

**Some pages of this thesis may have been removed for copyright restrictions.**

If you have discovered material in Aston Research Explorer which is unlawful e.g. breaches copyright, (either yours or that of a third party) or any other law, including but not limited to those relating to patent, trademark, confidentiality, data protection, obscenity, defamation, libel, then please read our [Takedown policy](#) and contact the service immediately (openaccess@aston.ac.uk)

**HRM AND FIRM PERFORMANCE: AN INVESTIGATION OF TURKISH MID-SIZE IT  
FIRMS**

**SAFA ARSLAN**

**Doctor of Philosophy**

**ASTON UNIVERSITY**

**September 2016**

© Safa Arslan 2016 Safa Arslan asserts his moral right to be identified  
as the author of this thesis.

This copy of the thesis has been supplied on condition that anyone who consults it  
is understood to recognise that its copyright rests with its author and that no  
quotation from the thesis and no information derived from it may be published  
without proper acknowledgement.

# **HRM AND FIRM PERFORMANCE: AN INVESTIGATION OF TURKISH MID-SIZE IT FIRMS**

**Safa Arslan**

**Doctor of Philosophy, Aston University**

**September 2016**

## **Thesis Summary**

This research aims to explore and highlight the nature and type of human resource management (HRM) practices exist, and explain how they contribute towards firm performance in medium-sized information and communication technology (IT) businesses in Turkey. To achieve this, a mixed methods approach was adopted involving two phases of data collection. In Phase 1, data were collected from 55 participants at 14 firms, which highlighted the nature of HRM practices prevalent at the research firms and explored the linkages between HRM and firm performance and employee performance. Furthermore, during this Phase, an integrated multi-level model of HRM and performance was developed. This model presents relationships between HRM, organisational citizenship behaviour (OCB) and intellectual capital of the firm at employee level. Moreover, it also presents linkages between HRM practices, corporate entrepreneurship (CE), intellectual capital and financial performance at the firm level. Phase 2 of the study adopted a survey method to test the model developed in Phase 1. For this, data were collected from 310 employees and managers at 21 medium-sized IT firms in Turkey. Overall, the findings suggest that medium-sized IT firms are becoming more innovative and proactive via enhancing the effectiveness of HRM. HRM practices also help employees by improving their creative and organisational behaviours. The study also indicate that HRM practices play a mediator role between HRM and corporate entrepreneurship. This study contributes to the growing body of literature on HRM in Turkey in general and the role of HRM in supporting mid-sized IT firms in Turkey in particular, by employing a mixed method approach involving both qualitative and quantitative studies. It also contributes to the debate on the resource-based view of the firm (RBV), and social exchange theory (SET) by examining the relationship between HRM and firm performance at both the organisational and individual levels. Based on the perspectives of RBV and SET, the influence of HRM practices is expected to positively affect the levels of employee creativity (human capital - knowledge, skills and abilities) and organisational collaboration (social capital - interaction, helping behaviours and relational connections) within the research firms. A firm's human resources are an essential element in developing entrepreneurial behaviours that lead to a sustained competitive advantage, which eventually leads firms to have better performance.

**Key words:** Human Resource Management, Organisational Performance, Creativity, Corporate Entrepreneurship, Turkey, Information and Communication Technology Industry, Medium-Sized Businesses.

## Acknowledgement

It has been a long journey and it has finished with a good outcome, which was possible only due to the timely help of many remarkable people. I want to express my appreciation and gratefulness to those who helped me along with my journey.

First, I would like to express my sincere gratitude to my advisor Prof Dr Pawan S. Budhwar who always been there to guide me to achieve my PhD research study. I appreciate his constructive supervision, guidance and generous support. Thank you, Professor Budhwar.

I want to thank to Dr Jonathan R. Crawshaw and Dr Nicholas Theodorakopoulos for taking part of the supervisory board to provide feedback, critics and guidance related to my research and work. I also want to extend my gratitude to my examiners Prof Dr Yaw A. Debrah and Dr Vidu Badigannavar who took part of my viva.

I also want to express my gratitude to the Ministry of Education in Turkey for sponsoring my studies. I thank the members of staff at the Ministry in Ankara and Education Counsellor in London. They were always very helpful and cooperative with my requests and needs.

I want to express my appreciation to Prof Dr Kemal Ciliz, president of TUBISAD, Meltem Bagdatli, general secretary of TUBISAD, Dr Deniz Tuncalp, chief marketing officer at ITU Arikent, and Gul Ozal, senior R&D expert at ITU Arikent for their help in accessing the research firms. I want to thank the firms and the research participants whose help made this study possible.

I want to thank all my friends and colleagues for their support, for the understanding and facilitating conversations, for all the fun we had. In particular, I am grateful to Dr Shafaq Chaudhary for her support during the challenging times of the journey, Burcin Y. Suveren and Hakki Kucukkeskin for their help with data collection, Gokmen Durmus for his help with translating the survey instruments, Dr Tom West for taking me to mountain biking which has been a great way to refresh and Dr Manjusha Hierekhan, Dr Adel Sakr, Dr Hoa Doa and my cousin Abdulkadir Altin for their support and conversations whenever I needed.

Last but not the least, I would like to thank my family: my father and mother and my sisters Merve and Berire for supporting me throughout this long journey and life in general. Your existences and prayers gave me strength and made me more resolute to complete my studies.

I dedicate this work to the memory of the people  
who lost their lives while standing against  
the coup attempt on 15<sup>th</sup> of July, 2016 in Turkey.

## Contents

<b>Thesis Summary</b> .....	2
<b>Contents</b> .....	5
<b>The List of Figures</b> .....	8
<b>The List of Tables</b> .....	8
<b>Abbreviations</b> .....	9
<b>1 Rationale for research</b> .....	10
1.1 Research aim and motivation .....	10
1.2 Research questions .....	14
1.3 Research contributions .....	16
1.4 The Research setting .....	19
1.4.1 Turkey .....	19
1.5 Thesis structure .....	28
1.5.1 Chapter 1 .....	28
1.5.2 Chapter 2 .....	28
1.5.3 Chapter 3 .....	28
1.5.4 Chapter 4 .....	28
1.5.5 Chapter 5 .....	28
1.5.6 Chapter 6 .....	29
1.5.7 Chapter 7 .....	29
<b>2 Literature review</b> .....	30
2.1 Introduction .....	30
2.2 Theoretical underpinnings of the study .....	30
2.2.1 The Resource based view .....	31
2.2.2 The Social exchange theory .....	35
2.3 SMEs and HRM .....	37
2.3.1 Definition of SMEs/MSBs .....	38
2.3.2 Definition of HRM .....	39
2.4 Research in HRM .....	40
2.4.1 HRM studies in SMEs and MSBs .....	45
2.4.2 HRM in MSBs .....	49
2.4.3 HRM and performance in SMEs/MSBs .....	50
2.4.4 HRM and innovation and creativity .....	52
2.4.5 HRM and organisational citizenship behaviour .....	59

2.4.6	HRM and corporate entrepreneurship (CE).....	61
2.5	Emerging Markets and HRM Research.....	65
2.5.1	HRM studies in Turkey.....	69
2.5.2	SME studies in Turkey .....	72
2.6	Summary and conclusions .....	74
3	Research design and methodology .....	76
3.1	Introduction .....	76
3.2	Philosophical underpinnings of the research.....	76
3.2.1	Research philosophy.....	76
3.3	Justification of the research methodology.....	79
3.4	Qualitative methodology: Phase 1 .....	80
3.4.1	Research design .....	82
3.4.2	Data analysis.....	87
3.4.3	Development of the model .....	92
3.5	Quantitative methodology: Study 2 .....	93
3.5.1	Research design .....	94
3.5.2	Questionnaire development .....	94
3.5.3	Research sampling.....	97
3.5.4	Data collection.....	99
3.5.5	Measures .....	101
3.5.6	Data analysis.....	105
3.5.7	Proportions of Middle Categories .....	111
3.6	Research ethics .....	121
3.7	Summary.....	122
4	Findings from Phase 1 .....	123
4.1	Introduction .....	123
4.2	Results .....	124
4.2.1	HRM Practices .....	124
4.2.2	Innovation .....	141
4.2.3	Entrepreneurship at medium sized IT firms and HRM .....	150
4.2.4	Integrated model of HRM and performance .....	150
4.3	Conclusion and summary .....	167
5	Study 2: Testing the integrated model for HRM and performance.....	169
5.1	Introduction .....	169
5.2	The Proposed model.....	169
5.2.1	Hypotheses.....	169

5.2.2	Model testing .....	174
5.2.1	Discussion.....	175
6	Discussion .....	180
6.1	Introduction .....	180
6.2	Phase 1 of research: The Qualitative (Exploratory) study .....	180
6.2.1	The Aim of phase 1 .....	180
6.2.2	Related research questions.....	180
6.2.3	Key findings and discussion .....	181
6.3	Phase 2 of research: The Quantitative (Explanatory) study.....	187
6.3.1	The Aim of Phase 2.....	187
6.3.2	Related research questions.....	187
6.3.3	Key findings and discussion .....	188
6.4	Conclusion and summary .....	192
7	Contributions, implications, limitations and future research .....	193
7.1	Introduction .....	193
7.2	Summary of research and findings .....	193
7.2.1	Research aim and questions.....	194
7.2.2	Overview of methodology adopted.....	196
7.2.3	Overview of the multi-level model .....	197
7.3	Theoretical contributions .....	198
7.4	Practical implications.....	203
7.5	Limitations and directions for future research .....	207
	References .....	209
	Appendix A .....	234
	Appendix B .....	238
	Appendix C .....	242



## The List of Figures

Figure 1-1: Research set up .....	11
Figure 2-1: GDP Output Approach by activity, Index, 2005=100, Turkey .....	20
Figure 3-1: Data analysis process .....	88
Figure 3-2: Data display a network diagram of concepts highlighted in the study .....	92
Figure 3-3: Steps in designing a questionnaire .....	95
Figure 3-4: Summary of quantitative approaches to data analysis .....	106
Figure 4-1: An Integrated model of HRM - performance .....	151
Figure 4-2: Integrated model of HRM and performance .....	153

## The List of Tables

Table 1-1: IT industry size in Turkey .....	25
Table 2-1: Definition of SMEs (according to the EU regulations) .....	39
Table 2-2: Definition of SMEs (according to the Turkish government regulations) .....	39
Table 2-3: Definition of medium-sized firm .....	39
Table 3-1: Firms profiles for phase 1 of research .....	86
Table 3-2: Participant profiles for phase 1 of research .....	86
Table 3-3: Example of the development of preliminary codes .....	89
Table 3-4: Themes and codes for HRM practices .....	90
Table 3-5: Demographics of participants and firms .....	100
Table 3-6: Social events scale item loadings .....	104
Table 3-7: Inter-class correlations for level 2 constructs .....	105
Table 3-8: Descriptive statistics for scales of HRM practices .....	109
Table 3-9: Descriptive statistics for Managers' questionnaire .....	110
Table 3-10: Proportions of middle category item .....	112
Table 3-11: Proportions of middle category in managers' survey .....	113
Table 3-12: Normality of data .....	115
Table 3-13: Reliability and validity of the scales .....	118
Table 4-1: Type of HRM practices prevalent to mid-sized firm in the Turkish IT sector (figures in the table represent %). .....	129
Table 4-2: Most important HRM practices influencing creativity and innovation (figures in the table represent %). .....	130
Table 4-3: Personnel factors contributing to creativity .....	145
Table 4-4: Team level factors affecting creativity .....	146
Table 4-5: Organisational factors on creativity .....	147
Table 4-6: Innovation efforts (figures in the table are %). .....	148
Table 5-1: The Results of model testing .....	176
Table 5-2: The Results of model testing-2 .....	177
Table 5-3: Summary of hypotheses testing .....	177

### **Abbreviations**

**CE:** Corporate Entrepreneurship

**HC:** Human Capital

**HRM:** Human Resource Management

**IT:** Information and Communication Technologies

**KSAOs:** Knowledge, Skill, Abilities and Others

**Mid-size:** Medium Size

**MSBs:** Medium Size Businesses

**OCB:** Organisational Citizenship Behaviour

**RBV:** Resource Based View

**SC:** Social Capital

**SMEs:** Small and Medium Size Enterprises

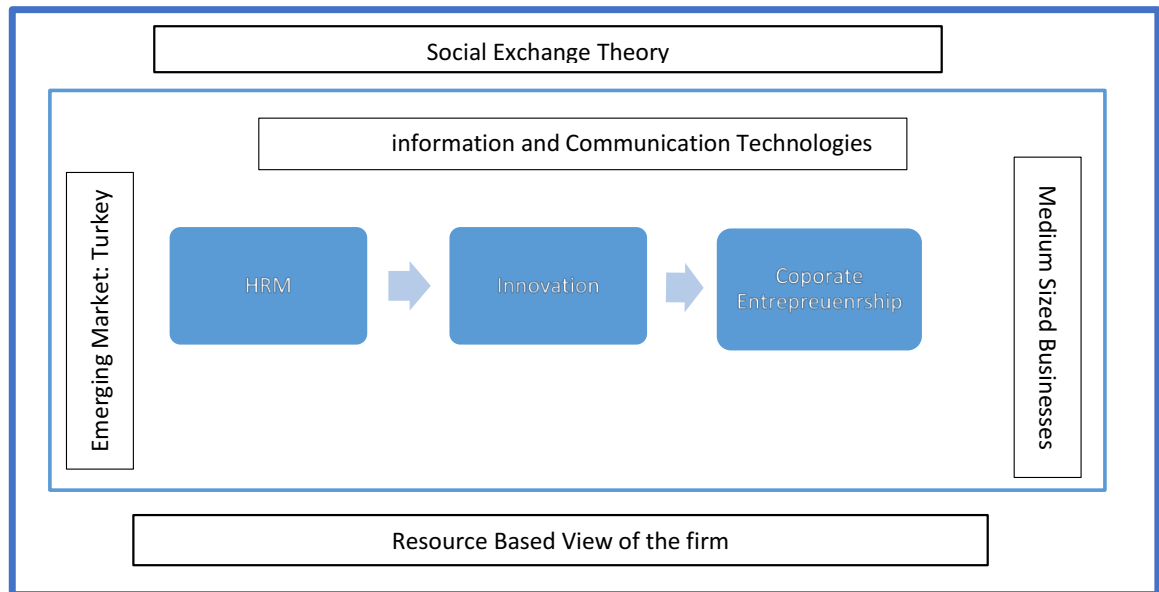
## 1 Rationale for research

### 1.1 Research aim and motivation

The investigation conducted in this study along the theme of HRM and firm performance in the Turkish mid-sized IT firms by adopting a cross disciplinary approach has helped to make useful contributions to the fields of HRM, innovation, entrepreneurship, medium-sized businesses, information technologies and emerging economy context. Figure 1.1 illustrates the overall set-up of this study, including its core constructs, proposed linkages between them and the two main theoretical underpinnings of my research. Research on the relationship between HRM and performance has showed that HRM practices can change employee behaviours (creativity) and attitudes (Gould-Williams, 2007; Kuvaas, 2008; Macky and Boxall, 2007) that affect and shape organisational performance (innovation) (Arthur, 1994; Huselid, 1995; Ramsay, Scholarios, & Harley, 2000; Whitener, 2001). Research in the field has investigated the linkages between different HRM practices and performance with varieties of intermediate variables such as human capital (Donate, Pena and Sanchez de Pablo, 2015), organisational support (Erturk, 2014), relations-oriented leadership behaviours (Gilbert, Winne and Sels, 2011). However, there is an emerging need for further studies to understand how exactly HRM contributes to performance. Thus, scholars have suggested that HRM studies need to bring new intermediate variables for the mechanism between HRM and performance (see for example, Donate et al., 2015; Fu et al., 2015; Shapira, 2011).

In this figure, study is set to investigate the impact of HRM practice on mid-sized firm performance in IT industry in an emerging economy context; Turkey. Core construct of the linkages between HRM and performance is HRM, innovation and CE. Drawing on RBV and SET, HRM is expected to enhance CE and innovation at medium-sized IT firms. HRM, particularly, is expected to facilitate human capital (i.e., employee KSAOs, creativity) and social capital (i.e., organisational culture and knowledge) which both increase innovation and CE at the firm.

Figure 1-1: Research set up



Source: Developed by the researcher

Porter (1998) indicated that innovation is critical for achieving sustainable competitive advantage by increasing product quality and business operation. Firms always seek for better ways to improve business policies utilizing advancement in technologies and new methodologies (Peng, Zhang, Fu and Tan, 2014). Therefore, how to increase firm's innovation have grabbed attention from both researchers and practitioners (Damanpour, 1991; Kesting, Muller, Jorgensen and Ulhoi, 2011; Zanko, Badham, Couchman and Schubert, 2008; Li, Zhao and Liu, 2006; Peng et al., 2014). Many studies have investigated the antecedents of innovation (see for example, Donate et al., 2015; Peng et al., 2014; Jiang, Lepak, Hu and Baer, 2012). Previous studies in the field of HRM and innovation management have shown that innovation and HRM directly impacted organisational performance (see Aljanabi et al., 2014; Fu et al., 2015; Hecht and Allen, 2009; Wang, Ling and Piew, 2015). In the last decade or so, researchers have studied the impact of HRM on innovation and found empirical support for the link between the two. However, the existing research also shows that there is a lack of understanding about how exactly HRM affects innovation and firm performance (Fu et al., 2014). Hence, it is important to understand the nature and kind of innovation at firms and to explore both the impact of HRM on innovation and its impact on firm

performance. Furthermore, the existing research evidence shows that to study innovation, HRM and performance requires methodological rigorous with cross-level and adopting multilevel approaches to robustly explain the effects of variables at different levels of analysis simultaneously on innovation and performance (Anderson et al., 2014).

Moreover, research highlights that that large companies have more radical innovation and management innovation because of their resources, capabilities, technologies and finance (see Bakry, 2013). Having this advantage enable large companies more competitive and innovative than smaller firms (Bakry, 2013). On the other hand, SMEs and MSBs are the core for growth of economies as they create the most employment and business around the globe (see Saini and Budhwar, 2008; Ogunyami and Bruning, 2015). The ability to produce new product and services and generate noble ideas enhances SMEs' and MSBs' strength and competitiveness in the long run. There has been a great deal of research regarding innovation in SMEs context (see De Saa-Perez et al., 2012; Ogunyomi and Bruning, 2015; Wu and Chiu, 2015). However, the research mostly focused either on small firms with less than 50 employee or all sizes of SMEs (i.e., micro firms with less than 10 employees, small firms with less than 50 employees and mediums sized firms with less than 250 employees) and medium sized businesses (MSBs) have been missing from the research (e.g. CBI, 2011; Jorgensen, 2016).

As Jorgensen (2016) indicated that MSBs have relatively small share of the national and international economies however, they created over one billion Euro contribution to the European economy in 2014. In this study context, which is in Turkey, MSBs have significant contribution to Turkish economy by having %18 of exports and %18.4 of imports (TUIK, 2015). Furthermore, MSBs have the highest rates of advance technology usage compare to small and micro firms (TUIK, 2015). Regarding innovation activities in Turkey, %57 of MSBs involved in innovation that makes them the most innovative sector in Turkey (TUIK, 2015).

Given this importance of MSBs, it is critical to understand both innovation in MSBs. MSBs must develop and exploit their human capital for sustainable innovation and growth (Chadwick and Dabu, 2009) as it is important for firm of any size (Navaretti et al., 2014). Because less research has been conducted about HRM in MSBs, it is not clear that whether MSBs more or less able to implement more sophisticated HRM practices and strategies than smaller firms (Jorgensen, 2016). However, there are a number of important differences between small firm and medium sized firms. First, the performance of the business in small firms mostly depends on the education, experience, and skills of the owners and their entrepreneurial characteristics (Lerner and Haber, 2000). Second, radical innovation and management innovation is limited in small firms. Another important difference is that, in micro and small firms, HRM practices vary among small and micro firms as such practices are determined by owner/manager (Brand and Bax, 2002; Cetinel, Yolal and Emeksiz, 2009). Hence, the study aims to explore impact of HRM on performance, it is important to have a focus on firm in which HRM practices shows similarities and relatively consistent impact on performance. For this reason, the scope of the study includes only medium sized businesses in information and communication technologies (IT) industry.

The IT industry has a great dependence on advancement in technology, devices, software that leads to new or improved products and services (Schwab & Martin, 2013). The research within IT industry context is more focused on managing innovation's move towards radical innovation, especially with regards to large high-technology SMEs (Christensen, 2002; Huergo, 2006; Koc and Ceylan, 2007) and new product performance (I'm & Workman, 2004). The existing research shows that IT SMEs can develop their innovation abilities through learning and knowledge networks, helping them to adapt to technological change and thus innovate (Mohannak, 2007; Bakry, 2013). However, studies on HRM and innovation at IT SMEs are very limited and have not received enough attention. Furthermore, most of the research is

conducted in western context and there is a growing interest in emerging economies as they are attempting to catch up to mature economies (Alejandra & Pietrobelli, 2012).

This research is an attempt to address the above-identified gaps. From a theoretical perspective, it draws upon both the resource based view of the firm (RBV) and social exchange theory (SET) to explore the nature and type of HRM practices prevalent in the research context (i.e., medium-sized information and communication technology - ICT businesses in Turkey) and explain how they contribute towards the firm performance. To achieve this, four research questions are developed and a mixed methods approach is adopted to conduct a qualitative study (Phase 1) and a survey study (Phase 2). In the following section, I present the four research questions.

## 1.2 Research questions

Within the broader aim of this research (i.e., to explore the nature of HRM and its linkages with firm performance), it also examines the factors facilitating innovation which is a critical for medium-sized IT firms' growth and performance. In this regard, the significant role of HRM has been consistently emerging. For example, Anderson et al. (2014) reported that organizations that manage HRM practices such as training and employee involvement practices, performance-based pay systems, enable flexible working hours, job variety and autonomy experience higher levels of innovation. Other researchers have observed the role of certain types of 'bundles', 'systems' or 'configurations' of HRM practices towards innovation in organisations (e.g., Fu et al., 2014; Guest and Conway, 2011; Prieto and Pilar Pérez Santana, 2012; Ubius, Alas, Elenurm, 2013). However, there is still a lack of confidence and consensus to robustly explain the link between HRM and innovation (Fu et al., 2014). Our knowledge about the extent to which HRM practice promotes employee creativity is still inconclusive (Jiang et al., 2012). Hence, this study attempts to fill this gap.

Along with the above, another research question of the study is to what would be the best conceptual model based on the RBV perspective, and SET to examine the

relationship between HRM and performance at both the organisational and individual levels. To achieve innovation at the firm level, it is critical to understand the contribution of innovative behaviour at employee level (Sanders and Lin, 2016). Given the importance of HRM for employees' innovative behaviour, research has sought answers for the mechanism between HRM and innovation, however, it is still not clear (Hayton, 2005; Laursen and Foss, 2013; Sanders and Lin, 2016). Furthermore, there is also need for further research on multi-level HRM understanding and strategic thinking in the association between HRM and innovation (Sparrow, 2016). Thus, such a model is developed based on the findings from Phase 1 of the study (in which semi-structured interviews were conducted with 55 participants from 14 MSBs in Turkey). After completing phase 1 of the research, the model sets the stage for empirical investigation in Phase 2. Based on the perspectives of RBV and SET, the model proposes that HRM practices contribute to organisational performance via entrepreneurial orientation of the firm and intellectual capital of the firm (human and social capitals).

Furthermore, HRM practices are expected to positively affect the levels of intellectual capital of the firm. This capital consists of employee creativity (human capital: knowledge, skills and abilities) and social capital (knowledge embedded within organisation, helping behaviours and relational connections) within the firm. These practices and constructs are known to be linked to individual, unit, and firm-level performance outcomes (e.g., Hayton, Hornsby and Bloodgood, 2013; Sun, Aryee, and Law, 2007; Wright and Boswell, 2002; Youndt and Snell, 2004). Further, a firm's human resources are seen as an essential element in developing entrepreneurial behaviours that lead to a sustained competitive advantage (Wiklund and Shepherd, 2003). This competitive advantage eventually leads firms to have better performance. Overall, the model presents several constructs that affect innovation as precursor and outcome of innovation at both the individual and organisational levels.

Lastly, the study empirically tests the above talked multi-level model to understand the impact of HRM on innovation at personal and organisational levels with a survey



employed in Turkish MSBs in IT sector via Phase 2. After completing Phase 1 of the research, a survey was carried out during the summer of 2015 in Turkey. Three hundred and ten employees and managers from 21 mid-sized IT firms participated in study 2. Mplus software was used to conduct multi-structural equation modelling. Further details regarding the both qualitative and quantitative studies are discussed in the methodology Chapter 3.

Based on above presentation and in order to address the above posed research aim (i.e., explore the nature and type of HRM practices prevalent in the research context (i.e., medium-sized information and communication technology - ICT businesses in Turkey) and explain how they contribute towards the firm performance), the following four research questions are developed.

- What are the linkages between HRM and firm performances in the research context?
- What is the nature and kind of innovation existing in the Turkish medium-sized IT firms?
- What is the nature of HRM (including high-performance work practices) practices existing in the research firms?
- What kind of multi-level model (i.e., core constructs and logical linkages between them) is suitable to understand the impact of HRM on innovation/performance at both the individual and organisational levels in the research context?

### 1.3 Research contributions

By addressing the above research questions, this study makes theoretical and practical contributions to the growing body of literature on HRM, HRM and performance, innovation and corporate entrepreneurship, medium-sized firms, IT industry and emerging markets.

First, this study builds an integrated approach based on RBV and SET to HRM research. In doing so, the study introduces and tests an integrated and multi-level conceptual model of HRM and performance relationship in the Turkish medium-sized IT firms' context. This model combines the tenets of both RBV and SET to understand the mechanisms facilitating the linkages between HRM and firm performance. Furthermore, this model helps to examine which HR practices are likely to contribute and sustain CE. Moreover, this model enables us to understand how HRM practices can fit the critical elements of CE such as human capital and social capital of the firm (Hayton et al., 2013).

This study also responds to the call for further research to understand how HRM can facilitate and support CE (Hayton et al., 2013; Chadwick and Dabu, 2009; Fu, Flood, Bosak, Morris and O'Regan., 2015). By adopting a mixed methods approach, the study responds to the call for more rigorous approaches to solicit views (e.g., Cooke and Saini, 2010). It also contributes to the literature of HRM, CE and innovation by bringing in explanation about the research topics from different levels of participants such as CEO and owners, senior manager/executives, and employee level. Furthermore, the study expands the research of HRM and performance to emerging economy context with a specific focus on both size (mid-size firms) and industry (IT), which seems to be critical for nations GDP growth. Finally, this study developed a five-item scale to measure the effectiveness of social events as a HRM practice (see appendix C, Questionnaire for employees). This is a useful conceptual and methodological contribution.

This study also has useful practical implications for HRM professionals and organizations in both the Turkish and global contexts. First, there is a strong relation between being proactive and innovative in developing a business strategy and investing in HRM. Even most firms can be classified as innovative in the study, but there are significant differences in their HRM strategy to support the development of their businesses. The primary reasons for these differences are linked to size,

availability of resources, organisational climate, firm culture, and demographics of the owners. My data shows that HRM is not often developed in most medium-sized firms, i.e. there is no dedicated HRM department and a lack of professional HRM expertise. One message for concerned managers is that HRM should be considered as a strategic partner to develop and sustain a high value-added workforce (also see Giaque, Resenterra and Siggen, 2010).

Furthermore, this study shows that firms benefit from several HRM practices such as staffing, performance appraisals, and feedback, especially if HRM can be planned and implemented carefully. As shown by this study (confirmed by the findings in Chapter 4 and 5), these practices have a positive impact on employee creativity, which eventually enhances innovation at the firm level. However, companies and managers must be careful in formalising the procedures when administering these practices because of their unique organisational environment, which has been nurtured based on informal relationships and practices. Furthermore, the simplicity of HRM practices can limit the effectiveness of HRM. For instance, having a selection and recruiting practice designed based on subjective criteria (e.g., managerial judgment) may not be effective to hire the right person. Thus, these practices must include objective and structured measures and tools. On the other hand, practices such as communication and information sharing should not be complicated and structured to avoid the barriers of complexity and procedures. HRM managers and executives, therefore, should consider the balance between organisational environment and nature of the HRM practices (e.g., to make them formal, structured, etc.). Further details regarding contributions (both theoretical and practical) are provided in chapter 7, section 3 and 4. In the following section I present the research setting and thesis structure.

## 1.4 The Research setting

### 1.4.1 Turkey

#### 1.4.1.1 *Political and economic context*

There are regular calls from scholars to contextualise HRM research to make better sense of the key linkages between the core research constructs (Boselie and Box, 2009; Sparrow, 2016; Nair, Pillai, Hirekhan and Budhwar, 2016). In this regard, this section has been developed. Turkey is an emerging economy located between Asia and Europe and an emerging powerhouse due to its increasing economic and cultural influence in the region. As being a member of G20, NATO, candidate for EU, the Customs Union agreement with the EU, and a member of the International Black Sea Economic Forum, Turkey is enjoying foreign investment and growing trade rate (it is worth noting that at the time of writing of this thesis – September 2016, due to geopolitical crisis in the region, the normal trend of Turkish economic growth was disturbed). In the last two decades, having these interactions with its Western foreign counterparts, Turkey has initiated more private sector and market-based reforms to enhance its economic growth. Because of these reforms, Turkey became 17<sup>th</sup> biggest economy in the world (World Bank, 2016) and growth has been robust in recent years despite very adverse regional and domestic conditions and it is forecasted to remain strong in 2016 (OECD, Economic Survey of Turkey 2016).

Turkey has made significant economic reforms over the past decade that has helped its economy to grow. These include, privatisation policy for the state-owned industries, new regulation for energy, mining, automotive, banking and real estate industries are the most important reforms that have helped to strengthen the Turkish economy (World Bank, 2015). These reforms have shown certain changes on the growth of industries. Over the last decade or so, we see a change in Turkish economy towards more industrial growth and also those of knowledge intense industries. Even it is not at mature economies level, the contribution of industries to GDP has changed dramatically. According to figure 1.2, finance and banking, services, information and

communication, and manufacturing are the fastest growing industries. Particularly, industries that require high level of knowledge and experience such as finance and banking, information and communication have significantly grown over past two decades. As Turkish economy is transforming from an agriculture based economy towards more knowledge and technology intense economy, information and communication industry inspired the study to investigate the factors related to HRM.

Presently, Turkey is facing several issues because of disturbing developments in neighbouring countries such as Syria and lately internally as well, which have implications for its economic and political stability. Over the past year or so, approximately three million refugees have arrived in Turkey from Syria to seek shelter and protection. According to the United Nations, for the second consecutive year, Turkey hosted the largest number of refugees (UNHCR, 2015). This has been a massive burden for Turkey not only politically but also financially.

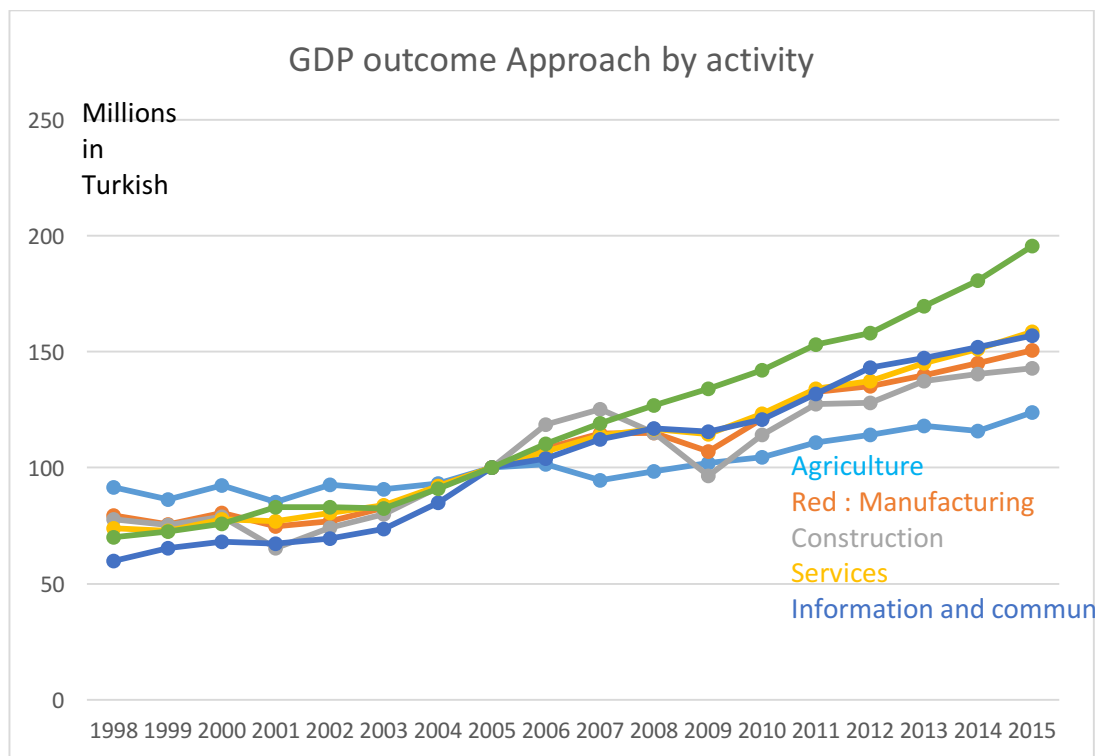


Figure 2-1: GDP Output Approach by activity, Index, 2005=100, Turkey

Source: United Nations Economic Commission for Europe, <http://w3.unece.org>

According to Turkish authorities, instability in Syria has already costed the country more than 10 billion Euros (The Guardian, 2016). Along with political problems and security issues, refugees bring economic advantages and disadvantages. Economists believe Syrian refugees have a critical impact in boosting consumption spending as it became the driving force of overall 4% economic growth in 2015. As per Morgan Stanley, household consumption contributes 3 percentage points to the growth. The contribution of household consumption, according to Morgan Stanley, cannot be explained only by the increase in gross wages, given that the growth rate in income in real terms in the last two years has not changed significantly. Further, it is stated that at least some part of this strong domestic consumption can be explained by the huge refugee flood in the last two years, reaching almost 3 million Syrians currently meeting their basic needs from Turkey. Furthermore, based on the recent report published by the union of chambers and commodity exchanges of Turkey (TOBB), Syrian entrepreneurs have opened 4963 enterprises in Turkey in the last 5 years. In total, they created approximately more than 700 million TL investment and Syrian business constitutes the 10 percentage of total foreign enterprises in Turkey (Dunya gazetesi, 2016).

Even Syrian refugees have a positive impact on growth of overall Turkish economy, it is not a sustainable contribution and can be worse once refugees start returning to their home country. However, there are disadvantages emerging from the refugee crises such as increase in unemployment and inflation. Confederation of Turkish Employers' Unions says that at least 300,000 Syrians have entered the Turkish labour market that makes 1% increase in unemployment rate while inflation rates are increasing compare to previous year (Al-monitor, 2016). Thus, it can be concluded that, refugee crises has direct and indirect effects on Turkish economy.

Along with the global economic slowdown, Turkey may suffer a decrease in foreign investment and a dip in its exports. On the other hand, Turkey is still a good place for investors as EU negotiation takes to next step and Turkey keep making structural

reforms. For instance, the government has introduced new pension and labour code reforms that help businesses and people while improving support and subsidiaries for research and development activities (Resmi Gazete, 2016). According to the World Bank overview of Turkey (2015), in a decade, the per capita income has increased almost three times and exceeds \$10,500. Turkey in accomplishing its advancement objectives through the usage of a project that focused on loaning and the arrangement of specialized technical counselling services (World Bank, 2015). Its key areas of engagement include private sector development, public finances, energy, climate change, health, education, environmental management and municipal services (World Bank, 2015). Overall, the Turkish economy is growing even though there are great challenges it faces. As an emerging market, Turkey inspires this study to understand the nature and contributions of the business to Turkish economy.

As per the Turkish Statistical Institute (TUIK), more than 99% of enterprises are SMEs and more than 78% of the workforce is employed by SMEs in Turkey (TUIK website, 2015). SMEs' share in total national turnover is nearly 65%, and SMEs' share in total exports was 60% for the year 2010.

Turkish SMEs can be categorized according to industries in five groups as Service (42 %), trade (40%), manufacturing (13%), structuring (5%), and Mining (0.2%) (TUIK website). Thus, we may say that SMEs mostly operate in the service and trade sectors.

However, there are some weaknesses of SMEs in Turkey and perhaps globally. One weakness is their inadequate access to finance and poor credit guarantee system. Furthermore, another weakness is SMEs suffering from a skills shortage. The reason for this problem is the lack of vocational schools, and universities are not providing graduates with required skills for business and entrepreneurship. Due to this shortage, SMEs cannot apply modern managing techniques as marketing, finance, and HRM. To help SMEs to improve on these weaknesses and constraints, government agencies, which provide training programme and financial support in different areas. For instance,

Ministry of Science, Industry and Technology of Turkey, Small and Medium Enterprises Development Organization (KOSGEB), the Scientific and Technological Research Council of Turkey (TÜBİTAK), Regional Development Agencies and other governmental or non-governmental organizations. These agencies apply programme focusing on various areas related to SMEs activities, possibilities for collaboration between universities and industry and promoting entrepreneurship.

According to TUIK (<http://www.turkstat.gov.tr/PreHaberBultenleri.do?id=21864>), with regards to SMEs` size , 61.4% of SMEs with 1-19 persons employed worked with low technology, 30.2% of SMEs worked with medium-low technology and 8.2% of SMEs worked with medium-high technology. While in SMEs with 20-49 persons employed the shares in same technology levels were respectively 54.3%, 27.7% and 17.1% and in SMEs with 50-249 persons employed the shares were 50.4%, 30.5% and 17.6%. It is seen that in three size class, medium sized businesses (having 50-249 staff) uses high level of technology. Meanwhile, proportion of innovative SMEs with 10-49 employees were 49.3% and 57.5% for SMEs with employees between 50-249. As the broad aim of the research is to link the HRM and innovation in Turkey, hence, a focus on medium sized business makes more sense, given importance of MSBs in innovation and technology usage.

#### *1.4.1.2 Information Technologies Sector in Turkey*

As stated above, over the last two decades or so the IT industry in Turkey has shown a significant change (see Figure 1.2). In Turkey, Information and Communication Technology (ICT) is the fastest growing segment of the economy, both regarding production and exports levels. In 2014, the ICT sector grew by %12.1 (TUBISAD Market Report, 2015) while the overall Turkish economy grew only by 3% in the same year. The IT sector has two main categories: information technologies and communication technologies. The information technologies include three subcategories: hardware, software and IT services. The communications technology



includes two subcategories: hardware and electronic telecommunication. The following table presents the categories of IT sector in Turkey and their contribution to sector size.

The Turkish IT industry's performance has a sustained revenue growth, stable expanding into new services, and international markets. The total size of IT sector in Turkey is 69.4 billion Turkish Lira (Communication technologies contributes 49 billion TL while information technologies have 20.4 billion TL contribution in 2015 (Big 500 list, 2015)). Approximately 80% share of IT services and software in Turkish ICT industry is produced in Turkey while 20% share of hardware in Turkish ICT industry manufactured in Turkey.

