculty: age, organizational tenure, level of autonomy, working hours, social involvement and personal importance significantly affects employee commitment.
Bal, Bozkurt and Ertemsir (2014)	<ul> <li>Affective commitment</li> <li>Normative commitment</li> <li>Continuance commitment</li> <li>Involvement</li> <li>Training and development</li> <li>Performance appraisal</li> </ul>	Involvement, training and development, performance appraisal has a strong relationship with affective commitment. Normative commitment correlated strongly with involvement and performance appraisal. No significant relationship between continuance commitment and HRM practices.

Source: designed by author based on the literature review.

From the literature review on the relationship between human resource management and affective commitment, it could be concluded that even though the previous research papers analyzed the relationship in different contexts, a common finding was identified that human resource management and affective commitment have a positive relationship. The previous research papers found different determinants of affective commitment – training opportunities, flexible job design, working hours, social involvement, career mobility – however an integrated framework was not formed. Therefore, in order to extend the research on the relationship between human resource management and affective commitment, the following hypothesis is raised:

**H2:** There is a positive relationship between employees' perceptions of human resource management and their affective commitment.

**Innovative work behavior and affective commitment.** Many studies on the relationship between employees' affective commitment and innovative work behavior exist.

As defined in the section of conceptualizations, affective commitment is the emotional attachment to the company, the level of passion, feeling, and identification with the company's goals and is important for innovative work behavior. A study of Jafri (2010), on the relationship between affective commitment and innovative behavior argues that affective commitment influences innovative work behavior as (rho = 0.24, p < 0.05) (Jafri, 2010). However, it contrasts the findings of continuance commitment, which, being the feeling of obligation towards an organization due to financial reasons, rather than emotional fulfillment, has no significant relationship with innovative work behavior. This affects innovative behavior negatively, which further suggests that the presence of strong, affective feelings positively affect innovative behavior. Jafri's insights into affective commitment and its influence on innovative behavior are among the most cited in their relationship, and have potential applications to other personality-based studies.

The research published in the International Journal of Human Resource Management by Xerri and Brunetto (2013) demonstrated that organizational citizenship behavior (OCB) greatly improved company's infrastructure. OCB could be defined as the propensity of an employee to behave and work above and beyond the contractual obligation of their job. The study covers various social and business theories, most importantly including affective commitment. Both affective commitment and OCB often require employees to work greater and more intensive hours - willingly. In a survey of 210 nurses, affective commitment was measured with validated scales of Allen and Meyer (1990). Xerri and Brunetto (2013) tried to examine the model of relationship between organizational commitment, organizational citizenship behavior and innovative behavior (see Figure 4 below).

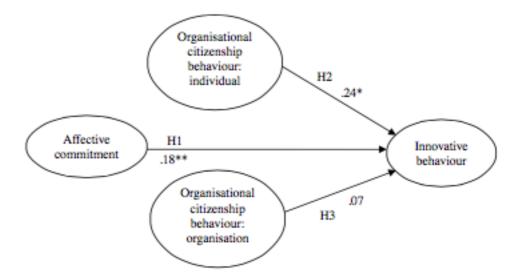


Figure 4. Model examining affective commitment, organizational citizenship behavior and innovative behavior. Source: Xerri & Brunetto (2013).

It concluded that those employees, who are affectively committed to the organization they work in, were more likely to demonstrate innovative behavior. Therefore, in order to improve the innovative behavior of employees, human resource managers must develop the processes that lead to employees being more affectively committed to the organization.

A study by Yesil and Sozbilir (2013) suggests that innovative behavior is based on employee personality traits. In other words, the mental states of employees impact how much initiative they take in innovation measures. In this study, 215 hotel employees took a questionnaire that examines five-factor personality dimensions. It concludes that openness to change improves innovative behavior, however personality does not refer to any individual preferences. It is a general term that refers to how the infrastructure of the company mentally affects employees, in terms of encouragement, mutual respect, social factors, and incentives. It says that this personality includes commitment, burnout, knowledge sharing, and performance motivations. Therefore, from the results of research by Yesil and Sozbilir (2013) it could be concluded that increased commitment is one of the factors that managers could encourage in order to foster stimulate innovation.

A study by Bos (2014) attempts to define innovation in more detail, and to determine the factors that are significant in the formation process of IWB. This includes commitment and employee voice - employee involvement in a company. The findings show that liberal employee voice can lead to a greater room to maneuver thus encouraging innovative behavior. While, employee commitment helps employees and employers connect, unite and work in cooperation. In the study, Bos (2014) uses a model to test the effect of employee voice on innovative behavior, which could be mediated by affective commitment. However, the mediating role of affective commitment was not significant and the relationship was not found. The findings of this research contradict the findings of other academic papers (for example, Xerri & Brunetto, 2013; Yesil & Sozbilir, 2013) and establish a point that no significant relationship between innovative work behavior and affective commitment could be found.

Xerri (2013) is examining the relationship between innovative work behavior and affective commitment and raising the research question: "Are committed employees more likely to exhibit innovative behavior: a social exchange perspective". This research was performed in Australian health care system by interviewing 210 nurse respondents. "The academic study proposes a model that outlines and tests the impact of the organizational factors upon the perceptions and behavior of nursing employees" (Xerri, 2013, p.31). The model is presented in the Appendix 1.

The major findings of the academic study confirm the research model proposed. The results show that tie strength, interactional justice, leader-member exchange and perceived organizational support directly affect affective organizational commitment. What is more, all these organizational factors indirectly affect innovative work behavior. To add, affective organizational commitment was found to have a direct effect on innovative work behavior. This study extends the knowledge about the relationships between organizational factors,

affective commitment and innovative work behavior of Australian nursing employees.

Therefore, the key finding that must be notified in this research is that affective commitment has a significant positive relationship with innovative behavior.

The Table 5 below represents the summary of the key findings based on the reviewed literature and academic studies.

Table 5
Summary of most important findings on IWB and affective commitment relationship

Author (Year)	Variables	Most important findings
Jafri (2010)	<ul> <li>Affective commitment</li> <li>Continuance commitment</li> <li>Normative commitment</li> <li>Innovative work behavior</li> </ul>	Affective commitment influences innovative work behavior, whereas continuance commitment has a negative relationship with innovative work behavior.
Xerri and Brunetto (2013)	<ul><li>Affective commitment</li><li>Organizational citizenship behavior</li><li>Innovative behavior</li></ul>	Affectively committed employees demonstrate innovative behavior.
Yesil and Sozbilir (2013)	<ul><li>Commitment</li><li>Burnout</li><li>Knowledge sharing</li><li>Performance motivations</li></ul>	Increased commitment is one of the factors that foster innovative behavior.
Bos (2014)	<ul><li>Commitment</li><li>Employee voice</li><li>Innovative work behavior</li></ul>	Liberal employee voice can lead to a greater room to maneuver thus encouraging innovative behavior. The mediating role of affective commitment was not significant.
Xerri (2013)	<ul> <li>Social exchange theory</li> <li>Professional culture</li> <li>Perceived organizational support</li> <li>Procedural justice</li> <li>Interactional justice</li> <li>Leader-member exchange</li> <li>Innovative organizational culture</li> <li>Tie strength</li> <li>Affective organizational commitment</li> <li>Innovative behavior</li> </ul>	Affective organizational commitment was found to have a direct effect on innovative work behavior.

Source: designed by author based on the literature review.

Table 5 represents the key findings on the relationship between innovative work behavior and affective commitment. Even though, this relationship was examined in different

contexts, environments and also by integrating other variables in the models, the results yielded the same findings that affective commitment and innovative work behavior may have a positive relationship. Consequently, the hypothesis is raised:

**H3:** There is a positive relationship between employees' affective commitment and their innovative work behavior.

Innovative work behavior, human resource management and affective commitment. In the study "Mediating role of affective commitment in HRM practices and turnover intention relationship: a study in a developing context" by Joarder, Sharif and Ahmmed (2011), the examination of the dimensions of HRM practices and their relationship with turnover was provided. To add, the mediating role of affective commitment was investigated. Proposed research model is presented in the Figure 5.

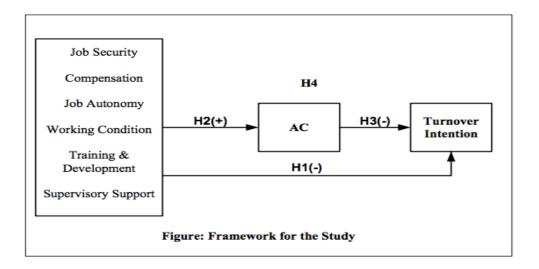


Figure 5. Framework for the study on the relationship between HRM practices, affective commitment and turnover intention. *Source:* Joarder, Sharif & Ahmmed (2011).

The research was performed in a private university faculty with 317 respondents. In order to test the hypotheses, multiple regression analyses were built and the results showed that "affective commitment mediated the proposed relationship between HRM practices and turnover intention" (Joarder, Sharif & Ahmmend, 2011, p. 135). Even though the study does not include innovative work behavior, the conclusion can be brought that affective

commitment may play mediating role between HRM practices and other determinants.

In the research article by Alfes et al. (2013), a mediated model between innovative work behavior and perceived human resource management practices with employee engagement and individual performance is examined (see Figure 6).

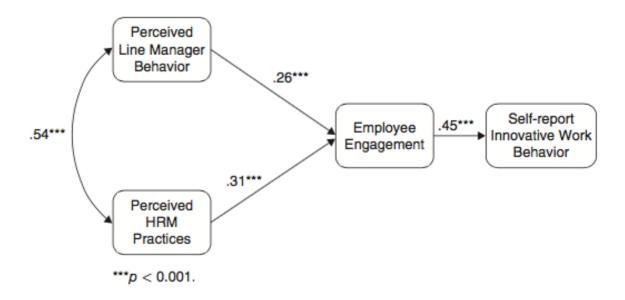


Figure 6. Model linking perceived line manager behavior and perceived HRM practices to individual performance. *Source:* Alfes et al. (2013).

The empirical research of the study was conducted in United Kingdom service-sector firms with 1,796 respondents. The findings of the research revealed that employee engagement mediated between perceived HRM practices and self-report innovative work behavior, meaning that work engagement is significant for the relationship of innovative work behavior and human resource management.

It is important to notify, that in this article of Alfes et al. (2013) the construct of employee engagement is conceptualized as multifactorial and includes physical, cognitive and emotional dimensions. Even though authors emphasize, that engagement differs from other attitudinal and behavioral constructs, some similarities with commitment could be found as both factors are attitudinal and based on emotional attachment to the organization.

Consequently, by reviewing several articles on the relationships between innovative work behavior, human resource management and affective commitment it could be concluded that there may be positive relationships between the innovative work behavior and human resource management, human resource management and affective commitment, affective commitment and innovative work behavior, however integrated approach, which would examine the mediating role of affective commitment on the relationship of IWB and HRM was not present. Academic articles analyzing other attitudinal construct – employee engagement proved to have significant evidence in playing mediating role, therefore the suggestion could be proposed, that affective commitment could play a mediating role between innovative work behavior and human resource management. Thus, the following hypothesis is raised:

**H4:** Affective commitment mediates the relationship between employees' perceptions of human resource management and their innovative work behavior.

#### Existing gap and contribution of the thesis

Literature analysis reveals that despite plethora of literature, the research on innovative work behavior is fragmented. There are plenty of studies (Scott & Bruce, 1994; Jian, Wang & Zhao, 2012; Fernandez & Pitts, 2011; Tan & Nasurdin, 2011; Abstein & Spieth, 2014) which would examine separate individual HRM practices on IWB, however, no integrated study, which would address HRM in a systematic way by focusing on three domains: ability-motivation-opportunity enhancing HRM, exists. Researchers highlight that the adoption of a package of complementary HR practices and policies would affect innovative work behavior more strongly.

The knowledge on the determinants of IWB, their impact and differences is fragmented and a deeper research is needed. To authors' knowledge there are no academic articles, which would study the mediating role of affective commitment on the relationship

between human resource management and innovative work behavior. This predetermines the need for the research in this area, as there is a lack of studies on the determinants of IWB. Consequently, this thesis seeks to contribute to the examination of IWB determinants and build a systematic model to fill in the gaps disclosed above. Thus in the following part, a conceptual model based on the findings of literature review will be provided and the most suitable methodological approach will be chosen.

## **Research methodology**

Research methodology part aims to provide an explanation and justification of the selected methodological approach and its appropriateness for the purpose of this thesis. A conceptual model for empirical research, together with the definitions of the constructs and variables will be specified. In addition, the chosen measurement, data collection, sampling and analysis methods will be presented.