Turkey IT industry has several opportunities regarding future growth. Companies invest in IT to compete in not only in domestic markets but also in international markets that eventually increase demand from the private sectors such as financial and banking industry, telecommunication, education, healthcare and retail industries. On the other hand, the government wants to perform structural reform in Turkey. E-government has facilitated IT sector as the role of technology becomes the core for restructuring and modernization. The FATİH (provide its full form) project aims to bring smart classrooms to schools where every teacher and student have electronic gadgets to access course material, sources, assignments and lectures in electronic platform (Ministry of National Education, 12; FATİH, 2012) The FATİH project was introduced in 2012, and it is expected to generate 10 billion US Dollar revenue for IT sector in Turkey (Dunya Gazetesi, 2013). Another government project is building Silicon Valley in Istanbul. It is expected to lift the IT sector by 8 billion US dollar after its completion.

In 2014, the IT industry created 100,400 jobs which are 1.5% of the total employment in the industry while it is 5.6% in the OECD countries (TUBISAD, 2014).

Table 1-1: IT industry size in Turkey

Categories of IT Industry	Market size in TL - Turkish Lira (1 TL = 0.26 GBP)	Market share percentage (%)
• <b>Information Technologies</b>	<b>20,4 Billion TL</b>	<b>29%</b>
○ <i>Hardware</i>	<i>10,6 billion TL</i>	<i>15%</i>
○ <i>Software</i>	<i>6,3 billion TL</i>	<i>9%</i>
○ <i>Service</i>	<i>3,6 billion TL</i>	<i>5%</i>
• <b>Communication Technologies</b>	<b>48,9 Billion TL</b>	<b>71%</b>
○ <i>Hardware</i>	<i>13,4 Billion TL</i>	<i>19%</i>
○ <i>Electronic Communication</i>	<i>35,5 Billion TL</i>	<i>52%</i>
<b>Total</b>	<b>69,4 Billion TL</b>	

Source: BIG 500 IT List in Turkey, 2015

However, the productivity of IT sector is quite high compared to the productivity of other private sectors in Turkey. Services sectors usually are labour intense but has low employee productivity. For IT industry, this is the opposite as IT services have higher employee productivity than manufacturing and production in other sectors. The average value created by an employee in the private sector in Turkey is 27,000 TL while it is 102,000 TL in IT sector (TUBISAD IT Report, 2014). Thus, it can be concluded that as productivity is a primary source of growth, IT sector has a critical role in the growth of Turkish economy.

A survey conducted by TUBISAD in 2014 showed that six important factors can facilitate the growth of the IT sector in Turkey. These are export, merging, and acquisitions, incentives from government, sales to the public sector, increasing institutionalisation and management standards and R&D investments and innovation.

Seventy-eight percent of the participants reported that innovation is the key factor that enhances the growth of IT sector. On the other hand, the same study also showed that the most significant problems faced by the industry. According to the results of the study, these include a lack of collaboration between university and industry, lack of entrepreneurial capital, the financial complexity of high tax system, lack of R&D incentives, price oriented public and government contractors and lack of qualified human capital and labour (TUBISAD, ICT Industry Report, 2014). Among these problems, lack of skilled labour is reported as the most critical issue in IT sector in Turkey. Given the importance of value created by employees for the productivity, IT industry is facing a great challenge to develop required human capital to improve the productivity levels. This issue inspires the study to look at what HRM practices exist in the IT firms and how HRM practices can help in creating human capital and improving productivity.

Based on the above presentation, it is evident that the IT sector in Turkey is a promising sector with a high growth rate potential. It attracts both local and foreign investors. Strong demand from private and government sector provide future opportunities. To capitalize these opportunities, it is vital to invest in R&D and innovation of IT firms. Government and industry have introduced various initiatives to strength the IT sector. However, the industry has different problems to overcome which include: qualified labour is still the most important issue for IT firms, this is despite that the IT sector in Turkey has the highest employee productivity compare to other industries. It might be because of the industry is more advance in adopting HRM practices and more influenced by westernisation than any other industries in Turkey. As the broad aim of the research is to explore the impact of HRM on firm performance, thus, this study focuses on this sector to investigate what HRM practices exist in medium size IT firms and how HRM practices are contributing to firms' performance.

#### *1.4.1.3 HRM in Turkey*

To further contextualise my research, this section will briefly introduce relevant strands of the literature on HRM in Turkey (a more detailed discussion is presented in the next chapter on literature review).

In the last decade, HRM has been recognized as a key factor in helping firms to achieve competitive advantage in Turkish business organizations (Aycan, 2001). On the other hand, Turkish management studies and professional organisations have not provided sufficient guide and expertise for the people and organisations who are interested in it.

There is a transition in Turkey from personnel management to human resource management and towards a strategic role for HRM in organisations (Askun and Yozgat, 2004). Along with this transition, researchers have demonstrated an emerging interest in empirical studies about HRM in the Turkish context (Cetinel et al., 2009). However, there has been little HRM, and management research carried out in Turkey (Koyuncu, Burke, Acar and Wolphin, 2012). Even these studies attempted to adopt western approaches and theories to explore the HRM and HRM practices in the Turkish context, as being an emerging country, Turkey has different national settings that affect HRM and people management practices. Thus, it requires a more rigorous approach with exploratory methods to study HRM in Turkey. This study aims to explore the existent HRM practices in Turkey's emerging economy context and explain how HRM practices can influence performance by adopting mixed method approach.

This study builds on RBV and social exchange theories. These two theories will enable this study to explore the impact of HRM on both employee and firm level performance. Detailed presentation on these theories is provided chapter 2, section 4. In the following, I present thesis structure.

## 1.5 Thesis structure

### 1.5.1 Chapter 1

This chapter introduces the research, presents its main aim including the research questions, expected contributions, a presentation about the research setting and the structure of the thesis.

### 1.5.2 Chapter 2

This chapter is dedicated to literature review on HRM and performance. First, it focuses on the key theories which underpin this research and define the scope and levels of analysis on which this study focuses. Later, it presents the definitions of the main constructs adopted for this study.

### 1.5.3 Chapter 3

This chapter presents the research philosophy and the methodology adopted for the study. It includes details on the research design, data collection, data analysis and research ethics core to both Phase 1 and 2.

### 1.5.4 Chapter 4

In this chapter, I present findings from Phase 1 of the research, which explores the links between HRM and performance in the MSBs in the IT sector. In particular, I will reiterate the aim of Phase 1 of my study. The analysis is based on in-depth analysis, carried out via interviews with 54 key actors in 12 Turkish MSBs. The study unravels the implications of HRM practices on innovation and presents a multi-level model that helps to better understand the mechanisms explaining such linkages. It contributes to the literature on HRM, innovation and firm performance in an emerging market context.

### 1.5.5 Chapter 5

This chapter presents results of the Phase 2 of my study, i.e., the model developed from Phase 1 of research. I describe the model and develop hypotheses to examine the key linkages between core research constructs presented in the model. Then I

present the results of hypotheses testing. The chapter closes with a brief discussion on the key findings.

#### 1.5.6 Chapter 6

This chapter provides a discussion and rationale for the main results of the two Phases of my research. First, I present discussion related to my research questions and key findings from the Phase 1. In the second section of the chapter, I discuss related research questions and key findings of Phase2.

#### 1.5.7 Chapter 7

In this chapter first I summarise my key findings, present an overview of the research aim, research questions and methodology. Later, I discuss and highlight the methodological, theoretical and practical contributions of my study. Finally, I highlight the limitations of the study and present directions for future research.

In the next chapter, I will provide a literature review regarding the core theories underpinning my research, core research constructs of the study - HRM, MSBs, innovation, CE, and the Turkish context.

## 2 Literature review

### 2.1 Introduction

The last chapter introduced the core focus and related information about my research. This chapter is devoted towards analysing the core literature central to my research. It will help to further help to strengthen the case for the need to conduct this research by highlighting the main developments in the relevant areas, identifying the key gaps, and addressing how an attempt to fill the same via my research will help make useful contributions. The main areas of literature reviewed in this chapter then include: research in HRM, SMEs/MSBs, innovation and creativity, corporate entrepreneurship and HRM research in Turkey, RBV and SET.

### 2.2 Theoretical underpinnings of the study

One of the aims of the research is to develop an integrated framework to examine the relationship between HRM and performance (see chapter 1 section 2), which will be empirically examined with a survey study (i.e. Phase 2). To achieve this, I use RBV and SET to build and test a multi-level model. The multi-level structure of the study requires the adoption of a multi-lens perspective for linkages between HRM and other constructs. These theories are completely different from each other as each explains a part of the relationship between HRM and performance. Within this framework, RBV theory is more likely to explain how HRM practices create critical intangible assets (human and social capital) for the firm by enhancing employee KSAOs, while SET helps to provide explanation how individuals perceive HRM practices and return the investment in HRM as discrete behaviours and performance.

In this study, I seek to examine the impact of HRM practices on performance within specific research firms, which can discover, evaluate and ultimately exploit opportunities at a greater rate (Miller, 1983; Shane & Venkataraman, 2000). These firms are expected to be more proactive, risk-taking and innovative. Corporate entrepreneurship is dependent upon being able to identify new opportunities and

acquire and integrate new knowledge and capabilities in turn create new sources of value. The RBV perspective creates a strategic competitive advantage. However, this process rests upon social interactions and behaviours between individuals as well as informal networks within and across organizational boundaries (Bucic & Gudergan, 2004; Day, 1994; Kang, Morris & Snell, 2007) and it needs another theoretical lens to understand what contributors to social interactions, organizational routines, and employee behaviours (Grant, 1996). Within this consideration, SET brings explanations regarding the influence of HRM practices, managerial processes and systems, organizational structures, culture and values over employees' behaviours such as creativity, OCB, commitment (Bucic & Gudergan, 2004; Hayton, 2005; Perrin & Rolland, 2007; Verona, 1999). Next, I present a discussion relevant to the two mentioned theories.

### 2.2.1 The Resource based view

Porter (1980) suggested that firms must analyse their environment to develop business strategies and acquire required resources to implement these strategies. Based on Porter's framework, a firm must utilize environmental opportunities and internal strengths of the firm while avoiding the threats of environment and weakness of the firm.

As per this framework, studies in the field of strategic management focus on both internal and external factors of the firm. Wernerfelt (1984) suggested that RBV defines the strategic deployment of internal resources as the path to a company's competitive advantage. Whereas, Barney (1991) discussed the required specifications of resources for a sustainable competitive advantage. He indicated that resources that are rare, valuable, inimitable and non-substitutable can contribute to sustainable competitive advantage.

A number of authors have listed resources that can help a firm to achieve competitive advantage. Based on Barney's (1991) classification these resources can be classified



into three categories: firm's physical assets, human capital, and organizational routines. Tangible assets include technology, plants, and its equipment, location, access to raw material. Organisational routines include firms' structure, formal and informal planning, formal and informal relations among groups in firm and between a firm and those in its environment. Human capital includes the training, experience, intelligence, judgment, relationships, insights of individual managers and workers in a firm (Barney, 1991). In contrast to other physical assets that are easier to imitate, sophisticated and dynamic nature of HRM makes it not easy to imitate (Sheehan, 2013). Thus, HRM can be considered as a critical source of competitive advantage (Barney and Wright, 1998; Becker and Huselid, 1998). Furthermore, the rareness of HRM practices is linked to path dependency (Collis and Montgomery, 1995), which brings a vibrant and temporal factor into an analysis of HRM within the RBV framework (Nelson and Winter, 1982; Razaouk, 2011; Sheehan, 2013). Path dependency indicates that HRM practices consist of policies that are built over time and cannot be simply acquired by competitors (Becker and Gerhart, 1996). Even though competitors want to adopt a system that is valuable, it costs both time and administrative effort to fully implement the strategy. Furthermore, replicating socially complex constructs such as culture and interpersonal relationships may not be easy for competitors (Becker and Gerhart, 1996).

As HRM is considered as a key factor to the resource base of the firm (Barney and Wright, 1998; Becker and Huselid, 1998; Huselid, 1995; Sheehan, 2013; Wright, Dunford and Snell, 2001), many scholars have looked for the contribution of HRM to firm performance from the RBV perspective. The debate began over how HRM contributes to sustained competitive advantage (Sheehan, 2013). Ferligoj, Prasnikar and Jordan (1997) proposed that competitive advantage is generated by the human resources themselves, and not by the HRM practices (i.e., staffing; recruit, employ or retain them). Along with Ferligoj et al. (1997), Wright et al. (1994) also argued that HRM practices can't be a source of a sustainable competitive advantage because they

can be imitated by competitors. Instead, they argued that human resources or human capital could be considered as a source of competitive advantage (Wright et al., 1994). On the other hand, others suggest that HRM practices can be considered as a source of competitive advantage since alignment of the set of practices, and complimentary of the HRM would be inimitable (Barney, 1997; Narasimha, 2000; Oinas and Van Gils, 2001). Overall, these two points of views suggest that human resources are pivotal contributors to the firm's success directly or indirectly. Furthermore, association between HRM and performance is likely to be increase as the use of HRM practices increases (Sheehan, 2013).

Over the past couple of decades or so, many scholars have studied the contribution of HRM towards achieving the firms' goals and evidence suggests that HRM practices can constitute sustained competitive advantage by organising human capital, facilitating employee commitment to pursue the interest of the firm and influencing employee behaviours (see Lado and Wilson, 1994; Wright et al., 1994; Barney and Wright, 1998; Wright et al., 2001; Castrogiovanni et al., 2011),

The RBV perspective suggests that human resources can have more influence on smaller firms because small firms need to do more with limited resources to sustain competitive advantage (Sheehan, 2013). Moreover, the impact of HRM decisions is likely to differ in small firms compared to larger companies and HRM policies and decisions likely to be more efficient (Castrogiovanni et al., 2011; Sheehan, 2013). In smaller firms, there can be several HRM issues that become more important than in larger firms, particularly when small firms are not known to have formal and established HRM systems. For instance, person–organisation fit can be particularly important, as new recruits need to adopt shared values and work model (Heneman et al., 2000). Even this is valid for most size firms, but smaller firms intend to hire those who can adopt interpersonal relationships and culture at the work place. Moreover, in smaller firms, HRM is to be administered differently. For instance, as the responsibility of HRM practices can be taken by senior executives and line managers (Koyuncu et al., 2012;

Sheehan, 2013) instead of HR professionals and managers. This situation eventually leads small firms suffer from lack of managerial experience, knowledge and capabilities in HRM (Sheehan, 2013).

As mentioned above, the RBV relies on the role of HRM in creating unique, difficult to imitate resources that are rare and critical. According to the RBV theory, firms can enhance their intellectual capital that consists of human and social capital (Hayton et al., 2013). The human capital of a firm consists of the people who work in the organisation and organisation's success depends on them (Bontis, Dragonetti, Jacobsen and Roos, 1999; Katou and Budhwar, 2014) while the social capital of a firm consists of knowledge resources embedded within, available through, and derived from networks of a firm's internal and external relationships (Adler & Kwon, 2002; Nahapiet & Ghoshal, 1998). The social and human capitals are the only sources where competitive advantage can be gained via the effort and contribution of people within organisation (Katou and Budhwar, 2014). Thus, HRM practices help firms in producing knowledge and building a base of intangible assets that eventually provides sustainable competitive advantage. However, one of the limitations of the RBV is that it does not provide sufficient explanation of the creation of intangible assets (Hayton et al., 2013). Intangible assets as a strategic resource can be created from combinations of organizational resources, processes and management practices (e.g., Teece, Shuen & Pisano, 1997; Hayton et al., 2013). These assets can accelerate the creation and integration of knowledge (e.g., Grant, 1996; Henderson & Cockburn, 1994; Kogut & Zander, 1992; Zahra & Nielsen, 2002). The strategic resource is not only about the creation of knowledge but also the capability for the continuous product development, integration, and exploitation of that knowledge (e.g., Grant, 1996). Thus, HRM must help the acquisition (or creation), integration and exploitation of new knowledge to become a strategic resource (Hayton et al., 2013).

The research on the role of HRM in creating strategic, and knowledge-based capabilities have provided support for the impact of HRM in pooling strategic resources

(e.g., Smith, Collins and Clark, 2003; Subramaniam and Youndt, 2005). Studies have examined the nature and kind of capability and abilities and explored the association between specific HRM practices with their creation. However, studying this association requires additional theoretical perspective to understand and explain the role of individuals in the link between HRM and performance (Hayton et al., 2013). When the study focuses on the organizational level of analysis, the RBV can be used to explain sources of competitive advantage (Hayton et al., 2013). However, when it comes to explain the nature and kinds of resources and creating capabilities it is critical to look at individual based explanations (Hayton et al., 2013).

### 2.2.2 The Social exchange theory

The social exchange theory (SET) explains the foundations of collaboration, cooperation, organizational learning and innovation (Hayton et al., 2013). To understand and examine the linkages between HRM and performance, and as mentioned above, this study also adopts the perspective of SET. The SET helps to have a thorough understanding regarding the influence of HRM practices on (individual) employee's behaviour and performance (Snape and Redman, 2010) while the RBV contributes to model the relationship at the firm level. Below I discuss the core aspects of the SET.

Blau (1964) argues that the relationships of employment are based on economic or social exchange. Economic exchange requires a specific contractual relationship, which includes specific obligations without any further benefits beyond the specified terms of the contract (Blau, 1964). On the other hand, according to Blau (1964) the social exchange involves untold terms and obligations such that optional benefits provided in a discretionary way in the long run in this relationship, there are non-specific duties and trust is the most important factor in the long-term viability (Snape and Redman, 2010). Thus, Aryee et al. (2002) state that social exchange proposes a long-term exchange of favours and is based on a diffused obligation to exchange the conceptual foundations of research on work attitudes and behaviours.

The process of social exchange is established in firms when they initiate an organisational approach, which shows care for employees' wellbeing and organisational values (Eisenberg et al., 1990). Based on this, an employee perceives that firms foster values and deal equitably with them and in return employee will give back good deeds with positive work attitudes and behaviours (e.g., Aryee et al., 2002). As Gouldner (1960) suggested, social exchange is contingent by actors who position themselves according to the norm of reciprocity. For instance, when firms helping employees in individual training and developing new KSAOs, employees reciprocate through discretionary work-related behaviours (also see Graen and Cashman, 1975; Haas and Deseran, 1981; Gould-Williams and Davies, 2005; Wayne et al., 1997; Moorman, Blakely and Niehoff, 1998). This suggests that the SET can be used to understand the impact of HRM practices on employee outcomes.

Since the SET considers employment relationship, it enabled scholars to study concepts of social exchange in which HRM can contribute towards the firm performance by the creation of social capital, organizational citizenship, pro-social behaviours, perceived organizational support and relational psychological contracts. For instance, Moorman (1991) found that there is a positive correlation between organisational justice and discretionary OCB of employees. Further, Parzefall and Kuppelwiese (2012) found that perceived social capital has a positive relationship with affective commitment. These studies confirming that as Gould-Williams and Davies (2005, p. 6) quoted *"employees using the work-related behaviours as 'currency' to return management behaviour as enacted through specific HRM practices"* from Aryee et al. (2002, p. 280). Thus, HRM practices foster shared perceptions of employees of a supportive organizational environment that enhances discretionary behaviours that contribute to firm performance (Sun et al., 2007).

Based on the SET, many scholars also argue that employees' perceptions of HRM practices have a positive impact on employee creativity. Scholars find that employee's perceptions of individual, group and organizational factors can affect their intention and

capability to innovate. Employee creativity enhances company's innovative ability, thereby innovative organizational capability can help the organization to identify opportunities and improve organisational performance (Oldham and Cummings, 1996; Guan, 2003).

Drawing from the perspectives of RBV and SET, the influence of human resource practices is expected to affect positively the levels of intellectual capital of the firm; employee creativity (human capital: knowledge, skills and abilities) and organisational collaboration (social capital: interaction, helping behaviours and relational connections). HRM practices and intellectual capital of the firm have been significantly linked to individual, unit, and firm-level performance outcomes (see Hayton et al., 2013; Sun et al., 2007; Wright and Boswell, 2002; Youndt and Snell, 2004). Nevertheless, this has not been examined in the research context in which I intend to so. Therefore, drawing from these two theories, this study attempts to explore what kind and nature of innovation exist in medium-sized IT firms, highlight the nature and kind of HRM practices existing in the research firms and develop a multi-level model to understand the impact of HRM on performance at the individual and organisational levels in the research context.

### 2.3 SMEs and HRM

The links between HRM and performance have been studied extensively in the past (e.g., Altinay, Altinay and Gannon, 2008; Aryee et al., 2012; Harney and Dundon, 2006; Huselid, 1995; Guest, 1997; Becker, Huselid and Ulrich, 2001; Zheng, O'Neill and Morrison, 2008; Katou and Budhwar, 2014). The main argument in these studies is that HRM practices can change employee behaviour and enhance firm performance. Despite the significant amount of literature focusing on this relationship, the main focus of earlier studies was mainly on HRM in larger firms (e.g., Altinay et al., 2008; Klaas, Yang, Gaaney and McClandon, 2005; Ogunyomi and Bruning, 2015) and the

researchers ignored small and medium size firms because there is an established notion that formal HRM does not exist in SMEs (i.e. firms having less than 200 employees, see Kotey and Slade, 2005; Reid, Morrow, Kelly and McCartan, 2002; Storey, Saridakis, Sen-Gupta, Edwards and Blackburn, 2010). In this study, I aim to address this gap by investigating the relationship between HRM and performance in medium size firms and that to in the IT sector in Turkey. Below, initially I will present definition of the small and medium size firms, HRM and then a review of HRM studies in SMEs/MSBs and the Turkish context.

### 2.3.1 Definition of SMEs/MSBs

In general, SMEs refer to firms, which employ fewer than a given number of employees. However, this number may vary between countries. For instance, in Turkey, SMEs are considered to include firms with fewer than 250 employees while in the USA it includes companies with fewer than 500 employees. The most common upper limit for SMEs is 250 employees (KOSGEB, 2012).

The European Union (EU) regulations, introduced on 1<sup>st</sup> of January 2005 applying to all Community acts and funding programmes as well as in the field of State aid where SMEs can be granted higher intensity of national and regional aid than big business (OECD, 2005). The regulation brings limits for SMEs not only in size (i.e., a number of the employees) but also in the financial criteria. According to the EU regulation, SMEs are classified into three categories. Medium-sized enterprises, that include firms with 50-249 employees, and their turnover should not exceed 50 million Euros. Small businesses that include companies with 10-49 employee and turnover should not exceed 10 million Euros. The last category is micro enterprises that include firms with less than ten employees and less than 2 million Euros turnover. In my research, I adopt the first categorisation and focus on MSBs. Table 2.1 presents categories of SMEs according to their size, turnover, and balance sheets.

*Table 2-1: Definition of SMEs (according to the EU regulations)*

Criteria	Micro-sized SME	Small-sized SME	Medium -sized SME
Number of employees	< 10	< 50	< 250
Turnover	≤ 2 Million Euro	≤ 10 Million Euro	≤ 50 Million Euro
Balance Sheet	≤ 2 Million Euro	≤ 5 Million Euro	≤ 43 Million Euro

*Source: European Commission, 2014*

In Turkey, according to the latest regulation, which was enforced on 4<sup>th</sup> of November 2012, SMEs are considered to include firms with fewer than 250 employees. Their upper limit for turnover is 40 million Turkish Lira as balance sheet limit (Resmi Gazete, 2012). Table 2.2 presents the criteria and limits according to regulation that define SMEs in Turkey. For this study, I consider the both EU and Turkish regulation and adopt the following scale (see Table 2.3) to define medium-sized enterprises in the study according to Turkish regulation on SMEs.

*Table 2-2: Definition of SMEs (according to the Turkish government regulations)*

Criteria	Micro-sized SME	Small-sized SME	Medium -sized SME
Number of employees	< 10	< 50	< 250
Turnover	≤ 1 Million TL	≤ 8 Million TL	≤ 40 Million TL
Balance Sheet	≤ 1 Million Turkish Lira	≤ 8 Million TL	≤ 40 Million TL

*Source: Resmi Gazete, 2012.*

*Table 2-3: Definition of medium-sized firm*

Criteria	Lower limit	Upper limit
<b>Number of employees</b>	49	250
<b>Turnover</b>	8 million Turkish Lira	40 Million Turkish Lira

### 2.3.2 Definition of HRM

An organisation's human resources have an asset value as it corresponds to present value of future net cash flows that depend on employees' skills, knowledge, and motivation (Becker, Huselid and Pickus, 1997). Human resources are also the largest



and most difficult to control expense as they contribute to organisational performance (Pfeffer, 1998; Combs, Liu, Hall and Ketchen, 2006). Thus, it is important to understand how to manage human resources to maximize productivity. Such a premise led an emerging body of research in early 1980s towards understanding how HRM practice can contribute towards organisational performance (see Combs et al., 2006; Ferris, Hochwater, Buckley, Harrel-Cook and Frink, 1999).

HRM has been used to refer to an organisation's activities and practises regarding recruitment, development, and management of its employees (Wall and Wood, 2005). However, there is a lack of consensus regarding the definition of HRM in literature. Instead, there are several terms used to denote it such as "strategic HRM" (Paauwe and Richardson, 1997), "High commitment management" (Parkes, Scully, West and Dawson, 2007) or "High performance work systems" (Ramsay et al., 2000).

Nevertheless, for my research, I use HRM as per Way's (2002: p 765) conceptualisation:

*"HRM refers to practices that together select, develop, retain, and motivate a workforce: (1) that possesses superior abilities (i.e., superior [a broad repertoire of] skills and behaviour scripts); (2) that applies their competence in their work-related activities; (3) whose work-related activities (i.e., actual employee behaviours/output) result in these firms achieving superior intermediate indicators of firm performance (i.e., those indicators over which the workforce has direct control) and sustainable competitive advantage".*

Next, I review studies conducted on HRM in general, moving on to HRM and performance, HRM in SMEs, and finally HRM in Turkey. The discussion ends with presentations on resource based view and social exchange theory.

## 2.4 Research in HRM

Huselid (1995) describes typical strategic HRM studies that seek to highlight the importance of HRM practices in determining organisational outcomes such as profitability, productivity, and employee turnover. However, early studies in HRM concentrated on individuals in the workplace. In the late 1980s, HRM studies emerged

and grabbed the attention of researchers from fields of management and organisational studies. Over the decades, HRM studies have covered several issues.

First, early studies on HRM suggest that there are two distinct forms of HRM: soft and hard and accordingly the soft and hard variant models of HRM (Katou and Budhwar, 2015). According to Guest (1987) soft or hard model of HRM depends on whether the emphasis is placed on the human or the resource. The soft HRM model is considered to be individual centred where *“employee behaviour is primarily self-regulated rather than controlled by sanctions and pressures external to the person and relations within the organization are based on high levels of trust”* (Wood, 1996, pp. 41). On the other hand, the Hard model of HRM emphasizes *‘the quantitative, calculative and business-strategic aspects of managing the “headcount resource” in as “rational” a way as for any other factor of production’* (Storey 1992: 29, in Legge, 1995). The hard HRM model focuses on how HRM policies and practices are linked to the strategic objectives of the firm that is called as external fit and the alignment between practices with the ultimate aim that is called as internal fit (Truss, Gratton, Hope-Harley, McGovern and Styles, 1997). The hard model of HRM suggests that external and internal fit increases competitive advantage (Storey and Sisson, 1993; Truss et al., 1997). Based on this description of the two models, a soft model of HRM brings more individualistic and humanitarian approaches forward while the hard model of HRM is linked with more business-oriented interests. Even the rhetoric of HRM always sounds more similar to the soft model, whereas in practice, it is always found that hard model of HRM has the benefit of firms prevailing over those of the individual (Truss et al., 1997).

Another topic which was debated in the early HRM studies was whether HRM should adopt a universalistic approach (best practice) or a contingency approach (best fit). Researchers supporting the universalistic approach suggested some HRM practices that are always better than others, and all organisations should adopt the best practices in order to improve performance (Delenry and Doty, 1996; Ichinowski, 1989; Huselid, 1995; Katou and Budhwar, 2014; Pfeffer, 1994). Researchers have argued

that there are a number of HRM practices that are considered as “best practice” such as participation and empowerment, incentive pay, employment security, promotion from within, and training and skill development. Although, there is no explicit agreement which practices are the best practices, these practices include rigorous selection procedures, internal merit-based promotions, grievance procedures, cross-functional and cross-trained teams, high levels of training, information sharing, participatory mechanisms, group-based rewards, and skill-based pay (Datta, Guthrie and Wright, 2005). A number of studies have revealed that there is a strong relationship between the use of ‘best practices’ and employee productivity and firm performance (Guthrie, 2001; Huselid, 1995; Ichniowski et al., 1997; MacDuffie, 1995).

On the other hand, some researchers propagate for the ‘best-fit’ approach or the contingency approach. Contingency approach argues that an organization’s HRM policies must be aligned with other aspects of the organization (Delery and Doty, 1996) while universalistic approach suggests that best practices yield same performance outcomes without considering contextual factors. According to the contingency approach, HRM practices are influenced by internal and external factors such as management styles and structure, the interplay of firms’ external environments and firms’ industry context (Datta et al., 2005; Kim and Wright, 2011; Sun et al., 2007). Wright and McMahan (1992) emphasized the importance of the alignment of HRM with both horizontal and vertical fit. The horizontal fit indicates the internal alignment of the organisation’s HRM and other practices while vertical fit refers to the consistency of the HRM with other organisational characteristics such as business strategy. Within this approach, it is important to acknowledge that the relationship between HRM practices and organisational performance is affected by the firm or organisations’ strategy.

During the 1990s, the HRM research focused on the link between HRM and firm performance. A vast amount of studies accepted that HRM practices have a significant impact on firm performance (see e.g., Applebaum, Bailey, Berg and Kalleberg, 2000; Becker and Gerhart, 1996; Huselid, 1995). Researchers demonstrated that a number

of HRM practices were consistent with different strategic positions and how these practices relate to firm performance. However, some authors opposed the claimed relationship between HRM and performance. For example, Guest, Mithcies, Conway and Sheehan (2003) suggested that there is a little or no association between HRM and performance. Wall and Wood (2005), claimed that it is too early to conclude that HRM practices certainly will increase performance. On the one hand, some researchers also argued that the relationship might be of reverse direction that organisational success causes the existence and development of HRM practices (Paauwe and Boselie, 2005; Wright and Haggerty, 2005). Even there is opposition for the link between HRM and performance, recent reviews in the field of HRM provide evidence that a positive relationship exists between the use of HRM practices and firm performance (see Jiang et al., 2012; De Saa-Perez and Diaz-Diaz and Ballesteros-Rodriguez, 2012; Combs et al., 2006; Katou and Budhwar, 2014; Shipton, West, Parkes, Dawson and Patterson, 2006; Wright, Gardner, Moynihan and Allen, 2005).

There also were other issues with the relationship between HRM and performance regardless it is considered as a fact that HRM practices will enhance firm performance. First, there is little understanding about the mechanism through which HRM practices increase firm performance and organisational success. This issue of HRM has been called as the 'black box' phenomenon (Boselie, Dietz and Boon, 2005). Given the proven influence of the use of HRM on performance (e.g., Combs et al., 2006; Delery and Shaw, 2001), there is an increasing focus on the black box where there are intermediate linkages in the relationship (see Chuang and Liao, 2010; Evans and Davis, 2005; Gong, Law, Ghang and Xin, 2009; Jiang et al., 2012; Liao, Toya, Lepak and Hong, 2009; Sun et al., 2007; Takeuchi, Lepak, Wang and Takeuchi, 2007). Also, Sanchez et al. (2016) investigated moderating role of human capital diversity, Takeuchi et al. (2007) examined human capital and social exchange climate, Gong et al. (2009) examined organizational commitment, and Sun et al. (2007) studied service-oriented

citizenship behaviour as underlying mechanisms of the link between HRM and performance.

The vast amount of studies examined intermediate linkages and the extant literature has yielded insights into the influence of the use of HRM practices on both employee outcomes and organisational outcomes. However, researchers also indicate that there are a number of issues left to explore and expand our knowledge regarding HRM and performance. During the 2000s, HRM studies focused on methodological issues of the HRM research. For example, Gerhart, Wright, McMahan and Snell, (2000) demonstrated that the reliability of multiple respondents in HRM studies. Their study showed that there are differences in perceptions between HR managers' responses and line managers' responses (Gerhart et al., 2000). On the other hand, Wright and Nishii (2007) highlighted the importance of perception differences by categorising HRM practices. According to their classification there are three types of HRM practices - (1) intended HRM practices referring to HRM strategy and policies by HR managers, (2) actual HRM practices referring to exercised practices by line managers, and (3) perceived HRM practices referring to the employee perceptions of HRM. Differences in perceptions of HRM professionals, line managers, and employees happen because of their position and different interests (Boselie et al., 2009). Thus, it is suggested that there was a need for studies with a focus on multi-level and multi-respondents as the most research was on either the firm level or individual employee level (Boselie et al., 2005; Fu et al., 2015). In their literature review, Boselie et al. (2009: p 465) stated that there is a lack of research on: (a) *HRM research into practices above the organizational level – at the country, sector or size level*, (b) *research comparing HRM concepts, policies, and practices between national business systems*; and (c) *multiple level research looking at the impact of HRM on employees and the aggregated effects at the organization level*.

All these emerging questions in HRM literature also brought along another significant issue that is the lack of theoretical perspectives. Guest (1997) stated that there is a strong need for *“a theory about HRM, a theory about performance, and a theory about how they are linked”* (Guest, 1997, p. 263). In the early HRM studies, the RBV of the firm (Barney 1991) and the stakeholder theory (Freeman, 1985) were commonly used to explain the mechanism between HRM and organisational performance. However, theoretical perspectives of HRM often neglected employee perspective (Boselie et al., 2009). New multi-level frameworks employing psychological contract theory (Rousseau, 1995), social exchange theory (Blau, 1964), agency/transaction cost theory, cybernetic models, and behavioural perspective, which investigated the link between HRM and individual performance started to attract more researchers' attention (Boselie et al., 2009). On the other hand, researchers indicated the need for integrated approaches for multi-level research to predict and explain the HRM influence on organisational and performance. I subscribe to such proposals in my research.

Overall, the HRM literature shows that there is a need for more integrated approaches for a better understanding about the linkages between HRM and performance. Thus, this study aims to address this need by utilising two theories, i.e., the RBV and the SET. Given the multi-level design of this study, it is considered as necessary for understanding the role of HRM practices in both organisational performance and individual performance. Later in the section on underpinning theories for my research, I will discuss these two theories. But before I do that, below I present my analysis on the HRM research in SMEs/MSBs.

#### 2.4.1 HRM studies in SMEs and MSBs

Given there does not exist a dedicated stream of research on HRM in MSBs (which is the focus of this research), I initially review here literature on SMEs and then provide an overview regarding what is emerging regarding HRM in MSBs. I also share information about SMEs as explained above in Table 2.1 and 2.2, one of their categorisation also include MSBs. SMEs are known for their significant economic and

social contribution towards a given society and also as a source of employment and innovation (Audretsch, 2002; Olander, Hurmelinna-Laukkanen and Heilmann, 2011). This despite the fact that they have small-scale output and have high production costs (Olander et al., 2011). Over the last decade or so, there has been an emerging interest in SMEs. However, the majority of studies on HRM in SMEs are mainly descriptive and exploratory.

Generally, research on HRM show that SMEs are lacking a strategic approach to HRM as HRM in SME is considered as opportunistic instead of being systematic and strategic (see Chandler and McEvoy, 2000; Heneman, Tansky and Champ, 2000; Cardon and Stevens, 2004; Mayson and Barrett, 2006; Tsai, 2010). However, a lack of strategic approach to HRM in SMEs has been identified as one of the reasons for the failure of their businesses. For instance, Harney and Dundon (2006) reported in their study with six SMEs in Ireland that HRM practices in SMEs were informal and emergent and lacked coherence in their use (Harney and Dundon, 2006). Puplampu (2005) suggested that HRM efficiency and performance were the most important factors of SMEs to fail. Cassell, Nadin, Gray and Glegg (2002) studied the effectiveness of HRM practices in SMEs in England. They conducted a telephone survey study with 122 senior managers in SMEs. Results showed that there is a significant diversity between SMEs in their use of HRM practices. 64% of the firms did not have or barely used formal HRM strategy and that the approach that the firms took to implement HRM practices was *'fairly piecemeal and reactive, rather than proactive, holistic or systemic'* (Cassell et al., 2002, p. 689).

Many studies report that among SMEs, HRM practices vary significantly. For example, a study of 16 Dutch SMEs found differences in the use of HRM practices (De Kok and Uhlaner, 2001). Studies also report that SMEs are less likely to adopt a sophisticated set of HRM practices (Hornsby and Kuratko, 1990; Pearson, Stringer, Mills and Summers, 2006) and limited by lack of resource availability (e.g., management skills, finance, and time). Researchers discuss that SMEs have less uptake of HRM practice

than larger firms due to the limited resources and their approaches to HRM (see Bryson, Forth and Kirby, 2005; Andrick, 1998; Bacon and Hoque, 2005; Denton, 2006; Gilman and Raby, 2013; Lado, Boyd, Wright and Kroll, 2006). Klaas, McClendon, and Gainey (2000) found that the financial costs of hiring an HRM specialist for a full-time position are highly restrictive to SMEs, leaving the administration of HRM to the general management who usually lack a coherent strategy and knowledge for managing employment relations (Harney and Dundon, 2006). Research also shows that adopting a system of HRM practices may not be effective for SMEs, but they may opt for partial adoption (Godard, 2004). Harney and Dundey (2006) state that HRM was not the coherent set of practices typically identified in the literature but rather was often informal and emergent. Firms usually adopt and exercise relatively significant HRM practices. For instance, in Turkey, Yildiz, Bayraktaroglu, Ozdemir, Balaban and Oz (2008), found that several HRM practices existed such as staffing, training and compensation in SMEs. Therefore, when it comes to examining HRM in SMEs, significant criticism has been raised at the systems vs. practice paradigm both methodologically and theoretically (Godard, 2004; Wall and Wood, 2005; Fleetwood and Hesketh, 2008).

Studies show HRM practices are varying in SMEs. Research also showed that the reason for the variation could be the interplay of the influences of the internal and external factors (Bacon and Hoque, 2005; Cunningham and Rowley, 2010; Edwards et al., 2006; Kinnie, Purcell., 1999; Tsai, 2010; Wilkinson, 1999). Internal factors include resources, size, ownership, technology, employees' KSAOs and the presence of HR manager (Tsai, 2010). The link between size and the influence of HRM practices has been studied. For instance, Cunningham and Rowley (2007) indicated that firm size or number of employees is one of the key factors in explaining the relationship. Researchers stated that in small businesses where fewer employees less than 50, organisational structure is limited, and one person often centralizes administration and managerial control (also see Cetinel et al., 2009). It is proposed that the increase in the



firm size lead organisations to develop more and formal HRM practices (Westhead and Storey, 1996; Marlow, 2002; Tsai, 2010). On the other hand, as business gets small in size, it eventually leads that owner/manager has a significant impact on the company policies and organisational framework (Bauer et al., 1997; Cetinel et al., 2009).

External factors include market, labour, competitors, supply chain and trade unions (Tsai, 2010). Studies has suggested that the external factors have a great influence on how SMEs manage their employees. For instance, Cunningham and Rowley, 2010) found that the development of HRM in SMEs in China has been affected by a set of wider influences, including social, cultural and institutional factors. Psychogios, Szemosi, Prouska and Brewster (2016) studied HRM in SMEs in South-eastern Europe and found that HRM in SMEs can be understood through a threefold framework, which includes: degree of internationalisation of SMEs, sector of SMEs and organisational size of SMEs. However, there still is a shortage of studies that focus on the level of internationalisation of SMEs, specific sectors and organisational sizes for further understanding of the linkages between HRM and performance.

Furthermore, studies indicate that in small firms, the performance of the business is linked to the education, experience, and skills of the owners and their entrepreneurial characteristics (Cetinel et al., 2009; Lerner and Haber, 2000). For these reason, in micro and small firms, it is not typical for all small and micro firms to have a joint impact of HRM on performance as HRM practices vary among small and micro firms as HRM practices are determined by owner/manager (Brand and Bax, 2002; Cetinel et al., 2009). For the scope of this study, it is decided to focus on firms where HRM are more likely to be determined as a result of business policy and organisational framework. As mentioned above (see Table 2.3), it thus focuses on medium-sized companies with employees between 49-249 rather than small-sized firms.

#### 2.4.2 HRM in MSBs

As presented above, majority of research in HRM studies focused either on small firms with less than 50 employees or large firm with more than 250 employees (Jorgensen, 2016). Relatively small proportion of medium-sized businesses with 50-250 employees in national and international economies may have caused to exclude the MSBs from the discussion. However, MSBs have a significant role on global business as well as in national economies. For instance, in 2014, MSBs contributed one trillion three hundred thousand Euro to the European economy (Jorgensen, 2016). Moreover, MSBs also are pioneering in innovation along with their contributions to global economy. For instance, in Turkey, 57.5% of medium-sized firms are contributing to innovation in the country (TUIK, 2015). Thus, it is critical to have a further understanding regarding the nature of HRM and the impact of HRM on performance in MSBs context.

Little research has been conducted in MSBs context to date however, there is a raising interest in this context recently. Kang, Snell and Swart (2012) investigated the strategic contribution of HRM to intellectual capital of the firm in medium-sized law firms. They found that options-based HRM is positively related to employees explorative and exploitative learning. They conclude that HRM practices can develop internal sources of the firms and enhance organisational performance in the long-term. In another study with data from medium-sized Dutch health care organisations, Sanders and Yang (2015) studied the perceptions of employees' influence on the link between HRM and performance. The results showed that the effect of HRM on affective organizational commitment was stronger when employees understood HRM as was intended by management (Sanders and Yang, 2015). Furthermore, Della Torre and Solari (2013) found that High performing work practices affect decision making process and change management in Italian medium sized firms. Jorgensen (2016) in his case studies within medium sized growth oriented firm, concluded that HRM is has a complex nature and there are no available theoretical models to capture the complexity of the alignment of HRM and business.

The above presentation highlights that there is little research has been conducted in the field of MSBs. Even number of models has been suggested for HRM in large and small business, in the context of medium sized business, there is a lack of such models for HRM (Jorgensen, 2016). In the following section, I present an overview of studies focused on the link between HRM and performance in the context of SMEs and MSBs and highlight the need for further studies to develop a model of HRM and performance in MSBs context.

#### 2.4.3 HRM and performance in SMEs/MSBs

SMEs have several strengths such as flexibility, informality, sustainability, and structural adaptability (Saini and Budhwar, 2008) that provide a source of sustainable competitive advantage (Flanagan and Deshpande, 1996). Due to the limited resources of SMEs, owners or executives prefer focusing on operations to improve organisational performance.

Early research on the link between HRM and performance in SMEs focused on managers` perception regarding the importance of HRM practices (see Cassell et al., 2002; Heneman et al., 2000; Gbolahan, 2012; Marlow, 2000; Ogunyomi and Bruning, 2015; Rowden, 2002; Sels et al., 2006). The main findings of such research show that managers acknowledge the importance of HRM to achieve organisational objectives (Ogunyomi and Bruning, 2015). HRM research in SMEs is emerging and there is a recent focus upon the HRM– performance debate (Sheehan, 2013). Studies show that in the SMEs context, HRM practices contribute to the firm success and organisational performance. For instance, Altinay et al. (2008) found that employee empowerment contributes to the sales growth in small firms in the service sector. The same study also found that training and recruitment enhance sales growth in small firms in the catering sector. Another study with a sample of 286 manufacturing and service SMEs from Malaysia concluded that HRM practices support SMEs` learning capabilities than eventually enhance firm performance (Hooi and Ngui, 2012). Another study of SMEs in the UK found that compensation policy is positively related to profits when combined

with product differentiation strategy (Georgiadis and Pitelis, 2012). Some studies also found support for the link between systems of HRM and performance. For example, Messersmith and Guthrie (2010) concluded that HRM systems were positively associated with sales growth and innovation. In their study, Verreyne, Parker and Wilson (2011) provided empirical support for a positive relationship between performance and HRM systems: trust, teamwork, participation employee skill development, performance systems, and high commitment were of particular importance. Due to their limited resources available, an adopting set of HRM practices is not financially effective; firms usually employ significant HRM practices. Moreover, researchers discussed that HRM practices vary across firms. For this reason, it is not feasible to examine the particular type of set of HRM practices and performance in SMEs context.

Sheehan (2013) stated that such investigations are challenging, not only because of HRM practices vary but also because of the given the existence of informal HRM and the peace of formal and informal HRM practices (Martin, Reddington and Alexander, 2008). In their review, Cardon and Stevens (2004) stated that the vast majority of the studies that address the topic of HRM in SMEs do not distinguish between smaller and medium firms, and they put small- and medium-sized firms into a single category ranging from 1 to 250 employees. This approach is methodologically problematic because the management needs of a firm of 1, 10, 50 and 250 are significantly different (Cardon and Stevens 2004, p. 299). The research that made the distinction focus on smaller firms, while, to our knowledge, there is relatively few studies that considers HRM issues in medium-sized firms (i.e. ones with between 49 and 249 employees, see also above section 2.3.2).

On the other hand, most research within SMEs context examined HRM and performance in cross all sectors. The given nature of varieties of HRM in SMEs, disable researchers to present a general framework to demonstrate the linkages between HRM and performance for all SMEs. For this reason, it is an essential need

for future studies to focus on specific sectors to understand the role of HRM in a the context.

The above analysis indicates directions for further research. First, what kind and nature of HRM practices are implemented in SMEs/MSBs needs to be studied further. Using qualitative studies can help to explore what kind and nature of HRM policies and activities administered (Psychogios et al., 2016). Second, there also is a need further to explore the linkages between HRM practices and performance in SMEs/MSBs. What factors can affect this linkage and what mediators or moderators can be considered for further explanation? Third, there is a need for further studies with a focus on size within the SME types (i.e., micro, small and medium) and to explore patterns in HRM practice (Psychogios et al., 2016). Furthermore, the majority of research in HRM with SMEs/MSBs context comes from Westernized countries, and there has been such limited information of HRM in other countries within the SMEs context. An attempt is made in this research to address the above-identified gaps. Accordingly, it aims to contribute to the HRM literature by (1) highlighting the nature and kind of HRM practices at medium-sized IT businesses, (2) exploring the linkages between HRM and performance, (3) developing an integrated multi-level framework to understand the mechanism explaining the links between HRM and performance, and (4) testing the framework with a survey study in an emerging economy context. Next, I discuss about the other important aspects of my research, i.e., innovation and creativity.

#### 2.4.4 HRM and innovation and creativity

Innovation and creativity have become ever more important determinants of success, and long-term survival for businesses, particularly for SMEs and MSBs (Jorgensen, 2016). Innovation and creativity are constituting an essential part of the study. one of the research questions (see 1.2) addresses how to develop an integrated multi-level model of HRM and performance, innovation and creativity have critical role to develop this model. Employee creative behaviour and innovation at firm level are expected to facilitate firm performance (i. e., corporate entrepreneurship). Furthermore, HRM

practices are also considered to be drivers of innovation and creativity (Sanders and Lin, 2016).

Organisations need to acquire and develop the knowledge, skills, abilities, opportunities and willingness of employees to innovate to achieve higher innovation performance. HRM is a key determinant in innovation (Peng et al., 2014). However, how HRM practices influence innovation is unclear. This study attempts to fill this gap as well by exploring how HRM practices influence innovation and employee creativity in medium-sized information technology firms. Next, I present a review of research in the field of HRM and innovation and employee creativity.

#### 2.4.4.1 *Creativity and Innovation*

Jimenez (2008) uses the definition of innovation as *“the adoption of an idea or behaviour, whether a system, policy, program, device, process, product or service, that is new to the adopting organization”* (Damanpour, Szabat and Evan, 1989, pp 588, quoted from Aiken and Hage, 1971; Daft, 1982; Zaltman, Duncan and Holbek, 1973). West and Farr (1990) defined innovation as *“the intentional introduction and application within a job, work team or organization of ideas, processes, products or procedures which are new to that job, work team or organization and which are designed to benefit the job, the work team or the organization”* (West and Farr, 1990, p. 9). On the other hand, creativity has been argued to be conceived as the generation of novel and useful ideas (Amabile, 1996; Yaping et al., 2013). Even though there are different definitions of creativity and innovation, researchers have not reached a general agreement over what exactly causes either creativity or innovation (Anderson et al., 2014). However, studies use different operationalisations of creativity and innovation (West and Farr, 1990). In this study, I use innovation to refer to the firm innovation and creativity refers to the creative work behaviour of employees.

Firm innovation is a comprehensive concept. It includes number of issues such as types of innovation, e.g. technological innovation (Betz, 2011; Fu et al., 2014; Lee and

Kim, 2014; ), product innovation (Dougherty, 1992; Eisenhardt and Tabrizi, 1995; Fu et al., 2014; Seidel and O'Mahony, 2014; Zhou and Wu, 2010) and management innovation (Birkinshaw et al., 2008; Fu et al., 2014); innovation processes, e.g. diffusion, adoption and implementation (Adler and Kwon, 2013;Fu et al., 2014), innovation involvement, e.g. multiple actors approaches (Ibarra, 1993; Yeniyurt, Henke and Yalcinkaya, 2014); and innovation as a performance outcome and (possible) indicator for organizational success (e.g. Armstrong, Flood, Guthrie, Liu, MacCurtain and Mkamwa, 2010; Chen and Huang, 2009). In this study, I use firm innovation as an outcome variable at the firm level.

Creative work behaviour can be defined as the *"intentional creation, introduction and application of new ideas within a work role, group or organization, to benefit role performance, the group, or the organization"* (Janssen, 2000, p. 288). Thus, employee creativity provides knowledge exchange and combination among employees, which leads to generating new knowledge (Fu et al., 2014). Employee creativity is, therefore, essential for firm innovation. Employees' ability to develop such innovation-related behaviours is also critical. After employees enter a fast, extensive on-the-job and skill-based training programmes are provided. Clients may also prefer to choose the service provider with more talented people since they believe that smarter people will provide better and more innovative solutions.

Innovation can be categorized into four main groups, i.e., product, process, organizational and market innovation (Avermaete, Viaene, Morgan, Pitts, Crawford and Mahon, 2004). Jimenez-Jimenez (2008) refers Damanpour, who distinguishes between technical and administrative innovations. While technical innovations cover new technologies, product, and services, administrative innovation refers to new procedures, policies and organizational forms (Jimenez-Jimenez and Sanz-Valle, 2008). Technical innovations can be categorised into product innovations and process innovations. Product innovation is defined as the development and introduction of new

or improved products and/or services (Jimenez-Jimenez and Sanz-Valle, 2008). Meanwhile, process innovations include the adoption of new or enhanced methods of manufacture, distribution or delivery of service (jimenez-Jimenez and Sanz-Valle, 2008). Process innovation may often cause product innovation and vice versa (Neely, Filippini, Forza, Vinelli and Hii, 2001). The two types of innovation are not mutually exclusive (Jimenez-Jimenez et al., 2008) Product innovation refers to the organizational capacity to make and adapt new products or services. Process innovation represents the adoption of a new infrastructure and the implementation of new technology. Therefore, the product and process innovations are categorized as technological innovation, which includes a company's ability to adapt new technology and basic work activities. Organizational innovation, also known as organizational innovation, includes a series of core operations in the organization, such as administration, management, marketing, purchases, sales, and staff policy (Damanpour et al., 2009). In this study, innovation will be categorized into four categories based on the above discussion as product innovation, process innovation, market and organizational innovation.

#### *2.4.4.2 HRM and Innovation*

HRM can play a critical role towards innovation. Majority of the research focuses on innovation, identifying the precursors to innovation (McGrath, Tsai, Venkataraman and MacMillan, 1996; Bjorkman, Fey and Park, 2007; Gunday, Ulusoy, Kilic and Alphan, 2013); i.e., conditions that affects and facilitates innovation (Lengnick-Hall, 1992; Fu et al., 2015); the processes in which innovation occurs (Anand, Gardner and Morris, 2007; Davenport, 1993; Fu et al., 2015) and its impact on organizational performance (Han, Kim and Srivastava, 1998). However, there are limited studies regarding the linkages between the factors in HRM and innovation and the relationship is less explored (Li et al., 2006; Fu et al., 2015).



Researchers in the HRM field have begun to explore the influence of HRM practices on firm innovation (e.g. Armstrong et al., 2010; Cabello-Medina, Lopez-Cabrales and Valle-Cabrera, 2011; Jiménez-Jiménez and Sanz-Valle, 2008; Laursen and Foss, 2003; Shipton et al., 2005; Fu et al., 2015; Shipton et al., 2016; Tang et al., 2015). Jiang et al. (2012) quoting Mumford (2000) who argues that HRM activities may relate to organizational innovation from two aspects: how to select, develop and motivate employees to formulate ideas, and how to help employees to implement their new ideas. Studies focus on the link found empirical support for the relationship between HRM and innovation in different contexts. For instance, using a longitudinal database from 35 UK manufacturing firms, Shipton et al. (2005) found that HRM systems promote product innovation and technological innovation. Jiménez-Jiménez and Sanz-Valle (2008) used a sample from Spain and concluded that HRM practices enhance innovation that contributes to firm performance. Cabello-Medina et al. (2011) with a sample of 85 Spanish firms, found that some HRM practices such as development, selection, and empowerment, have an influence on the creation of human and social capital, which in turn improves firm innovation. Camelo Ordaz, Garcia-Cruz and Sousa-Ginel, (2011) found that a system of HRM practices influences knowledge sharing, which in turn drives organizational innovation. Based on data collected from Belgian start-ups, De Winne and Sels (2010) highlighted the importance of HRM in promoting organizational innovation.

On the other, Lopez-Cabrales et al. (2009) found that HRM practices are not directly associated with innovation. However, HRM influence innovation via employee's knowledge. De Saá-Pérez and Díaz-Díaz's (2010) study in Canary island with 139 SMEs provides support for the link between "high commitment" HRM and organizational innovation unless training interacts with the knowledge assets of the firm. Using a sample of 223 Chinese enterprises, Wei, Liu and Herndon (2011) found that strategic HRM has a positive impact on firms' product innovation, and this relationship is stronger for firms with a developmental culture. Besides these

quantitative studies, Zanko et al. (2008) adopted a case study approach to focus on the failure of implementing new product development in a Eurotech company. They suggested that this was due to the absence of HRM practices, which resulted from the organizational power struggles within the firm. Given the role of HRM in attracting and improving the quality of the human capital of the firm, the study of which HRM practices may attract, motivate or retain creative people is critical. However, as earlier presented, SMEs as smaller organisation usually do not have the set of HRM systems as in the literature. Instead, there are important HRM practices exist such as recruiting, training. Moreover, these practices can vary across the firms, and they are informal and administered by top executives and line managers of the company rather than HRM professionals. Thus, it is critical to identify what HRM practices exist in SMEs context.

Despite the recognition of the existence of a relationship among HRM, innovation and performance, there is a serious scarcity of studies that examine the relationship between HRM and innovation (Fu et al., 2015). To advance existing research on the HRM innovation relationship, this study aims to fill this gap by investigating this relationship in the medium size IT business context in Turkey.

#### *2.4.4.3 HRM and employee creativity*

Creativity is conceived of as the generation of novel and useful ideas (Amabile, 1996; Shalley and Zhou, 2008; Gong et al., 2013). As Jian et al., (2012: p 4026) quoted "*It has been defined as a context-specific subjective judgment of the novelty and value of an outcome of an individual's or a collective's behaviour*" (Ford and Gioia 2000). Thus, employee creativity can be considered as a function of the employee's personal characteristics, the features of the workplace where the individual works and the interactions among these features (Shalley and Gilson, 2004). It has received an increasing amount of attention (Hirst, Van Knippenberg and Zhou, 2009; Gong, Zhou and Chang, 2013; Liao et al., 2010; Liu et al., 2011;). Overall, the majority of the studies have focused on the determinants of creativity (see Anderson et al., 2004;

George, 2008; Gong et al., 2013; Gong, Huang and Farh, 2009; Madjar, 2008; Shalley et al., 2004). However, the focus on the precursors of creativity has led researchers to pay less attention to the outcomes of creativity (Gong et al., 2013; Zhou and Shalley, 2008). This study attempts to address this gap by exploring the influence of HRM on creativity and performance.

Empirical studies focus on HRM practices and employee creativity found support for the effect of HRM on employee's creative behaviours and performance. For instance, Yu, Yu-Fang and Yu-Cheh (2013) investigated the impact of knowledge sharing practice on employee's creative behaviour in Taiwanese finance and insurance firms. They found a positive association between knowledge sharing practice and creative behaviour. In their qualitative study, Abstein and Pieth, (2014) concluded that HRM contributes to employee creativity through eliminating the work-life conflict in the workplace. More specifically, some studies found that motivational HRM practices are important in promoting employee creativity (Jiang et al., 2012; Parker 2000). Employees are expected to be more efficient in problem solving and creating new ideas if HRM practices can motivate them to have more personal initiation (Dorenbosch, Engen and Verhagen, 2005; Jiang et al., 2012). Subramaniam and Youndt (2005) demonstrate that organizational innovation is dependent upon the organization's knowledge base, which begins by recruiting talented creative employees. Licuanan, Dailey and Mumford (2007) showed that training about the value of creativity in team settings can facilitate the generation of original ideas that eventually enhances employee creativity and innovation. However, Byron, Khazanchi and Nazarian (2010) reported that performance evaluation may be less associated to creativity due to the anxiety linked to evaluation. On the other hand, an assessment that fosters learning and growth help the employee to be more creative and perform better. Feedback, particularly, given during the appraisal process can address the gaps between performance and targets (Shipton et al., 2006), thereby motivating employees to work creatively (Jiang et al., 2012). Literature found support for that HRM

encourages employees to explore existing knowledge and encourage and enforce employee creativity (Shipton et al., 2006).

These findings contribute substantially to our understanding of the relationship between HRM and performance; however, our knowledge about the extent to which HRM promotes employee creativity, and organizational innovation is still relatively scarce (Fu et al., 2015; Jiang et al., 2012). The relationship of HRM to employee creativity directly and to organizational innovation indirectly has been expected (Jiang et al., 2012). However, it is still unclear and not tested by a cross level model to extend our understanding of which HRM practice promotes creativity and innovation. Adding to the above-mentioned questions for this study, it also aims to explore the relationship between HRM and employee creativity and innovation in a medium sized IT firms in Turkey. In doing so, this study addresses the need for further studies to focus on outcomes of the employee creativity. Given the focus of this study is on MSBs, the topic of corporate entrepreneurship seems to be logical to consider as it nicely links to the above presented linkages. Next, I provide a brief presentation on OCB and how it connects to HRM.

#### 2.4.5 HRM and organisational citizenship behaviour

OCB is generally considered as discretionary behaviours that contribute to organisational performance (Sun et al., 2007). According to Organ (1997, pp. 91) discretionary behaviours facilitates *the maintenance and enhancement of the social and psychological context that supports task performance*. As this study aims to investigate the impact of HRM on both organisational and employee performance, the construct of OCB is fits within the research scope by enabling me to draw linkages between HRM, employee behaviour and firm performance.

Organ (1988, p. 4), defined OCB as "individual behaviour that is flexible are not directly or explicitly accepted by the proper reward system and the mutual sustain acts as an efficient and effective performance of the organization". OCB consists of several extra-

role behaviours, which can be in varieties form. Organ (1988) divides discretionary behaviours into five which are altruism (welfare), courtesy, conscientiousness (compliance), sportsmanship and civic virtue. On the other hand, Podsakoff, Mackenzie, Paine and Bachrach (2000) in their review presented seven themes of OCB: helping behaviours, sportsmanship, organizational loyalty, organizational compliance, individual initiative, civic virtue, and self-development.

An employee's citizenship behaviours at the workplace is a form of reciprocation of the favourable treatment he or she receives from the organization (Aryee, Budhwar, & Chen, 2002). Research also showed that HRM practices can affect perceptions of employees regarding psychological climate hence HRM practices may indicate a long-term investment in employee development, helping to create a supportive work values that encourages OCB (Sun et al., 2007; Wei, Han and Hsu, 2010). For instance, performance appraisals and positive feedback can influence the attitudinal behaviours of the employees, as long the employees accept or are satisfied with the management of that performance appraisal process (also see Jawahar, 2007; Husin, Chelladurai and Musa, 2012). Furthermore, a supportive and appreciative supervisor can potentially shape positive service orientation in his or her unit (Kuvaas, Dysvik and Buch, 2014), foster employees' willingness to provide excellent services (Schneider and Bowen, 1993), strengthen employee commitment to the organization (Gibbs and Ashill, 2013; Singh, 2000).

It is also argued that a firm's approach to HRM is a facilitator of OCB. How a firm manages HRM, establishes the tone and the conditions of the relationship between employee and employer. When employees have a positive perception regarding their workplace, their identification with their jobs and organizations can be higher and employees show extra-role behaviours (Wei, Han and Hsu, 2010). As the study attempt to explore the impact of HRM on employee and firm performance, the study proposes that HRM practices affect employees' behaviour directly. Drawing upon, social exchange, HRM encourages employees to develop higher levels of OCB (He, Pham,

Baruch and Zhu, 2014; Newman, Hofman and Zhu, 2015). Particularly, it is expected that employees develop higher levels of OCB as they have opportunities to develop new skills, knowledge (human capital) and find an organisational culture (social capital) where they feel willingness to learn and create.

#### 2.4.6 HRM and corporate entrepreneurship (CE)

To recap, this study aims to highlight the existing HRM practices in medium-sized IT businesses in Turkey and the influence of HRM on both individual and organisational performance. Particularly, at the organisational level, the study attempts to examine the impact on HRM practices on innovation at the firm level, employee creativity at the individual level. Furthermore, the study also aims to develop an integrated model to test the linkages between HRM practices and performance with a multi-level framework where corporate entrepreneurship is to be one of the organisational outcomes as it depends on firms' human resources, specifically whether firms can pursue entrepreneurial initiatives (e.g. Hayton, 2005). These entrepreneurial abilities can be producing new products, creating new businesses and/or organizational renewal (Schmelter, Mauer, Borsch and Brettel, 2010; Stevenson and Jarillo, 1990; Zahra, 1996), exploring new knowledge and exploiting the existing knowledge at the firm (e.g. McGrath, 2000).

Miller (1983) defines CE as the abilities of an organization to enhance its product innovation, risk-taking, and proactive response to environmental forces. The concept of CE emerges as a firm's strategic option to improve its business strategy, to meet evolving customer demands and expectation, and to sustain its competitive advantage (Guth and Ginsberg, 1990; Zahra, 1991, 1993; Castrogiovanni, Urbano and Loras, 2011).

Firms, particularly SMEs, face two significant challenges for their survivals. First, they need to adapt to the external challenges of rapidly changing markets to compete with established companies with investing technological advancement, internationalisation,

(Kemelgor, 2002; Kuratko, Hornsby and Bishop, 2005). Second, they must manage the internal challenges of organisational structures and processes, which may cause a fail in decision making and an inability to adapt easily to new situations (Hammer and Champy, 1994). To survive competition and gain competitive advantage, firms need to acknowledge the importance of these challenges. Scholars suggest that companies must nurture entrepreneurial activity throughout their operations to continue to compete successfully (Castrogiovanni et al., 2011; Hayton, 2005; Sathe, 2003). As a result of its importance for the firms, corporate entrepreneurship has gained increased attention in the literature related to strategic management (Morris and Kuratko, 2002).

Castrogiovanni et al., (2011) stated that studies focus on corporate entrepreneurship can be classified into two main clusters in the first group of studies focused on the impact of corporate entrepreneurship on organisational performance. The second group is related to the antecedents of corporate entrepreneurship (Zahra and Covin, 1995; Dess, Lumpkin and McGee, 1999; Hitt and Ireland, 2000; Miles and Covin, 2002; Covin and Miles, 2007; Kathuria and Joshi, 2007; Castrogiovanni et al., 2011).

Empirical studies in the literature have shown the positive impact of CE on organizational performance (Castrogiovanni et al., 2011; Kuratko et al., 1990; Zahra, 1991; 1993; Lumpkin and Dess, 1996; Zahra et al., 1999; Tang, Wei, Snape and Ng, 2015). Research has shown that CE is a major factor in increasing the firm's innovative capacity and achieve their sustainable competitive advantage (Castrogiovanni et al., 2011). Messersmith and Wales (2011) found that entrepreneurial orientation of the company can enhance firms' growth and competitive advantage. They also found this relationship is stronger for young firms. Another study with data from Spanish firms showed support for a positive correlation between strategic entrepreneurial orientation and subjective performance (Escribá-Esteve, Sanchez-Peinado and Sanchez-Peinado, 2008). In their review, Rauch, Wiklund, Lumpkin and Frese et al. (2009) found a positive and relatively large ( $r = .242$ ) correlation between the entrepreneurial orientation of the firm and firm performance. Furthermore, in their qualitative work,

Hansen and Hamilton (2011) reported that the main contrast between growing and non-growing SMEs is a culture of innovation and flexibility (Hansen and Hamilton, 2011). On the other hand, as was mentioned above, another group of studies focused on the factors and contributors of corporate entrepreneurship.

As CE is associated with competitiveness, performance, growth and the survival of firms (Covin, Green and Slevin, 2006), it is important to understand which factors contribute significantly to the corporate entrepreneurial functioning of a firm. The Corporate Entrepreneurial Assessment Instrument (CEAI) is one of the research-based tools that attempt to study the antecedents of corporate entrepreneurship. CEAI measures an organization's cultural or environmental readiness for entrepreneurial activity. According to CEAI study, five factors have been identified including Top Management Support, Rewards and Reinforcement, Autonomy and Discretion, Time Availability and Organizational Boundaries. These factors represent internal issues such as strategy and leadership, slack resources and organizational culture (Hayton et al., 2005).

According to the resource-based view of the firm, entrepreneurial resources are more intangible, socially complex and challenging to acquire and imitate (Bratnicki, 2005) such as exploring and exploiting knowledge and opportunities and developing human resources (Seong, 2011). The intangible resources can enhance entrepreneurial orientation of the firm as they administered by organizational processes and practices. In this respect, HRM practices are considered as an important facilitator for entrepreneurial work environment (Giannikis and Nikandrou, 2013; Morris and Jones, 1993; Wang and Zang, 2005). HRM practices such as communication, staffing, rewards, training and development can lead to the discussion of a competitive advantage by creating cultures of creativity and innovation (Brockbank, 1999). For instance, supporting learning and development between employees can increase innovation, venturing (Chi and Lin, 2011; Tang et al., 2015). Entrepreneurial orientation of employees can be encouraged through HRM practices such as training and reward



programmes which enhance employee KSAOs (e.g. Schmelter et al., 2010; Tang et al., 2015). Authors, such as Chi and Lin (2001), Hayton (2003) and Castrogiovanni et al., (2011) suggest that HRM practices can enhance the amount of entrepreneurial actions, and corporate entrepreneurship can be an indicator of HRM practices' effectiveness.

An important issue in the literature is that studies have focused on the particular interest in large firm context (Castrogiovanni et al., 2011). However, small businesses which operate in a dynamic and competitive markets with less resources (Zahra and Pearce, 1994; Castrogiovanni et al., 2011; Urbano and Toledano, 2008) have been neglected. In small firms, the resources and practices need to be organised different from larger firms for entrepreneurial orientation (Carrier, 1994). The limits of SMEs cause HRM practices to be informal and more limited in their practice (Cardon and Stevens, 2004; Andenova and Zuleta, 2007; Castrogiovanni et al., 2011). However, SMEs may develop only a few specific practices (Castrogiovanni et al., 2011; Fu et al., 2015) to achieve better performance with their limited resources and managerial abilities.

The critical role of HRM practices towards CE indicates that it is important to have further research on the factors in HRM governing the emergence of CE (Giannikis and Nikandrou, 2013) in SMEs and the process of its implementation (Castrogiovanni et al., 2011). An attempt is made in this study to examine this.

Further, even there is growing interest in the link between HRM practices and corporate entrepreneurship, most of research has been conducted in Western countries and developed economies (Tang et al., 2015). Thus, there is need for further research and evidence to whether those findings from Western countries apply in other contexts (Tang et al., 2015). Responding to this, the present study relied on data from Turkey. Turkey as an emerging economy is characterized by a complex and dynamic competitive environment where there is a need for effective personnel management. Next, I review information on HRM in the Turkish context.

## 2.5 Emerging Markets and HRM Research

An emerging market (EM) is a country that has some characteristics of a [developed market](#), but does not meet standards to be a developed market (Wikipedia). A developed market, on the other hand refers a country has high income, openness to foreign ownership, ease of capital movement, and efficiency of market institutions. Based on definition above, an emerging market refers to economies, which is getting to achieve the levels of developed markets. In terms of exchange markets and security regulations, emerging markets are not as advanced as developed countries but maintain economies and infrastructures that are more advanced than frontier market countries which are much younger, have much less capitalization, and are basically just getting started (Hale, 2012). Emerging markets offer high returns because of their faster [economic growth](#). However, doing business within emerging markets includes high-level of risk, political instability, regulatory problems, infrastructure problems, currency volatility. Number of finance institutions such as international monetary fund, Morgan and Stanley and Dow Jones make a list of emerging markets based on above characteristics. Twenty one countries are common in these lists and include: Brazil, Chile, China, Colombia, Hungary, Indonesia, India, Malaysia, Mexico, Peru, Philippines, Poland, Russia, South Africa, Thailand and Turkey. They account for about one third of the world's gross domestic product, and emerging markets have an average 4.7-growth rate while this is 1.9 for advanced economies (The World Bank, 2016).

Growing importance of EEs (emerging economies) caused a variety of economic, political and social reasons for researchers to have interest in EMs in general (Horwitz and Budhwar, 2015). Furthermore, the global implications and issues within EEs related to employment, talent hunt, diversity and inclusion caused an emerging interest in the field of HRM studies (Horwitz and Budhwar, 2015). The research on EMs includes a whole range of HR related topics such as expatriate management (e.g., Kim

and Tung, 2013; Malek and Budhwar, 2012); strategic HRM (e.g., Zupan and Kase, 2005; Katou and Budhwar, 2010; Takeuchi et al., 2009); internationalisation, FDI and HRM (Khavul et al., 2010; Wood et al., 2014); organisational capability for change (Judge et al., 2009); and working conditions in EMs (Connell and Burgess, 2013).

One of the most critical themes in HRM studies from EMs is that how multinational enterprises (MNEs) manage their expatriates those who are individuals living in a country other than their country of citizenship, often temporarily and for work reasons, because expatriates play a critical role in firms' successful international business operations (Dowling et al., 2013; Hocking et al., 2007; Zhong, Zhu and Zhang, 2015). Expatriate management practices have emerged to improve expatriate adaptability, cross-cultural adjustment and performance of MNEs (Lin et al., 2012). Western MNEs often employ an internalisation advantage (see Dunning and Lundan, 2008) by sending their own expatriates to manage overseas subsidiaries and reduce transaction costs (Kabst, 2004; Tan and Mahoney, 2006). However, most studies focus on western MNEs to help them to, employ, prepare and retain expatriates in other countries (Dowling et al., 2013). Recently, there are growing interest in the expatriate management of emerging market MNEs (EMNEs) (Gao et al., 2013; Zhong et al., 2015; Cooke, Wood and Horwitz, 2015).

Another important topic of HRM on EMs is that strategic HRM. A great number of articles have examined the kind and impact of HRM practices in EMs context. In India, there are number of studies conducted on strategic HRM that focus on either specific HRM practices such as employee commitment (Bhatnagar 2007); performance management system (Rao 2007); career management practices (Budhwar and Baruch 2003); and recruitment and selection, pay and benefits, training and development, and employee relations (Budhwar and Boyne 2004), or specific industry sectors like BPOs and Call Centers (Budhwar, Luthar and Bhatnagar 2006a; Budhwar, Varma, Singh and Dhar 2006b).

There also are growing body of empirical studies in China, where traditional Chinese personnel management has been characterized by employment security (or the “iron rice bowl” as some Chinese employees refer to it) and egalitarianism (Ding, Lan, & Warner, 2001). However, along with economic reforms and arrival of multinational companies, employee management has become more performance oriented (Gong, Law, Chang and Xin, 2009). A number of studies examine how HRM practices affect firm performance in China. So far HRM research in emerging economies have been dominated by studies from China and India. However, there is also an increasing interest in other emerging economies such as Brazil (see Jabbour, Santos and Nagano, 2010; Cooke, Macau and Wood, 2013; Mellahi, Frynas and Collings, 2015; Scheible and Bastos, 2013), Poland (see Weinstein and Obloj, 2002; Brewster and Bennett, 2010), and Russia (see Gurkov, Zelenova and Saidov, 2012).

In many ways, HRM studies in EEs are creating future research avenues. In their book of HRM in emerging economies, Horwitz and Budhwar (2015), highlight research avenues and future challenges for research in EEs. According to their review one of the important areas for future research is how exactly multinational firms develop competitive advantage in emerging economies. Even though multinational firms in emerging economies are becoming global players and globally competitive, it is not clear what the underlying basis of their comparative advantage is. Traditional international HRM studies adopted RBV, agency theory institutional context as underlying explanations for competitive advantage (Hong, Wang and Kafourous, 2014). However, multinationals firms in emerging economies are operating in both emerging and mature economies and experiencing very instant and dynamic of change in their management and business strategy. These unique circumstances of multinational firms create a new phenomenon, which requires different perspectives. Madhok and Marques (2013) argue that the business model adopted is an important explanation for EMMNC competitiveness given that the business model approach tends to focus beyond what a firm's capabilities and resources are, to how the firm utilizes and what it

does with them to compete successfully. Zheng (2013), then correctly argues that the existing IHRM models are inadequate in their application to EMMNCs given that motives for internationalization and different institutional contexts are dynamic rather than static.

Another important theme is that how HRM practices are different in emerging economies than in western countries. There has been a debate about convergence–divergence of HRM practices and strategy (Horwitz and Budhwar, 2015). Whether the so called best practices exist or not has been studied extensively, however studies need to go beyond this debate and understand the actual decision making processes in the formation and implementation of international HRM strategy and practice (Horwitz and Budhwar, 2015). This approach will create research opportunity to investigate the actual decision making processes in the formation and implementation of international HRM strategy and practice (Horwitz and Budhwar, 2015).

Furthermore, these authors also highlighted methodological and operational challenges. The methodological issues in the emerging markets contexts are especially challenging. Akbar (2006) notes that one of the often-cited problems is a lack of quality data for the purposes of empirical analysis; something which occurs at macro, industry and firm levels. In relation to industry level, Akbar notes that the market sizes of many emerging markets are sufficiently small that publicly available data is hard to find and proprietary data is expensive to acquire with the result that scholars are forced to build their own datasets, bringing additional research burdens. At a macro level, he notes that official data from many of the world's developing countries is not consistent nor is the availability of that data is reliable, though it is acknowledged that this is changing in certain locations, the transition economies of Central and Eastern Europe being a case in point where data consistency has improved significantly. Finally, he highlights that data-gathering at the firm level is equally challenging. While writing case studies about individual firms has, he suggests, become considerably more do-able, the use of large-scale firm level datasets in emerging market research is rarer. multi-level approaches

to data gathering and data handling would be especially welcome and would likely bring theoretical, analytical and explanatory added value. Specifically, within the HRM domain, it has been noted that 'there is relatively little empirical work adopting a multilevel approach' (Snape and Redman, 2010: 1222) and, where it exists, it has largely focused solely on the employee-level or the organization-level of analysis. More advanced analytical techniques allow for the handling of multi-level or nested data.

Because of several reasons (such as scarcity of reliable information on management systems of EMs, the growing contribution of HRM towards organisational performance, amongst others), the understanding about the dynamics of management of HRM in the EMs context and the need for proactive efforts by key stakeholders (e.g., multinational and local firms, policy makers and institutions such as trade unions) to develop appropriate HRM practice and policy for EMs has now become more critical than ever. Given the unique sociocultural, political, legal and economic milieu of each EM, the challenges regarding the efficient management of HRs in them can be both complex and demanding. In this regard, further studies can play a significant role by providing relevant information to both policy makers and researchers. This study is an attempt to address needs and gaps stated above. In the following section, I will discuss current state of HRM and HRM studies in Turkey.

#### 2.5.1 HRM studies in Turkey

Being a source of competitive advantage, HRM studies have mainly emerged in developing countries as these countries engage more in international competition in comparison to other contexts and as reported above the HR functions developed there more than. In Turkey, as an emerging economy and a candidate for the European Union, HRM studies have been lately receiving attention from researchers. Early studies related to HRM, personal management or management practices focused on cultural dimensions in Turkey. In his monumental study, Hofstede (1980) showed that

Turkish culture has high on collectivism and power distance. The analysis by Aycan (2001) also suggested that Turkish culture has more paternalistic values. Kabasakal and Bodur (1998) stated that Turkish culture has low performance orientation, future orientation, human orientation and uncertainty avoidance relatively. These cultural features have application in management practices. For instance, the main characteristics of management understanding are centralized decision making, strong leadership, limited delegation (Kaya, 2006). However, scholars suggested that Turkish culture has begun to have less collectivistic less hierarchical characteristics (Aycan et al., 2000; Kaya, 2006; Yilmaz, Alpan and Ergun, 2005) and low at uncertainty avoidance (Kabasakal and Bodur, 1998). Aycan (2001) stated that in the last decade, working with international companies enabled Turkish firms to gain significant know-how on people management and HRM systems. As a result of these interactions, the working culture of Turkish firms has started to become a mixture of Western and Eastern values and systems (Aycan, 2001; Kaya, 2006; Yilmaz et al., 2005).

On the other hand, some scholars adopted comparative approach to study HR in Turkey. Studies showed that the strategic role of HRM in Turkey is different than in other countries regarding organizational factors such as organizational size, market type (Buyukuslu, 1998; Uyargil and Ozcelik, 2001; Yildiz et al., 2008), and industry in which firm operates (Uyargil and Ozcelik, 2001). Thus, investigating the strategic role of HRM is essential with the considerations of these organizational factors (Yildiz et al., 2008).

The effectiveness and the quality of HRM practices mostly rely on owner's/top management support and approach, organisational size, industry. It is not easy to conclude that HRM is a strategic factor for business in Turkey (Gurbuz and Mert, 2011). However, Gurbuz and Mert (2011) highlighted the increasing importance of HRM in Turkey as HRM is being represented on the board of directors, and top management start considering to work with HR department. However, Ozcelik and Aydinli (2006) did not find a convincing support for the strategic role of HR from

companies in Turkey. Thus, there is not enough evidence to consider HRM as a strategic partner of enterprises in Turkey (Gurbuz and Mert, 2011).

Over last decade, researchers have attempted to show the influence of HRM on firm success. For instance, Gurbuz (2009) examined the potential impact of HRM on employee's satisfaction with data from 480 employees at 35 larger firms. He found that HRM practices such as participation, empowerment, job rotation, self-directed work teams, and contingent compensation, were positively correlated with job satisfaction. Ozcelik and Aydinli (2006) found support for that a strategic role for HRM is widespread in Turkish companies. Colling et al. (2010) examined the link between human resource management (HRM) practices and three organizational outcomes namely employee skills and abilities, employee motivation and organizational financial performance with data from 340 firms in Turkey. They found that HRM and strategy alignment affect three organisational outcomes. Furthermore, Ceylan (2013) studied commitment based HRM practices and firm innovation performance with data from 103 Turkish businesses. However, there is a lack of explanatory studies for such linkages. The studies cited above did not go beyond showing correlational explanation for the relationship between HRM and performance. Overall, it can be said that HRM has emerged as play a strategic role in businesses in Turkey, but it is still not widespread as the findings are based on limited research (Aycan, 2001; Caspi et al., 2004; Ceylan, 2013; Ozcelik and Aydinli, 2006; Gurbuz and Mert, 2010).