Quantitative research method was chosen to be the most suitable for this study, as the main goal of this research is to test the relationship between innovative work behavior, human resource management and affective commitment. According to Creswell (2002) quantitative research method is most appropriate when the researchers' objective is to determine the factors influencing or predicting the outcome. In addition to that, quantitative research method is most suitable for the comparison of data in a systematic way.

Based on existing literature and previous research findings, the following hypotheses were formed:

- **H1:** There is a positive relationship between employees' perceptions of human resource management and their innovative work behavior.
- **H2:** There is a positive relationship between employees' perceptions of human resource management and their affective commitment.
- **H3:** There is a positive relationship between employees' affective commitment and their innovative work behavior.
- **H4:** Affective commitment mediates the relationship between employees' perceptions of human resource management and their innovative work behavior.

According to the proposed hypotheses, conceptual research framework with identified constructs and variables is presented in Figure 7.

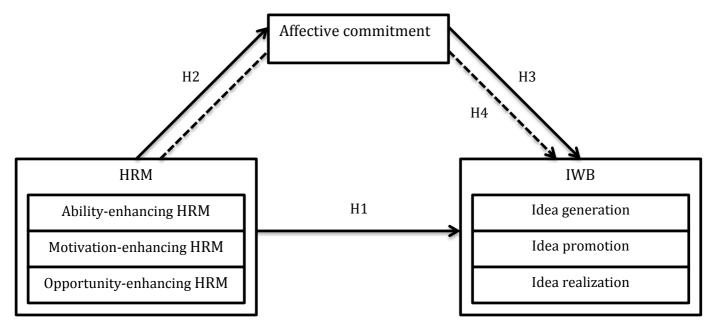


Figure 7. Conceptual research framework. Source: created by author.

#### **Constructs and variables**

The constructs and variables presented in the conceptual framework will be measured by ordinal 7-point Likert scale, with the format of 1- strongly disagree/ 7- strongly agree. In addition to that, control variables - representing demographic and organizational characteristics, will be measured in a nominal scale.

The construct *Innovative work behavior* – a multistage process of production, adoption and implementation of unique ideas - will be measured by adding three variables, which represent the stages of innovative behavior: idea generation, idea promotion and idea realization. Based on the scale proposed by Jannsen (2000), this construct will be assessed by nine items, Q1-Q9, (see Table 6 below) in the research instrument.

Human resource management construct will be measured through three independent variables. The measurement scale was adopted from Prieto and Perez-Santana (2014) work. The scale was created by grouping different HRM practices into additive variables, which show that companies will be able to achieve better results by using full range of HRM practices, instead of using only some HRM practices (Prieto & Perez-Santana, 2014). The variables are:

- Ability-enhancing HRM variable, created to guarantee the most skilled employees,
   specifically addresses selective staffing and extensive training practices, which are
   considered to be as complementing each other in HRM literature (Youndt et al., 1996;
   Prieto & Perez-Santana, 2014). Q10 Q19 in the questionnaire (see Table 6 below).
- Motivation-enhancing HRM variable, designed to influence employee motivation, is composed of assessment of two HR practices: the use of incentive-based compensation and performance appraisal, aimed to enhance employee motivation Questions 20-28 in the Table 6 below.
- Opportunity-enhancing HRM variable is created to foster employees to use skills and motivation, includes flexible job design and extensive employee participation. This variable will be assessed by nine items, Q29 –Q37, in the research instrument (see Table 6 below).

Affective commitment – "employee's emotional attachment to, identification with and involvement in, the organization" (Rashid, Sambasivan & Johari, 2003) variable will be measured by three-component model of organizational commitment proposed by Meyer and Allen (1997). In this study six questions, Q38 – Q43, (see Table 6 below) related to employees' affective commitment will be asked.

Demographic variables, such as *age*, *gender* and *position* were added to the research instrument, in order to establish a broader view and find out if there are any differences between male and female, manager or employee, and age groups perceptions on innovative work behavior, human resource management and affective commitment.

Research instrument is presented in the Table 6.

Table 6

Research instrument

Construct	Question	Authors
	Idea generation:	Onne Janssen
	1. I am creating new ideas for difficult issues.	(2000)
	2. I am searching out new working methods, techniques or	
	instruments.	
	3. I am generating original solutions for problems.	
	Idea promotion:	
	4. I am mobilizing support for innovative ideas.	
Innovative	5. I am acquiring approval for innovative ideas.	
Work	6. I am making important organizational members	
Behavior	enthusiastic for innovative ideas.	
	Idea realization:	
	7. I am transforming innovative ideas into useful	
	applications.	
	8. I am introducing innovative ideas into the work	
	environment in a systematic way.	
	9. I am evaluating the utility of innovative ideas.	
	<u>Staffing</u>	Isabel Ma
	10. Our company spends a great effort in selecting the right	Prieto Ma
	person for every position.	Pilar Perez-
	11. Our company uses extensive procedures in recruitment	Santana (2014
	and selection, including a variety of test and interviews.	`
	12. In recruiting, our company emphasizes the potential of	
	new hires to learn and grow with the company.	
	13. Our company takes care on its image when recruiting	
	and selecting employees.	
Ability-	14. Employees are selected based on their overall fit to the	
enhancing	organization.	
HRM	Training	
	15. Employees will normally go through ongoing training	
	process.	
	16. The organization provides training focused on	
	teambuilding and teamwork skills training.	
	17. Managers provide specialized training and development	
	for their employees.	
	18. Managers initiate and provide various kinds of training	
	and development for their employees.	
	19. Our company has good mentoring system to support	
	new hires.	
	Compensation	Isabel Ma
	20. Employees in this organization receive monetary	Prieto Ma
	rewards based on their individual performance.	Pilar Perez-
	21. Employees in this organization receive monetary	Santana (2014
Motivation-		Santana (2014
	rewards based on their group performance.	
enhancing	22. Employees in this organization receive monetary	
HRM	rewards based on their organizational performance.	
	23. Our company's pay system reflects employee's	
	contribution to the company.	
	Performance appraisal	
	24. Employee's performance appraisal is based on	

	individual behaviors and attitudes at work.	
	25. Employee's performance appraisal is oriented towards	
	their development and progress at work.	
	26. Employee's performance appraisal emphasizes	
	collective and long-term based results.	
	27. Employees receive performance feedback on a routine	
	basis.	
	28. Performance appraisals are based in objective	
	quantifiable results.	
	Job design	Isabel Ma
	29. Our company emphasizes employees' job rotation and	Prieto Ma
	flexible work assignments in different work areas.	Pilar Perez-
	30. Our company transfers extensively different tasks and	Santana (2014)
	responsibilities to employees.	Santana (2014)
	31. Our company emphasizes employees' teamwork and network collaboration.	
	32. Employees in this organization have broadly designed	
	jobs requiring a variety of skills.	
Opportunity-	<u>Participation</u>	
enhancing	33. Employees in this company are allowed to make	
HRM	decisions.	
	34. Employees are provided the opportunity to suggest	
	improvements in the way things are done.	
	35. Employees are invited to participate in a wide range of	
	issues, including performance standards, quality	
	improvement, benefits, etc.	
	36. Employees are invited to participate in problem solving	
	and decisions.	
	37. Employees receive information on the relevant concerns	
	of the company (goals, performance, etc.)	
	38. I am very happy being a member of this organization.	Meyer and
	39. I enjoy discussing about my organization with people	Allen (1997)
	outside it.	,
	40. I really feel as if the organizations problems are my	
	own.	
Affective	41. I do not feel like "part of the family" at my	
Commitment	organization.	
	42. I do not feel "emotionally attached" to this organization.	
	43. This organization has a great deal of personal meaning	
	for me.	
	Tot me.	
	44. Gender	
	a) Male	
	b) Female	
	45. Age	
Demographic	a) Up to 25	
variables	b) 25-40	
, un uo 103	c) over 40	
	46. Position	
	a) Manager	
	· · · · · · · · · · · · · · · · · · ·	
	b) Employee	

Source: designed by author based on the literature review.

The research instrument, used in this study, was designed from three different studies using three different scales: IWB – Jannsen (2000), HRM - Prieto and Perez-Santana (2014) and affective commitment Meyer and Allen (1997), therefore Cronbach's Alpha (α) test will be performed, in order to test internal consistency and reliability of scales. "Cronbach's alpha produces values between 0 and 1.00, with higher value indicating a higher degree of internal consistency and reliability" (Gravetter & Forzano, 2006, p.422).

## Sampling

As research is focused on innovative work behavior and human resource management, organizations selected to participate in the survey had to be practicing highly developed human resource management and demonstrate strong innovation orientation. With the purpose to carefully choose suitable companies for the research, firstly, human resource managers of the companies were contacted and examples of research instrument, together with research aim, objectives and raised hypotheses were presented. The HR managers had to confirm, if the research is relevant in those organizations. There was no preference for any particular industry, as it is supposed that human resource management systems and innovative work behavior are not industry-specific. Thirteen companies were approached and only six of them accepted to participate in the research. Descriptions of the organizations that participated in the survey are presented in the Table 7 below.

Table 7

Characteristics of respondents

Industry type	Number of respondents	Percentage over sample	
Management consultancy services	12	0,12	
Audit, tax and advisory services	16	0,16	
Beverages	19	0,19	
Banking	11	0,11	
Digital media advertising	15	0,14	
Technology and consulting	28	0,28	
Total	101	100	

Source: designed by author.

From the Table 7, representing respondent characteristics it can be concluded that six different organizations form different industries were researched. Two companies were from management consultancy and advisory services, one from beverages sector, one from banking sector, the other company represented digital media advertising industry and one was from technology business. All the surveyed companies requested to stay anonymous, as they are securing and protecting their internal information.

#### **Data collection methods**

Online collection method was chosen for collecting data from different organizations. This collection method is comfortable for data gathering, because of the speed and networking of the Internet. In addition to that, survey strategy is considered to be authoritative by individuals, as it is clearly understood (Saunders, Lewis & Thornhill, 2003). Survey was created with Qualtrics survey tool, as this tool enables tracking of the IP addresses, which was an obligatory master thesis requirement. First of all, research surveys were sent to human resource managers of the companies and later on published through internal online networks with the purpose to gather answers from company workers.

Anonymity, as well as the accessibility to research results was guaranteed, in exchange for participation in the survey.

# Data analysis methods

Quantitative data collected during empirical research will be analyzed by using statistical software – SPSS, which enables convenient production of graphical displays and statistical analyses (Norusis, 2006). In order to test the hypotheses and relationships of the constructs, following tests will be performed:

Descriptive statistics will be done, as this method is used to describe the basic features
of the data used in the study and provide simple summaries about the sample and
measures (Gravetter & Forzano, 2006).

- Confirmatory factor analysis (CFA) will be used to access construct validity of the research instrument.
- Cronbach's Alpha (α) test will be performed, in order to test internal consistency and reliability of scales.
- Shapiro Wilk test will be performed to test normality of distribution.
- In order to test the hypotheses of the relationships Spearman's rank correlation test and ANOVA (analysis is of variance) method "a hypothesis testing procedure, that is used to evaluate mean differences between two or more populations" (Gravetter & Wallnau, 2009, p.394) will be used.
- With the purpose to test the mediation effect simple mediation model will be built and bootstrapping confidence intervals methods will be used to determine mediation effect. As Hayes (2013) states "bootstrap confidence intervals have become the new standard in the 21<sup>st</sup> century for testing the hypotheses about mechanisms in a mediation analysis" (p.11).
- Mann-Whitney U test a non-parametric test, which compares two populations from the same sample (Gravetter & Wallnau, 2009) will be used.

#### **Empirical research results**

This chapter aims to empirically evaluate innovative work behavior, human resource management and affective commitment relationship. In this section empirical research findings, based on collection and analysis of the primary data will be reported and summarized. Descriptive statistics together with validity, reliability and correlation analysis will be provided. Hypotheses raised in the previous sections will be tested using relevant statistical analysis methods and confirmed or rejected based on the test results.

SPSS software was used for statistical analysis of research results. Respondents from six different organizations participated in this study. The online version of the questionnaire is presented in Appendix 2. Data collection period was set to be fourteen calendar days in different organizations, however the period had to be extended in two organizations, due to low participation rates. Different surveys (comprising the same questions) were sent to the participating organizations, in order to see if the results fit together, as companies were from different industries. Finally, the results did not show any big statistical differences, thus were combined together.

## **Descriptive statistics**

In the Table 8 below, descriptive statistics of the respondents are presented.