The above presentation shows that there is an emerging interest in HRM research in Turkey. However, there is a scarcity in HRM studies and gap in understanding the influence of HRM in SMEs' performance. A number of observations are worth noting here. First, most research has not focused on specific sectors, hence, there is a need for future studies to focus on specific industries to check for industry-specific effects (Ceylan, 2013). Second, further studies can involve different informants to measure the key variables as much research has relied on single respondent or single level of respondents (Ceylan, 2013; Gurbuz, 2009). Third, there is a need consider new



variables for the different aspects of firm success. Most research in Turkey, has replicated studies from the western context and it lead them to miss on making context-specific theoretical contributions (Kaya, 2006). This research aims to address this gap by exploring the existent HRM practices and their impact on both organisational and individual performance with an integrated model that propose intermediate variables for the link between HRM and performance. It also aims to contribute to HRM literature in Turkey by adopting an explorative approach to highlight the existing HRM practices in medium-sized IT firm. In doing so, the research also considers the variables that affect the role of HRM such as size and industry. In the following section, I continue to present SME research in Turkey.

#### 2.5.2 SME studies in Turkey

Turkish SME sector has a critical role in the Turkish economy. In 2013, there were approximately more than two and half million SMEs that make 99.8 percent of business in Turkey. Small firms with under 50 employees are dominating the SME sector in Turkey. 95% are micro, 4% are small and 1% are medium sized business. SMEs are key contributor towards economic development of Turkey (Koyuncu et al., 2012). The Turkish Bureau of Statistics (TUIK) (2015) reported the following statistics: SMEs accounted for 74% of employment, 54% of wages, 53% of total investment, 56% of total exports, 53% of total value added.

SMEs in Turkey have shown a great awareness in innovative activities. 51% of enterprises with 10 and more employees are found to be pursuing innovation activities (TUIK, 2015). This rate was 50.8% for the firm with 10-249 employees. 37.4% of SMEs in the three-year period covering 2012 to 2014 were found in products and / or process innovation activities (including on-going and inconclusive innovation activities (TUIK, 2015). The proportion of SMEs on-going innovation activities in the same period was 20%, while the proportion of inconclusive SME innovation activities was 5.5%. This shows that SMEs have difficulties to commit to innovation activities in the long run.

Therefore, developing a framework that helps SME sector to improve their effectiveness is important for the Turkish economy.

As this study focuses on Turkish SMEs, particularly medium-sized firms, the field of SMEs is under research hence there are few research about Turkish SME sector (Koyuncu et al., 2012). Benzing, Chu and Kara (2009) in their study with 139 entrepreneurs in Turkey, highlighted entrepreneurial motivations, success factors and business problems. Economic reasons, job security and independence were the most important motivations for entrepreneurs. Further, critical factors for success were reputations for honesty and social skills, good customer service (Benzing et al., 2009). According to Benzing et al. (2009) the most important issues of SMEs were listed as the confusing tax structure, unreliable employees, poor record keeping and a weak economy. Kozan, Oksoy and Ozsoy (2006) examined the factors related to growth of SMEs with data from 526 SMEs. Owner intensity (need for achievement, locus of control) has a significant impact on of growth plan factors of technology improvement, resource aggregation, and market expansion (Kozan et al., 2006). Furthermore, they found that only lack of know-how and financing problems which have HRM related items (e.g., lack of trained employees, and lack of management talent) have impact on SMEs' growth (Kozan et al., 2006). Avcikurt, Altay, and Ilbanl (2010) found four important factors: efficient use of the internet, service quality, financial performance and marketing, with human resource quality und for the success of the SMEs. Cetinel et al. (2008) conducted a survey study with data from 313 small- and medium-sized hotels (SMHEs). They found that SMHEs did not have formal HRM practices and it is causing a lack of professionalism (Cetinel et al., 2008). They also reported that SMEs have difficulty in staffing practice (e.g., recruiting and selecting staff, training), performance evaluation and job analyses (Cetinel et al., 2008). They concluded that having form HRM policies and practices can help firm however also underlined that this required both financial resources and managerial skills (Cetinel et al., 2009).

The nature of the studies related to SMEs in Turkey are of diagnostic in nature and lack in depth examination of the influence of HRM on SMEs performance. Few studies have attempted to explore how particular HRM practices impact performance in SMEs. For instance, Cakar and Erturk (2010), using data from 743 employees from 93 SMEs, examined the influence of organizational culture and empowerment on innovation capability. They investigated associations at both firm and individual level. Findings revealed that employee empowerment was positively related to innovation capability for both small and medium firms on both individual and firm level (Cakar and Erturk, 2010). Koyuncu et al. (2013) also found positive results for the link between the use of HRM practices and organisational effectiveness in SMEs. They argued that collaboration between government, educational institutions and SMEs is critical to improve the use of HRM practices (Koyuncu et al., 2013).

In the following section, I will discuss the main theories underpinning my research. As mentioned in chapter one (see section 1.1), these are the RBV (resource-based view of the firm) and SET (social exchange theories). I have utilised these theories as they help to explain the linkages relationship between HRM and performance at both the individual and organisational levels.

## 2.6 Summary and conclusions

In this chapter, I provided an overview regarding developments in the literature in HRM, particularly in the context of HRM, HRM and performance, HRM and innovation and creativity, HRM and CE, HRM in SMEs and HRM in the Turkish context. I also provided an analysis of the core theories underpinning my research. The purpose of the above analysis was then to highlight the existing developments in the literature, key emerging gaps and develop a research agenda for the current study.

Overall, the above review shows that there is a need for an integrated approach to link HRM and firm performance. In the early HRM studies, researchers focused on either firm level performance or individual level performance. However, the literature lacks

theoretical frameworks to combine the individual employee perspective and firm level perspectives. On the other hand, researchers indicate the need for integrated approaches for multi-level research to predict and explain the HRM influence on organisational and performance. Also, review of studies in the SMEs'/MSBs' context also indicate directions for future studies. First, what kind and nature of HRM practices are implemented in SMEs/MSBs needs to be studied further. Using qualitative studies can help to explore what kind and nature of HRM policies and activities administered (Psychogios et al., 2016). Second, there is a need further to explore the linkages between HRM practices and performance in SMEs/MSBs. In particular, what factors can affect this linkage and what mediators or moderators can be considered for further explanation? Third, there is a need for further studies with a focus on size within the SME types (i.e., micro, small and medium) and to explore patterns in HRM practice (Psychogios et al., 2016). Furthermore, the majority of research in HRM with SMEs context comes from Western countries, and there has been limited information of HRM in other countries within the SMEs context.

In the following chapter, I present research methodology and design. This chapter consists of three main sections. First, I discuss philosophical positioning of the research. Then, I present research design and methodology followed for Phase 1. Finally, I present research design and methodology adopted for Phase 2. Chapter ends with ethical considerations of the study.

### 3 Research design and methodology

#### 3.1 Introduction

This chapter presents the research design and methodology adopted for this study. The chapter begins with a discussion about the research philosophy and states the philosophical and methodological basis of the research. Following this, details of research methodology adopted for the two phases of my research are presented such as data collection, data analysis and the development and empirical testing of the model. Finally, ethical issues central to this research are discussed.

#### 3.2 Philosophical underpinnings of the research

##### 3.2.1 Research philosophy

Saunders, Lewis and Thornill (2016) define research philosophy as the development of the research background, research knowledge, and its nature. For a researcher, understanding philosophical issues is key to identify research problems and accordingly create research design (Easterby-Smith et al., 2004). Thus, it is important to acknowledge the concepts of how knowledge is generated, how to conduct research and interpret the world knowledge. According to Saunders et al. (2016), three main philosophical issues appear to be significant for any research: ontology, epistemology and axiology.

##### 3.2.1.1 Ontological issues

Bryman (2008: 18) defines the key ontological issues as “*whether social entities can and should be considered objective entities that have a reality external to social actors, or whether they can and should be regarded as social constructions built up from the perceptions and actions of social actors*”. He highlights two critical concept of ontology which have been widely studied: objectivism and constructivism/subjectivism. According to Bryman (2008) objectivism perceive social phenomena as external entities and beyond our reach and influence. On the other hand, constructivism views

social phenomena as influenced and socially constructed by social actors (Bryman, 2008).

#### 3.2.1.2 *Epistemological Issues*

Oxford dictionary defines epistemology as “*The theory of knowledge, particularly regarding its methods, validity, and scope, and the distinction between justified belief and opinion.*” Easterby-Smith, Thorpe and Jackson et al. (2012) epistemology as “*common parameters and assumptions those are associated with the excellent way to investigate the nature of the real world.*” Based on these two definitions, it is important that the researcher should have a clear understanding of his or her assumptions regarding what is knowledge and what methods to use to acquire it. Therefore, before deciding how to conduct and design research, the researcher should think of the concepts of how to generate knowledge. Epistemology helps the researcher to understand how knowledge is generated and what is acceptable knowledge in a field.

Easterby-Smith, Thorpe and Lowe, (2004) talk about three types of paradigm to understand how knowledge is generated. These are positivism, interpretivist, and realism. The positivist approach requires that only acceptable knowledge comes from direct observable and quantifiable variables (Easter-by-Smith et al., 2004). Studies adopt positivist approach are often designed as quantitative research uses existent theory to test the newly developed hypothesis with a sample and confirm the generalisation of the theory. With this philosophical approach, researcher must adopt the natural sciences approach to access to knowledge in the social world and researcher must be independent of variables of the study (Saunders et al., 2016)

Opposite to positivist approach, the interpretive approach that criticises the usefulness of natural science approach to generate knowledge in a complex social world. According to the interpretive approach, the study of the social world requires a different research procedure (than the natural scientists) that captures the subjective meanings of social action (Bryman, 2008). The interpretive approach gives importance to

researcher's beliefs and value to give adequate justification for a research problem (Easterby-Smith et al., 2004). Another prominent critic of this approach is that empirical generalisation is not required because of the complex nature of the subject (Saunders et al., 2016). Therefore, interpretive studies are generally designed as qualitative studies and use the relatively small sample to have an in-depth understanding of the research questions and generalise the findings to a large population.

Another critical research paradigm is realism, which is an alternative philosophical approach to social studies (Denzin and Lincoln, 2000). Realism teaches that the social world external to individual cognition is a real world made up of hard, tangible and relatively immutable structures which, whether we can perceive them or not, exists as empirical entities. Realism is often seen between the two philosophical perspectives of positivism and interpretivist approach. Realism aims to combine positivism and interpretivist approach epistemological perspectives by incorporating elements of both (Saunders et al., 2016). According to Bryman, (2008), realism has two commons with positivism: (1) a belief that the natural and the social sciences can and should apply the same kinds of approaches to the collection of data and explanation; and (2) a commitment to the view that there is an external reality to which scientists direct their attention. Realists support the notion that it is best to use the most appropriate method according to the purpose of the research, and it makes sense to employ a variety of research methods and triangulate the data, "*with a view to compensating for the weaknesses of a single method*" (Wass and Wells, 1994: 9).

#### **3.2.1.3 Axiology**

The axiology determines the aim of the research. Axiology is concerned with the impact of the values of a researcher in the whole research process (Saunders et al., 2016). It leads to the questioning of whether it is the explanation and prediction of the world researcher want to discover or whether it is in search of having to understand the world.

This study adopts the realist approach to combine the strength of interpretive and positivist position. As the primary aim of this study is to inquire into nature and type of HRM practices existing across the mid-sized business in Turkish IT sector and their influence on organisational performance. Literature has been reviewed to inform the study, and since this study sets out to finally test the pre-existing theory, through the use of a model, therefore it will rely on qualitative (for Phase 1 to explore) and quantitative data (for Phase 2 to explain). Therefore, the study intends to model testing to confirm the findings of the qualitative study and conclude the impact of HRM practices on firm performance, particularly via entrepreneurial orientations of the firm, with data gathered from a questionnaire survey. This research is both inductive and deductive as it is focused on exploring and explaining the effect of HRM on firm performance by the help of RBV and social exchange theories and suggesting new casual relationships in the link.

### 3.3 Justification of the research methodology

The generation of knowledge requires the identification of beliefs and views social entities have. Whether the social entities are objective entities or socially constructed to build from perceptions and actions of social actors. The study of ontology concerns this question. The epistemology addresses the issue of what is the acceptable knowledge in a particular discipline. The main concern is that whether the social world should be studied with the acceptance of the norm regarding principles, procedures and ethos of natural sciences or is knowledge specific to a given situation/time. The axiology after that determines the aim of the research. It leads to the questioning of whether it is the explanation and prediction of the world researcher want to discover or whether it is in search of having to understand the world. This then moulds the methodology in deciding how the research will be conducted (whether it be qualitative or quantitative), which in principle is dependent on the ontology, epistemology, and axiology (Lee and Lings, 2008).



More recent research advocates the combination of both qualitative and quantitative methods in a single research topic of interest. However, the issue of the paradigm that is in question is whether it assesses the same phenomena. It must be noted that both methods apply when researchers are looking to increase the validity of the research area of interest. This can be examined either from a triangulation perspective, which assesses a single phenomenon with different methods to evaluate the convergence across methods, or to generate a greater understanding of the mechanism in question.

The social sciences conceptualized triangulation as the mixing of multiple theories, methods, data sources and/or researchers with the aim of enhancing the validity of research findings (e.g., Denzin, 1978 and Jick, 1979). This approach will enable me to link existing theories of RBV and SET to a new construct in the relation between HRM and firm performance. I, then, can test the developed model with a survey study.

In the following part, I present research methodology based on mixed method approach. To achieve the research aim and answer the research questions I designed my research over two phases. In Phase 1, I designed a qualitative study to address (a) what is nature and kind of innovation that exists in Turkish IT industry, (b) what is nature and kind of HRM practices existing in MSBs in the Turkish IT industry, and (c) develop an integrated multi-level model of HRM and performance to be empirically tested with a survey study. Phase 2 of my research is of explanatory nature and it enabled me to test the model developed in Phase 1. For this Phase, I designed a survey study where I collect data from managers and employees at MSBs in Turkey. In the following section, I discuss qualitative methodology for Phase 1 and, then, I present quantitative methodology that I used for Phase 2.

### 3.4 Qualitative methodology: Phase 1

As mentioned in the above section, Phase 1 of my research aims to address three important research questions (see the above paragraph for these questions). Due to the nature of these questions, Phase 1 adopts an exploratory approach and

accordingly it requires an appropriate research design. Hence, semi-structured interview method is chosen to explore the nature and kind of innovation and HRM practices prevalent in the MSBs in the Turkish IT industry.

The qualitative methodology is considered most appropriate due to its interpretive position that focuses on interpretative ways of social inquiry and argues that social phenomena cannot be known directly by absolute laws (Crotty, 1998). With this approach, the researcher can explain reality by exploring social entities and individual lives in their social settings (Denzin and Lincoln, 2012). This means that researcher studies the phenomena in the natural setting rather than an artificially structured setting as suggested by quantitative approach (Bryman and Bell, 2015). This feature of qualitative approach becomes critical for the study, which aims to explore the kind and nature of HRM in MSBs, operating in specific sector and country-specific settings. Also, as this study explores how HRM practices can contribute to firm performance within the specified context. For this reason, qualitative methodology shows an alignment with the underpinning research paradigm of the study.

The literature review in the last chapter showed that majority of studies examining HRM-performance linkages have tended to use quantitative methods, with widely used cross-sectional research designs and survey studies. The vast quantitative based studies have contributed to knowledge about the relationship between HRM and firm performance (see Jiménez-Jiménez and Sanz-Valle, 2008; Katou and Budhwar, 2006; 2015; Laursen and Foss, 2003; Searle and Ball, 2003; Selvarajan, Ramamoorthy, Flood and Guthrie, 2007; Shipton, et al., 2006; Walsworth and Verma, 2007; Zanko, et al., 2008). Furthermore, along with using quantitative approaches to study the phenomenon, studies have been confirming the general trend of HRM research (i.e., ---). These studies lack exploring organisational differences and complexity in the process of HRM and its relation to firm performance. It is therefore important to study the relationship between HRM and firm performance with a different approach. Given this study aims to explore the uniqueness of organisation, find out the suitability of

relevance of HPWS in the research context, and highlight the nature and kind of HRM and innovation existing in mid-sized IT firms in the Turkish context, the qualitative methodology deemed to be appropriate to capture the desired information.

In the following section, I present research design for the qualitative study (i.e., Phase 1).

### 3.4.1 Research design

#### 3.4.1.1 Interviews

In an interview based research design, there are three types of interviews: (1) structured, (2) semi-structured, and (3) in-depth or unstructured (Saunders et al., 2016). Structured interviews have defined and planned questions with standardised settings and administration, this is also known as interviewer-administered questionnaires. Structured interviews have several advantages regarding administration. First, it is easy to record responses on a defined answer codes or schemes and it can enable the researcher to collect quantifiable data.

Different to structured interviews, semi-structured interviews have no uniformity, and they are known as qualitative research interviews (King, 2004). In a semi-structured interview, there can be a list of themes and key questions to be covered the even administration of them vary from interview to interview because of differences in the context of the organisation and its relevance to the research objectives (Saunders et al., 2016). This type of interviews is mostly used to collect data and information to answer the question of what, how and why with a more emphasis on the why side (Saunders et al., 2016). Regarding administration of semi-structured interviews, it is more complicated than structured interviews. It may require asking additional question(s) according to the conversation and the nature of the topic. Moreover, recording answers may involve using audio recorders or note taking.

In-depth or unstructured interviews have no predetermined questions or list of themes. However, the researcher must understand the topic that he/she wants to explore

(Saunders et al., 2016). This type of interviews requires the researcher to have an expertise in administering informal interviews. In an exploratory study, both semi-structured or in-depth interviews can be used to collect data about what is happening and the context (Saunders et al., 2016).

Given the nature of my research, its aim and my research questions (see Chapter one, section 1.1 and 1.2), and in the absence of reliable information, this study initially adopts a qualitative research design based on semi-structured interviews conducted with key actors - employees and managers. Semi-structured interviews have enabled me to collect useful data regarding HRM practices, innovation, types of innovation, nature of innovation, factors leading and affecting innovation, employee creativity and organisational performance.

#### *3.4.1.2 Data collection*

The aim of data collection is to address the research questions. Thus, collecting relevant data to answer research questions is the key to a successful research (Hair et al., 2014). During data collection, one of the difficulties is that of having access to organisations. If the research questions require views of individuals such as managers and employees in the current study, access cannot be easy. Identifying gatekeepers can help researchers to develop a relationship with participants to encourage them to join the study.

Hair et al. (2014) present two approaches to gain access to sources: direct and indirect. A direct approach can be sending an invitation to study via email or mail or making a phone call. An indirect approach requires finding a gatekeeper or another intermediary that can introduce the researcher to the sources. Furthermore, the researcher can send a letter or presentation that includes the purpose of the research, the nature of the access desired, implementations of findings, confidentiality issues and benefits to individuals and organisations. I used both approaches to access the

research firms. First, I directly emailed and phoned general or HR managers of firms. I also asked people who already have access to research firms. for instance, I asked the business association of IT industry in Turkey (TUBISAD) to help me to get access to their member firms which were listed in big 500 list.

#### *3.4.1.3 Justification of research population*

The target population for the Phase 1 was both managers and employees within medium-sized IT firms in Turkey. Most HRM studies use the HRM manager as the key respondents. But such an approach has attracted huge criticism and contributes to single respondent's bias. So, during Phase 1, it is considered as important to have both employees' and managers' perspectives to capture the broader and deeper understanding of HRM in MSBs and its effect on firm performance. Within the managerial respondents, the study did not only target HRM managers but also other business managers and owners as well because of the structure of medium-sized businesses; such respondents can have a deep understanding of the various management practices (Sells et al., 2006). Furthermore, this enables the researcher to draw robust linkages between HRM and firm performance via the different perspectives of different managers.

Since sample unit is medium-sized IT firms in Turkey, the study used the 'Big 500 IT' list as the sample frame. The Big 500 IT list is published every year in Turkey based on the sales revenue of the firms that are in Turkey. This list has been published for the last 16 years, and it is perceived as prestigious for the businesses in the industry. This study used both non-probability sampling and a judgment method to create the sample. Judgment method is a specific form of convenience sample in which researcher chooses the sample based on whom they think would be appropriate for the study.

#### *3.4.1.4 Sample*

As mentioned above, for this study I used the Big 500 IT list as a sample frame. To ensure that the data is gathered from a wider sample and enhance the validity of the

data, data is gathered from business owners, CEOs and managers and lower level core-knowledge employees. A total of 55 participants participated in the study from 12 firms. From the Big 500 IT list, firms were selected according to their size. There are 115 firms available on the list for my study based on research scope for their size. To access firms, I emailed and phoned HRM and general managers. Participants were selected by either HR managers or senior managers at the firms based on the criteria I explained to them when I had contacted them the first time. I aimed to conduct interviews with managers, owners if possible and core-knowledge employees. I was able to access only 12 firms and 55 participants due to the timing of the study and time constraints. The study was conducted between December, 2014 and January, 2015. During this period of time, firms in Turkey are busier than other time of the year due to paper works such as opening and closing of accounts for the fiscal year. I was also constrained by time as I only had two months to conduct this study. After arranging a meeting for an interview, I travelled to the premises of the firms in Turkey to conduct the interviews. Face-to-face interviews enabled me to administer the process smoothly, ensuring the questions were clear and open with clear directions. Research firms were in three provinces in Turkey - Istanbul, Ankara and Izmit. All firms were established in Turkey and owned by Turkish citizens. Only one of them was publicly traded company. Nine of them were private, while two of them public and private joint ventures. Detailed information about the research participants and organisations for this phase of the study is available in table 3.1 and 3.2.

#### *3.4.1.5 Interview schedule and procedure*

The semi-structured interview format included questions related to themes such as what kind and nature of innovation exist in the research firm, what is the nature and kind of HRM practices prevalent in the same, and what is the impact of HRM practices on innovation, employee creativity, performance both at the individual and organisational levels.

*Table 3-1: Firms profiles for phase 1 of research*

<b>Number of Firms</b>	<b>12</b>
Locations of firms	Istanbul (7), Ankara (3), Izmit (2)
Ownership	Private Company (9), Publicly Traded Company (1), Private-Public Company (2)
Existence of the HRM department	7
Located in the Techno-park	7
Interviews	40

*Table 3-2: Participant profiles for phase 1 of research*

<b>Number of participants</b>	<b>55</b>
HRM managers	9
Product, R&D and quality managers	12
CEO and owners	4
General managers	4
Team and project leaders	9
Software and product developers	17

These themes were developed after carefully considering my research aims, relevant literature, and discussions with my supervisors. The details of these themes and questions used for conducting the semi-structured interviews are provided in Appendices A and B. The interview schedule was designed in English and later translated into Turkish. I used the back-to-back translation method to ensure both the validity and reliability of the translation (Brislin, 1970). In this regard, first, I translated the entire interview schedule into Turkish. Then I asked another fellow researcher who is native speaker of Turkish to translate the Turkish version of the interview schedule back into English. Then I compared the two versions of the interview schedules to check and amend for required changes if needed. English copies of semi-structured interviews are available in Appendix A.

Before conducting interviews, I piloted the interview questions with a fellow researcher and a professional who recommended some minor changes in the terminology of the questions to suit the Turkish business and cultural context. The structure of the interviews was purposely kept in a semi-structured and open-ended format to allow unexpected and emergent themes to arise. This enabled me to follow-up questions to clarify key issues. Each participant was asked to give their consent to participate in the study before I started to conduct the interviews. All interviews were recorded for the convenience of study.

### 3.4.2 Data analysis

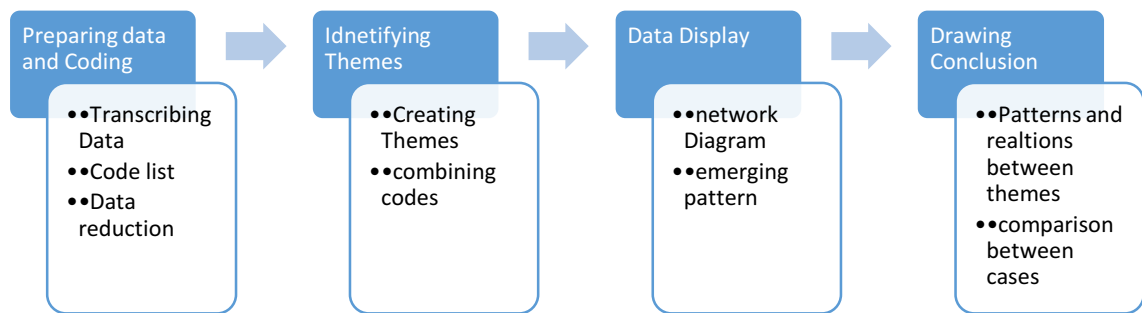
This study utilised thematic analysis by using a framework suggested by Miles et al. (2014). Data analysis of the qualitative interviews consisted of five main parts - preparing the data, coding, identifying themes, data display and drawing a conclusion. Figure 3.1 presents this data analysis process.

#### 3.4.2.1 *Preparing data*

A researcher must make the data from interviews to be ready for thematic analysis. It is called as transcribing. What is going to be transcribed into text depends on the research questions and assumptions. All contents of the interview can be transcribed into text. Also, only specific parts of the interview related to research topic can be transcribed as known as a variable-oriented strategy to find themes that cut across cases (Miles et al., 2014). Since transcribing all interviews is a time-consuming process, and generates too much of data to handle, researchers can choose to transcribe only relevant parts of interviews.



Figure 3-1: Data analysis process



Source: Miles et al., 2014.

#### 3.4.2.2 Coding

The second task of the researcher is to reduce the data. Data reduction refers to the process of selecting, focusing and simplifying data gathered from interview transcriptions (Miles et. al., 2014). To reduce and organise the data preliminary codes are used. Codes enable the researcher to make the data more recognizable and less complicated to manage. Codes can come from literature, interview questions, researcher or the data itself. Coding starts with the process of transcribing, as researcher gains knowledge about the data. After each transcript is read, events, issues, and emerging concepts are assigned to codes. Having transcript coded enable the researcher to structure the massive amount of data and provide initial insights about the patterns of the phenomenon of the study (Miles et al., 2014).

Each interview was transcribed partially to follow a variable-oriented strategy to find themes that cut across cases (Miles et al., 2014). During the transcribing process, initial thoughts and ideas were written down as it helps the researcher at the later stages of the data analysis (Miles et al., 2014). The transcribed data was read, and interviews were listened one more time to ensure the accuracy of the transcription and to identify emerging codes and themes from the data.

After transcribing interviews, preliminary codes were created based on the emerging codes from data and the literature review. It is acknowledged that codes created from

the literature may not fit data because it is influenced by background knowledge of the researcher (Ryan and Bernard, 2000). However, Miles et al. (2014) state that researchers should always have background knowledge, and it is useless to deny it. On the other hand, having a framework helps to structure the data analysis methods and decide what concepts and categories are going to be there (Lee and Lings, 2008).

As such, an initial set of codes and emerging codes were defined from the relevant literature and data. As suggested in the literature, an independent researcher coded the same piece of data from the transcripts (see Bogdan and Biklen 1992; Subramanian et al., 2013). I compared the results and reviewed the similarities and differences in the application of the other coders' codes to maximise inter-coder reliability (Keaveney 1995). After the back and forth checking, the agreement between the codes provided an inter-coder reliability of over 80 per cent (Miles et al., 2014). Table 3.3 shows the example of the development of preliminary codes from the data and literature. A full list of codes used in the current study are available in Appendix C. Next step in the thematic analysis is capturing the relationships between codes.

*Table 3-3: Example of the development of preliminary codes*

<b>Codes</b>	<b>Description</b>
<b>Staffing</b>	Management practices that include recruiting, talent hunting, selection, hiring, retention activities.
<b>Feedback and Performance appraisals</b>	Management practices referred performance review, performance evaluation, development discussion, or employee appraisal
<b>Social Activities and Events</b>	Activities and events are organized by the firm that includes gathering, socializing, recreational activities, dinners, parties, and celebrations.
<b>Team Work</b>	It refers to a job design when it requires individuals to work as groups. Project teams, and other types of teams.
<b>Information Sharing and Communication</b>	It defines activities and practices that accelerate and enhance information and knowledge sharing between individuals and departments at the firm.

#### *3.4.2.3 Identifying themes*

The second step in data analysis is to develop themes. Themes or pattern codes are explanatory or inferential codes that identify an emergent theme, configuration or

explanation (Miles et al., 2014). They help researchers to reduce the data into a smaller number of analytical units, to build a cognitive map or network diagram to understand the relationships among individuals or constructs (Miles et al., 2014). In the current study, the themes were developed by the emerging relationships among the preliminary codes and merging them together with themes from literature. I did combine codes that have similarities and proximity to developing a theme. Table 3.4 demonstrates an example of developing a theme from the preliminary codes. A full list of the themes used in the current study is available in appendix?

*Table 3-4: Themes and codes for HRM practices*

Theme	Codes	Description
<b>HRM practices (the most reported human resource practices by participants)</b>	Staffing	Management practices that include recruiting, talent hunting, selection, hiring, retention activities.
	Feedback and Performance appraisals	Management practices referred performance review, performance evaluation, development discussion, or employee appraisal
	Social Activities and Events	Activities and events are organized by the firm that includes gathering, socializing, recreational activities, dinners, parties, and celebrations.
	Team Work	It refers to a job design when it requires individuals to work as groups. Project teams, and other types of teams.
	Information Sharing and Communication	It defines activities and practices that accelerate and enhance information and knowledge sharing between individuals and departments at the firm.

#### *3.4.2.4 Data display*

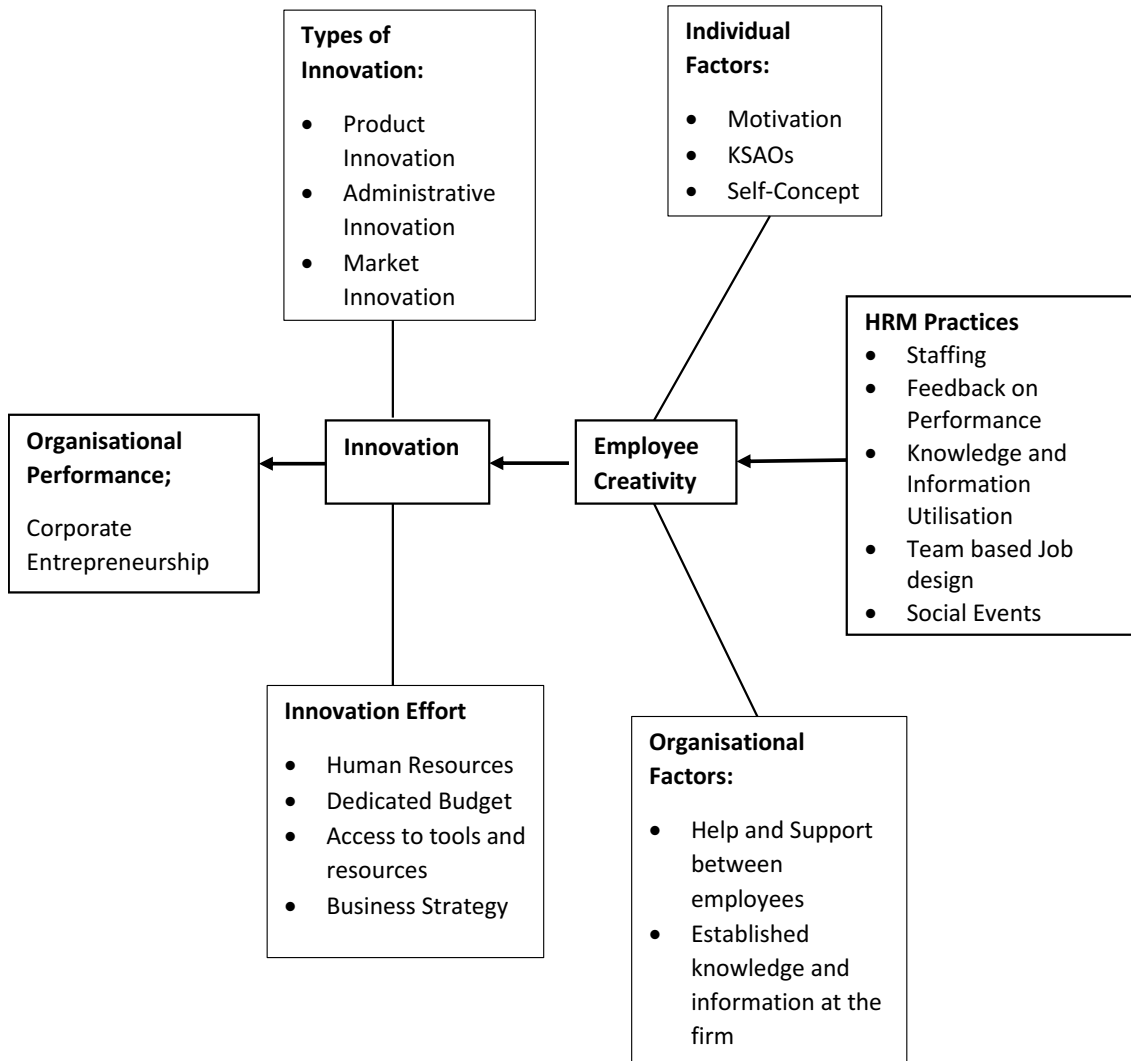
Data display refers to the process of organising and presenting the coded data in a systematic format to draw conclusions and analysis (Miles et al., 2014). There are several ways to data display. First, within-case display where display focuses on a single case that can be an interview, focus group, and observation. It is also possible to display data in the cases that is called as a cross-case display. Data display can differ for their purposes. For instance, some display only focuses on describing the data and some concentrates on explaining what is happening and defining relationships (Lee and Lings, 2008). Furthermore, data displays can be either in a matrix or network

format. A researcher can choose the proper type of data display according to his or her research objectives, and the data want to present. For instance, one can develop a network diagram with patterns and themes from one case and look for other cases whether they fit the same pattern. Alternatively, one can find themes and variables, which repeatedly occur across the cases. Further, the researcher can combine both approaches to display the data. In the current study, I used both approaches and combined them. I organized them in a thematic analysis network diagram based on the emerging relationships between the constructs. Three major concepts were identified under which themes are clustered. These are: 1) Innovation that includes innovation effort and nature of innovation. 2) Creativity that includes organisational factors of creativity, and personnel factors of creativity. 3) HRM practices that include: staffing, job design, performance appraisals, knowledge and information utilisation and social events and activities. Figure 3.2 illustrates the themes belonging to specific concepts. In the following section, I present findings and discussion based on the same.

#### *3.4.2.5 Drawing conclusion*

Early drawing conclusion starts at the initial stages as researcher becomes familiar with the data while coding and displaying. The most important issue with the qualitative analysis is “*how do we know what that data means?*” (Lee and Lings, 2008). In drawing conclusions, the researcher can use patterns/themes and make comparisons strategies (Miles et al., 2014). First, researcher identify recurring patterns or themes when the researcher analyses interviews. Then, comparison of themes from respondents or participants can be made. After finalising data analysis, I developed an integrated multi-level model. In the following part, I explain the final stage of the research that involves literature review, development of the model and evaluation of the model.

Figure 3-2: Data display a network diagram of concepts highlighted in the study



### 3.4.3 Development of the model

Matching the findings with literature is necessary to “*enhance the internal validity, generalisability, and theoretical level of theory*” and specifically important for qualitative study with a limited case “*the findings often rest on a very small number of cases*” (Eisenhardt, 1989: 545). In this study, an analytical discussion was conducted by comparing the emergent concept from the interviews against the existing literature. Discussion included identifying, examining and justifying commonalities and contradictions between the findings of the study and existing literature (Eisenhardt, 1989). Further, the results were compared with the wide-ranging existing literature, including IT sector, mid-sized business, HRM and firm performance and corporate entrepreneurship. This comparative literature analysis is presented in Chapter 4.

A combination of the research findings, i.e., about HRM practices, individual performance, innovation and reactivity, firm performance, the human and social capital of the firm provide the basis for developing the model. Along with the findings, existing literature and theories those that link HRM and firm performance (RBV and SET) have been used to develop the model and support the findings. The key results from the interviews, the developed integrated model and its background are presented in Chapter 4.

### 3.5 Quantitative methodology: Study 2

The quantitative research design employs the relationship between data and attributes of people, organisation, things and opinion (Saunders et al., 2016). Therefore, conducting quantitative research fits well with the second aspect of the aim of this study (i.e., the explanatory - Phase 2). As one of the theoretical standpoints chosen for this research is the RBV and to optimise the contents, this view focuses on the firm's tangible and intangible resources such as HRM practices, human capital and social capital. The other theoretical standpoint of the study is the SET. This view connects with the purpose of this research, i.e., to test the relationship between HRM practices and OCB of individuals at work, intellectual capital of the firm consists of human and social capital, corporate entrepreneurship and financial performance of the firm. For the purpose of this study, quantitative research is used to test the multi-level model (developed via Phase 1, see Figure 4.3 in Chapter 4). The required data was collected via a questionnaire survey. To test the model, I utilised a multi-level structural equation modelling (MSEM) using Mplus software programme.

In the following section, I present research design for the Phase 2 that includes key research variables, developing the questionnaire, sampling, data collection, and data analysis.

### 3.5.1 Research design

Phase 2 of the research is designed as a descriptive research because of its explanatory nature. Descriptive studies are usually classified as either cross-sectional or longitudinal (Hair et al., 2007). Cross-sectional studies are providing a snapshot or description of the business element at a given time while longitudinal studies describe business elements and activities over time. This study is cross-sectional, and it is designed accordingly.

### 3.5.2 Questionnaire development

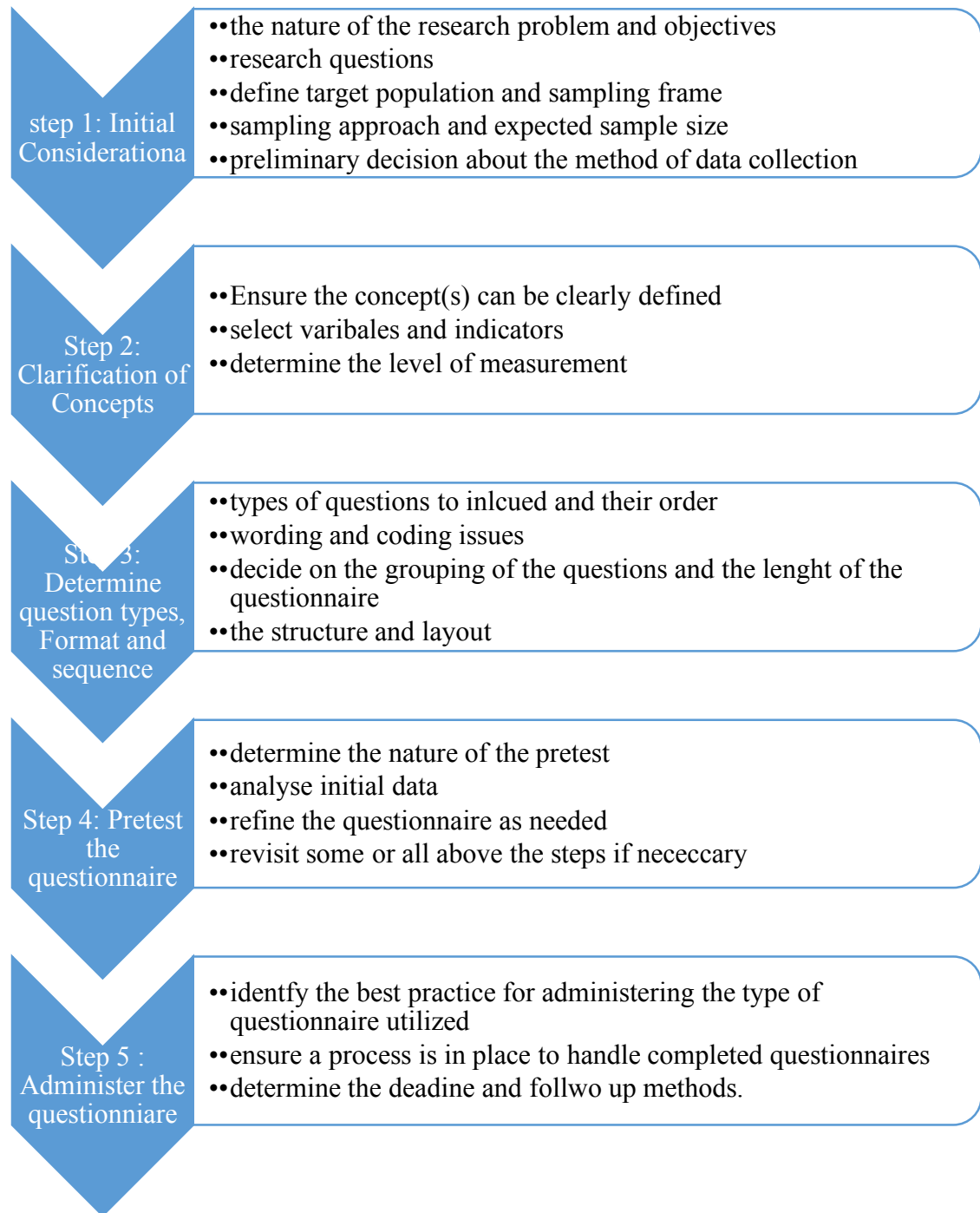
The current study follows the suggestion of Hair et al. (2007) to develop and validate the questionnaire. Figure 3.3 demonstrates the five-step procedure to develop questionnaires produce valid and reliable data.

#### 3.5.2.1 Step 1: Initial Consideration

As Phase 2 of my research aims to test a multi-level model developed via Phase 1 (it has both individual and firm level variables). Details of the study variables are presented in Chapter 5 (which is dedicated to findings of Phase 2 of my research). Briefly, these variables are HRM practices (staffing, performance appraisals, job design, knowledge utilisation and social events), human capital, social capital and organisational citizenship behaviour (all individual level). Firm-level variables include corporate entrepreneurship, financial performance and human capital of the firm.

Another important initial consideration in a survey-based study is the target population. Hair et al. (2014) indicate that if the target population is not defined, the researcher may fail to evaluate the questions. Furthermore, the target population can affect the method to use for data collection and administration of the questionnaire. The current study only focused on Turkish IT sector and mid-sized businesses. Thus, the target population is employees and managers of mid-sized IT firms in Turkey.

Figure 3-3: Steps in designing a questionnaire



Source: Hair et al. (2007: 258)

Final initial consideration for the development of questionnaire is the method to use. There are two common methods to administer the survey: one is the self-administered approach, and the other is the interviewer-assisted approach (Saunders et al., 2016). Self-administered questionnaires can be distributed through the post, the internet, delivery and collection method, while the interviewer-administered questionnaires are



normally completed through telephone interview and/or face-to-face interview. The current study used the self-administered questionnaire method.

#### 3.5.2.2 Step 2: Clarification of Concepts

There are several aspects to improve the clarity of questionnaire. The first is defining what is going to be measured. As I stated earlier, details of the variables included in the survey are specified in Chapter 5. After defining concepts, constructs and variables, the second task is defining questions or indicators to measuring the variables. This process includes deciding types of questions, wording and ordering of the questions and sections in the questionnaire.

#### 3.5.2.3 Step 3: Determine Question Types, Format, and Sequence

Developing questionnaire requires a significant effort for an effective set of questions, since strong measures can make the study more rigorous (Hair et al., 2014). According to Churchill and Iacobucci (2002), single item measures suffer from important drawbacks; thus, the vast majority of constructs used in this study were multi-dimensional in nature and multiple indicators were used for their measurement. These indicators were mainly extracted from previous empirical and conceptual studies, and are presented in Chapter 5. Most of these variables were in a closed-ended format, and follow 5-point Likert scales.

Another key issue is the sequencing of the questions in the questionnaire. There are several ways to structure the questionnaire. First is a logical structure that goes from general questions to more specific ones. Another approach is putting related questions together. However, this may lead to poor data because respondents can get bored with the topic (Lee and Lings, 2008). In the current study, I adopted a mixing approach as it helps the respondents to stay concentrated and interested in the study as the topic changes. There is also a suggestion to leave personal questions till the end (Lee and Lings, 2008).

#### *3.5.2.4 Step 4: Pre-test*

After having designed a questionnaire, the next task is to test the survey before going on for actual data collection. In this regard, initially, I got my supervisors to look at the questionnaire. After revising it according to the feedback I received, I started to translate it into Turkish. I followed the back-to-back translation process. I did the initial translation into Turkish and got another researcher who is a native Turkish speaker to translate them back into English. I compared the differences and revised my translation to minimize the error in translation. After finishing the translation, I did conduct several interviews with potential respondents via email. Finally, I ran a pilot test and further revised several questions.

#### *3.5.2.5 Step 5: Administering the Questionnaire*

As mentioned above, there are several ways of conducting a questionnaire survey, i.e., via mail, fax, telephone, email, web-based or in person. Initially, it was planning to use a combination of web-based and in-person method to run my survey. However, the web-based administering did not generate expected responses. Then I focused on using the in-person way, which requires face-to-face contact with respondents (Hair et al., 2007). This approach has some advantages such as it allows the researcher to probe complex issues, and clarify respondents' queries. On the other hand, it costs both time and money. Also, it may not be easy to access firms, which can lead to having a small sample size. With lots of efforts and time spent (over two months), I could access 231 employees and 80 managers from 21 mid-sized IT firms. I used two sets of questionnaires and their copies are available in Appendix C. These 21 firms included the 12 firms which had participated in Phase 1 of my research.

### *3.5.3 Research sampling*

There are four main issues regarding the sampling process (Hair et al., 2014): (1) defining the target population, (2) choosing the sampling frame, (3) selecting the sampling method, and (4) determining the sample size.

The target population can be defined as the all group of elements relevant to the research (Hair et al., 2014), which are the sampling unit available for selection during the sampling process. The sampling unit can be people, business or any logical unit related to the study. The sampling unit in my case are the mid-sized IT firms in Turkey.

The second issue is choosing the sampling frame, which is a compressive list of elements from which the sample is drawn (Hair et al., 2007). The sample frame can be yellow pages, phone directory or employee directory of an organisation. The current study adopted the 'Big 500 IT list' in Turkey as the sample frame. As mentioned above, this list is published every year for the past 16 years in Turkey based on the sales revenue of the firms that are in Turkey.

There are two general approaches to sampling used in social science research - probability and non-probability sampling (Hair et al., 2007). In probability sampling, the probability of each element being selected from the target population is known (Saunders et al., 2016). With this approach, the researcher can ensure that the sample is representative (Hair et al., 2007). Five main methods can be used with the probability approach: simple random, systematic, stratified, cluster and multi-stage sampling (Hair et al., 2007; Saunders et al., 2016). This approach is used in large-scale surveys when the sample size is sufficiently large.

On the other hand, in non-probability sampling, the probability of each element being selected from the target population is not known (Hair et al., 2007; Saunders et al., 2016). Non-probability samples are easy to draw, but they may give misleading results, as despite of our judgement, they happen to be unrepresentative of the population. Under this approach, five main methods can be used: convenience (Judgment) sampling, quota sampling, purposive sampling, snowball sampling and self-selection sampling (Hair et al., 2007; Saunders et al., 2016).

The non-probability sampling is used in explanatory research (e.g., Phase 2) (Hair et al., 2007). This study used non-probability sampling methods which are snowball and

judgment methods. Judgement method is a specific form of convenience sample in which researcher chooses the sample based on whom they think would be appropriate for the study. Judgment method enabled me to draw a sample from the sampling frame easily. In the current study and as mentioned above, the 500 IT list is used as a sampling frame and firms are selected according to their size because the study only focuses on mid-sized IT firms. snowball method also was used and it enabled me to reach other study subjects that depends on referrals from initial subjects.

#### 3.5.4 Data collection

As mentioned above, the data were collected from both employees and managers in 21 mid-sized IT firms in Turkey. To narrow the sample, I use the criteria mentioned in second chapter section 2.1/, i.e., firms with employee between 49 and 249 were targeted. To access the firms for my survey, in June 2015, I start calling senior managers those whose communication information were already available in Big 500 list. I requested their companies' participation in my research. After phone calls, I sent an email explaining research aims and objectives and scope of participation regarding data collection procedures and administration of the survey study and confidentiality and privacy. I also contacted business association of IT industry in Turkey (TUBISAD) and techno-park of ITU Arikent to ask their help. Thankfully, these two organisations encouraged their members to join my study. Overall, I reached out to 100 firms via phone and email, 25 of them agreed to join the study. However, data were available for use from only 21 firms. The response rate was 19%. These included the 12 firms which had participated in the Phase 1 of my research.

The literature suggests that same HRM practices do not apply to all employees across the firm (Lepak, Taylor, Tekleab, Marrone and Cohen, 2007; Wright and Boswell, 2002). To get hold of a set of HRM practices which have applicability to most employees, during Phase 1 of my research, I had interviewed core group of employees (e.g., owners/managers, developers, engineers, software developers and IT consultants). Lepak et al. (2007) suggested that firms invest in core employees and

HRM practices for this group of employees vary in comparison to others. To reach core employees and managers, I shared criteria with key people who were helping me to get access within their firms. These people were HR managers or senior managers. HR and senior managers selected participants to join the study. In most cases, they invited core employees to join the study. I aimed to reach out to at least ten employees and managers in every firm for the survey data. On average ten employees and four managers joined the study from every firm.

Data were also collected from senior and line managers who provided information regarding the firm level constructs such as corporate entrepreneurship, financial performance, human capital and social capital of the firm. Using top executives and managers for data collection increases the reliability of data at the firm level (Collins and Smith, 2006; Lepak et al., 2006; Smith, Collins and Clark, 2005). Two different questionnaires were used for the study. One questionnaire was developed for senior managers and HR managers while another was developed for core employees (e. g., software developers, IT consultants). Copies of these questionnaires are available in Appendix C.

I travelled to Turkey to conduct the survey. Most the selected firms are based in three major cities of Turkey - Istanbul, Ankara and Izmit. Before delivering questionnaires, I introduced myself, talked about my study and informed respondents regarding the data collection process, voluntary nature of participation, and confidentiality assurance. The respondents received questionnaires in envelopes and I requested them to return the completed surveys in envelopes provided to assure their confidentiality.

Two hundred and thirty-one (231) employees and eighty-one managers firms participated in the study. The demographics of the sample are provided in table 3.5.

*Table 3-5:Demographics of participants and firms.*

<b>Employees</b>	<b>N</b>
<b>Team leaders</b>	52
<b>Administrators</b>	13

<b>Developers</b>	166
<b>Managers</b>	
<b>HRM manager</b>	2
<b>Mid-Level Manager</b>	60
<b>GM, Owner</b>	17
<b>Tenure</b>	
<b>Less than a year</b>	82
<b>1-3 years</b>	98
<b>3 to 5 years</b>	79
<b>More than five years</b>	61
<b>Education</b>	
<b>College</b>	245
<b>Masters</b>	45
<b>PhDs</b>	1
<b>High school</b>	19
<b>Firm Age</b>	N
<b>2-year-old firms</b>	0
<b>2 - 5 years</b>	0
<b>5 to 10 years</b>	6
<b>Older than ten years</b>	15
<b>Size</b>	
<b>50 employees</b>	3
<b>50 to 80</b>	6
<b>80 to 120</b>	6
<b>More than 120</b>	6
<b>Location</b>	
<b>Istanbul</b>	14
<b>Ankara</b>	5
<b>Others</b>	2
<b>Techno park</b>	
<b>Techno park</b>	12
<b>Non-techno park</b>	9

### 3.5.5 Measures

Measures for the questionnaires were adopted both from the literature and based on the findings from Phase 1 of my research. Back translation procedure was followed to translate items into Turkish (Brislin, 1970). First, I translated items into Turkish then asked another academic who is a bilingual researcher to translate them back into English. After comparing two versions of the translation, we discussed the emerging issues and agreed on solutions for discrepancies. Furthermore, I asked three employees who participated in Phase 1 of my study to give feedback on the

instruments. Accordingly, the instruments were finalised. All items used in the two questionnaires are available in Appendix C.

#### *3.5.5.1 Operational definitions of key constructs*

##### *3.5.5.1.1 HRM Practices*

HRM practices include 5 critical practices emerged from Phase 1: Staffing, feedback on performance, team-based job design, knowledge and information sharing, social events and activities. Staffing practices include activities to select, hire and retain the best employees for the vacant positions at the firm. Feedback on performance indicates the practice to encourage employees to keep up the good work going and appreciate their performance. Team-based job design defines that how IT firms organize their employees to get tasks and jobs to be done via teamwork. Teams, mostly, are formed as per projects. Knowledge and information sharing defines practices and behaviours of sharing information and knowledge among employees embedded within the firms. Social events and activities enable employees to socialise and get to know each other. These activities can vary across the firms such as organising outdoor activities for weekend, going dinners etc. these practices provide opportunities for employees take initiatives for out of work roles.

##### *3.5.5.1.2 Intellectual Capital*

Intellectual capital can be defined as a bundle of assets and resources which represents the sum of all knowledge that a unit can draw from to achieve competitive advantage (Nahapiet & Ghoshal, 1998; Youndt, Subramaniam, & Snell, 2004). Scholars have identified three main facets of intellectual capital: human, social, and organizational capital. In this study, based on the phase 1 findings, intellectual capital of the firm is defined as sum of human and social capital at the firm.

Human capital defines the knowledge, skills, and abilities of individual employees. In the current study, it reflects on employee creativity and KSAOs. The construct is measured with a 5 point Likert scale adopted from previous study.

On the other hand, social capital refers to behaviour embedded within the firm and the knowledge residing in and flowing through employees' relational networks (Nahapiet & Ghoshal, 1998). In the current study, social capital of the firm reflects on knowledge and information sharing behaviours embedded within the firm. I adopted a 5-point Likert scale from previous study.

#### 3.5.5.1.3 Corporate entrepreneurship

CE can be defined as a firm's strategic option to improve its business strategy, to meet evolving customer demands and expectation, and to sustain its competitive advantage (Guth and Ginsberg, 1990; Zahra, 1991, 1993; Castrogiovanni, Urbano and Loras, 2011). The construct of CS in the current study measures firms' risk averseness, innovativeness and reactivity. A nine-item on a 5 point Likert scale is adopted from previous study to measure CE.

#### 3.5.5.1.4 Organisational performance

In the current study, organisational performance has three facets at both employee and firm level. At the firm level, corporate entrepreneurship and financial performance are the indicator elements that constitute organisational performance. At the employee level, OCB is the indicator of organisational performance. Overall, this study measures organisational performance at two levels of the firm for a better understanding of the link between HRM and organisational performance.

#### 3.5.5.2 Individual-level measures

Items for staffing, performance appraisals, knowledge utilisation, job design and human capital were adopted from high-involvement HRM practices scale developed and validated by Prieto and Martin-Perez (2012). While adopting, I particularly wanted to measure emerging factors, attitudes, behaviours and performance from Phase 1. Items of these scales were considered to have good representation. After having a fellow researcher to check these items and themes emerged from Phase 1, I finished questionnaire development. I also had a final discussion to finalise the adopting scales.



Response options ranged from (1) “strongly disagree” to (5) “strongly agree”. Drawing on Kehoe and Wright (2013) and because I was interested in how individuals perceive HRM practices in their firms, I retained the group level reference, for instance, “*Our company spends a great effort in selecting the right person for every position.*”

Scale for social events and activities were developed from the Phase 1 of my study. Procedures used by Bae and Lawler (2000), Hsu, Lin, Lawler, and Wu, (2007) and Sun et al. (2007) were used to develop this scale. I adopted five items based on the findings from Phase 1. Then I conducted EFA and CFA to confirm that items are loading sufficiently into one factor. Results from EFA and CFA are displayed in table 3.6.

*Table 3-6: Social events scale item loadings*

<b>Loadings</b>	<b>EFA</b>	<b>CFA</b>
<b>SA1</b>	.619	0.446
<b>SA2</b>	.793	0.653
<b>SA3</b>	.894	0.906
<b>SA4</b>	.879	0.905
<b>SA5</b>	.835	0.795

As it can be seen in the table 3.6, EFA results show that items of social events scale loaded on one factor. CFA indicates how well the scale items fits reality and provides evidence of construct validity (Hair et al., 2007).

#### **3.5.5.3 Firm-level measure**

I used the nine-item scale developed by Liu et al. (2002) and Birkinshaw et al. (1998) to measure CE. Financial Performance was measured by a five-item scale developed by Jimenez-Jimenez and Raquel Sanz-Valle (2008). I measured firm level human capital with a five-item scale developed by Prieto and Perez-Santana (2012). This is the same scale that I used in the employees’ questionnaire as well. Senior executives and managers rated items on CE.

Since CE, human capital and financial performance were used at firm level as isomorphic constructs, they do not change across levels. I, therefore, aggregate the data collected from managers and executives to the firm level. To justify the aggregation, I calculated both within-group agreement  $r_{wg(j)}$  and interclass correlations (ICCs).  $r_{wg(j)}$ s for firm level constructs were higher than the commonly accepted criterion of .70 (James, 1982) and ICC (1) value were above .12 (James, 1982) and ICC (2) above .60 (Glick, 1985). For details regarding the constructs please refer to table 3.7.

*Table 3-7: Inter-class correlations for level 2 constructs*

	ICC1	ICC2
<b>Human Capital</b>	0.27	0.86
<b>Social Capital</b>	0.19	0.82
<b>Corp. Entp.</b>	0.4	0.73
<b>Financial P.</b>	0.57	0.93

### 3.5.6 Data analysis

In this part, I introduce the process of data analyses that includes key methodological and conceptual issues associated with testing a multi-level model with a nested data structure. Statistical models are not empirical statements or descriptions of the real world (Heckman, 2006), but they are mathematical representations of behaviours or attitudes that exist in the target population (Heck and Thomas, 2009). In the current study, the proposed multi-level model represents the relationship between individual and firm level performance that exists in mid-sized IT firms that account for relationships observed in the sample data from the target population (Heck and Thomas, 2009).

Data analyses decisions depend on a methodological framework that includes questions, designs, data structure and methods of analyses (Raudenbush, 1989). For organisational studies, these decisions are important for the credibility of the results

and the research contributions to the related knowledge. Also, in the social science research, linear models (correlation, variance analyses aka ANOVA), multiple regressions, multivariate analysis of variance (MANOVA), discriminant analyses, have a long tradition (Heck and Thomas, 2009).

On the one hand, structural equation modelling (SEM) has become widely used in the social science research. According to Hair et al. (2010: 629), “*SEM estimates a series of separate, but independent, multiple regression equations simultaneously*”, while other techniques “*can examine only a single relationship at a time*”. This approach can handle path analysis and factor analysis with a focus on continuous and categorical latent variables; multilevel regression with a focus on random coefficients and nested data structures (Heck and Thomas, 2009). According to Heck and Thomas (2009), methods can be defined by a data structure (single, nested or hierarchical) and a number of dependent variables (univariate, multivariate). Figure 3.2 summarises regarding the types of methods adopted for my quantitative analysis.

Figure 3-4: Summary of quantitative approaches to data analysis

Analytic approach	Techniques
<b>Single-level data structure</b>	
1- Univariate (one dependent variable)	Correlation, ANOVA, regression
2- Multivariate (two or more dependent variables)	Canonical correlation, MANOVA, discriminant analysis, factor analysis, path analysis, time series, structural equation models, other types of SEM (latent curve, mixture)
<b>Multilevel data structure</b>	
3- Univariate (one dependent variable)	Multilevel regression or random coefficient models, variance component models, mixed linear models, time series, growth curve models
4- Multivariate (two or more dependent variables)	Multilevel multivariate models, multilevel covariance structure models, and other types of multilevel structural equation models (multilevel latent curve, mixture, latent class)

Source: Heck and Thomas (2009).

In the current study, I adopted multilevel and multivariate approaches and used multilevel structural equation models for data analysis because my data is nested in

firms and my model has more than two dependent variables. I used the Mplus software programme to conduct MSEM analysis. Muthen and Muthen's Mplus 7.3 statistical package was used for the specification and analysis of the model developed during this research. Mplus 7.3 was chosen because of its flexibility in the kinds of models that can be analysed. According to Hair et al. (2014: 663), "Mplus is ... particularly useful in complex applications involving multiple units of analysis in the same model". Its notable features include its unique ability to deal with categorical and binary independent variables. Furthermore, Mplus allows the analysis of data that comes from different population with either observed or unobserved heterogeneity (Muthen and Muthen, 2009).

Next I present data analysis process that includes data preparation, missing data, normality, assessing internal consistency, reliability, and validity, measurement model and model testing.

#### *3.5.6.1 Data preparation*

Once the data is entered in the SPSS, the first task is to clean that data (Lee and Lings, 2008). Cleaning the data starts with data entry. There might be some mistakes in responses provided by the participants or there might be missing data. The researcher either leaves out such an item, as a missing variable or assume regarding what the respondent meant (Lee and Ling, 2008). In the current study, I left out such items as a missing variable. After this step and decision, the data need to be checked for errors in entry. For this, I used frequencies tables and descriptive statistics.

#### *3.5.6.2 Missing data*

Missing data indicates that information or observation is not available for a subject or a case while its other information is available (Hair et al., 2014) that causes a loss of statistical power and biases in the results if it is not correctly identified in the analysis. However, missing data under 10 percent can be ignored for an individual case or observation (Hair et al., 2014). For all variables, the missing data should be relatively

small and within the suggested cut-off point of less than ten percent. Table 3.8 shows the percentage of missing data on all items. For all variables, the missing data is relatively small and under the suggested cut-off point. Based on these results, missing values are considered mostly to be random.

#### *3.5.6.3 Descriptive statistics of scales*

Likert scale questionnaires are commonly used to collect data in social sciences since Likert first introduced the scale in 1932. In the literature, the scale has received number of criticism related to reliability and validity. These criticisms include the number of response options, and the necessity of a neutral response option (Lozano, Garcia-Cueto, & Muniz, 2008).

Although Likert advocated for the use of the 5-point scale, researchers suggested that having more options can increase the reliability and validity of the scale (Lozano et al., 2008). The scales I adopted from previous studies have 5 options. These options include strongly agree, agree, neither, disagree and strongly disagree. Middle categories such as neutral or neither enable participants report responses for reasons as ambivalence and indifference of participants (Cronbach, 1946; DuBois & Burns, 1975; Edwards, 1946; Kaplan, 1972). An ambivalent respondent chooses the middle category because of mixed feelings about the object of evaluation while an indifferent respondent chooses the middle category because of a lack of involvement with the subject.

There are number of criticisms for using middle categories in the scale include respondents may avoid using extreme response categories (central tendency bias). However, having middle categories are common practice for social research as it enables participants people who are undecided or indifferent about an item select a middle category without forcing them to choose an alternative that does not describe them (Hernandez, Drasgow and Gonzalez-Roma, 2004).

In the study, I checked the central tendency bias by using mode, median and mean as data I collected are interval data and analysis I did is multilevel Anova. Furthermore, I also present frequencies and percentage of items in each scale to check the variability of measures. These descriptive statistics help to know about the nature and size of the variation of individual items in the scales. Tables 3.11 and 3.12 present descriptive statistics related to responses for both employees' and managers' survey. These tables include mode, median, mean and percentiles. Frequencies charts are presented in appendix D, which shows the frequencies of each item in each scale.

*Table 3-8: Descriptive statistics for scales of HRM practices*

	N		Mean	Median	Mode
	Valid	Missing			
<b>STF1</b>	231	1	4.00	4.00	4
<b>STF2</b>	231	1	3.87	4.00	5
<b>STF3</b>	231	1	4.00	4.00	5
<b>STF4</b>	231	1	4.06	4.00	5
<b>STF5</b>	231	1	4.18	4.00	5
<b>PA1</b>	231	1	3.52	4.00	4
<b>PA2</b>	231	1	3.27	3.00	3
<b>PA3</b>	230	2	3.33	3.00	3a
<b>PA4</b>	230	2	3.47	4.00	4
<b>PA5</b>	230	2	3.40	3.50	4
<b>PA6</b>	231	1	3.44	4.00	4
<b>KU1</b>	231	1	3.94	4.00	4
<b>KU2</b>	231	1	3.46	4.00	4
<b>KU3</b>	231	1	3.89	4.00	4
<b>KU4</b>	231	1	3.40	4.00	4
<b>KU5</b>	231	1	4.06	4.00	5
<b>JD1</b>	230	2	4.28	5.00	5
<b>JD2</b>	231	1	3.93	4.00	5
<b>JD3</b>	231	1	4.32	5.00	5
<b>JD4</b>	231	1	3.95	4.00	5
<b>JD5</b>	231	1	3.44	4.00	4
<b>SA1</b>	230	2	3.87	4.00	5
<b>SA2</b>	231	1	3.99	4.00	5
<b>SA3</b>	231	1	4.36	5.00	5
<b>SA4</b>	231	1	4.40	5.00	5
<b>SA5</b>	231	1	4.29	5.00	5
<b>OCB1</b>	231	1	4.29	4.00	5

<b>OCB2</b>	231	1	4.20	4.00	5
<b>OCB3</b>	231	1	4.26	4.00	4
<b>OCB4</b>	231	1	4.58	5.00	5
<b>OCB5</b>	230	2	3.95	4.00	4
<b>OCB6</b>	231	1	4.46	5.00	5
<b>OCB7</b>	230	2	4.04	4.00	5

#### 3.5.6.4 Mode

The mode is the most frequent response to a question in a scale. It only provides information about the most frequent responses, categories, or classes of things. Based on the above table, almost all modes of each item in scales are either 4 or 5 which represents agree and strongly agree options in scales. This indicates the participants most frequently reported these options. However, mode by itself is not sufficient to understand central tendency. For the level of data is interval, mode is to be considered along with median and mean of each item of scales.

*Table 3-9: Descriptive statistics for Managers` questionnaire*

	N		Mean	Median	Mode
	Valid	Missing			
CE1	80	0	3.41	3.50	4
CE2	80	0	3.39	4.00	4
CE3	80	0	4.11	4.00	4
CE4	80	0	3.84	4.00	4
CE5	80	0	3.89	4.00	4
CE6	80	0	3.81	4.00	4
CE7	80	0	3.71	4.00	4
CE8	80	0	3.83	4.00	4
CE9	80	0	3.71	4.00	4
EC1	80	0	3.89	4.00	4
EC2	80	0	3.83	4.00	4
EC3	80	0	3.79	4.00	4
EC4	80	0	3.78	4.00	4
EC5	80	0	3.55	4.00	4
SC1	80	0	3.88	4.00	4
SC2	80	0	3.98	4.00	4
SC3	80	0	4.09	4.00	4
SC4	80	0	4.05	4.00	4
SC5	80	0	4.01	4.00	4
FP1	80	0	3.63	4.00	4
FP2	80	0	3.53	4.00	4
FP3	80	0	3.58	4.00	4
FP4	80	0	3.59	4.00	4
FP5	80	0	3.49	3.00	3

#### 3.5.6.5 Median

Median defines the value that splits data two halves. In other words, it reflects the middle-most point in the sample distribution. Calculation of the median requires that values be ordered from low to high which indicates that median can be calculated only for ordinal or interval data. In the current data sets, it indicates that majority of items have median values 4 and 5. So that it shows that half of the participants rated agree or strongly agree while other half participants used remaining three options.

#### 3.5.6.6 Mean

Mean represents the mathematical average of ratings of an item. Mean is used to describe central tendency for interval and ratio LOM variables. Mean is calculated by summing up all the ratings for an item and dividing by the sum the number in the sample. Mean represents typicality of data. However, if there is an extreme score, either high or low, mean isn't a good representation. If there is any extreme score, the mode or median are better (more accurate) measures to use. In the current scales, there is no extreme scores. As it is discussed in normality of data (see section 3.5.6.7), all items have normal distribution without any extreme skewness (also see section 3.5.7.1). Overall, mode, median and mean indicate that all items intend to have a higher score above middle category. However, these scores do not report the proportions of middle scores. Next, I discuss the proportions of middle categories in data.

#### 3.5.7 Proportions of Middle Categories

One of the critics of using Likert scale is the middle category. Researchers has criticized its use as it allows participant to stay neutral. On the other hand, it is also recommended to have a middle category. There are two important reason to have it. First, item may not apply to all participants. If so, it is important to give them a neither option rather than forcing to choose one of agree and disagree options. Second reason, some participants may not have strong opinion towards the item. If so it is also



important to provide another option for them to avoid extreme skewness. Tables 3.13 and 3.14 present frequencies and percentage of items in both surveys. In employee questionnaire, all items have percentages lower 20% but performance on feedback practice items have percentages higher than 20%. Given data is normally distributed, 20% proportion can be considered as acceptable. However, for feedback on performance, there is slightly higher proportion. This may indicate that not all employee receive feedback on performance. Even participants receive feedback on performance, they do not consider the application of the item positive or negative. On the other hand, items in managers' survey have similar results with ones in employee surveys. Overall, results show that proportions of middle category do not create a problem for the skewness of data. Furthermore, middle category options increase the reliability as participant were not force either agree or disagree options.

*Table 3-10: Proportions of middle category item*

	Frequency	Percent	Cumulative Percent
STF1	42	18.1	26.8
STF2	46	19.8	33.3
STF3	40	17.2	26.4
STF4	41	17.7	25.5
STF5	36	15.5	20.3
PA1	70	30.2	48.1
PA2	66	28.4	55.4
PA3	61	26.3	52.2
PA4	57	24.6	45.2
PA5	69	29.7	50
PA6	51	22	45.5
KU1	34	14.7	26
KU2	63	27.2	47.2
KU3	42	18.1	29
KU4	51	22	47.2
KU5	32	13.8	22.9

JD1	36	15.5	19.1
JD2	44	19	29
JD3	30	12.9	18.2
JD4	39	16.8	29.9
JD5	56	24.1	45.5
SA1	35	15.1	33
SA2	46	19.8	28.6
SA3	17	7.3	12.6
SA4	17	7.3	11.3
SA5	25	10.8	16.5
OCB1	23	9.9	13.9
OCB2	27	11.6	16.9
OCB3	27	11.6	13.4
OCB4	10	4.3	4.8
OCB5	52	22.4	29.1
OCB6	13	5.6	6.1
OCB7	44	19	25.7

*Table 3-11: Proportions of middle category in managers' survey*

	Frequency	Percent	Cumulative Percent
CE1	22	27.5	50
CE2	22	27.5	47.5
CE3	8	10	17.5
CE4	19	23.8	32.5
CE5	15	18.8	28.7
CE6	17	21.3	32.5
CE7	17	21.3	32.5
CE8	14	17.5	28.7
CE9	20	25	37.5
EC1	14	17.5	23.8
EC2	21	26.3	31.3
EC3	20	25	36.3
EC4	15	18.8	30

EC5	21	26.3	40
SC1	17	21.3	27.5
SC2	11	13.8	22.5
SC3	8	10	16.3
SC4	10	12.5	16.3
SC5	11	13.8	17.5
FP1	20	25	42.5
FP2	18	22.5	45
FP3	19	23.8	42.5
FP4	21	26.3	42.5
FP5	28	35	51.2

#### 3.5.7.1 Normality

Normality is an important assumption in a multivariate analysis and it refers to the degree of the data distribution for a variable and its correspondence to the normal distribution (Hair et al., 2014). According to Kline (2011), data must be examined for normal distribution before being employed for SEM analysis because SEM assumes that the utilised variables are normally distributed. Distribution of data can be examined based on two components of normality - skewness and kurtosis (Hair et al., 2014). Skewness is used to describe the balance of the distribution; a skewed variable is a variable whose mean is not in the centre of the distribution (Kline, 2011). Kurtosis refers to the 'peakedness' or 'flatness' of the distribution compared with the normal distribution (Hair et al., 2014).

The normality of variables in the study is examined through the values of skewness and kurtosis for each continuous variable. According to Kline (2011), skewness values falling outside the range of 3.0 indicate a substantially skewed distribution, and kurtosis values greater than 10.0 may suggest a problem. On the other hand, Hair et al. (2014) suggest that skewness values falling outside the range of -1 to 1 indicate substantially skewed distribution. Based on the results (see Table 5.5), all items seemed to be

normally distributed. The normality test results for continuous variables are presented in table 3-8

*Table 3-12: Normality of data*

	N	Skewness		Kurtosis		Missing	
	Statistic	Statistic	Std. Error	Statistic	Std. Error	N	%
STF1	231	-.698	.160	-.317	.319	1	0.4%
STF2	231	-.670	.160	-.466	.319	1	0.4%
STF3	231	-.825	.160	.039	.319	1	0.4%
STF4	231	-.816	.160	-.034	.319	1	0.4%
STF5	231	-.984	.160	.609	.319	1	0.4%
PA1	231	-.274	.160	-.667	.319	1	0.4%
PA2	231	-.211	.160	-.836	.319	1	0.4%
PA3	230	-.321	.160	-.879	.320	2	0.9%
PA4	230	-.498	.160	-.544	.320	2	0.9%
PA5	230	-.435	.160	-.497	.320	2	0.9%
PA6	231	-.478	.160	-.750	.319	1	0.4%
KU1	231	-1.041	.160	.564	.319	1	0.4%
KU2	231	-.486	.160	-.559	.319	1	0.4%
KU3	231	-.792	.160	.093	.319	1	0.4%
KU4	231	-.411	.160	-.846	.319	1	0.4%
KU5	231	-1.126	.160	.814	.319	1	0.4%
JD1	230	-1.123	.160	.824	.320	2	0.9%
JD2	231	-.938	.160	.376	.319	1	0.4%
JD3	231	-1.290	.160	1.041	.319	1	0.4%
JD4	231	-.951	.160	.019	.319	1	0.4%
JD5	231	-.518	.160	-.555	.319	1	0.4%
SA1	230	-.806	.160	-.506	.320	2	0.9%
SA2	231	-.803	.160	.011	.319	1	0.4%
SA3	231	-1.411	.160	1.707	.319	1	0.4%
SA4	231	-1.577	.160	2.674	.319	1	0.4%
SA5	231	-1.204	.160	.879	.319	1	0.4%
EC1	231	-.604	.160	.381	.319	1	0.4%
EC2	231	-.725	.160	.324	.319	1	0.4%
EC3	231	-.780	.160	.252	.319	1	0.4%
EC4	231	-.805	.160	.493	.319	1	0.4%
EC5	231	-.638	.160	.113	.319	1	0.4%
SC1	231	-.621	.160	.016	.319	1	0.4%
SC2	231	-.784	.160	.180	.319	1	0.4%
SC3	231	-.693	.160	.022	.319	1	0.4%
SC4	230	-.692	.160	.552	.320	2	0.9%

SC5	230	-.520	.160	-.394	.320	2	0.9%
OCB1	231	-1.369	.160	2.206	.319	1	0.4%
OCB2	231	-1.267	.160	1.719	.319	1	0.4%
OCB3	231	-.717	.160	.132	.319	1	0.4%
OCB4	231	-1.216	.160	1.082	.319	1	0.4%
OCB5	230	-.736	.160	.266	.320	2	0.9%
OCB6	231	-.836	.160	.234	.319	1	0.4%
OCB7	230	-.769	.160	.044	.320	2	0.9%
CE1	231	.334	.160	-1.073	.319	1	0.4%
CE2	231	-.427	.160	-1.201	.319	1	0.4%
CE3	231	-1.272	.160	1.140	.319	1	0.4%
CE4	231	-.706	.160	.199	.319	1	0.4%
CE5	231	-.873	.160	.752	.319	1	0.4%
CE6	231	-1.233	.160	.919	.319	1	0.4%
CE7	231	-.307	.160	.025	.319	1	0.4%
CE8	231	-.870	.160	.274	.319	1	0.4%
CE9	231	-.250	.160	-.473	.319	1	0.4%
EC1_FRM	231	-.193	.160	-.512	.319	1	0.4%
EC2_FRM	231	-.363	.160	.096	.319	1	0.4%
EC3_FRM	231	-.583	.160	-.470	.319	1	0.4%
EC4_FRM	231	-.289	.160	-.558	.319	1	0.4%
EC5_FRM	231	-.207	.160	-.722	.319	1	0.4%
SC1_FRM	231	-.250	.160	.897	.319	1	0.4%
SC2_FRM	231	-.660	.160	-.463	.319	1	0.4%
SC3_FRM	231	-.990	.160	1.004	.319	1	0.4%
SC4_FRM	231	-1.458	.160	3.464	.319	1	0.4%
SC5_FRM	231	-1.031	.160	.517	.319	1	0.4%
FP1	231	-.258	.160	-.864	.319	1	0.4%
FP2	231	-.162	.160	-.756	.319	1	0.4%
FP3	231	-.616	.160	-.578	.319	1	0.4%
FP4	231	-.574	.160	-.597	.319	1	0.4%
FP5	231	-.444	.160	-.382	.319	1	0.4%
Valid N (listwise)	224						

### 3.5.7.2 Reliability and validity

Most constructs used for this study have ‘multi-item’ scales. To generate findings from these measurements, a central part of the development of any scale is establishing its reliability, validity, and uni-dimensionality (Kline, 2011). The following sections provide a discussion on scale validation criteria used in the present study.

#### 3.5.7.2.1 Internal consistency

Internal consistency is the most commonly used measure of reliability, which assesses the consistency among the variables in a summated scale (Hair et al., 2014: 123). Internal consistency means that items or indicators of a scale should measure the same attribute and have correlation among each other. Based on rules of thumb suggested by Hair et al. (2014) the item-to-total correlations exceed 0.50 and that the inter-item correlations exceed 0.30. for my scales. Variables were examined according to this rule and I removed items of OCB5, OCB7 from OCB scale and JD5 from job design scale and CE1 CE2 from corporate entrepreneurship scale because they had inter-item correlation less than 0.30.

#### 3.5.7.2.2 Cronbach's alpha

Cronbach's alpha assesses the consistency of the entire scale and acceptable lower limit for it is 0.70 (Hair et al., 2014). A low alpha score indicates that some items in the scale do not measure the same core so they must be identified and removed before factor analysis. All variables in the study showed that the coefficient alpha values are greater than 0.70 for all scales. Overall, the estimates of reliability were good as they were above the cut-off scores suggested by Hair et al. (2014). Details of these scores are available in table 3.9.

#### 3.5.7.2.3 Construct reliability

Construct reliability assesses internal consistency. Construct reliability indicates the degree of convergence among a set of items in a scale that represents a construct (Fornell and Larcker, 1981). For the study variables, I used Fornell and Larcker's (1981) formula to calculate construct reliability by using. Table 3.9 presents results for all variables in the study regarding their reliability and validity results (Construct reliability, Average variance explained and Cronbach Alphas).