Table 8

Descriptive statistics of the respondents

Criteria	Number of respondents	Percentage	
Gender			
Male	46	45,5%	
Female	55	54,5%	
Age			
under 25	17	16,8%	
25-40	76	75,2%	
over 40	8	7,9%	
Position			
Employee	82	81,2%	
Manager	19	18,8%	

Source: designed by author based on empirical research results extracted from SPSS.

In total 101 respondents participated in the study, out of which 46 (45,5 percent) were men, and 55 (54,5 percent) were women. In terms of age, majority of respondents fell into 25-40 year interval (75,2 percent), 17 (16,8 percent) respondents were aged up to 25 and only 8 (7,9 percent) respondents were over 40 years old. Looking at working position, majority of respondents were in employee (81,2 percent) rather than manager (18,8 percent) position.

# **Factor analysis**

To access construct validity of the research measurements, based on the scales of three different studies, confirmatory factor analysis was performed. All tests needed for factor analysis will be performed separately for every construct (innovative work behavior, human resource management and affective commitment), as scales for each construct were used from different literature.

KMO and Bartlett's Test. First of all, Kaiser-Meyer-Olkin measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity was performed, as they are the minimum standard, which should be passed before factor analysis could be conducted. The data used for IWB is suitable for factor analysis, as Kaiser-Meyer-Olkin measure of Sampling Adequacy (KMO) is higher than 0,6. In this specific case KMO = 0,851. In addition to that, Bartlett's Test of Sphericity ("Sig") has to be <0,05. In this case Sig. < 0,001, which shows that correlation matrix is statistically different from the identity matrix and the data is suitable for factor analysis (see Appendix 3). Moreover, the data used for HRM is suitable for factor analysis, as KMO = 0,866 and Bartlett's test of Sphericity significance level lower than 0,001, which means that correlation matrix is also statistically different from identity matrix and data is suitable for factor analysis (see Appendix 4). The data used for affective commitment is also suitable for factor analysis, as KMO = 0.826 AND Bartlett's test significance level is lower than 0,001 (see Appendix 5). The results of Kaiser-Meyer-Olkin

measure of Sampling Adequacy and Bartlett's Test of Sphericity confirm that factor analysis could be performed for all the variables.

Communalities. To determine whether the questions chosen for innovative work behavior, human resource management and affective commitment are in line with the factors, principal axis factor extraction method will be used. The results (see Appendix 6) show, that all the communalities – the proportion of each variable's variance that can be explained by the factors – after extraction are higher than 0,2, meaning that there are no variables with low values, therefore no variables should be removed.

**CFA.** After performing confirmatory factor analysis, it could be concluded, that seven factors can be chosen. Factors for IWB explain 73,156% of total variance, factors for HRM explain 54,739% of total variance and the factor for affective commitment explains 63,818% of total variance. All in all, CFA results confirmed very good construct validity and established seven factors (the same amount as in theoretical model). Results are provided in Appendix 7.

# Reliability analysis

Before performing statistical analysis, Cronbach's alpha test was used to ensure internal reliability of the questionnaire. Results are presented in Table 9 below.

Table 9

Reliability test results

Scales	Number of statements	Cronbach's alpha (α)
Idea generation	3	0,769
Idea promotion	3	0,794
Idea realization	3	0,824
IWB	9	0,885
Ability-enhancing HRM	10	0,894
Motivation-enhancing HRM	9	0,868
Opportunity-enhancing HRM	9	0,867
HRM	28	0,938
Affective commitment	6	0,875

Source: designed by author based on empirical research results extracted from SPSS.

All Cronbach's alpha test results are higher than 0,7 – meaning that chosen scales are appropriate to use in the study.

Innovative work behavior construct was measured through three subscales (idea generation, idea promotion and idea realization) and nine statements in the questionnaire. All the subscales have high internal consistency and reliability measures: *idea generation* - 0,769, *idea promotion* – 0,794 and *idea realization* - 0,824. The overall Cronbach's alpha for Innovative work behavior is equal to 0,885, therefore representing high internal consistency and reliability of the questionnaire.

Human resource management construct was measured through three subscales (ability-enhancing HRM, motivation-enhancing HRM and opportunity-enhancing HRM) and twenty-eight statements in the questionnaire. Initial test confirmed that all items measuring this construct are consistent and reliable for statistical analysis as overall Cronbach's alpha for HRM construct is equal to 0,938. Subscales also presented high values: ability-enhancing HRM Cronbach's alpha is equal to 0,894, motivation-enhancing HRM – 0,868, and opportunity-enhancing HRM – 0,867, meaning that questions chosen for those variables are internally consistent and reliable.

Affective commitment variable was measured through six statements taken from the work of Meyer and Allen (1997). Test showed that scales for affective commitment are internally consistent and reliable, as the Cronbach's alpha is 0,875.

All in all, it can be concluded that the scales and subscales of constructs and variables used in the questionnaire are internally consistent and reliable, due to high results of Cronbach's alpha test.

With the purpose to choose the most suitable test for hypothesis testing, first of all, Shapiro-Wilk normality test and skewness and kurtosis coefficients were used to determine

the distribution of the results for all tested variables. Normality test results and skewness and kurtosis coefficients are presented in the Table 10 below.

Table 10
Shapiro-Wilk Normality test results

Scale	Shapiro- Wilk (W)	Sig.	Skewness (S)	Kurtosis (K)
Idea generation	0,946	0,000***	-0,804	-1,335
Idea promotion	0,977	0,078	-0,318	0,090
Idea realization	0,965	0,009**	-0,452	0,574
IWB	0,989	0,568	-0,237	0,030
Ability-enhancing HRM	0,966	0,011*	-0,625	0,052
Motivation-enhancing HRM	0,982	0,191	-0,446	0,161
Opportunity-enhancing HRM	0,956	0,002**	-0,781	0,969
HRM	0,983	0,240	-0,386	0,225
<b>Affective Commitment</b>	0,925	0,000***	-0,854	0,055

Source: designed by author based on empirical research results extracted from SPSS.

In general, distribution is considered to be normal if p value ("Sig" in the Table 10) is higher than 0,05. According to the results from the Table 10, only idea promotion (W = 0,977, Sig. > 0,05), IWB (W = 0,989, Sig. > 0,05), motivation-enhancing HRM (W = 0,982, Sig. > 0,191) and HRM (W = 0,983, Sig. > 0,05) are normally distributed. The p values of all other variables were lower, therefore it can be concluded that collected data deviates significantly from normal distribution. Pearson correlation test was rejected for further data analysis and non-parametric Spearman's correlation was used.

## **Hypothesis testing**

In order to test previously raised hypotheses, two-tailed Spearman's correlation test and ANOVA method were performed. Spearman's correlation test was selected to measure the strength and direction of the relationship between constructs and variables. This test is suitable as all the variables were measure on ordinal scale and raised hypotheses assumed positive relationship between the constructs. Correlation analysis is one of the commonly used research tools in almost all social sciences (Hopkins & Glass, 1978). In order to evaluate

the strength of the relationship, categorization of correlation coefficients, provided by Guildford (1956) will be used (see Table 11).

Table 11

Categorization of correlation coefficients

r-value	Interpretation
< 0.19	Slight; almost negligible relationship
0.20 - 0.39	Low correlation; definite but small relationship
0.40 - 0.69	Moderate correlation; substantial relationship
0.70 - 0.89	High correlation; marked relationship
> 0.90	Very high correlation; very dependable relationship

Source: Guildford (1956).

When performing ANOVA method, new variables were created by grouping initial variables into high and low levels. The variables were grouped into high and low levels according to the median – lower than median values to low levels, higher than median values to higher levels. Those new variables were used to determine the relationships between the constructs.

When testing the H1, that assumed positive relationship between employees' perceptions on *human resource management* and their *innovative work behavior* constructs, Spearman's correlation test results in the Table 12 (see Appendix 8 for SPSS output) showed moderate positive correlation (rho = 0,457), meaning that there is a substantial positive relationship between employees' perceptions on human resource management and their innovative work behavior.

Table 12

Spearman's correlation test results for HRM and IWB

	Idea generation	Idea promotion	Idea realization	IWB
Ability-enhancing HRM	rho =0,263 p = 0,008**	rho =0,434 p = 0,000**	rho =0,314	rho =0,402 p = 0,000**
Motivation-enhancing HRM	rho =0,272 p = 0,006**	rho =0,446 p = 0,000**	rho =0,393 p = 0,000**	rho =0,447 p = 0,000**

Opportunity-enhancing HRM	rho =0,274 $p = 0,006**$	rho =0,348 $p = 0,000**$	rho =0,288 $p = 0,003**$	rho =0,350 $p = 0,000**$
HMR	rho =0,295 $p = 0,003**$	rho =0,475 $p = 0,000**$	rho =0,369 $p = 0,000**$	rho =0,457 $p = 0,000**$

Source: designed by author on based on empirical research results extracted from SPSS.

The results of ANOVA method for the H1 are presented in the Figure 8 below.

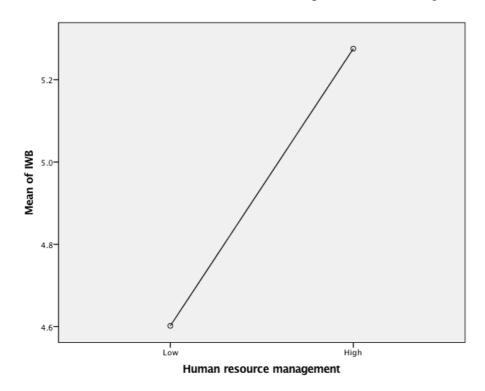


Figure 8. ANOVA results on HRM and IWB. Source: extracted from SPPS.

The results show that the respondents with high levels of perceptions on human resource management behave more innovatively, than the respondents with low levels of perceptions on human resource management. Those differences are statistically significant, as p < 0.05 for F criteria.

Therefore, H1 can be confirmed and the conclusion can be drawn, that there is a statistical evidence for positive relationship between employees' perceptions on human resource management and their innovative work behavior.

When analyzing correlations between components of human resource management construct and innovative work behavior, it can be concluded that all relationships were

significant, as p < 0,01. Results in Table 12 (see Appendix 8 for SPSS output) showed that motivation-enhancing HRM has the strongest relationship with innovative work behavior, as rho = 0,447. The second strongest correlation was between ability-enhancing HRM and innovative work behavior, as rho = 0,402. Both components had a substantial positive relationship with IWB. While opportunity-enhancing HRM had the lowest correlation with IWB - rho = 0,350, meaning that there is a definite but small relationship between respondents perceptions' on opportunity-enhancing HRM and their innovative work behavior.

ANOVA method for all three components of human resource management construct, showed, that respondents with high levels of perceptions of ability-enhancing HRM, motivation-enhancing HRM and opportunity-enhancing HRM exert innovative work behavior more, than the respondents with low levels of perception. Those differences are statistically significant, because p < 0.005. Results are provided in Appendix 9.

When analyzing the relationships between human resource management and the components of innovative work behavior, a conclusion can be brought that all relationships are statistically significant, as p < 0.01. Results of Spearman's correlation test in the Table 12 (see Appendix 8 for SPSS output) showed that HRM had the strongest correlation with idea promotion, as rho = 0,475, meaning that there is a substantial relationship between HRM and idea promotion. HRM had lower correlations with idea realization and idea generation, as rho = 0,369 and rho = 0,295 respectively, meaning that there is a definite but small relationships between HRM and those two components of IWB.

The results of ANOVA method for all three components of innovative work behavior construct, showed, that respondents with high levels of perceptions on HRM are more determined to generate, promote and realize innovative ideas, than the respondents with low

levels of perception on HRM. Those differences are statistically significant, because p < 0.005. Results are provided in Appendix 10.

When analyzing the relationships between the components of HRM (ability-enhancing HRM, motivation-enhancing HRM and opportunity-enhancing HRM) and the components of IWB (idea generation, idea promotion and idea realization), it can be concluded that all relationships are statistically significant, as p < 0.01. Results presented in the Table 12 (see Appendix 8 for SPSS output). Ability-enhancing HRM has the strongest relationship with idea promotion (rho = 0.434), then idea realization (rho = 0.314) and the lowest relationship with idea generation (rho = 0.263). The same conclusion can be brought for motivation-enhancing (rho = 0.446; rho = 0.393 and rho = 0.272, respectively) and opportunity-enhancing HRM (rho = 0.348; rho = 0.288 and rho = 0.274, respectively). Therefore, it could be concluded, that the strongest relationship between the components of HRM and IWB could be found between motivation-enhancing HRM and idea promotion.