*Table 3-13: Reliability and validity of the scales*

<b>Constructs</b>	<b>Const. Rel.</b>	<b>AVE</b>	<b>Cronb.</b>
<b>Staffing</b>	0.89	0.63	0.89
<b>Performance</b>	0.86	0.51	0.85
<b>Knowledge utilisation</b>	0.79	0.5	0.78
<b>Job design</b>	0.71	0.47	0.69
<b>Social events</b>	0.87	0.78	0.84
<b>HRM practices</b>	0.84	0.55	
<b>Human capital</b>	0.87	0.57	0.86
<b>Social capital</b>	0.87	0.62	0.82
<b>OCB</b>	0.82	0.47	0.82
<b>Corporate Entrepreneurship.</b>	0.96	0.76	0.93
<b>Financial Performance</b>	0.93	0.74	0.93

#### 3.5.7.2.4 Convergent validity and discriminant validity

Convergent validity (see Fornell and Larcker, 1981) calculates the average variance extracted to capture the amount of variance that is explained by the construct about the amount of variance due to measurement error. The formula for AVE, provided by Fornell and Lacker (1981) was employed to compute AVEs for survey variables. The AVE of each construct is higher than 0.5 (Fornell and Lacker, 1981; Hair et al., 2010) except for OCB and job design with 0.47 AVE scores. The square root AVE of each construct is higher than inter-construct correlation (correlation between each pair of latent variables) associated with that factor (Hair et al., 2010). OCB and job design has less than suggested AVE and deleting items from constructs can improve it. To achieve the suggested AVE, I deleted two items from the OCB scale. However, all measures do not have a problem for discriminant validity since their AVEs are greater than the squared correlation (Hair et al., 2014). For details please table 3.9.

### 3.5.7.3 Measurement model

Hair et al. (2014: 601) define measurement model as “*specification of the measurement theory that shows how sets of measured variables operationalize constructs*”. Measurements models can be tested with standard CFA models (Kline, 2011). Before conducting model testing with MSEM, I did a series of CFAs to examine the distinctiveness of the variables measured at the same level (Anderson and Gerbing, 1998). First, I conducted CFAs to examine whether individual level HRM practices, human capital, social capital and OCB are distinct variables. After that, I conducted CFAs to examine whether firm-level corporate entrepreneurship, human capital and financial performance are distinctive variables.

Kline (2011) suggests that when the sample is small, analysing CFA may have some issues. One issue with small sample size is that testing models with a number of parameters can create low fit indices because indicators tend to increase the possibilities of cross-loadings, which reduces common variances (Bagozzi and Edwards, 1998). For this reason, it is suggested that the ratio of sample size to estimated parameters should be five to one that makes five subjects for each free parameter in the model (Bentler and Chou, 1987). Bagozzi and Edwards (1998) recommend that, when testing with complex models and there are not enough large sample sizes, a researcher can choose to reduce the number of path coefficients by combining items of a given scale into multi-item composites. For this study, we adopt this approach, also known as item parcelling, to use composites instead of using items as indicators.

Mplus 7.3 software was used to run CFA. The CFA results were evaluated according to several fit indices. Four generally agreed fit indices are used for the model fit: SRMR (standardised root mean square residual) values less of than .08 indicate a good fit with the data (Byrne, 2011; Hu and Bentler, 1999; Kline, 2011; Heck and Thomas, 2009); RMSEA (root mean square error of approximation) values of less than .06 indicate a good fit, values above .06 and as high as .08 indicate an adequate fit, values



above .08 and less than .10 indicate a mediocre fit, and values above .10 indicate a poor fit (Browne and Cudeck, 1993; Byrne, 2012; Heck and Thomas, 2009; Hu and Bentler, 1998); CFI (Comparative Fit Index), and TLI (Tucker-Lewis Index) values between .90 and .95 are considered a good fit, while values of .95 and higher are considered an excellent fit (Byrne, 2012; Heck and Thomas, 2009; Hu and Bentler, 1999; Kline, 2011).

The results of CFAs are presented in table 5.7 in Chapter 5. A hypothesised 7-factor model (HRM practices, human capital, social capital, OCB, intellectual capital of the firm, corporate entrepreneurship and financial performance were as separate constructs) was compared to a series of alternative nested models: a 8-factor Model (dividing intellectual capital at the firm into human capital and social capital), a 4-factor Model (combining HPWS practices and human capital), a 3-factor Model 3 (combining corporate entrepreneurship and financial performance), a 3-factor model (collapsing all employee-rated variables), and a 1-factor model.

Comparative fit index (CFI), the Tucker-Lewis index (TLI), and the Root Mean Square Error of Approximation (RMSEA) were used to examine model fit. As shown in Table 5.8 (Chapter 5), the hypothesised 7-factor Model (TLI = .94, CFI = .95, RMSEA = .046) obtained an acceptable fit and it also fit the data better than the 8-factor Model 1 (TLI = .93, CFI = .94, RMSEA = .046), the 4-factor Model 2 (TLI = .90, CFI = .91, RMSEA = .05), the 3- factor Model 3 (TLI = .89, CFI = .89, RMSEA = .05).

#### *3.5.7.4 Multilevel structural equation modelling*

The flexibility of the SEM approach makes it an ideal modelling strategy for researchers to use in examining two-level cross-sectional or longitudinal models. I used multilevel path analysis to test the proposed model in order to account for the nested structure of the data (Sun et al., 2012). Using multilevel path analysis enable to decompose the variance of a level-1 variable into its within component (within-group variance) and a between component (between-group variance) (Lüdtke et al., 2008; Muthén and

Asparouhov, 2009; Sun et al., 2012). Furthermore, *“relationships between these variance components can be modelled at each level through the specification of structural relationships”* (Sun et al., 2012, p. 60).

Compared to Baron and Kenny’s (1986) multiple steps regressions and the hierarchical linear modelling, as Preacher, Zyphur and Zhang (2010) suggested, multilevel path analysis is more suitable for multilevel mediation tests (Sun et al., 2012). According to Sun et al. (2012, p. 60) *“a multilevel path model can: (1) avoid the potential problem of conflating the between-group and within-group relationships, (2) directly estimate the indirect effects and the multiple paths that are components of these indirect effect, and more importantly, (3) provides fit indices for the overall model.* In the study, the analyses were conducted using Mplus 7.3 (Muthén and Muthén, 1998–2016) with robust full maximum likelihood (MLR) estimation. As mentioned above, the results for Phase 2 of my research are presented in Chapter 5.

### 3.6 Research ethics

As mentioned above (see Chapter 1, section 3 and chapter 3, section 1), this study involved both interviews and a survey that produced a significant amount of data about the HRM practices and both at the individual and firm level performances in mid-sized IT businesses in Turkey. Robson (2011) discussed that while getting a rich set of data is quite useful; however, while doing so several ethical issues need serious consideration. Research ethics play a major role in the negotiation of access to people and organisations and the collection of data (Saunders et al., 2016). Therefore, the study must consider ethical issues throughout the research process. Ethical concerns emerge as the researcher plans the research, seeks access to organisations and individuals, and collects, analyses, and reports the data. To ensure ethical considerations were properly addressed, the study followed the ethical guideline by Aston University.

Assuring anonymity and confidentiality are important considerations for the individual participants. I made sure that the information was treated and used by me in a way that ensured confidentiality and anonymity of the research participants. This was achieved by explaining the objectives of the research and data collection to the respondents. During the interviews, I asked permission to record the conversations from each participant. All the paper-based and electronic data were stored in a secure place, and password protected.

Another ethical issue associated with this study was informed consent. Before conducting interviews, a consent form was given to each participant. The consent form contained details of the research, reasons for the interview, duration and permission of audio recording. Also, I informed participants that it was not compulsory to answer all the questions and that they could leave the interview at any time.

### 3.7 Summary

This chapter has provided a detailed presentation about the philosophical and methodological approaches employed in the current study. The chapter started by discussing philosophical underpinnings of the study. The discussion covered both ontological and epistemological positioning of the study. The chapter continued by presenting information about my research methodology. The study adopted a mixed methods approach where both qualitative and quantitative designs were used as sequential. The presentation provided a detailed discussion regarding the process the study followed in each phase. Finally, the chapter closes by a presentation on the ethical considerations core to my research. The next chapter presents findings from Phase 1 of my research.

## 4 Findings from Phase 1

This chapter presents the findings of the qualitative study (Phase 1 of my research), which is based on semi-structured interviews. The principal aim of the Phase 1 was to explore the nature and kind of HRM practices in medium-sized IT businesses in Turkey. Furthermore, it also explored how HRM practices can contribute to firm performance, the particularly innovative performance of the firm and employee creativity. Finally, it aimed to develop an integrated multilevel model highlighting the linkages between HRM and both individual and firm level performance by utilizing the RBV and SET. This chapter includes a presentation on the background of the study, the justification for research population, data analysis, key findings, a brief discussion the same and developing the multilevel model to be tested during Phase 2 of the study.

### 4.1 Introduction

The literature of strategic HRM (SHRM) suggests that HRM practices affect organisational performance by enhancing employee's attitudes, behaviours, and skills (Huselid, 1995; Katou and Budhwar, 2015; Rhee, Zhao and Kim, 2014). A number of studies have examined the relationship between HRM practices and employee attitudes and behaviours, such as commitment, satisfaction, OCB and social support (see e.g., Kehoe and Wright, 2013; Liao et al., 2009; Sun et al., 2007; Takeuchi, Chen and Lepak, 2009; Mallen, Chiva, Alegre and Guinot, 2015; Ogunyami and Bruning, 2015; Takeuchi, Lepak et al., 2007). On the other hand, there also are a number of studies that have investigated the link between HRM practices and organisational performance (e.g., Huselid, 1995; Katou, 2008; Klacmer et al., 2015; Mallen et al., 2015; Ogunyami and Bruning, 2015; Rhee et al., 2014).

Although the impact of HRM on organisational performance is now well recognized, nevertheless, most studies in this regard have focused on large firms. Compared to the amount of literature on large companies, in general, understanding the use of HRM

practices specifically in medium-sized firms is particularly underdeveloped (FU et al., 2015; Shipton et al., 2016). Also, the positive correlation widely reported between the adoption of specific HRM and firm size (e.g., Forth et al., 2006) confirms the paucity of research involving MSBs. Also, other rationale for the conduct of Phase 1 of my research was provided above (see chapter 3, section 3.4). Hence, this study was conducted.

This section addresses critical research questions. First, this phase highlight what is the nature and kind of HRM practices existing in the Turkish medium-sized IT firms. Second, the nature and kinds of innovation at medium-sized IT firms in Turkey were explored. Finally, it develops a multi-level model to investigate the impact of HRM on innovation/performance at both the individual and organisational levels in the research context. (also see, chapter 1, section 2). the presentation of analysis is linked to the ordering of the research questions, and themes were picked according to ordering of themes in the interview schedule. Furthermore, in the presentation, I will provide direct quotes from participants to support the thematic analysis.

## 4.2 Results

### 4.2.1 HRM Practices

As the purpose of this phased of my research is to highlight the nature of HRM practices prevalent in medium sized IT firms in Turkey and whether they (HRM practices) contribute towards firm's performance via innovation and employee creativity. Below, I present the results obtained from the thematic analysis of interviews. First, I provide a general presentation regarding the nature and background of HRM in the research firms. Then, I will present details of existing HRM practices.

The findings suggest that HRM practices are informal and less sophisticated as expected in the medium-sized firms and Turkish context (also see Cetinel et al., 2008; Koyuncu et al., 2012). The most obvious facts emerging from the findings are that firms do not have a certain ('given') set of HRM practices, but they vary across firms. It is

also found that medium-sized firms differ in their approach to HRM and HRM policy. Given that established and formalised HRM practices require a significant investment that costs both time and money, medium sized firms are reluctant to adopt professionally managed HRM practices due to their limited resource availability. This indicates that administration of HRM is influenced by an organisation's socioeconomic context (Harney and Dundon, 2006). The findings also suggest that the research firms need to be practical for HRM related decisions as they lack the resources to develop and implement HRM strategy and policies. This leads HRM practices being emergent, informal and less sophisticated (also see Theodorakopoulos, 2014).

However, medium sized business in comparison to smaller firms are more organized and, findings suggest that there is an awareness regarding HRM practices. This is along the lines of existing studies (see McEvoy and Buller, 2013). The interview with owners and top executives reveal that firms are concerned about HRM practices to ensure the good fit between HRM practices and their business strategy. As it is suggested, HRM can provide firms to adapt and adjust to their competitive environment by aligning HRM policies and practices with firm strategy and environmental conditions (Kidwell and Fish, 2007). However, it is worth finding out what dictates the existence, and nature and type of HRM practices in medium-sized firms in the Turkish IT sector. My results show that there are a variety of factors that affect HRM policies and practices in these firms. Next, I present these factors.

#### *4.2.1.1 Factors Affecting HRM practices*

My results show that there are many factors that influence the administration of HRM practices in mid-sized IT firms. The following three main influences emerge strongly from the analysis of my interview data - managerial value and ideology, HRM supply, and workforce skills and characteristics.

#### 4.2.1.1.1 Managerial value and ideology

One of the key factors influencing the nature of HRM practices is the perceptions held by the owners, top executives or senior management about the ways of managing and developing employees (Tsai, 2010). Managers and owners acknowledge the importance of employees with required KSAOs for producing innovative products. They also see the use and role of HRM practices (such as staffing) in attracting, retaining and developing firms' human resources. However, participants provided information regarding the influence of managers' perception and background on the effectiveness of HRM in MSBs. In this regard, one HRM manager stated that:

*The owners are former Microsoft employees, and they promote a similar workplace culture and management understanding to their previous experience in the USA.*

This confirms findings of earlier research that people management in SMEs/MSBs are affected by managerial ideology and often determined by the objectives of the business owner (e.g., Bacon, Ackers, Storey and Coates, 1996; Brand and Bax, 2002; Harney and Dundon, 2006; Tsai, 2010). However, there are also firms with owners and senior managers who have a traditional approach to HRM. In these firms, the firm does not employ a full-time HRM professional, and HRM practices are mostly administered by line managers and their nature is less formal.

#### 4.2.1.1.2 High-skilled work-force

Technological developments and rapid advancement in information and communication technologies have made human resources a relatively important source of competitive advantage for knowledge-based firms (Chuang, Chen and Chuang, 2013; OECD, 1996; Psychogios et al., 2016; Teece, 1998) such as information and communication firms. My findings clearly show that mediums sized IT firms are striving to deploy a high-skilled workforce, which is the major resource to have a competitive advantage in the IT sector. However, my research participants reported that it is not always easy to fill a vacant position when it needs a high level of KSAOs and experience. To attract the best talent and pool the human capital, the organisations should adopt specific

HRM practices, extensive recruiting methods, compensation plans to beat their competitors to attract and retain employees (Tsai, 2010). However, competition in the market and attempts by large firms to recruit current talented employees of the research firms make it difficult to retain core employees. Therefore, the influence of the external environment (i.e., competitors) forces MSBs to imitate and adopt similar HRM practices (DiMaggio and Powell, 1983; Tsai, 2010). In this regard, one firm owner stated that:

*We have moved our headquarters to the Techno-park where we receive tax advantages. However, here we face another difficulty, i.e., to retain our core employees who are attracted by larger firms in the techno park. There is no way we can compete with their offers as we are constrained by financial resources.*

This explains that not only recruiting but also retaining high-skilled core employees is a challenge for medium-sized IT firms. However, there is also another challenge, which is linked to employing high-skilled work force. My semi-structured interviews with employees demonstrated that they appreciate to have opportunity to use their KSAOs and develop their expertise via challenging projects. Thus, firms need to provide these opportunities and chances to them. An HRM manager of a firm talked about their education and development programme where employees can join both as a learner or an instructor to develop their skills and knowledge. This programme is designed as an out of work activity at the beginning but later it turns into a joint programme with a local university where students and future candidates can join. This is aptly put forth by an HRM manager:

*It helps employees to expose and share knowledge with others. They, therefore, get some satisfaction of their knowledge and skills.*

On the other hand, core employees at IT firms usually have an engineering background and education. Employees with engineering background like procedures that are clearly and logically explained (Tsai, 2010). For this reason, when practices and procedures of HRM usually are not well established and explained in the firms, it is very likely to create a conflict between core employees and managers who are responsible for HRM. Firm Demographics



My findings further show that firms' characteristics such as size, availability of resources, organisational structure affect the use of HRM practices. As firms' size grow, work environment and culture transform into the more formal structure. For this reason, HRM practices are found more informal in smaller firms (Mayson and Barrett, 2006). However, the informality of HRM practices cannot produce the desired outcome all the time, especially when size grows there is a need for formal and planned practices. My data reveals that majority of participant firms are in a transition mode towards having more formal and planned HRM practices and organisational structure. On the other hand, this transition brings other issues such as workplace conflict, changing the culture and climate, etc. For instance, a software developer reported that he was happy with his line manager's evaluation and feedback earlier. Recently, he started to receive an evaluation from HRM manager with which, he was not happy because he claims that the HRM manager have no knowledge regarding job tasks and duties, which require very specific job knowledge and experience.

#### *4.2.1.2 The existent HRM practices*

To highlight the nature of HRM practices in mid-sized IT businesses context, research participants were asked to report HRM practices in use in their organisation. The analysis shows that there is a range of HRM practices that are prevalent in this context. This list of HRM practices is present in Table 4.1. However, it is worth noting that these practices are not existing across the board. Research participants were also asked to list the most important HRM practices and their impact on innovation and employee creativity. They reported that the most important HRM practices include staffing, performance appraisals, feedback, information sharing knowledge utilisation, team-based work practices and social activities and events. Next, I present the findings related to these HRM practices. In this presentation, we focus on information about the nature of HRM practices and their contribution to innovation and creativity.

Next, I explored the impact of HRM practices on employee and firm performance, particularly on creativity and innovation. In this regard, the research participants were

asked to list HRM practices they consider as critical for employee creativity and innovation. Based on the analysis of results, I created a list of most reported practices as critical for creativity and innovation. These are available in table 4-2.

*Table 4-1: Type of HRM practices prevalent to mid-sized firm in the Turkish IT sector (figures in the table represent %).*

<b>HRM practices</b>	<b>Managers</b>	<b>Owners and CEOs</b>	<b>Employees</b>
Staffing practices (such as recruiting, talent hunting, selection, hiring, retention)	17	17	17
Performance appraisals & feedback practices	17	17	17
Training and development	14	13	08
Social activities and events	12	09	14
Compensation	11	09	07
Communication	08	09	05
Team and project based work practices	10	13	11
Monitoring	04	04	07
Information sharing	02		10
Motivation practices	01	04	01
Participation	05		00

The main difference between Table 4.1 and table 4.2 is regarding the reporting style of participants. Table 4.1 presents findings derived from participants reported existing HRM practices at their firms. Table 4.2 presents findings, which are based on what the

participants ranked HRM practices as per their contribution to innovation and creativity. As this study aims to investigate the impact of HRM practices on performance within medium sized IT firms, it is important to highlight the most critical and common HRM practices across the firms. Considering the difference between these two tables, it is obvious that HRM practices vary cross the medium-sized IT firms. However, I continue to develop the model based on table 4.2 as it suggests more generalizable results for the research firms.

*Table 4-2: Most important HRM practices influencing creativity and innovation (figures in the table represent %).*

Codes for the most important HRM practices	Managers	Owners and CEOs	Employees
Staffing	35	25	40
Feedback and performance appraisals	35	25	40
Social activities and events	45	5	50
Team work	40	20	40
Information sharing and communication	30	10	60

#### 4.2.1.2.1 Staffing Practices

Staffing practices have emerged as the most important HRM practices in use in the study. Research participants reported that pooling together a high-quality human capital is the most important aim of the firms in the IT sector where there is intense competition between similar firms with similar resources and product lines. It is also found that staffing practices such as recruitment and selection of high skilled and experienced employees have a significant influence on firm innovativeness and employee creativity in the medium sized IT firms.

Administration of staffing practices shows differences in formality and structure. Firms with an established HRM department tend to have more formalised and structured process while other firms in which there is no HRM department and HRM professional have unstructured and intuitive processes. On the other hand, a manager reported that they only conduct traditional interviews with executives and make hiring decisions. As a result of this informality, recruiting approaches are often ad hoc. Due to their limited

resources and small size and to compete for the same pool of talent with larger firms, recruiting practices are designed to be convenient, inexpensive and directly controllable by the firm, such as direct applicants, personal and employee referrals, third party online career centres, company websites, campus recruiting, newspaper and specialist trade press advertisements and headhunting. Selection practices are based on interviews, experience and education, requirements of jobs, and reference and background checks. There also is an emphasis on the compatibility between organisational culture, norms and values and the applicants' personality. For instance, one HRM manager reported that: *"they use very well structured personality test to select the right person based on not only KSAOs but also person-organisation fit."* Moreover, the focus is on matching applicants' KSAOs and expertise to firm's needs rather than to specific job requirements (also see Heneman et al., 2000; Cetinel et al., 2008). Final hiring decisions are made by top executives in all firms regardless of the existence of an HRM department. For this reason, it can be concluded that staffing practices are not only the most important HRM practices but also an indicator of the importance of HRM in the research firms.

Results from the interviews also show that the labour market condition is an important factor that affects organisations HRM policies and practices. Participants stated that firms are facing a great challenge to fill senior vacancies due to a shortage of candidates with required set of competencies. However, there are few firms, which prefer hiring inexperienced graduates as they want to train and develop the new entrants according to their unique needs. It also enables these firms to pay low wages to such candidates in comparison to experienced employees.

My findings further confirm that retaining employees at the research firms is also a critical issue. Managers reported that retaining qualified human resources is one of the major challenges for the IT sector while it is already difficult to recruit high skilled and experienced employees. This is also indicated by the findings of the IT survey by TUBISAD in which human capital was reported as the most important problems of IT

industry in Turkey. There are several reasons for it. First, large companies attract employees from mid-sized IT firms with higher wages and career opportunities while medium sized IT firms cannot offer competitive wages and provide a clear career progression mechanism. Another factor is that client firms hire IT consultants for a full-time position at their sites. Therefore it is reported that firms try to recruit the right people whom they can retain for long. The below comment by an HRM manager is appropriate in this regard.

*"We tell to candidates about our conditions and opportunities at the firm during job interviews, and we work with people who want to work at our company."*

An employee from the same company confirms this in their comment, which is:

*"I used to work for one of the biggest IT firms in Turkey before joining this company and received higher wages than I receive here. However, I like to work here because I feel I add value to this organisation."*

These statements confirm that staffing practices enable firms to identify and select high performing employee, recruit the best talent and retain them in the long run. Furthermore, the interviewees also emphasized the importance of staffing practices for innovation and employee creativity via creating a high-quality human capital in the firm (also see Jimenez-Jimenez and Sanz-Valle 2008 in this regard). As it is discussed earlier and reported in the literature, innovation is based on knowledge and intellectual capital at the firm (Subramaniam and Youndt, 2005). Particularly for mid-sized IT firms, creating a high level of intellectual capital and knowledge starts with recruiting the best talent and most experienced employee into the organisation. An owner's comment confirms such sentiment:

*"our employees are key to innovation at the firm. We always aim to recruit the best talent who can contribute to our company".*

Overall, staffing practice helps the firm to pool highly qualified human resources, and retain them at the firm for long. Moreover, staffing practices contribute to both firm innovative performance and individual employee performances by enhancing human capital of the firm by selecting not only highly skilled and experienced employees but also employees who match with their organisational culture, values, and norms. This is

how medium sized IT firms begin to create human resources in which employees perform and behave beyond their employment relationship with the firm.

#### 4.2.1.2.2 Performance Appraisals and Feedback

Another important HRM practice reported by participants in the study is performance appraisal and feedback practice. Among the various HRM practices, performance appraisals and feedback, in particular, has been identified to have a significant influence on determining employee-employer expectations (also see King, Chermont, West, Dawson and Hebl, 2007) and employee development. Performance appraisal (PA) and feedback process is pursued either by the owner, senior managers, line managers and/or the HRM manager (if there is one). Even though there is a formal and written job design and job description, at few firms there is no objective evaluation tool or process for assessment in place. Formal appraisals are usually absent; they are often uncoordinated and ad hoc, which arguably impacts employee behaviour and performance. This is why the nature of PA and feedback is more related to recognition of achievements of employees and an appreciation of their performance.

Managers and top executives reported that the main purpose of these practices is to encourage their employee to keep up the good work going and appreciate their performance. The analysis reveals that there are no objective performance criteria and evaluation tool utilised in the research firms (e.g., 360-degree feedback systems), their most evaluations are based on managerial observation and project outcomes which enable the firms to provide useful and necessary feedback to employees. However, as firm size grows, it is likely to pursue objective PA evaluation tools and processes. For instance, a senior manager of an IT firm with over 100 employees, stated that:

*“360-degree feedback tool has been used for PA. However, it did not generate objective feedback as employees hesitated to report their feedback. Now, we stop using it, but we still consider to use it again in the near future”.*

The findings further show that performance appraisals and feedback are used for disciplinary processes and handling low performing workers. When there is a case of a

low performing employee, line managers or HRM manager usually have a meeting to solve any problem that causes low performance. However, it is very rare in the Turkish medium sized firms to find formalised procedures for managing disciplinary processes or dismissals of workers.

There is a weak consensus in the literature on the contribution of performance appraisal and feedback towards innovation (Byron et al., 2010; Jiang et al., 2012). However, if evaluation and feedback address the need for improvement and the way to achieve the targets, it enhances employees' creativity (Shipton et al. 2006). My analysis show that, in the research firms, performance appraisal practices can positively affect innovation. Employees reported that they perceive performance appraisals and feedback are useful and especially when they receive positive and constructive feedback from their supervisors. In this regard, one participant stated that:

*"Receiving feedback and evaluation from my supervisors are useful even the frequencies of it is low, I like the way how my supervisor provides feedback regarding the tasks I have done and his appreciation of the same."*

As it can be drawn from the above statement, another significant benefit of performance appraisals is enabling employees and managers to develop interpersonal skills and opportunities for information sharing. For this reason, PA and feedback can contribute to firms' social capital such as helping each other and sharing knowledge and information. Furthermore, receiving feedback and inputs related to performance improvement helps employees in developing new and creative approaches to their work activities. It is because of employees perceive that receiving constructive feedback and performance evaluation encourage and motivate them to be more creative at the work even performance appraisals and feedback do not seriously and directly affect employees' KSAOs.

#### 4.2.1.2.3 Information Sharing and Knowledge Utilisation

Information sharing and knowledge utilisation did not emerge as key HRM practices from interviews, but it came out from their discussions regarding the significance of

work environment. The analysis demonstrates that there is an awareness at the firm level to promote these practices to enhance both firm's innovative capabilities and employee performance constitute a critical intangible asset for gaining and sustaining competitive advantage (Aktharsha and Sengottuvel, 2016). However, some factors affect the sharing of knowledge in the research organizations. These include: availability of information technologies, organizational culture, trust, and incentives offered. These factors can foster knowledge sharing and information utilisation as long as they managed accordingly. For instance, a HR manager talked about their project monitoring software which enables all members of the firm can see the advancement of all projects running at the firm. Having this kind of technological infrastructures can facilitate knowledge sharing and information flood across the firm.

According to the literature, knowledge and information is recognised as one of the most important assets of the firm (Nonaka and Takeuchi 1995; Nahapiet and Ghoshal 1998; Yu et al., 2013). Aktharsha and Sengottuvel (2016, p. 122) defined knowledge sharing and information utilisation defined "*as an activity through which knowledge (i.e., information, skills, or expertise) is exchanged among people, friends, families, communities (e.g., Wikipedia), or organizations.*" According to Chow et al. (2006), knowledge benefits all members of organisation when it is shared with others. My interviewees suggested that as more people are involved in this process, the greater is its value for the organisation. Furthermore, sharing knowledge and information helps the firm to create a workplace, which is a source of creativity and innovation. Managers and top executive from my sample reported that they promote sharing information and knowledge across their firms. An HRM manager stated that:

*"We aim to have an organisation where knowledge and information are the core strengths of the firm."*

At the mid-sized IT firms, knowledge and information is regularly shared with individuals, particularly the core employees of the firm. In the IT sector, core employees bring knowledge and information to the firm and further they own the knowledge and



information generated at the firm. Thus, the findings from the interviews show that knowledge and information utilisation based on the employee's behaviour is shared and utilised to improve work systems (also see Bock, Zmud, Kim and Lee 2005). Therefore, it can be concluded that knowledge and information utilisation depends on individuals and their sharing practice between each other. For instance, an employee confirming the importance of information and knowledge sharing said that:

*"it is a small organisation where we have a nice and friendly work climate. The most important factor is that we can share knowledge and information between our colleagues. For instance, if I have a problem and need to ask my managers, I can easily go and talk to them."*

On another hand, a CEO reported that they introduced a method to pool ideas and suggestions from employees. He stated that it failed because the process required submission of a written proposal and employees did not commit to such a practice as it requires a formal and complex procedure. Nevertheless, it seems that knowledge utilisation and information sharing has become effective and useful for the mid-sized IT firms because it is viewed as a source of achieving a competitive advantage for the firm (also see McEvily, Das and McCabe, 2000; Ipe, 2003; Liu et al., 2011). However, it depends on how sharing procedure is designed and administered.

Administration of information sharing and knowledge utilisation is not formal and structured and it is not perceived as an established practice. However, it is an agreement among the organisation members that they are expected to be willing to share their experience and knowledge with each other. Employees are also expected to learn from others by working together. There are two important factors affecting this practice. First, work environment and culture of the firms. Mid-sized IT firms are attracting employees with their unique work experience. On the other hand, mid-sized IT firms are less structured, which enhances communication and sharing of key information among members of the firm. The second factor is that firms are very careful with their staffing practices to select the right person who adjusts to their unique work environment.

In conclusion, employees perceive their workplace as creative for them to develop and bring new ideas as sharing and participation process gets simpler and easier. Information sharing and knowledge utilisation motivate employees to be creative and enhance firm's innovativeness. This practice eventually helps firms to create a competitive advantage by developing firm's intangible assets and enabling employees to learn from each other to develop new knowledge and information. For this reason, it is considered as an important HRM practice.

#### 4.2.1.2.4 Team Based Job Design Practice

My findings show that team-based work design practice emerged as one of the important HRM practices. The nature of work at medium-sized IT firms requires tasks and jobs to be done by teamwork. Teams, mostly, are formed according to projects. Given that teams are formed based on projects at the research firms, employees can be member of few teams for different projects. As it is reported in the literature, team-based job design has a significant influence on employee creativity and innovation (e.g., Fay et al., 2014; Hayton, 2005; Zheng et al., 2008).

The interviews' findings suggest that employees in the study show a great importance for team-based job design practices. According to 50% of employees' respondents, project teams served as the primary vehicle for learning, and the acquisition of work-related knowledge and skills was mainly informal and self-directed. This also confirms that novel and challenging job design can be a major source of learning for employees (Ortega, 2001). The team based job design also compensates the limited training and development opportunities at medium-sized firms as their work creates opportunities for individuals to learn from each other and share their experiences. For instance, an employee emphasized the importance of team-based work as:

*"I am currently working on three different projects with different colleagues. Every project is another challenge that helps me to improve my knowledge and skills."*

Furthermore, team-based job design helps employees to develop social skills, build interpersonal relationships among team members, which enhance communication,

help, and support. It eventually contributes to develop and maintain a given type of organisational culture and climate (characterised by sharing knowledge and support).

Furthermore, collaboration in teams is critical for creativity hence the presence of team work could lead to internal constructive conflict about attention and use of creative energy (Barczak, Lassk and Mulki, 2010). As one manager reported:

*“We have to develop different projects for every customer. Every project needs different novel solutions and unique features. To meet the needs of customers requires creativity.”*

The design of teams affects both employee performance and team performance. Thus, it is important for firms to administer job design effectively to enhance autonomy, skill variety, task identity and create opportunities to share and implement their ideas. Overall, team-based work practices can contribute to both firms' success and employee performance. Teamwork encourages employees to exchange ideas and information with each other and facilitates collaboration at the workplace and enhances employee creativity that eventually leads to better firm innovation performance.

#### 4.2.1.2.5 Social Activities

Research participants in the study reported social events and activities as one of the most important HRM practices. These activities and events can be a picnic, birthday celebration, dinner or going out for sports related activities. Based on the discussions, there are two main reasons for their importance: first, from the employees' perspective, social events and activities are an important feature of an attractive workplace where they would like to work. Second, social activities and events are believed to contribute to firms' social and human capital as they facilitate communication and help between employees (e.g., MacDuffie, 1995; Cardon and Stevens, 2004;). Although, these practices are considered as very important, their administration is usually carried out by line managers and volunteers (employees).

One significant benefit of these activities and events is that they accelerate the communication among employees. During social events, employees develop

interpersonal relationships and get to know each other. Engaging with their colleagues in out of work environment enable employees to have a better collaboration and sharing at the workplace. In this regard, an employee stated that:

*“there is a good work environment, HRM helps us to sustain and improve this environment, particularly via social events.”*

Furthermore, these activities can help firms to create an image, which is that of an attractive workplace. Research employees frequently reported that social events enhance firms' reputation as an employer. Thus, firms can attract employees with talent and skill to create a human capital needed to achieve competitive advantage. Although, this is not the only factor that affects employee's decision to join the firm, it certainly has some influence over employee's decision to in this regard.

Overall, social activities and events have emerged an important HRM practice. Given the importance of workplace environment and social events and activities, the interviewees could confirm their positive impact on both firm and employee's performance.

#### 4.2.1.2.6 Other HRM Practices

In the above section, I presented the most frequently reported HRM practices that are perceived as important in the sample firms. Apart from the above, the participants reported a variety of other HRM practices when they were asked to list the existing HRM practices at their firm. These include training, compensation, and career development. Next, I briefly present the findings regarding these practices.

Training in the medium-size firms is less formal, and off-the-job. Moreover, there are no structured and formal training programmes for new recruits in majority of the sample firms. One of the reasons for this is that such firms do not have the available sources to provide large formal and structured training programmes. Given that SMEs usually operate with limited resources, having employees to receive out of work training and development is particularly challenging for them.

Since most firms are missing structured training and development programme(s), administration of training practice is quite vague. Once hiring decision is made, the employee is provided with a quick orientation to learn about the workplace and their given assignment. For training purposes, new recruits are assigned to basic tasks and duties to monitor their performance at the job. It usually takes 2 or 3 months in most cases. On the one hand, firms need to regularly train their employees on a new software or programme, but in most cases, training is provided by their suppliers (e.g., Oracle, Microsoft, IBM). Mostly, this type of training is not applied to all employees but to few of them, such as team or project leaders. This also confirms that team based job design has a significant role in providing opportunities for employee training and development. Overall, even though the literature indicates that training enhances employee creativity and innovation, it did not emerge as an important HRM practice in the study because of employees not receiving it as an established and structured programme.

Compensation is another reported HRM practice prevalent in my research firms. However, it is reported only by few participants. The nature of compensation practices is found straight-forward and mostly standardized by pay grades. The pay structures differ between firms according to their size and business focus. For example, in an IT consultancy business, pay structure is relatively high in comparison to a software company. Furthermore, compensation practices are not coordinated with performance and reward as incentives, and financial rewards are not available for most firms. This is why compensation practices lose their importance and positive impact on employee behaviour and performance.

Administration of compensation practice is simple and less sophisticated in comparison to their large counterparts. In my research sector, the decisions regarding wages and increases in the wages seem to be usually made during the recruitment process. Besides the salary or wages, employees also receive other benefits such as transportation and bonuses. Compensation decision usually is made on subjective

criteria such as seniority and job positions. Giving that performance appraisal is not coordinated with compensation, hence competency based pay is not available. Therefore, it is not easy to measure the influence of this practice of employee performance. However, it can be concluded that medium-sized firms are trying to compete with market wages to recruit and keep their human resources. Overall, the simple form of compensation is not making compensation an essential HRM practices at the firm. Of course, it is an important factor to attract candidates. However, due to the limited financial sources, mid-sized IT firms cannot compete with large firms in this sector. Thus, they try to recruit people who choose to work in small firms over large firms.

Career development is another HRM practice reported by the interviews which is prevalent in the research firms. However, this practice is reported only by few research participants from relatively large firms where promotion is an important practice. Given the small size of my sample organisations, most firms cannot utilise this practice. In this regard, an HRM manager made an appropriate comment:

*“if an employee wants to pursue his or her career aims, we cannot meet his or her needs as we have limited promotion availability in the organisation.”*

The practise of career development is not applicable to all firms. For this reason, I did not include it to the list of the important HRM practices.

#### 4.2.2 Innovation

In this section, I present the findings from the semi-structured interviews for the innovation theme. Participants were asked to report about the nature and kinds of innovation prevalent in their firms. Based on their statements, I highlight the nature and kinds of innovation existing in the sample firms. The main theme of innovation includes types and nature of innovation and innovation effort at the firm level. Nature of innovation covers the factors that affect innovation and types of innovation while innovation efforts combine the commitments and investments made by the firm to achieve more innovativeness in the organisation.

#### 4.2.2.1 Types of innovation

Owners, CEOs, and managers have reported that there are four types of innovations existing in their companies: (1) Product, (2) Process, (3) Administrative, and (4) Marketing innovation. However, it is not observed that all types of innovation exist across all firms in the study.

*Product* innovation includes developing new products and services and improving available products and services according to customer needs and market changes. It requires utilizing new knowledge and technologies as well as it utilizes existing knowledge and technologies at the firm. Managers and owners reported that bringing a brand new product or service to market requires investing in advance technologies that cost both time and money to the firm. For instance, an owner of IT firm located at Gebze techno-park stated that:

*"I rather invest in real estate instead of investing in R&D projects because real estate in Turkey provides 60-70 % profit margin and returns in a year while R&D projects requires 3-5 year investment and it is still not clear yet whether it will pay back or not."*

Whereas a CEO of an IT firm said that:

*"Innovation requires dedicated intellectual capital and financial investment. On the other hand, the firm needs to generate profit to run the business... there are 3 R&D projects we are working on for years, and we have products in the market that we need to provide post-sales services. For this size of the firm, innovation is not easy. However, it is critical to compete in the market."*

As it is stated above, product innovation also includes entrepreneurial concerns such as profit and return time on the investment and surviving in the competition. Having these concerns inhibits IT firms to bring brand new products and services to the market but lead them to develop more practical ways such as improving existing products and services. Changing customer needs mostly drive this kind of innovation. Mid-sized IT firms are committing long-term relationships with their clients and provide a long-term contract. This type of relationship mostly based on the capabilities of the IT firms to meet the needs of the customer that requires IT firms to be more innovative in their products and services.

*Process* innovation relates to the implementation of a new or significantly improved production or service delivery method while the product innovation relates to product and service. Process innovation aims to decrease the unit cost of production and delivery, to increase the quality and to create or deliver new or improved product and services (Damanpour and Gopalakrishnan, 2001). In mid-sized IT firms, process innovation can overlap with organizational innovation and product innovation. For instance, an infrastructure database firm employs full-time IT consultant at its clients' site to enhance the quality of the service. This can be considered as a process innovation as well as an administrative innovation because it is a work practice.

*Marketing* innovation relates to pricing, product package, design properties, product placement and promotion activities (Gunday et al., 2013). Marketing innovation aims to meet customer needs better, entering new markets or repositioning an existing product in the market (Gunday, 2013). Mid-sized IT firms commit to marketing innovation because it helps to increase the firms' sales. In this regard, the CEO of an IT firm in Ankara stated:

*"we try to attend international trade fairs and exhibitions to promote our products and services in new markets."*

Marketing innovation needs to be considered with product innovation because marketing innovation eventually may require a change in product and services. Especially at those firms, which collaborate with their customers, product innovation is driven by marketing innovation. On the other hand, there are firms where product or service drive marketing innovation.

*Administrative or organisational* innovation is based on implementing new organisational practices. Administrative innovation targets to reduce administrative and transaction cost to increase firm performance. Because of their size, mid-size IT firms tend to transform with passage of time into the more formal organisational structure. However, it is not a rigid structure as it is in large companies and not informal as it is in small companies. This nature of mid-sized firms enables firms to implement new



administrative innovation to enhance workplace satisfaction, reduce transaction cost, and access intangible assets such as knowledge and information.

Overall, the semi-structured interviews have demonstrated that four types of innovation exist at mid-sized IT firms. The most important motivation for innovation at the firms is to be competitive in the market. Entrepreneurial concerns such as the return on investment and profit restrain firms to invest in new products but lead them to improve their existing product and services. Marketing innovation also enables IT firms to increase their sales in the short term. Organisational innovation is mostly influenced by the semi-structured organisation of mid-size firms.

At the managerial level, there is awareness regarding the types of innovation happening in their firms. However, there are differences among organisations relating to the level of value added and novelty. For instance, most the managers reported that they are focusing on their clients' needs, on the other hand, there firms are mastering unique solutions and services, which are solely offered by them in the market.

Also, as most of the research organisations are growing rapidly, it is important to administer more structured and planned management practices which are new to these firms while it is a common practice in the market or other companies. The next level of data analysis plans to classify both companies and innovation in Turkish IT based MSBs according to their commitment towards the novelty of innovation.

#### *4.2.2.2 Nature of Innovation*

The nature of innovation is emerging at three levels - individual, team and organisational level. In particular, the individual level innovation focuses on individual differences, such as traits, values, thinking styles, self-concepts and identity, knowledge and abilities, and psychological states, social context, and task context (Anderson et al., 2014). Employee creativity that is considered as the most important antecedent of innovation exists at the individual level.

During the semi-structured interviews, employees frequently reported that they like to be more innovative because they receive their colleague's support and appreciation. In this regard, an employee stated that:

*"it always makes me happy to receive my co-workers' appreciation when I bring a solution to a problem."*

Furthermore, employee's knowledge, skills, abilities and other characteristics (KSAO) are another important individual factor that affects their creativity. In this regard, a manager reported that:

*"It is a small firm and with limited resources. For this type of firm, our employees are the most important capital. We need to hire experienced and talented employees and retain them in the firm."*

An important individual factor is personal traits and characteristics of employees. %53 of participants in the study reported that colleagues' appreciations, achieving new challenges, leading an innovation and realising self-concept and developing new KSAOs are the most frequently reported individual factors that enhance employee creativity. On the other hand, being goal oriented is also another important individual factor for being innovative. Table 4-3 presents the most reported individual factors that enhance innovation at the firm.

*Table 4-3: Personnel factors contributing to creativity*

<b>Individual factors enhancing creativity performance</b>	<b>%</b>
<b>Motivation: colleagues' appreciation, customer satisfaction</b>	16
<b>Achieving new challenges</b>	15
<b>Leading an innovation</b>	15
<b>Self-concepts: self-realisation and identity</b>	15
<b>Developing KSAOs</b>	5

Themes such as team structure and composition, project teams, team climate are presented under the team level factors. Team structure and compositions are the most important team level factors affecting innovation and employee creativity. In mid-sized

IT firms, my interview data shows that teams are formed cross-sectional and based on projects, i.e., member of a team can be a member of another team as well. Therefore, an employee can work for different teams on different projects with different goals and tasks. Teamwork enables employees to develop not only job-related KSAOs but also interpersonal skills and abilities. Table 4-4 presents the most frequently reported team level factors contributing towards innovation in my research firms.

At the organisational level, organisational structure, availability of resources, work environment and climate, competition in the market and customer needs are the most important factors affecting innovation.

*Table 4-4, Team level factors affecting creativity*

<b>Team level Factors affecting Creativity</b>	<b>%</b>
<b>Team structure</b>	26
<b>Cross-project teams</b>	22
<b>Team Climate</b>	14

Research participants reported that MSBs have less hierarchical structures, which facilitates communication and information sharing, it makes an open organisation for all direction flow of communication, knowledge exchange and problem solving. On the other hand, MSBs have limited resources available for innovation, and they need to be effective in utilising them. In this regard, organising and pooling a high-quality human capital becomes more critical for MSBs, especially when there are financial constraints. Furthermore, in mid-sized IT firms, innovation is driven mostly by customer needs. The target customers of my research firms are a variety of organisations from a variety of sectors that need IT consultancy, or IT infrastructure or telecommunication support. Some IT firms are focusing on specific sectors and provide certain type of product and services for only this service. On the other hand, some research firms provide more

generic product and services for customers from different sectors. For instance, one of the participant firms is working with customers only from the banking industry. Another one is working with only defence ministry. Thus, customer needs and demands certainly affect innovation at the firm level. Table 4.5 provides the most frequently reported organisational factors contributing towards innovation.

#### 4.2.2.3 *Innovation effort*

Participants were asked to provide information regarding the conscious effort for innovation in their organisations. My results show that mid-sized IT firms are constrained by limited resources to invest in innovation activities.

*Table 4-5: Organisational factors on creativity*

<b>Organisational Factors Contributing towards Employee Creativity</b>	<b>%</b>
<b>Help and support from colleagues</b>	25
<b>Knowledge utilisation and information sharing</b>	22
<b>Structure: less structured flat organisations</b>	15
<b>Availability of resources for Innovation</b>	15
<b>Work environment</b>	11
<b>Organisational climate for innovation</b>	11

However, results from the interviews show that there are many of efforts being made in these organisations regarding innovation. First, participants reported that there exist R&D groups dedicated to developing new products and software. Fifty percent of research organisations have R&D teams with a dedicated budget. However, other firms do not have such teams and dedicated budget for R&D. Furthermore, an important feature of my research firms is that they are in techno-parks, and they are collaborating with government agencies and receive funding. Firms that do not have R&D teams are in business centre locations and focus on demand-driven product development. Another important effort is that firms provide access to resources and tools, which are needed for product development. In the IT sector, particularly software developers, firms usually need to follow developments in the sector and need to use the most recent programme or software. The majority of employees reported that firms find it

easy to provide required software. The last effort reported by employees is that organisations promote the work environment and climate, which supports innovation and creativity. Table 4.6 provides a detailed list for the effort made by firms to increase innovation and facilitate employee creativity. It presents the most frequently reported innovation efforts suggested by the interviewees.

*Table 4-6: Innovation efforts (figures in the table are %)*

<b>Codes for Innovation Effort</b>	<b>Managers</b>	<b>Owners &amp; CEOs</b>	<b>Employees</b>
<b>Dedicated budget for research</b>	14	15	09
<b>Established R&amp;D teams</b>	14	10	14
<b>Access to tools and sources</b>	14	15	19
<b>Personal resources</b>	18	20	23
<b>Collaboration with third parties; government, universities</b>	12	10	01
<b>Organisational support; supervisory support, leadership,</b>	11	05	09
<b>Investing in facility and workplace</b>	9	15	11
<b>Climate for innovation</b>	7	05	10
<b>Rewards and financial incentives</b>	2	05	03

#### **4.2.2.4 Summary**

Given the pressure for growth via competition in the research sector is very intense, aspiring for competitive advantage becomes critical for mid-sized IT firms. Innovation enables them to have a competitive advantage in the industry. Four types of innovation exist in the sector: product innovation, process innovation, organisational or administrative innovation and marketing innovation. There are relationships between the different types of innovation. As mid-sized IT firms grow, they become more structured and implement new or improved administrative process and practices. To grow, they need to bring a brand-new product or improve existing products to grow. Within this consideration, it can be concluded that organisational innovation is related to product innovation at mid-sized IT firms (Walker, 2008). There is also a relationship

between marketing innovation and product innovation. Particularly, in IT firms, those provide product and services to a very specific customer, product innovation is driven by marketing innovation where the customer is to be fulfilled through marketing activities and innovation that leads further product developments or improvements.

Drawing from the semi-structured interviews, mid-sized IT firms are committing to innovation mostly because of entrepreneurial motivation. Their limited financial sources inhibit them to invest in big R&D projects and recruit dedicated R&D experts. Furthermore, competition in the market requires them to be innovative. Firms, therefore, adopt a business strategy where fulfilling customers' needs are the most important driven factor for innovation. Within this strategy, understanding changes and needs in the market is the most important factor. Then, the capability of meeting changes and needs in the market defines the success of the firm. Overall, it can be concluded that innovation at mid-sized IT firms related to firm's survival and entrepreneurial success.

Semi-structured interviews also reveal that mid-sized IT firms have created a mechanism for innovation. Within this mechanism, there are several efforts firm make such as dedicating a budget for a research project, accessing tools, having a work climate for innovation and human capital. Also, these efforts have a significant effect on innovation, but knowledge and intellectual capital are considered as the most valuable assets. Firms, therefore, must invest in core knowledge creation of their employees to create a group of innovative employees. It is also critical for mid-sized IT firms on how to pool such a human capital and retain them. During my interviews, I also investigated this by asking questions regarding the nature and type of HRM practices existing in the research firms. The following section presents the findings and discussion on the same.

#### 4.2.3 Entrepreneurship at medium sized IT firms and HRM

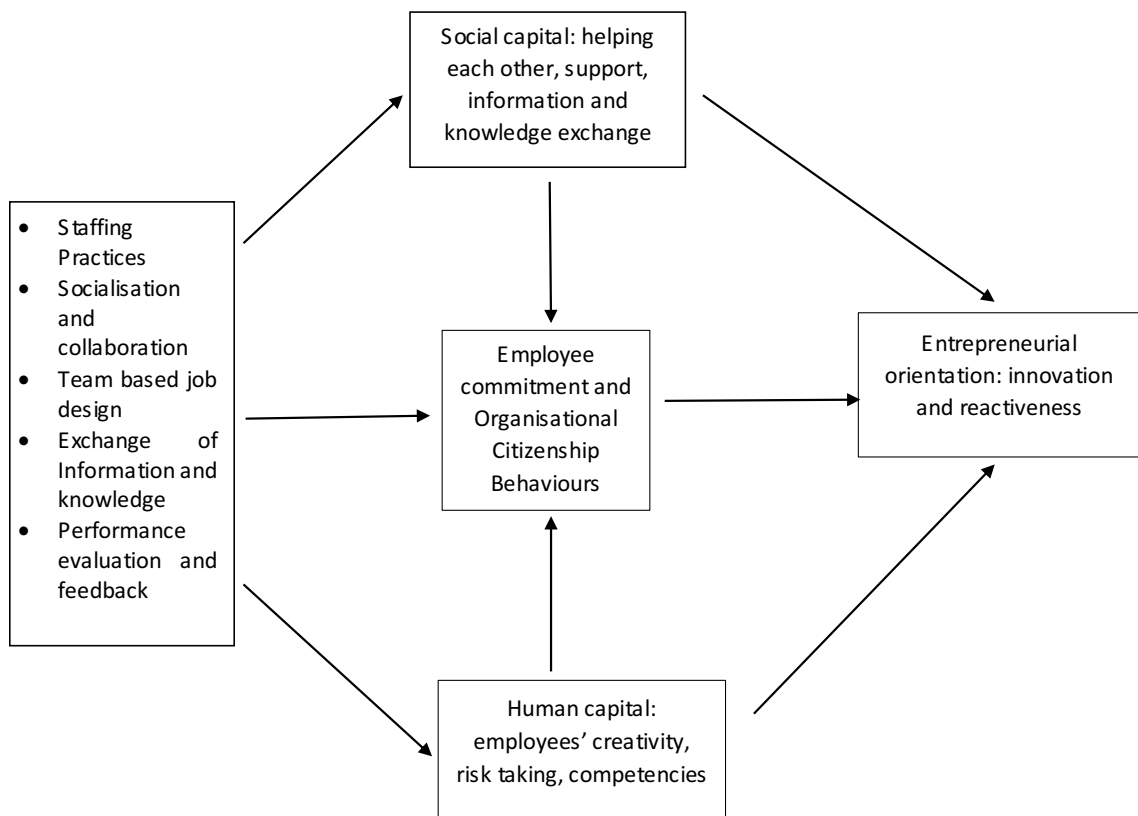
The findings of my study show that innovation in IT firms is related to two critical challenges that medium sized firm are facing in the industry. According to managers and owners, firms have to adapt to constantly changing and developing markets to meet with the competitors. Second, firms must have a business structure that enables them to adopt the changes in the industry and react to the competitors. Furthermore, as I mentioned above in section 4.3.1.1, firms' owners sharing about the entrepreneurial concerns that affect innovation. For instance, they hesitate to invest in R&D projects because of concerns such as profitability and return on investment and alternative opportunities to invest. Given the importance of meeting the above challenges and entrepreneurial concerns, enabled me to draw a conclusion regarding innovation. It is that innovation exists at medium sized IT firms under the cover of corporate entrepreneurship (CE). According to Zahra, (1991, p. 261) CE is described "*formal or informal activity aimed at innovations and market developments*". To understand the linkages between innovation, HRM and firm performance, this study tried to build an integrated model of HRM and performance. For this model, I use the CE as a dependent variable of HRM. In the below in section 4.3.4.2, I present a detailed discussion regarding the concept of CE and its links with HRM.

#### 4.2.4 Integrated model of HRM and performance

One of the purposes of this study is to highlight the existence of key HRM practices in medium-sized IT businesses and their contribution towards employee creativity and innovation. The above reported findings of the study show that the most important HRM practices prevalent in medium-sized IT businesses are staffing, PA and feedback, information sharing, and regular organisation of social activities. These practices are reported as the most important HRM practices according to their contribution towards employee creativity and firm innovation. Another important purpose of the study is to develop an integrated multi-level model to test the relationship between HRM and organisational performance. Drawing the linkages between HRM practices, employee

creativity, innovation and other emerging constructs such as human capital, social capital and corporate entrepreneurship, this study proposes a multi-level model. Figure 4.2 displays the emerging linkages between such themes and it is proposed in my operational model to be empirically tested during Phase 2 of my research. Next, I will discuss the development of the model and explain the underlying mechanism of the same.

*Figure 4-1: An Integrated model of HRM - performance*



*Source: Developed by the researcher.*

#### **4.2.4.1 The Need for a multi-level model**

During the last decade or so, the empirical literature has shown the impact of HRM on organizational performance, growth, profitability and innovation (Becker and Huselid 2006; Combs et al., 2006; Fu et al., 2015; Macky and Boxall 2007; Gardner and Wright 2009; Razouk, 2011; Sun et al., 2007). However, there have been regular call for further understanding about the general and academic knowledge on the effect of HRM in organizational performance (e.g., Sumelius et al., 2015). Thus, in order to further



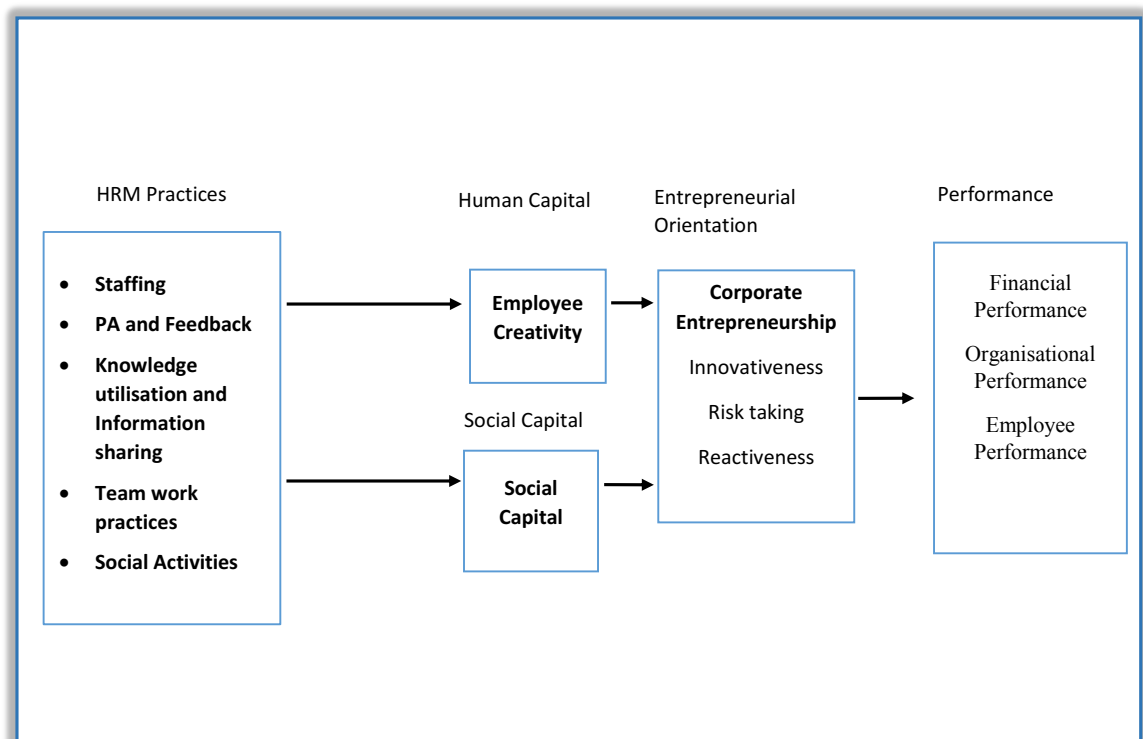
understand the less researched aspects of the “black box” of HRM, research is needed that examines the implementation of HRM practices (i.e., HRM processes) and how such practices can affect human resources and other individual- and firm-unit-level phenomena within the “black box” that may have an impact on outcomes across levels of analysis and, eventually towards a firm’s competitive advantage (Banks and Kepes, 2015). To do so, research studies must adopt innovative approaches where multiple theories and multi- level perspectives are utilised (Wright & Nishii, 2007; Sumelius et al., 2015).

Of course, using multiple theories and adopting multi-level approaches bring methodological and theoretical challenges. For example, how to rationalise a multi-level model for a very specific context, as in the current study - the medium sized IT firms. To develop the above-presented model (see Figure 4.2), two approaches have been considered. First, relying on existing work in the literature to develop a model based on the findings of empirical studies. However, given the very specific context of my research, there may not be enough studies to achieve this. Furthermore, most work focuses on either large firms or small firms. Second, conduct an explorative study (Phase 1) to ensure the themes and constructs are valid for my research context and include what else emerges from the same to develop the model. Accordingly, I propose the model in Figure 4.3.

As the model demonstrates, HRM practices are expected to affect positively the levels of employee creativity (human capital: knowledge, skills and abilities) and organisational collaboration (social capital: knowledge embedded within organisation, helping behaviours and relational connections) within the firm (Hayton et al., 2013). HRM practices and these constructs (human and social capital) linked to important individual, unit, and firm-level performance outcomes (see e.g., Hayton et al., 2013; Sun et al., 2007; Wright and Boswell, 2002; Youndt and Snell, 2004). This conceptual model is based on the theoretical work reported in the HRM literature from the area that links to performance, which is channelled through a firm’s human resources

(Wright, McMahan and McWilliams, 1994; Hayton et al., 2013). Furthermore, human resources are considered as a key input in developing entrepreneurial behaviours that lead to gain and sustain competitive advantage (Wiklund and Shepherd, 2003; Hayton et al., 2013). This competitive advantage eventually leads firms to have better performance. Overall, the model presents several constructs that affect innovation as antecedents and outcomes of innovation at both the individual and organisational levels. Below, I discuss regarding the core constructs and the proposed linkages between them in the model. The order of discussion is structured according to casual relationships between variables as following: 1- HRM practices and human capital, 2- HRM practices and social capital), 3- Employee Performance; commitment and OCB, and 4- Organisational performance; CE.

*Figure 4-2: Integrated model of HRM and performance*



*Source: Developed by the researcher.*

#### *4.2.4.2 Human resource management and human capital*

The data has shown that HRM practices have a significant influence on shaping skills and behaviour of employees to successfully achieve organisational goals (Chen and Huang, 2009; Collins and Clark, 2003). However, my interviews have also revealed that the relationship between HRM practices and innovation is not explicitly identified in my sample firms. In other words, the impact of HRM practices cannot be directly reflected in innovation outcomes. However, it can be observed in intangible – intermediate – variables related to human cognition and social relations, among others (Donate et al., 2015; Hatch and Dyer, 2004; Intan-Soraya and Chew, 2010; Kang et al., 2007). Thus, the data analysis highlights the links of the mechanism via which HRM practices contribute to innovation through intangible resources as intermediate variables. The human capital of the firm is one of these variables. Human capital can be defined as an intangible asset of the firm that is based on employees' knowledge, skills and behaviour (Altinay et al., 2008; Wright, McMahan and McWilliams, 1994).

My study findings show that medium-sized firms perceive people as intangible assets (human capital), which can be enhanced by investing in them (also see Donate et al., 2015; Kong and Thomson, 2009; Shaw, Park and Kim, 2013). The HRM literature confirms that HRM practices can be used to deploy and develop human capital (e.g., Huselid, 1995; Donate et al., 2015). Along the same lines, findings from my interviews show that staffing practices significantly influence firms' HRM practices because it is a great challenge to recruit talented candidates with required experience and job knowledge for medium-sized IT firms. Firms acquire a valuable human capital through the use of staffing - selection, recruiting and retaining (Donate et al., 2015). This requires well-established selection procedures through a search of candidates – offering them competitive compensations to attract and retain individuals with specific set of competencies (i.e., knowledge and skills) from the external labour market (also see Youndt and Snell, 2004; Donate et al., 2015). Moreover, it also requires firms to provide development and improvement opportunities for employees. HRM literature shows that HRM practices as being related to human capital such as learning and

development, staffing (Swart and Kinnie, 2010; Donate et al., 2015). Thus, drawing the link between HRM practices and human capital at medium size IT firms explains the contribution of HRM to innovation and confirm the findings of extant literature.

According to my interviews, the nature of human capital in IT firms can be shaped by two personal factors. These are KSAOs of employees and characteristics of employee. According to Snell and Dean (1992) human capital based on creative and qualified employees with competencies and expertise in the job, who creates new ideas and knowledge in the firm. Human capital also depends on employee characteristics such as motivation, education, and employee's skills (Donate et al., 2015). Employees' characteristics also affect creation and implementation of ideas that enhance innovation (Romijn and Albaladejo, 2002; Donate et al., 2015).

HRM practices are expected to increase innovation capabilities for medium sized IT firms as results from my interviews show that the link between HRM, human capital and innovation exists (see section 4.3.1.3). This is also confirmed by earlier studies in the RBV-intellectual capital literature (see e.g., Donate et al., 2015; Hayton, 2013; Fu et al., 2015), and confirmed by the findings of my study as well that an HRM practices can increase the level of human capital. Thus, human capital of the firm mediates the relationship between HRM practices and innovation. Drawing upon the view that innovation is a critical source to gain and sustain competitive advantage, if organisation manage and use HRM practices effectively for building and developing its human capital, its innovation performance will be improved (Donate et al., 2015). This lead me to draw the mechanism that explains the influence of HRM practices on competitive advantage based on innovation. Thus, I suggest that the contribution of HRM practices to corporate entrepreneurship is mediated by human capital.

#### *4.2.4.3 HRM practices and social capital*

Interviews with participants in my study demonstrated that innovation in the firm is based on human capital, which consists of individual's knowledge, skills, experience

and creativity. HRM practices contribute to innovation via human capital as HRM practices help firm to pool such human resources and retain and develop them. However, human capital is not the only factor on which innovation is based in medium sized IT firms. My findings also show that medium-sized IT firms need to have an environment in which knowledge and culture are embedded, which allow people to utilise the knowledge and information to create novel product and solutions (i.e., social capital).

Social capital is a key part of the concept of the intellectual capital, which consists of knowledge embedded within, available through, and derived from firm's internal and external network (Adler and Kwon, 2002; Nahapiet and Ghoshal, 1998; Donate et al., 2015). While human capital is based on individuals, social capital is not solely dependent on employees. Social capital also includes the value of all the relationships between the members in the organisation and outside the organization (Donate et al., 2015; Nahapiet and Ghoshal, 1998).

My study findings show that the most important assets of IT firms are human resources. This is due to nature the business, and human capital (skills, knowledge and experience) is inherently possessed by employees. This leads firms to develop strategies and management practices to pool and retain human capital at the firm level. However, the issue with human capital is that there is a critical risk of losing knowledge hence employees can leave the firm (Donate et al., 2015). An owner of an IT consultancy firm indicated the importance of human capital via the following comment:

*"Every night, the knowledge and expertise of the firms walk away from the firm. Thus, it is critical for us to create an institution where knowledge and information rely on both employees and the firm."*

My research participants indicated the importance of social capital in which knowledge and information are institutionalised as a strategic asset for the firm (Donate et al., 2015). Organizational environment where knowledge and information can be shared with ease and there is less hierarchical structure increases employees' connections

and knowledge exchange (Youndt and Snell, 2004; Donate et al., 2015). Managers often stated that their organisations have made a great effort to establish an environment that promotes knowledge exchange and helping among employees. Furthermore, there are several HRM practices affect social capital. These HRM practices include job design (cross project teams) or information and knowledge utilisation practices. Also, cross-project teams, knowledge and information sharing, feedback on performance and social events influence 'organization's social structure' (Donate et al., 2015). My findings highlight how HRM practices contributes to social capital. HRM practices (i.e., staffing practices, performance related feedback, information and knowledge utilisation, job design and social events and activities) help to improve the organizational environment which has positive association with this organizational asset (i.e., social capital) (Donate et al., 2015).

In the literature, there are a number of empirical studies that support the use of HRM practices for the development of social capital of the firm. For example, Foss, Laursen and Pedersen (2011) investigated the influence of user and customer knowledge on innovation with data from 169 Danish firms. They found that HRM practices such as intensive vertical and lateral communication, rewarding employees for sharing and acquiring knowledge, improved the quality and amount of user and customer knowledge which is used to leverage the innovation purposes of the firm (Foss et al., 2011). HRM practices and processes such as work autonomy, broad job design, empowerment, and teamwork are the most commonly used by firms to eliminate barriers that allow people to interact and build networks of relationships (Donate et al., 2015).

As majority (60%) of research employees reported, working with self-managed and cross project teams give employees opportunities for learning from each other. Open communication, shared values and norms, monitoring and feedback, and coordination is critical to build strong networks (also see Donate et al., 2015; Salas, Burke and Cannon-Bowers, 2000). Furthermore, open communication and flat structure remove

the barriers in communication, information exchange and enable employees to do extensive research for problems and resolutions.

HRM practices can help firms to promote knowledge sharing behaviours and institutionalization of knowledge for building social capital (see donate et al., 2015; Gittel, Seidner and Wimbush, 2010; Kang et al., 2007; Youndt and Snell, 2004) as they are used for deploying human capital. Based on the findings of my study, I can say that HRM practices are directly or indirectly impacting the social capital of the research firms. Apart from other things, these practices seem to be used by the firms to eliminate barriers to social exchange and collaboration (also see Gittel et al., 2010; Donate et al., 2013).

Overall, the collective impact of HRM practices such as job design, knowledge and information utilisation, performance related feedback, and social events can contribute organisational environment where relationships between employees in the firm and knowledge exchange behaviours are promoted which are critical for social capital of the firm (Donate et al., 2015). This supports the contributions of scholars such as Chuang, Chen and Chuang (2013) and Gittel et al. (2010).

As previously indicated, innovation at the firm is based on both human and social capital and the literature provides empirical support for this where social capital has been shown to have a positive impact on innovation (Donate et al., 2015; Yu et al., 2013). Findings of my study also confirm that social capital has three dimensions: sharing knowledge and exchanging information, collaboration with employees, and interaction with external networks (such as customers and other business agencies). As HRM practices eliminate vertical and horizontal barriers to enhance development of social capital, which has largely been shown as an impacting factor on innovation, HRM practices such as staffing, job design, performance related feedback, knowledge and information utilisation and social activities and events are thus considered in the

model as an antecedent of social capital that in turn will lead to a higher level of CE (Donate et al., 2015).

#### *4.2.4.4 Employee performance: Commitment and citizenship behaviour*

The first phase of my study also aimed to highlight the links between HRM and performance at the individual level. Participants were asked to answer questions regarding their performance and feeling towards their firms and work. My findings show that there are three most important individual outcomes emerging: employee commitment, job satisfaction, and OCB. In this section, I briefly discuss the nature of these employee outcomes and their association with HRM practices. Then, I also explain how these outcomes contribute to the proposed multi-level model of HRM and performance.

##### *4.2.4.4.1 Employee commitment*

Commitment usually refers to an emotional situation that links an individual up to the organization (Veronica and Indradevi, 2014). Employee commitment suggests that an employee attaches himself to the organization regardless of the job is satisfying or not (Allen, Shore and Grifeth, 2003). In the interviews, my employee level respondents talked about the current state of their relationship with their organizations. Most participants stated that they have positive feelings regarding working in the organization and they are committed to perform their best. the findings are consistent with earlier research that committed employees create value hence they are productive and able to pay concentration to quality (Veronica and Indradevi, 2014).

My findings further demonstrate that most employees feel attached to their work organisations due to several factors such as relationship with colleagues, superiors and subordinates and other work circumstances such as the public image of the firm, independence and autonomy provided at work (Veronica and Indradevi, 2014).

Findings suggested several factors that affect employees' commitment. For instance, Core employees (i.e., software developers, IT consultants) find it very comfortable to fit



in with their organization and they are certain regarding how to contribute towards the goals and targets of the organization (Veronica and Indradevi, 2014). An important factor behind such an understanding is this the size of the organisation. With a relatively small number of employees, firms have flat organisational structure with key people who have certain responsibilities. Furthermore, the contribution of individuals is more observable in small to medium size firms than in large firms. This makes employees feel committed since their contribution will be observed and recognised by both their superiors and colleagues. Thus, the organization needs to establish and sustain their simple and flat structure that facilitates communication and interpersonal relationship. It is also imperative for an organization to create clear and certain job-related tasks and duties to enhance individual's commitment.

#### 4.2.4.4.2 HRM and employee commitment

As there are several contributors to improve employee commitment, HRM practices are one of the significant ones. The information technology sector already requires a high level of competency and challenging tasks for core employees and job design practices can help firms to enhance employee commitment by making employees work in an interesting and engaging manner. Within this consideration, cross project teams are becoming more helpful for individuals' commitment and personal development as well as new projects posing interesting and new challenges and opportunities for employees' further development. Given that medium sized IT firms have small number of human resources, it is essential for them to make everyone to understand the importance of their job and their role on it, which would make them committed (Veronica and Indradevi, 2014).

Furthermore, the usefulness of information is a fact and employees need to be provided relevant information that will enable them to do their work, tasks and duties effectively (Veronica and Indradevi, 2014). Thus, firms must ensure that there are open channels of communication in the organisation that enables employees to learn, ask questions and split the information (Veronica and Indradevi, 2014).

Recognition and acknowledgment of achievements or good work for example are another factor that enhance employee commitment. Employees should be given credit for their achievements and contributions. Madigan, Norton and Testa (1999) suggested that organizations should increase the satisfaction of employees and meet their needs to enhance employee commitment. Thus, it can be concluded that employee commitment works as a positive reaction of employee towards the firm and its aims (Veronica and Indradevi, 2014).

#### 4.2.4.4.3 Organisational citizenship behaviour

Organizational citizenship behaviour is another established construct in the business and management literature. Organ (1988, p. 4), defined OCB as "individual behaviour that is flexible are not directly or explicitly accepted by the proper reward system and the mutual sustain acts as an efficient and effective performance of the organization".

The results of my data analysis show that OCB is one of the significant individual outcomes at medium sized IT firm. My research employees stated that they were willing to contribute to organisational aims and goals not only because they are paid but also they feel like a part of the company and valuable by the organisation. This understanding of employees helped them to be more productive at their jobs, cooperative with their colleagues and take responsibility beyond their job requirements. Given their limited resources and relatively small size, medium sized IT firms heavily rely on employees who are profound to achieve organizational goals and able to come forward to perform tasks which are beyond their formal contract (Veronica and Indradevi, 2014). Thus, it is essential for the firm, to create a workplace that promotes discretionary work-related behaviours, which are not included in job requirements.

There are a variety of dimensions of OCB such as loyalty, helping others, organizational compliance. According to managers' and employees' reports, there are two critical parts of OCB. First, compliance which points out the employees' purpose to go behind the job requirements (Veronica and Indradevi, 2014) while the other one is

collaboration which means employees intended behaviours to help others and to work together (see Organ and Ryan, 1995; Williams and Anderson, 1991). Compliance and collaborative behaviours are known to contribute to innovation (Shipton et al., 2016).

Organ (1988) argued that OCB is critical for the existence of an organization as it helps firms to institutionalise such behaviour. From this perspective, OCB enhances competence and efficiency of both the employee and organizational levels that eventually enable effective organisational performance (Veronica and Indradevi, 2014).

As I intend to develop an integrated multi-level model to test the influence of HRM practices at both individual and firm level, I propose to add OCB as an individual level outcome in the study. From a SET perspective, employees are expected to go beyond their job contract when they receive fair treatment and feel trust towards their superiors and firm (Alfes, Shantz, Truss and Soane., 2013; Dulac, Coyle-Shapiro, Henderson and Wayne, 2008; Sun et al., 2007). Therefore, I propose that there is a positive association between HRM practices and OCB as HRM practices improve employees' perception concerning the workplace and organisational treatment.

#### *4.2.4.5 Corporate entrepreneurship (CE)*

One of the aims of the study is to explore the nature and kind of the innovation prevalent in medium sized IT businesses in Turkey. My findings show that innovation is a critical component for achieving competitive advantage for medium sized firms. As reported above (see section 4.2.2), there are four main types of innovation available at the research firms: product, service, marketing, and organisational innovation. The findings also show that the main factors influencing innovation at the research firms include pursuing new opportunities such as exploiting the current market and entering new markets, meeting customer demands, competing with other firms' products, creating new business or business model. Furthermore, the analysis also provides information concerning the nature of the innovation. As it is indicated earlier (section 4.3.1), innovation does not mean as a completely novel product, services or

organisational practice at the firms. Most firms in the study emphasized that their innovation process involve improving current product and innovation at medium size IT firms contributes to firm performance by renewing organisation, gaining competitive advantage, increase growth. My results also show that innovation at the sample firms have two significant associations. First, risk taking related to the pursuit of new opportunities: new business ventures, new markets or new products. Second, pro-activeness as abilities to identify new opportunities and act earlier than competitors. These results emphasize that innovation becomes a strategic part of the 'entrepreneurial orientation' of the firm to survive in the market and acquire a competitive advantage in the long run. Miller (1983) suggests that entrepreneurial orientation is a theoretical concept fostered through an organization's collective exhibition of innovativeness, reactivity and risk-taking. Based on this definition, innovation is one part of the entrepreneurial orientation. As competition in the market and advancement of technology increase rapidly in IT sector, firm's capacity to innovate becomes a critical factor for value creation and competitive advantage (Teece, 2009; Donate et al., 2015). However, for medium-sized firms, only innovation itself is not sufficient for the long-term competitiveness. Along with innovation, competitiveness requires being able to pursue new opportunities which can be risky and act quickly to capitalise opportunities. This has led me to consider the entrepreneurial orientation of the firm or corporate entrepreneurship as an organisational outcome variable in the model.

Hayton and Kelley (2006) define corporate entrepreneurship as the discovery and pursuit of new opportunities through innovation and venturing. According to Castrogiovanni et al. (2011) corporate entrepreneurship includes a diverse set of activities such as innovation, the development of corporate ventures, and the development of new business models, which require certain employee behaviours, knowledge, skills, creativity and expertise. Within this consideration, corporate entrepreneurship is also expected to be influenced by HRM practices (Fu et al., 2015;

Messersmith and Wales, 2011) which contribute to a high level of collective human capital for the workforce (see Huselid, 1995; Banks et al., 2015; Donate et al., 2015; Ogunyami and Bruning, 2015; Zacharatos, Barling and Iverson, 2005).

The external environment, organizational culture, and HRM are critical for promoting CE and facilitate creativity of employees (Montoro-Sanchez and Soriano, 2011). Recently, there has been a small but growing interest in examining the association between HRM and CE (see Hayton et al., 2013; Fu et al., 2015). In constantly changing and dynamic environment of IT industry, firms need to develop entrepreneurial behaviour such as innovation, reactivity, to be able to compete and to create value (Montoro-Sanchez and Soriano, 2011). Human resources have a critical role in CE as they can facilitate and foster entrepreneurial behaviour or hinder CE (Castrogiovanni et al., 2011; Hayton et al., 2013; Kaya, 2006; Tang et al., 2015). For instance, Castrogiovanni et al., (2011) find support for the impact of interpersonal relationship and open communication can help employees to create entrepreneurial behaviour.

The results of interviews enabled me to identify the key dimensions of the entrepreneurship for medium sized IT firms. These include: first, it is the ability to identify new opportunities and effort and act to capitalise the opportunities. Second, producing new product, services or improving current product or services for new opportunities. Third, the ability to develop and apply business strategies and projects for new opportunities and businesses. These findings also show that the competencies of individual employees, specific to the pursuit of CE, are fundamental to companies' ability to nurture and sustain innovation and new venture creation (Gong et al., 2013; Hayton and Kelley, 2006).

In the literature on CE, it is acknowledged that organization's resources, human or otherwise, dynamic and hostile external environment (Zahra, 1996) and internal organizational structure and culture (e.g., Tang et al., 2015) are significant influencers on the level of CE (Hayton et al., 2013). As CE requires a firm to acquire new

knowledge and utilise the established knowledge in the firm (e.g. McGrath, 2000), firm's human resources become more important, particularly, whether they have sufficient competencies and motivation for entrepreneurial initiatives (e.g. Hayton, 2005; Tang et al., 2015). My analysis based on my primary research findings demonstrate that HRM practices help both organisation and employees to increase employees' attitudes, abilities, and motivation (also see Hayton et al., 2013; Wright and McMahan, 1992; Tang et al., 2015). For medium sized IT firms, recruiting and retaining employees with knowledge and skills are difficult (Boxall, 1996; Wei et al., 2011). Based on the resource-based view of the firm, employees' competencies and expertise are among the critical resources most difficult to imitate (see Armstrong and Shimizu, 2007; Barney, 1986, 1991; Barney and Wright, 1998; Tang et al., 2015). Firms via HRM practices can deploy core employees with high level of competencies, which can be the main drivers of promoting CE (Baden Fuller, 1995; Bornay-Barrachina, Rosa-Navarro, Lopez\_Cabralles and Valle-Cabrera, 2012; De Sa'a-Perez and Garcí'a-Falco, 2002; Wright, Dunford and Snell, 2001; Tang et al., 2015). As this association between HRM and CE has been demonstrated in prior empirical research (e.g., Bornay-Barrachina et al., 2012), this study attempt to investigate the link between HRM practices and CE, and intermediate variables such human and social capital of the firm.

Promoting CE needs certain competencies for employees to integrate existing and new knowledge and recognize, evaluate, and capture entrepreneurial opportunities (Gong et al., 2013). My findings have highlighted individual competencies: skill, knowledge and abilities embedded in employees as human capital of the firm. Furthermore, the findings also highlight these competencies as embedded in the organisation as social capital of the firm. These two-intellectual capital of the firm is found to contribute to CE in creating new ventures and business opportunities and innovation.

The human capital of the firm consists of core employees' knowledge, skills, abilities to creativity and characteristics (Castrogiovanni et al., 2011; Katou and Budhwar, 2014). My study shows that a high quality of human capital combined with a strategy of

valuing and managing human resources in medium sized IT firms can significantly strengthen innovation. Thus, it is expected that human capital of the firm influence the entrepreneurial orientation of the firm. Along with this premise, in my above-presented operational model (see Figure 4.3), I propose that there is an association between human capital and CE. HRM practices are supposed to help firm to enhance human capital of the firm, which has a key role in CE. As firms invest in HRM practices (staffing, performance appraisals and feedback, knowledge and information utilisation, team based job design and social events), they can pool higher quality of human resources. Furthermore, they help to help current employees to develop their skills and knowledge to create new ideas, capture opportunities. Therefore, CE of firms increases as human capital of the firm increases.