To summarize, H1 on the relationship between employees' perceptions on human resource management and their innovative work behavior is confirmed. From the results of Spearman's correlation test, it can be seen that there is a positive relationship between employees' perceptions on human resource management and innovative work behavior. When analyzing ability-enhancing, motivation-enhancing and opportunity-enhancing constructs separately, it could be concluded that motivation-enhancing HRM and innovative work behavior have the strongest positive relationship, while opportunity-enhancing HRM and innovative work behavior have the lowest relationship. When analyzing the relationships between separate employees' perceptions on HRM and components of IWB, conclusion can be drawn that HRM has the strongest positive relationship with idea promotion. While analyzing separate components of HRM and IWB, the strongest relationship was found between motivation-enhancing HRM and idea promotion.

When testing H2, that anticipated a positive relationship between employees' perceptions on *human resource management* and their *affective commitment*, Spearman's correlation test results in Table 13 below (see Appendix 11 for SPSS output) showed moderate positive correlation (rho = 0,599), meaning that there is a substantial positive relationship between employees' perceptions on human resource management and affective commitment.

Table 13

Spearman's correlation test results for HRM, IWB and affective commitment

	Affective commitment	HRM	IWB
	rho = 1.00	rho = 0,599	rho = 0,399
Affective commitment	p = 0.000**	p = 0.000**	p = 0.000**
	rho = 0,599	rho = 1.00	rho = 0,457
HRM	p = 0.000**	p = 0.000**	p = 0.000**
	1 0.200	1 0 457	1 1.00
IWB	rho = 0.399	rho = 0,457	rho = 1.00
	p = 0.000**	p = 0.000**	p = 0.000**

Source: designed by author based on empirical research results extracted from SPSS.

The results of ANOVA method (see Figure 9 below) show that the respondents with high levels of perceptions on human resource management are more committed to the organization than the respondents with low levels of perceptions on human resource management. Those differences are statistically significant, as p < 0.05 for F criteria. Therefore, H2 can be confirmed and the conclusion can be drawn, that there is statistical evidence for positive relationship between employees' perceptions on human resource management and affective commitment.

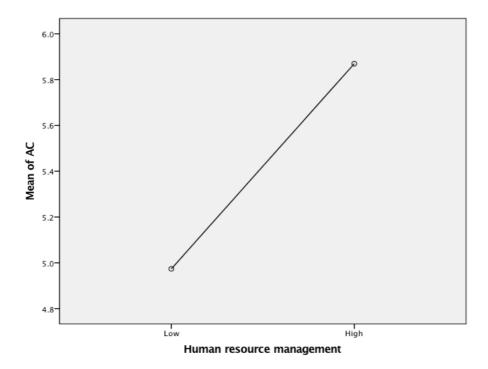


Figure 9. ANOVA results on HRM and Affective commitment. Source: extracted from SPPS.

When testing H3, that assumed positive relationship between employees' affective commitment and their innovative work behavior, Spearman's correlation test results in Table 13 (see Appendix 12 for SPSS output) showed low positive correlation, as rho = 0,399, meaning that there is a definite but small positive relationship between affective commitment and innovative work behavior.

ANOVA method showed that respondents, who are more affectively committed to the organization they work in, behave more innovatively, than those respondents who are less affectively committed (Figure 10 below).

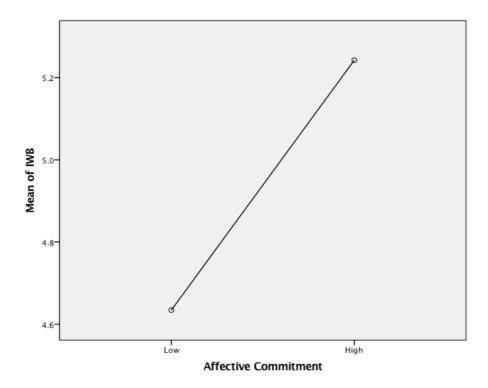


Figure 10. ANOVA results on IWB and Affective commitment. Source: extracted from SPPS.

Therefore, H3 can be confirmed and conclusion can be made that affective commitment and innovative work behavior have a positive relationship.

In order, to examine H4, which assumed that *affective commitment* mediates the relationship between employees' perceptions on *human resource management* and their *innovative work behavior* simple mediation model will be used, by determining the indirect effect of HRM on IWB through affective commitment. "Mediation analysis is a statistical method used to help answer the question as to how some causal agent X transmits its effect on Y?" (Hayes, 2013, p.86). In addition to that, as the data in this research is not normally distributed, bootstrapping method was chosen for the generation of an "empirically derived representation of the sampling distribution of the indirect effect, and this empirical representation is used for the construction of a confidence interval" (Hayes, 2013, p.106). The results of simple mediation model and bootstrapping confidence intervals are presented in the Table 14 below.

Table 14.

Results for the mediation effect

Model summary				
	R	R-sq	$\mathbf{F}$	р
	0,4753	0,2259	14,2984	0,000
Model				
Variable	Coefficient	SE	t	р
const.	2,1059	0,5490	3,8357	0,002
Affective commitment	0,1434	0,0930	1,5428	0,1261
HRM	0,3841	0,1343	2,8598	0,0052
Indirect effect of X on Y	Y through M			
	Effect	Boot SE	BootLLCI	BootULCI
Affective commitment	0,1357	0,0814	-0,0138	0,3086

<sup>\*</sup>X – HRM; Y – IWB; M – Affective commitment

Source: designed by author based on empirical research results extracted from SPSS.

In the first part of the Table 14, independent variable human resource management and affective commitment (the mediating variable) predicting innovative work behavior are shown. The model summary indicates that the multiple correlation coefficients R is 0,4743 and  $R^2 = 0.2259$ , this means that the combination of HRM and affective commitment explains approximately 23% of variance in IWB. The F = 14,3 and is statistically significant, as p < 0,001. In the second part of the Table 14, model information shows that HRM statistically significantly predicts IWB with affective commitment, as b = 0.39, t = 2.86, p =0,0052. Whereas, affective commitment does not statistically significantly predict IWB with HRM, as b = 0.14, t = 1.54, p = 0.13. The information in the last part of the Table 14 includes indirect effect of X on Y through M and represents the model with the relationship between HRM and IWB, being mediated by affective commitment. The effect is 0,1357 with bootstrapped standard error (BootSE) of 0,0814, and a 95% confidence interval (BootLLCI – BootULCI) ranging from -0,0138 to 0,3086. This range includes zero, therefore it means that affective commitment did not statistically significantly mediate the relationship between human resource management and innovative work behavior. From the simple mediation analysis, it could be concluded that no mediation effect was found, thus H4 is rejected.

# IWB, HRM and Affective commitment according to gender and position

In order to compare how demographic variables, such as gender, position and age affect innovative work behavior, human resource management and affective commitment constructs, Mann-Whitney U test – a non-parametric test that is used to compare two populations from the same sample (Gravetter & Wallnau, 2009) - was used. The test results according to respondents' gender are provided in the Table 15 below.

Table 15

Results of Mann-Whitney U test according to respondents' gender

Construct	Male mean	Female mean	Z	Sig.
	rank	rank		
Idea generation	55,33	47,38	-1,371	0,170
Idea promotion	50,40	51,50	-0,189	0,850
Idea realization	49,65	52,13	-0,426	0,670
IWB	51,90	50,25	-0,283	0,777
Ability-enhancing HRM	47,02	54,33	-1,250	0,211
Motivation-enhancing HRM	47,45	53,97	-1,116	0,265
Opportunity-enhancing HRM	47,37	54,04	-1,141	0,254
HRM	46,48	54,78	-1,419	0,156
Affective commitment	48,24	53,31	-0,868	0,385

Source: designed by author according to empirical research results extracted from SPSS.

From the Mann-Whitney U test results according to gender, it could be concluded that in this research there are no significant differences between men and women as the significance level is higher than 0,05 for all the constructs and variables.

In the Table 16 below, results of Mann-Whitney U test according to respondents' position, provided.

Table 16

Results of Mann-Whitney U test according to respondents' position

Constructs	Employee	Manager	Z	Sig.
	mean rank	mean rank		
Idea generation	47,37	66,66	-2,612	0,009**
Idea promotion	47,43	66,39	-2,557	0,011*
Idea realization	48,75	60,71	-1,614	0,107
IWB	47,55	65,89	-2,462	0,014*
Ability-enhancing HRM	49,34	58,18	-1,188	0,235

Motivation-enhancing HRM	48,32	62,58	-1,931	0,056
Opportunity-enhancing HRM	49,40	57,89	-1,140	0,254
HRM	48,54	61,63	-1,756	0,790
Affective commitment	47,45	66,34	-2,538	0,011*

Source: designed by author according to empirical research results extracted from SPSS.

The results in the Table 16 show that there are significant differences between employees and managers for idea generation (Z = -2,612, when p < 0,01) and idea promotion (Z = -2,557, when p < 0,05), meaning that managers responded to be more generating and promoting innovative ideas, than the employees. The result for overall IWB also showed significant results (Z = -2,462, when p < 0,05), meaning that managers behave more innovatively than employees. In addition to that, when comparing the differences between employees' and managers' affective commitment, the results occurred to be significant, as Z = -2,538, when p < 0,05). It could be concluded that managers are more affectively committed to their organizations, when employees. However, Mann-Whitney U test results appeared to be insignificant for idea realization, ability-enhancing HRM, motivation-enhancing HRM, opportunity-enhancing HRM and the overall HRM construct, meaning that there are no differences between employees and managers for these variables and construct.

Mann-Whitney U test was not performed according to respondents' age, as 75,2% of respondents were aged between 25-40 years, therefore, the test would not show any significant results.

## Major findings from empirical research

- H1 can be confirmed and the conclusion can be drawn, that there is a statistical
  evidence for positive relationship between employees' perceptions on human resource
  management and their innovative work behavior constructs.
- When analyzing correlations between components of human resource management construct and innovative work behavior, it can be concluded that *motivation-enhancing* HRM has the strongest relationship with innovative work behavior.

- When analyzing the relationships between the human resource management and the components of innovative work behavior, a conclusion can be brought that HRM had the strongest correlation with idea promotion.
- When analyzing the relationships between the components of HRM (ability-enhancing HRM, motivation-enhancing HRM and opportunity-enhancing HRM) and the components of IWB (idea generation, idea promotion and idea realization), it can be concluded that the strongest relationship could be found between motivation-enhancing HRM and idea promotion.
- H2 can be confirmed and the conclusion can be drawn, that there is statistical
  evidence for positive relationship between employees' perceptions on human resource
  management and affective commitment.
- H3 can be confirmed and conclusion can be made that affective commitment and innovative work behavior have a positive relationship.
- H4 is rejected the conclusion can be drawn, that affective commitment does not play a mediating role between human resource management and innovative work behavior.
- By comparing how gender, position and age affect IWB, HRM and affective
  commitment it was found that managers behave more innovatively than employees
  and managers are more affectively committed than employees.

#### **Discussion and conclusions**

Discussion and conclusions part aims to provide theoretical and managerial implications, how to foster innovative work behavior. In this section of the thesis the most important findings of empirical research will be summarized in the context of existing research studies, revised in the literature review chapter. In addition to that, based on the findings of empirical research, theoretical and managerial implications, together with limitations and possible directions for future research will be provided.

The aim of this thesis is to investigate the human resource management and affective commitment role in fostering innovative work behavior among business companies practicing a highly developed human resource management. From the results of the empirical research it could be concluded that, there is a substantial positive relationship between employees' perceptions on human resource management and their innovative work behavior. In addition to that, affective commitment has a positive relationship with innovative work behavior and human resource management. However, empirical data did not provide the evidence that affective commitment plays mediating role between the IWB and HRM constructs. Consistent with the results of empirical research, theoretical and managerial implications will be discussed in the following sections.

# **Implications for current theory**

The first significant finding of this research is a substantial positive relationship between employees' perceptions on human resource management and innovative work behavior. This finding could be aligned with the research results of Prieto and Perez-Santana (2013), who also investigated the relationship between HRM and IWB. The research of Prieto and Perez-Santana (2013) is the only one, to authors' knowledge, which approached HRM in three strategic domains: ability-enhancing HRM, motivation-enhancing HRM and opportunity-enhancing HRM. Prieto and Perez-Santana (2013) aimed to examine how HR

practices foster "innovative work behavior with the mediation effect of supportive work environments" (p.199). The study expanded the focus and included a more integrated view of HR practices, in addition choosing the different context of manager support and coworkers support. In general, their findings indicate that ability-enhancing and opportunity-enhancing HR practices have strong relationships with innovative work behavior and also encourages the environment, in which employees' innovative ideas are supported by managers and coworkers. However, motivation-enhancing HR practices did not yield any significant results. This finding represents the opposite effect to the findings of this research, as motivation-enhancing HRM had the strongest relationship with innovative work behavior. Prieto and Perez-Santana (2013) indicated that "effective compensation and incentive systems require more research" (p.201).

Consequently, this research extends the findings of Prieto and Perez-Santana and proves strong relationship between effective compensation, performance appraisal and innovative work behavior. These results may be different, as this research was performed in Lithuania, while the study of Prieto and Perez-Santana (2013) was performed in Spain, thus cultural differences, work behavior or different organizational cultures may have affected the results of the empirical research. It could be concluded that this research extends the current literature on the relationship between human resource management and innovative work behavior by providing empirical results for the relationship between ability-enhancing HRM, motivation-enhancing HRM, opportunity-enhancing HRM and innovative work behavior.

In this study ability-enhancing HRM includes selective staffing and extensive training. The findings of empirical research identify that there is a strong substantial relationship between ability-enhancing HRM and innovative work behavior, meaning that if the employees are selected carefully, according to their knowledge, skills and abilities and the overall fit to the company, and, also, company values innovativeness, then those employees

would be more willing to exert innovative work behaviors. What is more, through extensive training, key skills and abilities for innovative behavior could be developed, leading to higher employee confidence to behave innovatively. These findings contradict the finding of Tan and Nasurdin (2011), as in their research hiring did not have any significant relationship with innovative behavior. Authors' based their explanation of negative relationship on the fact that the surveyed manufacturing companies in Malaysia were of a combination of foreign-owned, locally owned and joint-venture firms, and these kinds of companies have different approaches in recruitment. Foreign-owned companies base their selection methods on the established requirements, while locally owned organizations hiring decisions are based on the subjective opinion of managers. As a result, the findings of this research extend the literature and suggest that selective staffing, if done properly, by choosing the candidates according to some established standards, would foster the innovative behavior of employees.

The findings on extensive training supported previous research, as Tan and Naurdin (2011), Bysted and Jespersen (2012) and Fernandez and Pitts (2011) confirm that extensive training influences innovative work behavior. Even though all the studies were performed in different contexts, with different samples and included different other variables, the results were the same – that extensive training has strong relationship with innovative work behavior, meaning that "higher implementation level of training, will advance the growth of employees' requisite skills and their potential to learn" (Tan & Nasurdin, 2011, p.164), consequently leading employees' willingness to generate, promote and realize unique, innovative ideas.

Motivation-enhancing HRM comprises compensation and performance appraisal HRM practices, which influence the innovative behavior, through development and progress based performance appraisal or reward systems specifically linked to innovative outputs. This means that if the feedbacks are based on objective quantifiable results, emphasizes the

development and are performed on a routine basis, they would encourage employees to behave more innovatively. Rewards, in addition, have to reflect employee contribution and make them important part of the organization; this would in turn foster the innovative work behavior. Jiang, Wang and Zhao (2012) in their research work found that reward systems positively influence innovative work behavior. Authors state that "according to social exchange theory, employees evaluate the exchange relationship with the organization in terms of rewards they receive" (Jiang, Wang & Zhao, 2012, p.4041), meaning that employees must understand that company rewards them by the contribution they make. Provision of interesting and significant assignments, would, also, lead to employee willingness to experiment with new ways of performing the tasks. The findings of Jiang, Wang and Zhao (2012) fully support the finding of this thesis, as rewards were the most important factor influencing innovative work behavior for the respondents in Lithuania based companies.

The literature is unclear about the effect of performance appraisal on innovative work behavior. Tan and Nasurdin (2011) found positive relationship between performance appraisal and innovative work behavior in the context of manufacturing companies in Malaysia, while Jiang, Wang and Zhao (2012) findings yielded opposite effect and demonstrate no relationship between IWB and performance appraisal. The authors argued the performance appraisals could be focused on two different directions: evaluation apprehension – to determine the amount of payment, and developmental feedback – to motivate to improve future performance, therefore those two forces may counterbalance each other and bring no significant results (Jiang, Wang & Zhao, 2012). Literature indicates that further research on performance appraisal is needed; consequently this study adds to the research on the relationship between performance appraisal and innovative work behavior and suggests that in different cultural context, performance appraisal and reward systems could have strong relationship with innovative work behavior.

Opportunity-enhancing HRM includes flexible job design and participation. Through flexible job assignments, teamwork and broadly designed jobs and participation in decision-making process, employees have the opportunity to use a wide range of competences and skills and feel important in the organization, thus increasing the innovative work behavior. The results of this thesis confirm the findings from the literature of Dorenbosch, van Engen and Verhagen (2005) and Abstein and Spieth (2014), who found support for the relationship between innovative work behavior and multifunctional job design and participation.

Employees are more willing to behave innovatively when they feel concerned about the problems in the workplaces (Dorenbosch, van Engen & Verhagen, 2005) and when they have the highest possible freedom and ability to participate in decision-making processes (Abstein & Spieth, 2014). This research confirms the cognitive evaluation theory, "which states that intrinsic motivation for an action will only be enhanced if a person feels confident to fulfill the task while simultaneously experiencing autonomy" (Abstein & Spieth 2014, p.218). As a result, opportunity-enhancing HRM, comprising flexible job design and participation HR practices increases innovative work behavior.

Another significant finding of this research is a positive relationship between the components of HRM: ability-enhancing HRM, motivation-enhancing HRM and opportunity-enhancing HRM; and the components of IWB: idea generation, idea promotion and idea realization. There is no existing study, which would investigate the associations between these particular variables, but the results could be aligned to and extend the work of Scott and Bruce (1994), who tried to identify the determinants of innovative work behavior and measured it in three-dimensions of idea generation, idea promotion and idea realization.

Authors' created a conceptual model in which indicated the main determinants of IWB and they are: leadership, teamwork, individual attributes, and psychological climate for innovation. Whereas, in this thesis major distinguished determinants of IWB are ability-

enhancing HRM, motivation-enhancing HRM and opportunity-enhancing HRM. As a result, it could be stated that the findings of this thesis expand the literature on the determinants of innovative work behavior. In addition to that, an important implication is that the relationships between the components of IWB and the components of HRM were not researched before. The results of the study show that the strongest relationship exists between motivation-enhancing HRM and idea promotion, meaning that compensation policies and development and process based performance appraisals make employees promote their innovative ideas and mobilize a coalition of supporters. Thus, this study expands the literature on the determinants of the components of IWB – idea generation, idea promotion and idea realization, meaning that different components of IWB could have different determinants. As a result, companies could distinguish, which of the components are the most important and would be able to choose the corresponding strategies.

The third significant finding of empirical results shows that there is statistical evidence for positive relationship between employees' perceptions on human resource management and affective commitment. This finding supports and extends the results of the research work of Smeenk et al. (2006), Herrbach et al., (2009) and Bal, Bozkurt and Ertemsir (2014). The studies of Herrbach et al. (2009) and Smeenk et al. (2006) examined the relationship in different contexts: Herrbach et al. (2009) were researching late-career managers and concluded that by providing training opportunities to older employees, would increase their affective commitment to the company. While Smeenk et al. (2006) were exploring the antecedents of organizational commitment among university employees, and the results showed that in different faculties different HR practices increase affective commitment – in hegemonist faculty level of autonomy, social involvement and working hours have the greatest impact and in separatist faculty decentralization, training, compensation and career mobility. In their research, Bal, Bozkurt and Ertemsir (2014) were

exploring 88 private company employees, and found that involvement, training and development and performance appraisal had a strong relationship with affective commitment. The context of Bal, Bozkurt and Ertemsir (2014) research is similar to the context of this thesis, as 101 employees of Lithuanian companies were researched and both research yield similar findings, except that this thesis adds that selective staffing, compensation and flexible job design also have strong relationship with affective commitment. Consequently, it could be concluded that this research extends the literature on the antecedents and determinants of affective commitment and the findings identify that human resource management and affective commitment have a strong relationship in any researched context.

Furthermore, it was found that there is a positive relationship between affective commitment and innovative work behavior. The employees, who are more affectively committed to the organization they work in, behave more innovatively, than the respondents who are less affectively committed. The findings of this research could be aligned with the findings of the study of Jafri (2010), which is the most cited work on the relationship between innovative work behavior and organizational commitment. The results of this thesis and the research of Jafri (2010) are very similar, as in both cases innovative work behavior and affective commitment have a positive relationship. Whereas, Xerri and Brunetto (2013) researched affective commitment and innovative behavior in the context of social exchange theory (SET) and "argued that under ideal circumstances, effective workplace relationships would provide support for nurses and this would set up a dynamic that psychologically obliged employees to reciprocate support, time, resources and energy back to the organization" (p.3172). The reciprocity was examined in the form of affective commitment and organizational citizenship behavior. The findings suggest that it is important to encourage higher levels of affective commitment and organizational citizenship behavior in order to increase innovative work behavior. The conclusion can be brought, that even though

researching the different setting, affectively committed employees would be more willing to engage in innovative work behaviors. This finding supports the conclusion of Yesil and Sozbilir (2013) that managers can encourage their employees to improve innovative behavior by increasing commitment. Consequently, affective commitment and innovative work behavior are positively related and this supports the findings of existing literature.

Another important finding of the research was that affective commitment does not play a mediating role between human resource management and innovative work behavior. The analyzed literature supports the relationships between human resource management and innovative work behavior, human resource management and affective commitment and affective commitment and innovative work behavior, which are the important prerequisites for the mediation effect. Hayes (2013) suggests that mediation analysis could be undertaken only when X (in this case HRM) is associated with Y (in this case IWB). Therefore, as the prerequisites were met, hypothesis that affective commitment could be a mediator between HRM and IWB was raised. The hypothesis was rejected and no significant relationship was found. This may have occurred due to the several reasons. First of all, the relationship between affective commitment and innovative work behavior was positive but low, comparing to the relationship between HRM and innovative work behavior. Also, the relationship may be insignificant in the researched context or organizational cultures. Therefore, further research on the mediating role of affective commitment on the relationship between human resource management and innovative work behavior is needed.

#### **Managerial implications**

The findings of empirical research proved the relationship between innovative work behavior, human resource management and affective commitment and show that managers rather than relying on one or several individual practices have to leverage multiple dimensions and systems, which would encourage innovative work behavior. For managers to

foster innovative work behavior of the employees, they need to implement bundles of HRM practices and make employees more committed to stay in the organization. The managerial implications will be provided in this section of the thesis.

First of all, managers need to clearly define innovative work behavior in their organizations. They must identify, which dimensions of innovative work behavior are the most important, which ones are developed and which ones need more attention. When the IWB in the organization is defined accurately, employees who would perform those tasks, and who would be encouraged to participate in idea generation, promotion and realization have to be chosen, as the right fit of the individuals would let them contribute to the overall company innovativeness and success.

As the significant relationship between human resource management and innovative work behavior was found, thus managers should implement such systems or practices of HRM that would be oriented towards ability, motivation and opportunity enhancements and would foster innovative work behavior of employees.

Ability-enhancing HRM consists of selective staffing and extensive training. First of all, HR managers should put a great emphasis on employee selection – establish clear requirements for the positions, define the overall organizational culture and conduct staffing processes accordingly, by choosing the most suitable employees for the position. Prieto and Perez-Sanatana (2013) agree to this suggestion and state - if the selective staffing processes are performed properly, then there is a greater possibility to choose the best people with most appropriate knowledge, skills and abilities. Furthermore, trainings focusing on the development of those skills and abilities, that mostly foster innovative behavior should be provided to the employees, as the development of those skills would make employees more confident about their competences and they would be more eager to exert innovative behaviors. This implication is in line with the one proposed by Fernandez and Pitts (2011),

who suggested: "training and development serves as a conduit for innovative ideas originating from beyond the organizations' boundaries, and it also enables employees to either find or develop the most effective solutions to problems facing their work unit" (p.216). With the purpose to foster innovative work behavior, managers must be obliged to invest in employee training and development, and recruitment of highly skilled employees.

Motivation-enhancing HRM proved to have the strongest relationship with innovative work behavior. Motivation-enhancing HRM consists of performance appraisal and compensation practices. Thus, managers should focus on development and progress oriented performance appraisal, by providing constructive, informative and objective feedback, which would correspondingly encourage employees to involve in idea generation, promotion and realization. By providing financial incentives, managers should be cautious, as rewards may be an effective method to foster innovative work behavior in the short-term, however, managers should focus more on long-time perspective, and provide rewards based on the quality and content of innovative ideas, rather than on the quantity. In addition, Jiang, Wang and Zhao (2012) proposed a sufficient implication on incentive rewards, suggesting that when employees understand that company values them by sharing profits and provides with important and engaging work, the employees respond by providing more efforts, suggestions and try to test now possible ways of performing their works. In order to foster innovative work behavior, managers should focus on motivation-enhancing HRM, such as development oriented performance appraisals or profit-sharing reward practices.

Opportunity-enhancing HRM also demonstrated significant relationship with innovative work behavior, meaning that HR managers should focus on job design and participation HR policies. Those policies could be implemented by providing employees with multifunctional, broad job descriptions, which would be aiming to challenge and apply critical-thinking techniques of the workers and in turn would promote employee involvement

in innovative activities (Dorenbosch, van Engen & Verhagen, 2005). Also, employees should be given more freedom, autonomy, and would be able to participate in decision-making processes, as the higher degree of responsibility is significant requirement in developing employees' innovative behavior (Abstein & Spieth, 2014). HR managers should implement multifunctional job design and participation policies, to foster innovative work behavior.

Furthermore, it was found that there is a positive relationship between affective commitment and innovative work behavior. As affective commitment appeared to important determinant of innovative work behavior, HR managers should take it into consideration and try to implement strategies that would increase employee's emotional attachment to, identification with, and involvement in the organization. This would, in turn, make employees engage in innovative work behavior.

By comparing how gender, position and age affect innovative work behavior, human resource management and affective commitment, it was found that in companies practicing highly developed HRM, managers behave more innovatively than employees. Meaning that managers generate and promote innovative ideas more often than employees. This finding is very interesting and brings suggestion that if HR managers want to reach higher innovativeness they should focus their attention on company managers. This finding could have happened, as managers have the decision-making power, receive higher rewards, thus are more willing to engage in innovative work behaviors. Consequently, this leads to the other managerial implication, that if HR managers want to foster the innovative work behavior of employees, they should provide them with the opportunities to participate in decision-making process and provide some autonomy and freedom to share their opinion. Furthermore, by comparing the effect of demographic variables on the constructs, it was found that managers are more affectively committed than employees. This means, they dedicate more time and effort for the company, are more loyal and willing to stay. For this

reason, HR managers should apply, such strategies that would increase employee affective commitment.

To sum up, this research provides implications for HR managers, suggesting that practicing effective and systematic human resource strategies, which would be directed towards ability, motivation and opportunity enhancing of employees, they could stimulate innovative work behavior. To add, HR practitioners must implement HR practices that would lead to more affectively commitment employees and thus would foster innovative work behavior. Therefore, it is of great importance to use a bundle of HR practices, in order to foster innovative work behavior and achieve organizational success.

### Limitations and suggestions for further research

There are several limitations that could be considered in this research and could be addressed later in the further academic studies. First of all, due low survey participation rates sample analyzed was small and did not represent the whole population. Sample was limited, due to the reason, that surveyed companies had to be practicing highly developed human resource management and be innovation oriented, meaning that the respondents had to be engaged in innovative work behavior in the company. Further research could benefit from a larger sample of companies practicing highly developed HRM and innovation oriented that would bring more statistical power.

In this research primary data was analyzed, meaning that it could be very subjective, especially in measuring innovative work behavior. Thus, in further research data on IWB could be compared to secondary data representing innovative outputs of the company.

Moreover, there could be some cultural and organizational limitations coming from industry or sector that may have affected empirical research results, therefore a broader research covering more data from different countries could be performed. As the mediation effect of affective commitment was found to be insignificant in the relationship between

human resource management and innovative work behavior, consequently, further research on other determinants and factors that could influence the relationship could be done. And last, but not least, empirical research results were based on Spearman's correlation test, which indicates the relationship between the constructs. Whereas a potential regression analysis could be done in order to establish a causal relationship and find which variables influence innovative work behavior.

#### **Conclusions**

Growing body of literature emphasizes the importance of innovative work behavior for organizational success. Novel and unique ideas, generated, promoted and realized by employees help companies survive, adapt to rapidly changing environment and sustain competitive advantage. Researchers agree that IWB improves the overall company effectiveness, efficiency and performance (Scott & Bruce, 1994; Xerri & Brunetto, 2013; Abstein & Spieth, 2014). Thus, the establishment of key determinants and antecedents of innovative work behavior is fundamental. Consistent with this, the main aim of this thesis was to investigate the human resource management and affective commitment role in fostering innovative work behavior. With this aim, this research conceptualized innovative work behavior, human resource management and affective commitment, empirically linked their relationships and provided a discussion on theoretical and managerial implications, limitations and suggestions for future research. This section summarizes the main points of the thesis against the raised objectives.

Literature review highlighted the importance of human resource management as a mean to foster innovative work behavior. HRM practices aiming to enhance abilities, motivation and opportunities of employees, were found to be the most influential in stimulating the dimensions of innovative work behavior. The vast majority of literature analyzes isolated HRM practices, thus a gap was distinguished that an integrated model of

systematic HRM encouraging IWB was absent. This research focused on the behaviors of employees, thus attitudinal variable - affective commitment was one of the researched variables. Conceptualizations and review of existing empirical studies proved positive relationships between affective commitment and HRM as well as IWB and, accordingly, the hypothesis that affective commitment plays a mediating role between innovative work behavior and human resource management was raised. Based on the analysis of literature review a conceptual framework representing the determinants of innovative work behavior was built.

Empirical research results disclosed positive relationship between innovative work behavior and human resource management and extended the literature on the relationship. Motivation-enhancing HRM was found to have the strongest relationship with IWB, meaning that developmental performance appraisal and incentive-based reward systems would encourage employees to behave innovatively. Ability-enhancing and opportunity-enhancing HRM, also, had positive relationship with innovative work behavior. Thus, innovative work behavior can be influenced by applying selective staffing, extensive training, flexible job design and participation HRM practices. It is important to highlight that the findings revealed that by using a package of complementary ability-enhancing, motivation-enhancing and opportunity-enhancing HRM, innovative work behavior is fostered more than applying HRM practices separately. This study proves that in order to foster innovative work behavior, an integrated model of systematic HRM must be practiced.

The findings proved that attitudinal factor – affective commitment has a positive relationship with innovative work behavior and human resource management. This research extends the literature on the antecedents of affective commitment and identifies that human resource management influences employee affective commitment in any researched context. In addition, employees, who are affectively committed to the organization they work in,

behave more innovatively, than the individuals who are less affectively committed. Thus, in order to foster innovative work behavior, HR managers have to focus their practices on influencing affective commitment of employees. However, affective commitment did not mediate the relationship between human resource management and innovative work behavior.

Based on the findings of empirical research results, managerial implications were provided. The findings extended the literature and provided an integrated model of the determinants of innovative work behavior. The suggestions were made, that HR managers should practice effective and systematic human resource management, directed towards ability, motivation and opportunity enhancement of employees, which would in turn stimulate innovative work behavior.

The possible limitations, such as small sample size, usage of primary data, cultural context and no mediating effect of affective commitment were discovered. Sample size was small, because many companies did not agree to participate in the research. Primary data represents opinions and attitudes of respondents, thus it could be very subjective. Cultural and organizational context may have brought some industry or sector specific limitations and no mediating effect of affective commitment was discovered, thus all those limitations should be addressed in further research in order to set broader understanding of the field.

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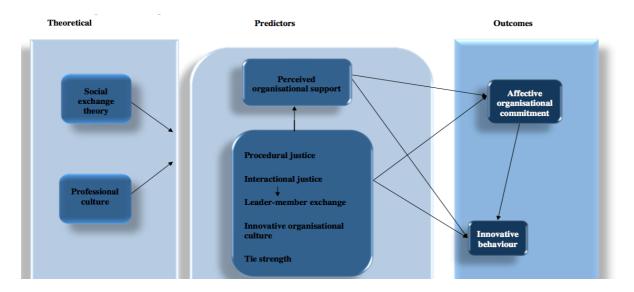
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### **Appendices**

Appendix 1. Conceptual framework examining the relationship between affective organizational commitment and innovative behavior



Source: Xerri (2013)

Appendix 2. Online questionnaire

#### **Innovative behavior**

Thank you for taking the time to complete this survey, your response is anonymous and will only be used for research purposes. This research aims to broaden understanding on the relationship between innovative work behavior, perceived human resource management and affective commitment. It should take 10 minutes of your time and would be appreciated if you could complete it as soon as possible. Your contribution is very valuable and results will be shared with organizations that participated in this study. All the questions should be rated on a scale from 1 (strongly disagree) to 7 (strongly agree).

The following questions will be about your personal contribution to the company you work in.

#### Q1 I am creating ideas for difficult issues.

- O Strongly Disagree (1)
- O Disagree (2)
- O Somewhat Disagree (3)
- O Neither Agree nor Disagree (4)
- O Somewhat Agree (5)
- **O** Agree (6)
- O Strongly Agree (7)

#### Q2 I am searching out new working methods, techniques or instruments.

- O Strongly Disagree (1)
- O Disagree (2)
- O Somewhat Disagree (3)

$\sim$	N. I. A. D. (A)		
0	Neither Agree nor Disagree (4)		
<b>O</b>	Somewhat Agree (5)		
<b>O</b>	Agree (6)		
0			
_	I am generating original solutions for problems.		
<b>O</b>	Strongly Disagree (1)		
0	Disagree (2)		
0	Somewhat Disagree (3)		
<b>O</b>	Neither Agree nor Disagree (4)		
0	Somewhat Agree (5)		
0	Agree (6)		
0	Strongly Agree (7)		
Q4	I am mobilizing support for innovative ideas.		
$\mathbf{O}$	Strongly Disagree (1)		
$\mathbf{O}$	Disagree (2)		
$\mathbf{O}$	Somewhat Disagree (3)		
$\mathbf{O}$	Neither Agree nor Disagree (4)		
$\mathbf{O}$	Somewhat Agree (5)		
$\mathbf{O}$	Agree (6)		
$\mathbf{O}$	Strongly Agree (7)		
Q5	I am acquiring approval for innovative ideas.		
$\mathbf{O}$	Strongly Disagree (1)		
$\mathbf{O}$	Disagree (2)		
$\mathbf{O}$	Somewhat Disagree (3)		
$\mathbf{O}$	Neither Agree nor Disagree (4)		
$\mathbf{O}$	Somewhat Agree (5)		
$\mathbf{O}$	Agree (6)		
$\mathbf{O}$	Strongly Agree (7)		
<b>Q6</b>	I am making important organizational members enthusiastic for innovative ideas.		
$\mathbf{O}$	Strongly Disagree (1)		
$\mathbf{O}$	Disagree (2)		
$\mathbf{O}$	Somewhat Disagree (3)		
$\mathbf{O}$	Neither Agree nor Disagree (4)		
$\mathbf{O}$	Somewhat Agree (5)		
$\mathbf{O}$	Agree (6)		
$\mathbf{O}$	Strongly Agree (7)		
<b>Q7</b>	I am transforming innovative ideas into useful applications.		
O	Strongly Disagree (1)		
$\mathbf{O}$	Disagree (2)		
$\mathbf{O}$	Somewhat Disagree (3)		
$\mathbf{O}$	Neither Agree nor Disagree (4)		
$\mathbf{O}$	Somewhat Agree (5)		
$\mathbf{O}$	Agree (6)		
$\mathbf{O}$	Strongly Agree (7)		
<b>Q8</b>	I am introducing innovative ideas into the work environment in a systematic way.		
Ŏ	Strongly Disagree (1)		
O	Disagree (2)		
0	Somewhat Disagree (3)		
0	Neither Agree nor Disagree (4)		
$\mathbf{O}$	Somewhat Agree (5)		

O	Agree (6)		
$\mathbf{O}$			
<b>Q9</b>	I am evaluating the utility of innovative ideas.		
$\mathbf{O}$	Strongly Disagree (1)		
$\mathbf{O}$	Disagree (2)		
$\mathbf{O}$	Somewhat Disagree (3)		
$\mathbf{O}$	Neither Agree nor Disagree (4)		
$\mathbf{O}$	Somewhat Agree (5)		
	Agree (6)		
$\mathbf{O}$	Strongly Agree (7)		
Q10	I am very happy being a member of this organization.		
$\mathbf{O}$	Strongly Disagree (1)		
$\mathbf{O}$	Disagree (2)		
$\mathbf{O}$	Somewhat Disagree (3)		
$\mathbf{O}$	Neither Agree nor Disagree (4)		
$\mathbf{O}$	Somewhat Agree (5)		
$\mathbf{O}$	Agree (6)		
$\mathbf{O}$	Strongly Agree (7)		
Q11	I I enjoy discussing about my organization with people outside it.		
$\mathbf{O}$	Strongly Disagree (1)		
$\mathbf{O}$	Disagree (2)		
$\mathbf{O}$	Somewhat Disagree (3)		
$\mathbf{O}$	Neither Agree nor Disagree (4)		
$\mathbf{O}$	Somewhat Agree (5)		
$\mathbf{O}$	Agree (6)		
$\mathbf{O}$	Strongly Agree (7)		
Q12	2 I really feel as if the organization's problems are my own.		
Ŏ	Strongly Disagree (1)		
$\mathbf{O}$	Disagree (2)		
$\mathbf{O}$	Somewhat Disagree (3)		
$\mathbf{O}$	Neither Agree nor Disagree (4)		
$\mathbf{O}$	Somewhat Agree (5)		
$\mathbf{O}$	Agree (6)		
$\mathbf{O}$	Strongly Agree (7)		
Q13	I do not feel like "part of the family" at my organization.		
Ŏ	Strongly Disagree (1)		
$\mathbf{O}$	Disagree (2)		
$\mathbf{O}$	Somewhat Disagree (3)		
$\mathbf{O}$	Neither Agree nor Disagree (4)		
$\mathbf{O}$	Somewhat Agree (5)		
$\mathbf{O}$	Agree (6)		
0	Strongly Agree (7)		
	I I do not feel "emotionally attached" to this organization.		
Õ	Strongly Disagree (1)		
$\mathbf{O}$	Disagree (2)		
Ö	Somewhat Disagree (3)		
Ö	Neither Agree nor Disagree (4)		
Ö	Somewhat Agree (5)		
Ö	Agree (6)		
0	Strongly Agree (7)		

015	This organization has a great deal of personal meaning for me.
O.	Strongly Disagree (1)
Ö	Disagree (2)
Ö	Somewhat Disagree (3)
Ö	Neither Agree nor Disagree (4)
O	Somewhat Agree (5)
O	Agree (6)
Ö	Strongly Agree (7)
	e following questions will be about your perceptions of human resource management he company you work in.
016	6 Our company spends a great effort in selecting the right person for every position.
Õ	Strongly Disagree (1)
0	Disagree (2)
$\mathbf{O}$	Somewhat Disagree (3)
0	Neither Agree nor Disagree (4)
0	Somewhat Agree (5)
$\mathbf{O}$	Agree (6)
$\mathbf{O}$	Strongly Agree (7)
Q17	Our company uses extensive procedures in recruitment and selection, including a
vari	iety of test and interviews.
$\mathbf{O}$	Strongly Disagree (1)
$\mathbf{O}$	Disagree (2)
O	Somewhat Disagree (3)
O	Neither Agree nor Disagree (4)
$\mathbf{O}$	Somewhat Agree (5)
$\mathbf{O}$	Agree (6)
$\mathbf{O}$	Strongly Agree (7)
_	In recruiting, our company emphasizes the potential of new hires to learn and grow
_	h the company.
0	Strongly Disagree (1)
O	Disagree (2)
<b>O</b>	Somewhat Disagree (3)
O	Neither Agree nor Disagree (4)
<b>O</b>	Somewhat Agree (5)
<b>O</b>	Agree (6)
0	Strongly Agree (7)
_	Our company takes care on its image when recruiting and selecting employees.
0	Strongly Disagree (1)
<b>O</b>	Disagree (2)
<b>O</b>	Somewhat Disagree (3)
0	Neither Agree nor Disagree (4)
<b>O</b>	Somewhat Agree (5)
<b>O</b>	Agree (6) Strongly Agree (7)
$O_{1}$	Strongly Agree (7)  Employees are selected based on their everall fit to the organization
_	Employees are selected based on their overall fit to the organization.
0	Strongly Disagree (1) Disagree (2)
0	Somewhat Disagree (3)
	Somewhat Disagree (3)

O	Neither Agree nor Disagree (4)
$\mathbf{O}$	Somewhat Agree (5)
$\mathbf{O}$	Agree (6)
$\mathbf{O}$	Strongly Agree (7)
<b>Q21</b>	Employees will normally go through ongoing training process.
O	Strongly Disagree (1)
$\mathbf{O}$	Disagree (2)
$\mathbf{O}$	Somewhat Disagree (3)
$\mathbf{O}$	Neither Agree nor Disagree (4)
$\mathbf{O}$	Somewhat Agree (5)
$\mathbf{O}$	Agree (6)
$\mathbf{O}$	Strongly Agree (7)
Q22	The organization provides training focused on team building and teamwork skills
_	ning.
$\mathbf{O}$	Strongly Disagree (1)
0	Disagree (2)
0	Somewhat Disagree (3)
$\mathbf{O}$	Neither Agree nor Disagree (4)
$\mathbf{O}$	Somewhat Agree (5)
0	Agree (6)
$\mathbf{O}$	Strongly Agree (7)
	Managers provide specialized training and development for their employees.
Ö	Strongly Disagree (1)
$\mathbf{O}$	Disagree (2)
0	Somewhat Disagree (3)
$\mathbf{O}$	Neither Agree nor Disagree (4)
$\mathbf{O}$	Somewhat Agree (5)
0	Agree (6)
$\mathbf{O}$	Strongly Agree (7)
<b>O24</b>	Managers initiate and provide various kinds of training and development for their
	oloyees.
O	Strongly Disagree (1)
0	Disagree (2)
$\mathbf{O}$	Somewhat Disagree (3)
$\mathbf{O}$	Neither Agree nor Disagree (4)
0	Somewhat Agree (5)
$\mathbf{O}$	Agree (6)
$\mathbf{O}$	Strongly Agree (7)
	Our company has good mentoring system to support new hires.
Ö	Strongly Disagree (1)
Ō	Disagree (2)
Ō	Somewhat Disagree (3)
Ō	Neither Agree nor Disagree (4)
Ō	Somewhat Agree (5)
Ō	Agree (6)
Ö	Strongly Agree (7)
	Employees in this organization receive monetary rewards based on their individual
_	formance.
O	Strongly Disagree (1)
	Disagree (2)

$\mathbf{O}$	Somewhat Disagree (3)
$\mathbf{O}$	Neither Agree nor Disagree (4)
$\mathbf{O}$	Somewhat Agree (5)
$\mathbf{O}$	Agree (6)
0	Strongly Agree (7)
<b>Q27</b>	7 Employees in this organization receive monetary rewards based on their group
per	formance.
$\mathbf{O}$	Strongly Disagree (1)
$\mathbf{O}$	Disagree (2)
$\mathbf{O}$	Somewhat Disagree (3)
O	Neither Agree nor Disagree (4)
0	Somewhat Agree (5)
0	Agree (6)
O	Strongly Agree (7)
<b>Q28</b>	B Employees in this organization receive monetary rewards based on their
org	anizational performance.
$\mathbf{O}$	Strongly Disagree (1)
$\mathbf{O}$	Disagree (2)
$\mathbf{O}$	Somewhat Disagree (3)
$\mathbf{O}$	Neither Agree nor Disagree (4)
$\mathbf{O}$	Somewhat Agree (5)
$\mathbf{O}$	Agree (6)
$\mathbf{O}$	Strongly Agree (7)
_	Our company's pay system reflects employee's contribution to the company.
0	Strongly Disagree (1)
0	Disagree (2)
<b>O</b>	Somewhat Disagree (3)
0	Neither Agree nor Disagree (4)
<b>O</b>	Somewhat Agree (5)
O	Agree (6)
0	Strongly Agree (7)
Q30	Employee's performance appraisal is based on individual behaviors and attitude
	vork.
0	Strongly Disagree (1)
O	Disagree (2)
0	Somewhat Disagree (3)
0	Neither Agree nor Disagree (4)
<b>O</b>	Somewhat Agree (5)
0	Agree (6)
0	Strongly Agree (7)
_	Employee's performance appraisal is oriented towards their development and
	gress at work.
0	Strongly Disagree (1)
<b>O</b>	Disagree (2)
0	Somewhat Disagree (3)
0	Neither Agree nor Disagree (4)
0	Somewhat Agree (5)
0	Agree (6)
0	Strongly Agree (7)
Q32	2 Employee's performance appraisal emphasizes collective and long-term based

resi	ults.
$\mathbf{O}$	Strongly Disagree (1)
$\mathbf{O}$	Disagree (2)
$\mathbf{O}$	Somewhat Disagree (3)
$\mathbf{O}$	Neither Agree nor Disagree (4)
$\mathbf{O}$	Somewhat Agree (5)
$\mathbf{O}$	Agree (6)
$\mathbf{O}$	Strongly Agree (7)
Q33	B Employee's receive performance feedback on a routine basis.
$\mathbf{O}$	Strongly Disagree (1)
$\mathbf{O}$	Disagree (2)
$\mathbf{O}$	Somewhat Disagree (3)
0	Neither Agree nor Disagree (4)
0	Somewhat Agree (5)
0	Agree (6)
0	Strongly Agree (7)
_	4 Performance appraisals are based in objective quantifiable results.
0	Strongly Disagree (1)
0	Disagree (2)
<b>O</b>	Somewhat Disagree (3)
<b>O</b>	Neither Agree nor Disagree (4)
<b>O</b>	Somewhat Agree (5)
<b>O</b>	Agree (6)
0	Strongly Agree (7)
	5 Our company emphasizes employees' job rotation and flexible work assignments in
_	erent work areas.
<b>O</b>	Strongly Disagree (1)
<b>O</b>	Disagree (2)
<b>O</b>	Somewhat Disagree (3)
0	Neither Agree nor Disagree (4)
<b>O</b>	Somewhat Agree (5)
0	Agree (6)
0	Strongly Agree (7)
_	6 Our company transfers extensively different tasks and responsibilities to
	ployees.
0	Strongly Disagree (1)
0	Disagree (2)
<b>O</b>	Somewhat Disagree (3)
<b>O</b>	Neither Agree nor Disagree (4)
$\circ$	Somewhat Agree (5)
$\mathbf{O}$	Agree (6)
0	Strongly Agree (7)
	7 Our company emphasizes employees' teamwork and network collaboration.
0	Strongly Disagree (1)
	Disagree (2)
0	Somewhat Disagree (3) Neither Agree nor Disagree (4)
0	Somewhat Agree (5)
0	Agree (6)
0	Strongly Agree (7)
	ouongry 115100 (1)

_	8 Employees in this organization have broadly designed jobs requiring a variety of
skil	ls.
$\mathbf{O}$	Strongly Disagree (1)
O	Disagree (2)
O	Somewhat Disagree (3)
$\mathbf{O}$	Neither Agree nor Disagree (4)
$\mathbf{O}$	Somewhat Agree (5)
$\mathbf{O}$	Agree (6)
$\mathbf{O}$	Strongly Agree (7)
Q39	9 Employees in this company are allowed to make decisions.
$\mathbf{O}$	Strongly Disagree (1)
$\mathbf{O}$	Disagree (2)
$\mathbf{O}$	Somewhat Disagree (3)
$\mathbf{O}$	Neither Agree nor Disagree (4)
$\mathbf{O}$	Somewhat Agree (5)
$\mathbf{O}$	Agree (6)
$\mathbf{O}$	Strongly Agree (7)
<b>Q40</b>	D Employees are provided the opportunity to suggest improvements in the way
thir	ngs are done.
$\mathbf{O}$	Strongly Disagree (1)
$\mathbf{O}$	Disagree (2)
$\mathbf{O}$	Somewhat Disagree (3)
$\mathbf{O}$	Neither Agree nor Disagree (4)
$\mathbf{O}$	Somewhat Agree (5)
O	Agree (6)
O	Strongly Agree (7)
$\mathbf{Q4}$	1 Employees are invited to participate in a wide range of issues, including
per	formance standards, quality improvement and benefits.
$\mathbf{O}$	Strongly Disagree (1)
0	Disagree (2)
0	Somewhat Disagree (3)
0	Neither Agree nor Disagree (4)
	Somewhat Agree (5)
0	Agree (6)
0	Strongly Agree (7)
_	2 Employees are invited to participate in problem solving and decisions.
0	Strongly Disagree (1)
0	Disagree (2)
0	Somewhat Disagree (3)
0	Neither Agree nor Disagree (4)
0	Somewhat Agree (5)
0	Agree (6)
0	Strongly Agree (7)
_	3 Employees receive information on the relevant concerns of the company (goals,
-	formance, etc.)
<b>O</b>	Strongly Disagree (1)
O	Disagree (2)
O	Somewhat Disagree (3)
<b>O</b>	Neither Agree nor Disagree (4)
0	Somewhat Agree (5)

- O Agree (6)
- O Strongly Agree (7)

### **O44 Gender:**

- **O** Male (1)
- O Female (2)

#### **Q45** Age:

- **O** up to 25 (1)
- O 25-40 (2)
- O over 40 (3)

#### **O46 Position:**

- O Manager (1)
- O Employee (2)

Source: https://qtrial2015q4az1.az1.qualtrics.com/SE/?SID=SV\_6EiXAAwxRy19WtL;

https://qtrial2015q4az1.az1.qualtrics.com/SE/?SID=SV\_9n3jUhY4ptTj5R3

Appendix 3. KMO and Bartlett's test results for IWB

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,851
Bartlett's Test of Sphericity	Approx. Chi-Square	435,296
	df	36
	Sig.	0,000***

Source: empirical research results

Appendix 4. KMO and Bartlett's test results for HRM

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,866
Bartlett's Test of Sphericity Approx. Chi-Square		1878,607
	df	378
	Sig.	0,000***

Source: empirical research results

Appendix 5. KMO and Bartlett's test results for affective commitment

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,826
Bartlett's Test of Sphericity	Approx. Chi-Square	326,475
	df	15
	Sig.	0,000***

Source: empirical research results

Appendix 6. Communalities for IWB, HRM and Affective commitment

# Communalities

	Initial	Extraction
k1	,443	,539
k2	,424	,463
k3	,501	,648
k4	,538	,891
k5	,566	,543
k6	,533	,541
k7	,631	,738
k8	,667	,782
k9	,451	,437

Extraction Method: Principal

Axis Factoring.

# **Communalities**

	Initial	Extraction
k10	,604	,548
k11	,652	,701
k12	,507	,467
k13	,394	,348
k14	,624	,660
k15	,640	,703

Extraction Method: Principal

Axis Factoring.

# Communalities

	Initial	Extraction
k16	,723	,574
k17	,749	,491
k18	,664	,561
k19	,679	,562
k20	,655	,507
k21	,549	,283
k22	,637	,290
k23	,824	,420
k24	,840	,450
k25	,570	,496
k26	,768	,732
k27	,739	,565
k28	,509	,338
k29	,629	,600
k30	,644	,450
k31	,793	,640
k32	,765	,570
k33	,639	,493
k34	,612	,397
k35	,688	,543
k36	,777	,725
k37	,624	,446
k38	,558	,467
k39	,739	,557
k40	,567	,472
k41	,657	,402
k42	,755	,527
k43	,616	,392

Extraction Method: Principal

Axis Factoring.

Source: empirical research results extracted from SPSS.

Appendix 7. Total variance explained for IWB, HRM and Affective commitment

**IWB** 

**Total Variance Explained** 

		Initial Eigenvalu	ıes	Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4,730	52,559	52,559	4,367	48,523	48,523
2	1,129	12,540	65,099	,724	8,043	56,567
3	,725	8,057	73,156	,490	5,448	62,015
4	,677	7,520	80,676			
5	,456	5,068	85,743			
6	,432	4,804	90,548			
7	,355	3,939	94,487			
8	,298	3,311	97,798			
9	,198	2,202	100,000			

# **Affective commitment**

**Total Variance Explained** 

		Initial Eigenvalu	ues	Extractio	n Sums of Squar	ed Loadings
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3,829	63,818	63,818	3,426	57,102	57,102
2	,708	11,802	75,620			
3	,611	10,184	85,804			
4	,368	6,137	91,941			
5	,281	4,678	96,619			
6	,203	3,381	100,000			

HRM

**Total Variance Explained** 

		Initial Eigenvalu		Extraction	Sums of Squared	Loadings
					'	Cumulative
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	%
1	11,021	39,361	39,361	10,527	37,595	37,595
2	2,427	8,669	48,030	1,990	7,108	44,704
3	1,878	6,709	54,739	1,435	5,124	49,828
4	1,758	6,279	61,018			
5	1,204	4,301	65,319			
6	1,086	3,878	69,197			
7	1,019	3,640	72,837			
8	,853	3,048	75,885			
9	,823	2,939	78,824			
10	,609	2,175	80,999			
11	,582	2,079	83,078			
12	,545	1,945	85,022			
13	,479	1,712	86,735			
14	,467	1,668	88,403			
15	,436	1,558	89,961			
16	,396	1,414	91,375			
17	,382	1,363	92,739			
18	,303	1,083	93,821			
19	,260	,929	94,750			
20	,247	,884	95,634			
21	,239	,852	96,487			
22	,207	,740	97,226			
23	,187	,668	97,894			
24	,166	,593	98,487			
25	,134	,479	98,967			
26	,113	,402	99,369			
27	,096	,342	99,711			
28	,081	,289	100,000			

Source: empirical research results extracted from SPSS.

Appendix 8. Spearman's correlation test results for H1

# Correlations between HRM and IWB

# **Correlations**

			HRM	IWB
Spearman's rho	HRM	Correlation Coefficient	1.000	.457**
		Sig. (2-tailed)		.000
		N	101	101
	IWB	Correlation Coefficient	.457**	1.000
		Sig. (2-tailed)	.000	
		N	101	101

# Correlations between Ability-Motivation-Opportunity enhancing HRM and IWB

# **Correlations**

			IWB	Ability enhancing	Motivation enhancing	Opportunity enhancing
Spearman's rho	IWB	Correlation Coefficient	1.000	.402**	.447**	
		Sig. (2-tailed)		.000	.000	.000
		N	101	101	101	101
	Ability enhancing	Correlation Coefficient	.402**	1.000	.630**	.658**
		Sig. (2-tailed)	.000		.000	.000
		N	101	101	101	101
	Motivation enhancing	Correlation Coefficient	.447**	.630**	1.000	.587**
		Sig. (2-tailed)	.000	.000		.000
		N	101	101	101	101
	Opportunity enhancing	Correlation Coefficient	.350**	.658**	.587**	1.000
		Sig. (2-tailed)	.000	.000	.000	
		N	101	101	101	101

# Correlations between HRM and idea generation, promotion and realization

# Correlations

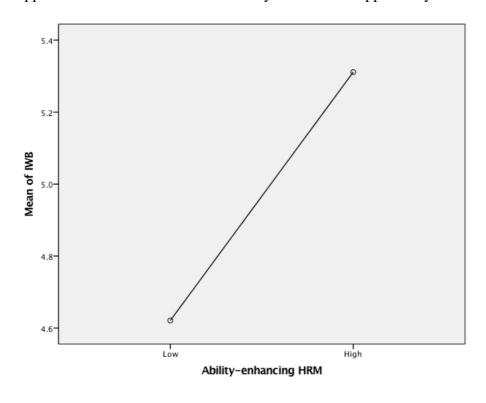
Correlations						
		_	Idea generation	Idea promotion	ldea realization	HRM
Spearman's rho	Idea generation	Correlation Coefficient	1.000	.622**	.581**	.295**
		Sig. (2- tailed)		.000	.000	.003
		N	101	101	101	101
	Idea promotion	Correlation Coefficient	.622**	1.000	.640**	.475**
		Sig. (2- tailed)	.000		.000	.000
		N	101	101	101	101
	ldea realization	Correlation Coefficient	.581**	.640**	1.000	.369**
		Sig. (2- tailed)	.000	.000		.000
		N	101	101	101	101
	HRM	Correlation Coefficient	.295**	.475**	.369**	1.000
		Sig. (2- tailed)	.003	.000	.000	
		N	101	101	101	101

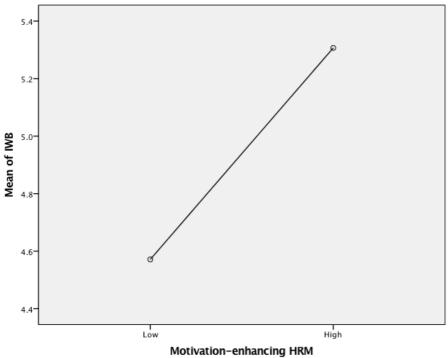
# Correlations between the components of HRM and IWB

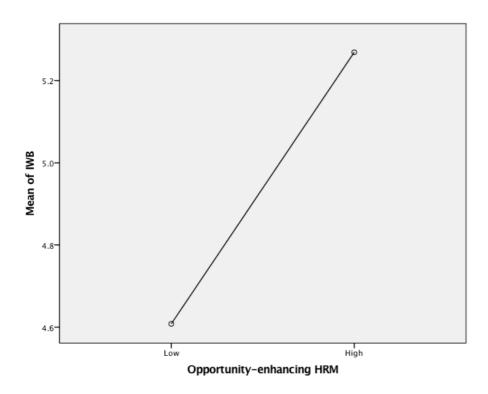
# Correlations

_	Correlations					
			Abilityen	Motivatio		
			hancing	nenhanci	Opportunityenh	Ideagenerati
			HRM	ngHRM	ancingHRM	on
Spearman' s rho	Abilityenhan cingHRM	Correlation Coefficient	1.000	.630**	.658**	.263 <sup>**</sup>
		Sig. (2- tailed)		.000	.000	.008
		N	101	101	101	101
	Motivatione nhancingHR	Correlation Coefficient	.630**	1.000	.587**	.272**
	М	Sig. (2- tailed)	.000		.000	.006
		N	101	101	101	101
	Opportunity enhancingH	Correlation Coefficient	.658**	.587**	1.000	.274**
	RM	Sig. (2- tailed)	.000	.000		.006
		N	101	101	101	101
	Ideagenerat ion	Correlation Coefficient	.263**	.272**	.274**	1.000
		Sig. (2- tailed)	.008	.006	.006	
		N	101	101	101	101
	Ideapromoti on	Correlation Coefficient	.434**	.446**	.348**	.622 <sup>**</sup>
		Sig. (2- tailed)	.000	.000	.000	.000
		N	101	101	101	101
	Idearealizati on	Correlation Coefficient	.314**	.393**	.288**	.581**
		Sig. (2- tailed)	.001	.000	.003	.000
		N	101	101	101	101

Appendix 9. ANOVA results for Ability-Motivation-Opportunity enhancing HRM and IWB

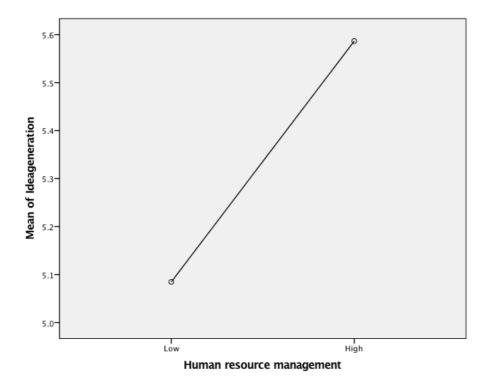


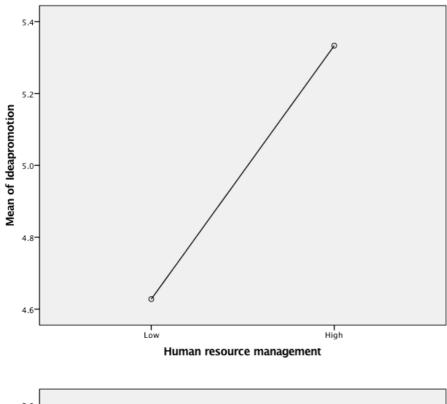


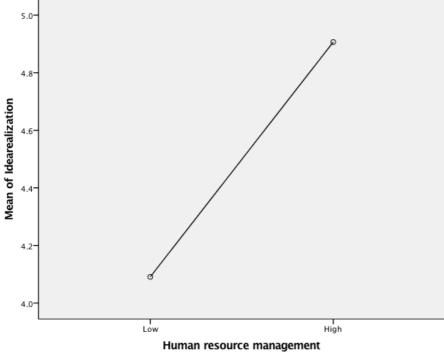


Source: empirical research results extracted from SPSS

Appendix 10. ANOVA results for HRM and idea generation, promotion and realization







Source: empirical research results extracted from SPSS.

Appendix 11. Spearman's correlation test results for H2

# Correlations between HRM and Affective commitment

### **Correlations**

			HRM	Affective commitment
Spearman's rho	HRM	Correlation Coefficient	1.000	.599**
		Sig. (2-tailed)		.000
		N	101	101
	Affective commitment	Correlation Coefficient	.599**	1.000
		Sig. (2-tailed)	.000	
		N	101	101

Source: empirical research results extracted from SPSS.

Appendix 12. Spearman's correlation test results for H3

### Correlations between IWB and Affective commitment

### **Correlations**

			IWB	Affective commitment
Spearman's rho	IWB	Correlation Coefficient	1.000	.399**
		Sig. (2-tailed)		.000
		N	101	101
	Affective commitment	Correlation Coefficient	.399**	1.000
		Sig. (2-tailed)	.000	
		N	101	101

Source: empirical research results extracted from SPSS.