Research highlighted that social capital contributes to both employees as individuals and the firm (e.g., Bourdieu, 1986; Coleman, 1988; Chuang et al., 2013). On the contrary to human capital, is social capital of the firm, which indicates the knowledge, skills and experience embedded in the organisation that nurture and foster innovation, new business opportunities and ventures. Within these considerations, it is expected that social capital of the firm will enhance CE at medium sized IT firms.

#### *4.2.4.6 The Model*

The proposed conceptual and operational model is based on both the RBV of the firm and SET to examine the relationship between HRM, innovation and firm performance at both the individual and organisational levels. This model (see Figure 4.4) is developed based on emerging themes, constructs and meaningful relationships between the same from my data analysis from the Phase 1 of the study. For details regarding the need for the model and its constructs were discussed above (see section 4.2.4)

This proposed model is expected to contribute to the literature by:

- Providing an integrative, multi-level theoretical model on HRM and performance: OCB, human and social capital, innovation and corporate entrepreneurship;
- Exploring existing HRM practices according to the medium-sized IT firm's innovation activity and entrepreneurial orientation;
- Explaining the role of HRM practices (staffing, performance appraisals and feedback, knowledge and information practices and social events) in the performance of Medium-sized IT firms.

#### 4.3 Conclusion and summary

In all my research firms, the owner, managers and employees confirmed that innovation takes place in different forms and have a significant impact on the success of the firm. The study also showed that firms those have more strategic approach by investing in HRM practices as they want to gain and sustain competitive advantage even MSBs are limited regarding the available resources to invest in innovation and adoption of formal and structured HRM practices.

The findings also highlight the antecedents and outcomes of innovation in IT MSBs in Turkey. They include competition in the market, customer demands, resource availability and corporate entrepreneurship as the important antecedents of innovation at the organisational level. On the other hand, competitive advantage and firm performance are emerging as outcomes of innovation at the organisational level. A further academic contribution is that the analysis helps to develop a conceptual model (see Figure 4.4) to empirically examine the linkages between HRM, innovation and organisational performance.

In relation to the prevalence of HRM practices in medium sized IT firms, there are a number of factors that either encourage or constrain the adoption of HRM practices (Wu, Bacon and Hoque, 2013). The owners/managers generally agreed that the most important factor is that availability of resources for the effectiveness of HRM. Given



that medium-sized firms already are constrained by financial resources, to invest in HRM practices makes sense only when practices are perceived to be efficient and effective concerning the firm performance. Therefore, even it is acknowledged that there is a need to introduce structured HRM practices to facilitate and support business growth, some owners and managers of IT firms are particularly careful to invest in HRM as they perceive HRM as a cost for the firm (Packham, Brooksbank, Miller and Thomas, 2006). The main reason for this approach is the cost involved in employing a full-time HRM professional and formalise a structure for HRM practices. However, in most research firms and especially with more number of employees, a professional approach to HRM is employed. Though, in these companies, HRM practices are still simple and less complicated than their large counterparts.

The findings also reveal that HRM practices have a significant contribution towards innovation and firm performance. It is emerging that HRM practices (staffing: selection and hiring, feedback on performance, team based job design, knowledge and information sharing, social events and activities) are important for enhancing employee creativity that is the main driving force for product and process innovation in the Turkish IT sector. Therefore, this study confirms that firms that organise HRM practices and develop HRM policies were found to have a significant and direct effect on employee and firm performance (see e.g., Aryee et al., 2012; Banks and Kepes, 2015; Donate et al., 2015; Giauque et al., 2010; Ogunyomi and Bruning, 2015; Taylor et al. 2008; Whitener, 2001).

As shared above, the study also helped to develop an integrated multi-level model that is to be empirically tested during Phase 2 of my study in order to further examine the influence of HRM practices on organisational and employee performance. To test this model, I conducted the Phase 2 of my study and collected data via a survey in medium sized IT firms in Turkey. The next chapter is devoted to the testing of this model and findings emerging from the Phase 2 of the study.

## 5 Study 2: Testing the integrated model for HRM and performance

### 5.1 Introduction

This chapter presents results from Phase 2 of the study. As indicated earlier (see chapter 1, section 1, and chapter 4, section 4.5), the aim of this phase of the study is to test the multi-level model (see Figure 4.4) to understand the impact of HRM on performance at individual and organisational levels in the research context based on a questionnaire survey. To achieve this aim, a survey study was carried out during the summer of 2015. Three hundred and ten (310) employee and managers from 21 mid-sized IT firms joined the study. These included the 12 firms, which participated in Phase 1 of my research. Mplus software was used to conduct multi-structural equation modelling (MSEM). The chapter is structured into two main sections. First, I do a recap on the proposed model and then present my hypotheses. This is followed by description on the data collection procedures, measures utilised to test my integrated model and how data is analysed.

### 5.2 The Proposed model

#### 5.2.1 Hypotheses

Drawing from the perspectives of RBV and SET, human resource practices are expected to affect positively the levels of employee creativity (human capital:

knowledge, skills and abilities) and organisational collaboration (social capital; interaction, helping behaviours and relational connections) within the firm. These practices and constructs have been linked to important individual, unit, and firm-level performance outcomes (Hayton et al. 2013; Sun et al., 2007; Wright and Boswell, 2002; Youndt and Snell, 2004). Drawing from these two theories, this study attempts to test the linkages between HRM practices (staffing, performance appraisals, job design, knowledge and information, social events) and individual and organisational performance. Based on the presentation and brief discussion on the key findings from Phase 1 of my study, the model suggests that HRM practices enhance both CE and OCB of employees. Furthermore, human and social capital of the firm mediates the claimed relationship between HRM and performance. In the following, I will present the hypotheses from the model.

My findings from Phase 1 of my research presented in the previous chapter confirmed that the influence of HRM practices is positively expected to affect the levels of employees' knowledge, skills and experiences (see chapter 4 and sections 4.3.5.3 and 4.3.5.4). Furthermore, the human capital of the firm has been linked to important employee and firm level performance outcomes such as creativity and innovation (also see Hayton et al., 2013; Ployhart and Moliterno, 2011; Sun et al., 2007; Wright and Boswell, 2002; Youndt and Snell, 2004). I propose theoretical framework which is consistent with the strategic HRM field, that argues that the link between HRM and performance be channelled through a firm's human capital (Wright et al., 1994). In the model, human capital of the firm is expected to be critical in developing entrepreneurial behaviours that lead to a sustained competitive advantage (Wiklund and Shepherd, 2003) as human capital enhances creativity and new ideas in organizations. The model of HRM and performance attempts to explain, the mechanism of the influence of HRM practices on performance via intermediate variables.

Furthermore, based on the findings from the Phase 1 of my study, HRM practices are considered as impacting upon the social capital so that the firm would use HRM

practices to enhance social exchange and collaboration (also see Gittell et al., 2010; Donate et al., 2015). Overall, HRM practices such as job design, knowledge and information utilisation, performance related feedback, and social events are likely to contribute to organisational culture in which interactions between employee and knowledge exchange can be more productive (Chuang et al., 2013; Donate et al., 2015). For further details regarding findings on social capital see chapter 4 section 2.5)

Donate et al., (2015, p. 934) defines social capital as “*a component of intellectual capital consisting of knowledge resources embedded within, available through, and derived from networks of a firm’s internal and external relationships*” (Adler and Kwon, 2002; Kang and Snell, 2009; Nahapiet and Ghoshal, 1998). According to their discussion, social capital is not embedded within employees but it consists of the value of the relationships by employees inside and outside the organization (Nahapiet and Ghoshal, 1998; Donate et al., 2015). As previously mentioned (see section 4.2.4.5), entrepreneurial orientation at the firm is based on both human and social capital of the firm. The literature provides empirical support for that social capital affects innovation. Particularly, relationships and knowledge exchange between employees enable employees to gain access and share highly diverse knowledge, ideas and perspectives for innovation (Donate et al., 2015; Foss et al., 2011; Intan-Soraya and Chew, 2010; Subramaniam and Youndt, 2005). My qualitative research findings also confirmed that social capital has three dimensions: sharing knowledge and exchanging information, collaboration with employees and interaction with external networks such as customers and other business agencies. As HRM practices facilitates development of social capital by eliminating vertical and horizontal barriers and social capital is linked to innovation (Donate et al., 2015), HRM practices are considered in the model as a critical contributor to social capital which has a critical impact on innovation. Eventually, HRM will lead to a higher level of corporate entrepreneurship via social capital and innovation.

Thus, I suggest that the contribution of HRM practices to corporate entrepreneurship is mediated by intellectual capital. Accordingly, it is proposed that:

**H1:** HRM practices indirectly enhance corporate entrepreneurship via Intellectual capital of the firm.

OCB is one of the important employee level outcomes of HRM. In the interviews, employees stated that they are going beyond their job task and duties as they perceive the companies recognizing their contribution and they feel like a part of the company and valuable by the organisation. Moreover, for the research firms, it is important have employees to be more productive at their jobs, cooperative with their colleagues and take responsibility beyond their job requirements. For further details, see the chapter 4, section 2.4.4.3. As medium sized IT firms heavily rely on core employees (e.g., software developers, IT consultants) who are critical to achieve organizational goals and to perform tasks which are not required by their contract, it is vital to create such work environment in which employees feels valuable and bounded by a verbal agreement to be creative, perform cooperative behaviours and take responsibilities.

Drawing upon the SET, the relationship between organisation and employee can be based on economic and social exchange. The form that this exchange relationship will influence is the amount and kind of OCB employees perform. As the SET perspective suggests, OCB also requires that employees are expected to go beyond their job contract when they receive fair treatment and feel trust towards their superiors and firm. Through the mechanisms described above, social exchange relationships enhance organizational citizenship behaviours (Morrison, 1996). According to Morrison (1996), HRM practices create a social exchange relationship between employers and employees, employees will be more likely to display organizational citizenship behaviours. Therefore, I propose that there is a positive association between HRM practices and OCB as HRM practices improve employees' perception concerning the workplace and organisational treatment.

**H2:** There is a positive association between HRM and employees' OCB in medium-sized IT firms in Turkey.

Further from a SET perspective, employees also are expected to go beyond their job contract as they perceive HRM practices are helping them in developing new skills, knowledge and abilities (see Alfes et al., 2013; Dulac et al., 2008; Sun et al., 2007). As mentioned earlier (see section 4.3.5.5.3), OCB is a critical HRM outcome at the employee level. This study attempts to test the multi-level model of HRM and performance. To achieve this attempt, I look at the association between HRM and OCB (see section 5.2.3). Given the impact of HRM practices on human capital and OCB, I propose that:

**H3:** Human capital of the firm mediates the relationship between HRM and employee OCB.

Drawing further on the SET, the interpersonal relationships, culture and knowledge embedded within organisation affects the exchange between firm and employee and influence all members of the organisation (Parzefall and Kuppelwieser, 2012). Given the norm of reciprocity and the impact of HRM on OCB and social capital, employees can be expected to have higher OCB as they believe social capital to exist in their organizations (Parzefall and Kuppelwieser, 2012). Based on this discussion, I propose that:

**H4:** Social capital of the firm mediates the relationship between HRM and employee OCB.

After Huselid's study (1995) research demonstrated that HRM practices helps firm financial performance (Delery and Doty 1996; Collins and Smith, 2006; Akhtar, Ding and Ge, 2008; Zhu et al., 2013). Some authors suggested that HRM has influence on financial performance indirectly (wright et al., 2003; Tharenou, Saks and Moore, 2007). The results of my Phase 1 of research show no support for this link directly. However, in the integrated model of HRM and performance suggests that HRM links financial

performance in three steps. First, HRM helps firm to enhance employees KASOs (human capital) and organisational climate (social capital). Second, HRM helps firms to enhance their entrepreneurial orientation (innovation, proactiveness) via human capital and social capital. Finally, the model suggests that firms having better financial performance as they have higher CE. Therefore, I hypothesise that:

**H5:** There is a positive relationship between corporate entrepreneurship and firm's financial performance.

### 5.2.2 Model testing

In the model, I defined following paths into Mplus software to conduct the analysis. The paths are between employee-rated HRM and firm CE (Hypothesis 1) via indirect relationships via intellectual capital of the firm (consists of the human and social capital of the firm. I also defined relationships at individual level; employee-rated HRM is positively related to employee OCB (Hypothesis 2) and as well as via intermediate variable of employee-rated human capital (Hypothesis 3) and social capital (Hypothesis 4). I also proposed that corporate entrepreneurship predicts firm's subjective financial performance (Hypothesis 5).

The below figure shows the results of the Multi-level structural equation modelling for the proposed model. At this individual level, employee-rated HRM is significantly related to both perceived human capital (Hypothesis 2) and social capital (hypothesis 3) of the firm. Results also show that there is a strong indirect relationship between HRM and OCB via social and human capital (Hypothesis 4 and 6). At the firm level, findings confirmed that there is a strong indirect association between HRM and corporate entrepreneurship (Hypothesis 1) via intellectual capital of the firm as well as HRM practices have a positive influence on the intellectual capital of the firm. Furthermore, there is an indirect relationship between the financial performance of the firm and HRM practices via corporate entrepreneurship and intellectual capital of the firm. The model has good fit indices as RMSEA is 0.047, TLI is 0.91, CFI is 0.93 and

SRMR is 0.062 and 0.172. Details regarding the results of the analysis are available in table 5.1.

To test the proposed direct effects, I removed the intermediate variables from the model and re-run the model. The findings confirmed that there is a strong relationship between HRM and OCB at the individual level (Hypothesis 2). At the firm level, HRM practices have a strong influence on corporate entrepreneurship (Hypothesis 6). Finally, there is a significant association between subjective financial performance and corporate entrepreneurship. Details regarding direct relationship are available in table 5.2.

#### 5.2.1 Discussion

This chapter focused on the empirical testing of the proposed integrated model of HRM and performance. The findings presented in this chapter suggest that the HRM practices influence both individual and firm level performances.

Specifically, CFA results confirmed that HRM practices have the structure of a second-order construct comprising the five first-order factors of staffing, job design, knowledge and information utilisation, performance appraisal, and social events and activities (see chapter 3, section 5.6.5). Along with HRM practices, all variables in the model also demonstrated good construct reliability (Fornell and Larcker, 1981) and fulfilled the conditions of AVE tests for convergent and discriminant validity.

The MSEM analysis provided support for the model's hypotheses (see table 5.3). As predicted, there is a strong association between HRM practices and employee OCB. Consistent with social exchange theory, employees perform better as they perceive firm's HRM practices to be effective. Also, the social and human capital of the firm mediated the relationship between employee rated HRM practices and employee OCB. These results suggest that HRM practices enhance employee OCB not only directly but also indirectly through contributing towards human capital and social capital of the firm.



As hypothesised, employee rated HRM practices can predict manager-rated corporate entrepreneurship. This relationship is mediated by intellectual capital of the firm. These findings suggest that HRM practices help firms by enabling them to build a high quality of intellectual capital to enhance their entrepreneurial orientation. Finally, the findings confirmed that subjective financial performance is indirectly influenced by HRM practices through the intellectual capital of the firm and corporate entrepreneurship (see table 5.2 for details).

*Table 5-1: The Results of model testing*

<b>Dependent variables at Level 1</b>	<b>HRM Practices</b>	<b>Social Capital</b>	<b>Human Capital</b>	<b>OCB</b>
<b>Title</b>	0.073			0.077
<b>Tenure</b>	<b>-.206**</b>			-0.024
<b>Education</b>	.079			0.058
<b>HRM Practices</b>		<b>.908**</b>	<b>.854**</b>	0.551+
<b>Social Capital</b>				-0.580*
<b>Human Capital</b>				<b>0.554**</b>
<b>Indirect Effect of HRM via Human Capital</b>				<b>0.550**</b>
<b>Indirect Effect of HRM via Social Capital</b>				<b>-0.611*</b>
<b>Dependent Variables Level 2</b>		<b>Intellectual Capital</b>	<b>Corporate Ent.</b>	<b>Financial PR.</b>
<b>Age</b>	-0.165		<b>.201</b>	0.269
<b>Size</b>	<b>0.689*</b>		.234*	-0.055
<b>Location</b>	-0.066		.113	0.136
<b>HRM Practices</b>		<b>0.674**</b>	-0.400	
<b>I. C. of firm</b>			<b>.842**</b>	
<b>Corporate Entp.</b>				<b>0.566**</b>
<b>Indirect Effect of HRM via Int. Cap of the firm</b>			<b>1.055*</b>	
<b>Indirect Effect of HRM via Int. Cap of the firm and Corp. Entp.</b>				<b>0.805*</b>

Table 5-2: The Results of model testing-2

Dependent variables at Level 1	HRM Practices	OCB	
Title	-0.14	0.132+	
Tenure	<b>-.150**</b>	-0.001	
Education	.079	0.058	
HRM Practices		<b>0.504**</b>	
Dependent Variables at Level 2		Corporate Entp	Financial PR.
Age	-0.199	<b>0.357+</b>	0.356+
Size	<b>0.241*</b>	-0.104	-0.055
Location	-0.066	<b>0.356*</b>	0.165
HRM Practices		1.254	
Corporate Entp			<b>0.763**</b>

Table 5-3: Summary of hypotheses testing

Hypothesis	Support
<b>H1:</b> There is an indirect positive association between HRM practices and corporate entrepreneurship via intellectual capital in medium sized IT firms in Turkey.	Yes
<b>H2:</b> There is a positive association between HRM and employees' OCB in medium-sized IT firms in Turkey.	Yes
<b>H3:</b> Human capital of the firm mediates the relationship between HRM and employee OCB.	Yes
<b>H4:</b> Social capital of the firm mediates the relationship between HRM and employee OCB.	No (negative effect)
<b>H5:</b> There is a positive relationship between corporate entrepreneurship and firm's financial performance.	Yes

The MSEM results revealed mechanisms through which HRM practices exert their effect on both individual-level variables and firm-level variables (see Tables 5.1 and 5.2). Particularly, human capital is found to mediate the link between HRM practices and OCB. However, I cannot conclude that social capital mediates the link between HRM practices and OCB. As results in table 5.2 presents, there is a negative indirect effect of HRM practices over OCB via social capital. However, this does not indicate HRM practices does not contribute to either OCB or social capital. As the results show, there is strong and positive effect of HRM over OCB and there also is a positive and

direct effect of HRM over social capital. Thus, the negative indirect effect can be based on the negative relationship between social capital and OCB in the model. Based on these findings, employee OCB is negatively affected by social capital of the firm which contradicts the findings of phase 1. On the other hand, there can be some statistical issues causing this negative relationship. There are two critical reasons for this negative relationship. First it is an inconsistent model. Inconsistent mediation model describes models that include at least one mediated effect having the opposite sign to the other direct effects in the model (Blalock, 1969; MacKinnon et al., 2000; MacKinnon, 2008). When the signs of the mediated effect(s) and the direct effect are inconsistent, the total effect may not be statistically significant (MacKinnon et al., 2000), as it happened in this study the indirect effect of HRM over OCB is negative. However, this not exactly explains why it contradicts findings from phase 1. Another reason could be the suppression effect. Suppression is caused by a variable that correlates substantially with another explanatory variable (Maassen and Bakker, 2011). If the suppressor variable and the explanatory variable are substantively strongly related, then one can drop one of the two or both the variables for reasons of parsimony (Maassen and Bakker, 2011). In the current model, human capital and social capital is highly correlated (0.720). thus, it shows that employees' perceptions regarding to human capital and social capital similar and human capital has better explanation for the link between HRM and OCB than social capital.

These results also point to the importance of measuring employee perceptions of HRM (Kehoe and Wright, 2013). The results confirmed that managers' ratings of intellectual capital, corporate entrepreneurship, and financial performance are related to how employees perceive HRM influences both firm and individual performances.

Consistent with the resource-based view of the firm, HRM practices found to be an important contributor to competitive advantage and firm performance through which perceived HRM practices relates to the intellectual capital of the firm, and corporate

entrepreneurship. This contribution, eventually leads firms to perform in the long run and have higher financial performance.

In the next chapter, I provide discussion on the findings of both the phases of the research.

## 6 Discussion

### 6.1 Introduction

This chapter is divided into two parts. First, it is going to summarise the main findings with regards to the research questions and then provide a rationale in the form of discussion for the same for both phases of the research.

### 6.2 Phase 1 of research: The Qualitative (Exploratory) study

#### 6.2.1 The Aim of phase 1

The overall aim of Phase 1 is to understand the nature and kind of human resources management practices prevalent and their impact on both employee and business performance in the high-technology MSBs in the Turkish context. Many empirical studies have shown support for the association between HRM and performance, but little is known about the mechanism that explains how HRM contribute to performance in my research context and with the use of new variables constructs (such as intellectual capital, corporate entrepreneurship, etc.). Moreover, this research suggests that the outcome of this relationship is shaped by existing HRM practices, firm's innovative orientation and core employee's performance. In order to capture these linkages in an under researched context (MSBs, IT sector and Turkey), it was felt important to initially explore the applicability of my research constructs and the mentioned linkages in the research context via Phase 1 of my research and then empirically investigate them (to both explain and highlight) robustly such relationships and the mechanisms facilitating the same via Phase 2 of my study.

#### 6.2.2 Related research questions

Overall, this study has four main research questions (see chapter 1, section 2). Phase 1 of the study addresses three of these questions which are as following:

- What is the nature of HRM (including high-performance work practices) practices existing in the Turkish medium-sized IT firms?
- What is the nature and kind of innovation existing in the research firms?

- What kind of multi-level model is suitable to understand the impact of HRM on innovation at individual and organisational levels in the research context?

This formed part of the exploratory study (Phase 1) that contributed to the growing body of literature on the role of HRM in supporting mid-sized IT firms in Turkey in general and analysing more specifically, the prevalence of the nature and significance of HRM practices in the research context and also helped to explore about the mechanisms which contribute to the HRM and performance relationships. Further, the analysis of the qualitative phase of the study enabled me to develop the integrated model (Figure 4.4) for empirical testing in Phase 2 of my research. Next, I present a discussion regarding the findings of Phase 1.

### 6.2.3 Key findings and discussion

In the following, I present key findings and related discussions from Phase 1. Particularly, this section, addresses two important research questions. First, I highlight the nature and kind of HRM practices. Then I present the linkages between HRM practices and employee performance. Particularly, I cover the impact of HRM on employee commitment and behaviour. Finally, I discuss the impact of HRM practices on organisational performance. Here I present innovation under the CE as innovation becomes a critical part of CE as organisational outcome. These discussions will help to address two important research questions.

#### 6.2.3.1 *The Nature of HRM practices*

HRM in medium sized IT firms is found to be less complicated, simple and informal. Seventy-five percent of the research firms over the two studies have an HRM professional or an established HRM department. According to the Arthur Andersen (2000) study, in Turkey, HRM department exists in 65 percent of their research firms. In their study, firm with an HRM department were mostly large size and belonged to finance, IT and service industries. Regardless of the existence of the HRM department, HRM practices have a lack of formal and professional approach. This lack of

formalisation of HRM practices is often due to the organisational size, informal relationships between owners, managers and labour and lack of resources to invest in formalised HRM practices that require considerable development costs. In the interviews, some of the owners confirmed that adopting formalised HRM practices or employing an HRM professional is a costly affair (also see Klass et al., 2000). The formalization of HRM needs significant financial resources and the persuasion of owner/managers about its benefits. For the success of a formal approach to HR practices, professional knowledge and experience is required in the management of human resources. However, in medium sized IT firms, developing HRM practices is emerging as an imperative as the organisations grow in size. Overall, medium sized IT firms have an intuitive and emerging approach to develop and implement their HRM strategy and policies.

The main HRM practices prevalent in my research context include staffing, performance appraisals and feedback, training and development, knowledge and information sharing, safety, compensation, job design, career planning and social events and activities. To find out the dominating HRM practices, I asked participants to report the most important HRM practices contributing towards their firm's innovativeness and employee creativity. In this regard, five HRM practice were listed as the most important. These are staffing practices, performance and feedback, job design, knowledge and information sharing and social events.

It has been recognized that knowledge is considered as a valuable intangible asset for gaining and sustaining competitive advantage (Aktharsha and Sengottuvel, 2016), knowledge and information is recognised as one of the most important assets of the firm (Nonaka and Takeuchi 1995; Nahapiet and Ghoshal 1998). Sharing knowledge and information helps firm to create a workplace, which is a source of creativity and innovation. At the mid-sized IT firms, knowledge and information based in individuals, particularly core employees of the firm is critical for achieving competitive advantage. In the IT sector, core employees bring knowledge and information to the firm; further, they

own the knowledge and information generated at the firm. Thus, it is important to institutionalise the information and knowledge at the firm level. Few of the research firms have introduced a method to pool ideas and suggestions from employees. Such medium-sized IT firm must be innovative and proactive to introduce such techniques for sharing information and knowledge among employees. The most attractive side of working in medium-sized organisation for employees is a creative workplace that enables them to develop and bring new ideas. Thus, managers and owners at medium-sized IT firms should consider ensuring sharing and participation process simpler and easier.

Job design in medium-sized firms is important. My findings show that team-based work design practice emerged as one of the most important HRM practices. Given that teams are formed based on projects at the firm level, employees can be a member of another team for another project team as well. As it is reported in the literature, team-based job design has a significant influence on employee creativity (Jiang, Wang and Zhou, 2012). According to my research participants, project teams serve as the primary vehicle for learning, and the acquisition of work-related knowledge and skills was mainly informal and self-directed (also see Ichniowski and Shaw, 1999; Ortega, 2001). Furthermore, team-based job design also helps employees to develop social skills, build interpersonal relationships among team members, which enhance communication, help and support. It eventually contributes to developing a supporting organisational culture and climate.

Participants in the study reported social events and activities as one of the most important HRM practices. A variety of activities and events are organised at the research firms such as picnics, birthday celebrations, dinners or going for outdoor sports activities, which are an important feature to make these firms an attractive workplace. Social activities and events are believed to contribute to firms' social and human capital as they facilitate communication and helping between employees. Research participants during the phase 1 of the research reported that these events



are considered as an HRM practice. Administration of these events is generally performed by the line managers and volunteers (employees). The most critical contribution of these activities and events is regarding the acceleration of communication among employees. During these events, employees develop interpersonal relationships and get to know each other, enhancing engagement between colleagues in an out of work environment, enabling employees to have a better collaboration and sharing at the workplace. Furthermore, these activities can help improve firms' image as an attractive workplace. Employees frequently reported that social events enhance firms' reputation as an attractive employer. Thus, firms can attract talent and skilled job applicants to create a human capital. Indeed, this is not the only factor that affects an applicant's decision to join the firm, however, it certainly has some influence over employee's decision to some extent.

As mentioned earlier, medium sized IT firms vary regarding their size and so it is expected to find a variety of HRM practices across the firms. Also, the age and stage of development of the firm and the industry characteristics such as skills requirements, labour market conditions and management style are the factors that shape HRM in medium-sized IT firms. Thus, it is perceived as normal that there is considerable variation in undertaking HRM practices in the research firms. Next, I present discussion on HRM and its contribution to individual employee performance. This is linked to addressing both research questions regarding the nature of HRM practices and developing a multi-level model of HRM and performance.

#### *6.2.3.2 HRM practices and Employee Performance*

Similar to previous research (e.g., Alfes et al., 2012; Katou, 2012; Pare and Tremblay, 2007; Rhoades and Eisenberger, 2002), my findings confirm that core employees (i.e., software developers, IT consultants) appreciate organizations that provide opportunities for participation, fair treatment and support, knowledge exchange, and recognition. As HRM practices indicate that the organization trusts them to do tasks on their own, and appreciates their contributions, employees perceive firm as more

supportive (Erturk, 2014). Overall, these results show that employees are more likely to go beyond their regular job duties and voluntarily spend effort for the benefit of their organisations when firms develop and administer HRM practices.

HRM practices such as team-based job design, sharing information and knowledge, performance appraisals and feedback and social events changes the employees' perception of the organisation in a better way. Through a well-established HRM, firms can build a work environment where individuals share common goals and values that can reduce the negative feelings regarding the organization. Furthermore, the results also indicated that the relationship between HRM and employee OCB is mediated by social capital of the firm. This finding supported that HRM is a fundamental and critical issue in organizations; it creates a social capital, where knowledge and information shared, employees help each other, which reduces the effect of social exchanges on employees' negative attitudinal and behavioural outcomes is reinforced (Boon, Den Hartog and Boselie, 2011; Erturk, 2014; Gilbert et al., 2011)

This study has also highlighted the role of employee OCB in ensuring employee creativity and has shown how firms can utilize their HRM practices to bring about such behaviour (Morrison, 1996). In medium sized IT firms, it is important to encourage employees to be creative and help firms to build a high level of human capital. As it was reported by participants, competencies of core employees at IT firms is critical for firm performance; it also is important to enable them to utilize their best for the firm. The lack of motivation or negative feelings may inhibit employees to perform better. Thus, it is essential for firm to organise HRM practices to detect quickly problems with employees, line managers who are unwilling or unable to take on their tasks, or to be aware of problems in the relationship between line managers and employees.

#### *6.2.3.3 HRM Practices and Organisational Performance*

The phase 1 of the research attempted to explore the kind and nature of innovation prevalent in medium sized IT firms. According to my findings (see section 4.3.1 and

4.3.2), firms are constrained by limited resources and they have to be innovative to gain a competitive advantage in the market. Results showed that the nature of innovation at the firms relies mostly on entrepreneurial needs and there are some factors that affects innovation at the firm. The findings revealed that HRM practices facilitate organizational innovation and entrepreneurial orientation (Hayton et al., 2013).

One of the research questions (see section 1.2) was how do HRM practices contribute to firm performance. Based on the findings from interviews, I propose that HRM practices contribute towards firm performance via the variable of entrepreneurial orientation of the firm as HRM practices provide more proactive, risk taking and innovative environment (also Kaya, 2006). Although earlier research focused on what factors affect corporate entrepreneurship (e.g. Barringer & Bluedorn, 1999; Kaya, 2006; Nohria & Gulati, 1996; Tang et al., 2015), whether and how an organisation's HRM practices contributes to CE stayed under researched (Tang et al., 2015). As being a valuable resource of a firm, according to RBV, HRM practices enhance employees' development of KSAOs and expertise to achieve the firm's strategic goals (Boxall, 1996; Day, 1994; Tang et al., 2015). As employees' competence and motivation are critical for nurturing corporate entrepreneurship (e.g., Schmelter et al., 2010; Zhang and Jia, 2010; Tang et al., 2015), HRM practices are to facilitate corporate entrepreneurship. The results of phase 2 of my research support this proposed relationship.

My findings show that entrepreneurial behaviours within a firm are enhanced by HRM practices by developing human capital and social capital of the firm. To be successful, medium sized IT firms should develop effective and proactive HRM strategies, systems and practices to increase the level of knowledge, skills and experience that promotes creativity and innovation (Kaya, 2006; Tang et al., 2015).

The HRM practices should be aligned with the business strategies to enhance and sustain competitive advantage. As stated above, medium sized IT firms have a flat and

simple organisational structure where HRM practices are less complicated and informal, they encourage interpersonal relationships with less formality, which stimulates workplace environment to facilitate communication, information sharing and support between employees. Firms must align HRM practices accordingly to emphasize the importance of employees' participation in decision-making to enhance employee creative behaviour in organizations that facilitates the firms' corporate entrepreneurship (e.g., Hayton, 2005).

In above discussion, I presented key findings and discussions from Phase 1. Particularly, discussion covered key themes of the impact of HRM on employee and organisational performance. While presenting this discussion, I follow the causal relationship between HRM and performance in doing so, I highlighted the relationship between HRM and human capital, HRM and social capital, HRM and OCB and finally, HRM and CE. These discussions addressed all research questions. In the following, I present findings and discussions from Phase 2.

### 6.3 Phase 2 of research: The Quantitative (Explanatory) study

#### 6.3.1 The Aim of Phase 2

Phase 2 of my research aims to explain the mechanisms underlying the linkages between HRM practices and individual and organisational performance.

#### 6.3.2 Related research questions

Phase 2 addresses one of the core research questions (see 1.2) which is to conduct an empirical and robust test of the integrated model of HRM and performance (see Figure 4.4). This model is developed based on the findings from Phase 1 of my research. The model hypothesizes (see 5.2) the linkages between HRM practices, human capital, social capital, CE, OCB and financial performance in medium-sized IT businesses in Turkey. To test the developed six hypotheses, a survey study was carried out during the summer of 2015 in Turkey. I received responses from 310 employee and managers from 21 mid-sized IT firms joined the study. These included the 12 firms, which

participated in Phase 1 of my research. Mplus software was used to conduct multi-structural equation modelling (MSEM).

### 6.3.3 Key findings and discussion

Building the integrated model of HRM and performance was an exploratory process that highlighted the nature and kind of interrelationships between HRM practices, corporate entrepreneurship, human capital, social capital and OCB (see Figure 4.4). Phase 2 of my research, on the other hand, adopted an explanatory approach that enabled me to explain the key mechanisms contributing to crucial linkages between core constructs in the model. In the model, six relationships were hypothesized and test results supported all of the, (see Table 5.3). Next, I present discussions on the findings for each hypothesis in the model.

The most important finding of the study is that test results confirmed the proposed relationship between HRM practices and corporate entrepreneurship via intellectual capital of the firm (see chapter 5, section 5.3.5). Intellectual capital of the firm, consists of social and human capital, mediates the relationship between HRM and CE. The test results confirmed this hypothesis. This relationship explains that as firms increase investment and the quality of HRM practices, it is expected that firm's abilities regarding innovation, reactivity and risk taking increases too. As CE depends on organisational learning capabilities that it relies upon employee collaboration and, creativity and behaviour (Hayton, 2005), HRM practices contribute in the development of CE by improving work culture in which help and support is promoted between employees and increasing the information embedded within the organisation. Eventually, HRM practices such as (staffing, team based job design, knowledge and information utilisation, feedback on performance and social events) are important to facilitate intellectual capital, which consists of human capital and social capital in medium-sized IT firms. This indicates that HRM practices enhance CE but indirectly through employee's skills, knowledge, abilities attached to creativity and organisations shared values and climate such as helping each other and sharing information. This

also confirms a cross-level interaction between HRM practices and firm level variables. As HRM practices are rated by employees and CE and intellectual capital rated at managerial level, this relationship explains that as long as employees perceive HRM practices useful and effective, human and social capital of the firm will be of higher level which eventually increases CE.

As study findings confirm the impact of HRM on performance, HRM is linked to CE at medium-sized IT firms. the impact of HRM, particularly, is transmitted via human and social capital of the firm. however, the study did not initially start to investigate this link. It was initially the link between HRM and innovation at medium-sized IT firms. however, Phase 1 of the study revealed that the nature and kinds of innovation overlaps with CE. Thus, it explains that HRM affects CE, particularly, on its innovation dimension. In the study, the construct of CE has three dimensions; innovation, being proactive and risk taking. For the analysis, CE was used as a second order factor. It, therefore, does not indicate the precise influence of HRM on dimensions of CE.

My second hypothesis proposed that HRM Practices enhance employees' OCB. If this is true then HRM practices can change and increase individual capabilities and behaviours, it is expected that, for medium-sized IT firms, employee's OCB must be affected by HRM practices. The results of the test confirmed this association at the individual level (see Chapter 5, Section 2.2). The results indicate that as employees perceive their firms are providing better HRM practices, their OCB increases. Drawing on the SET, HRM practices help employees to receive intrinsic work incentives such as feedback on performance, social events, creating a work environment in which they receive support and help from colleagues. This relationship also gives us an understanding about the role of other intermediate variables such as human and social capital of the firm in the relationship between HRM and CE, contributing towards OCB.

Hypotheses 3 and 4 suggest that human capital and social capital mediates the relationship between HRM practices and OCB. The results revealed that mechanisms

via which HRM influence employees' OCB are through employees KSAOs and knowledge and culture, which is embedded within the organisation. As the SET proposes, when firms treat their employees in a positive way and enable them with economic and social resources (Gould- Williams, 2007), in return, employees engage in behaviour that directly benefits the organization such as OCB. This relationship at medium-sized IT firms is achieved through helping the development of employees and organisational knowledge and culture. Those employees who perceive their firms are giving importance to HRM practices which help employees in certain aspects (e.g. feedback on performance, knowledge and information sharing) and organisational knowledge and culture (e.g. staffing, social events, team based job design), feel obliged to go beyond their expected tasks and duties.

Finally, the last hypothesis of the model proposes that CE affects financial performance of the firm. The results support this association. In the IT industry, firms must address particular needs of customers and bring quick reactions to changes in technology and markets. For this reason, being able to produce noble solutions and provide immediate services is critical for the success of the firm. As it is confirmed by the test results (see Chapter 5, Section 2.2), CE enhances financial performances of the firms. IT firms are becoming more successful in the industry as they become more innovative and prepare to react promptly to specific challenges (e.g., meetings clients' expectations). However, the financial performance is rated by managers based on their subjective judgement, it is not clear that how successful compare to their competitors. On the other hand, subjective measures are known for their reliability on actual performance (Huselid, 1995).

The study results explained the mechanism between HRM and performance in medium sized IT firms in Turkey context. As mentioned above (see chapter 4, section 2.1), in medium size firms, HRM practices are in transition form that indicates a state of HRM practices between strictly formal practices and simple and less sophisticated practices. Within Turkey, particularly in medium-sized context, this type of practices is expected

to be more successful because of their state of formality that gives space for interpersonal relationships and opportunities interactions which are linked to the core features of Turkish culture such as collectivism and highly paternalistic (Aykan et al., 2000). These features of Turkish culture helped to explain the impact of HRM on employee performance via social capital of the firm. As it is mentioned above (see chapter 4, section 2.4.4.2 and 3), as employees perceive their work culture promote sharing and helping each other, they tend to go beyond their job and tasks as an effect of social exchange on their behaviours. This also is linked to employee creativity and eventually innovation at the firm.

Furthermore, the scope of the study helped to highlight the impact of HRM and performance as it only focused on IT industry in which firms has been actively encouraged as a source of competitive advantage and job opportunities (O'Regan and Sims, 2008). IT industry have a greater dependence on highly advanced technological development and devices that lead to new or improved products and services (Bakry, 2013). For this reason, IT firms requires to effort of deploying human capital, knowledge and innovation (Bakry, 2013). Thus, the influence of HRM on firm performance such as CE, innovation and employee performance; OCB, creativity, is expected.

For medium-sized IT firms in Turkey, being innovative is critical for their competitive advantages as it is important for all types of firms around the globe. In Turkey context, particularly, medium-sized firms are leading innovation activities compare to other types of firms in Turkey (see chapter 1 and section 2.2). it has helped to find such association between HRM and innovation. In another industry or size, it may not be possible to find same relationship. Another important explanation for the link between HRM and CE could be that medium-sized firms are more growth oriented compare to their small counterparts. They tend to be more innovative, take risky projects and proactive in the market to secure their growth. Qualified human resource is the biggest problem of IT industry in Turkey (see chapter 1, section 4.1.2). Medium-sized firms are



also have more human resources compare to their small counterparts and invest in HRM practice more than smaller firms. thus, it explains that above mechanism of HRM and performance works better at medium-sized IT firms than smaller firms. However, it worth to investigate this link within different context for further understanding.

#### 6.4 Conclusion and summary

In above discussion, I presented findings and related discussions from both Phase 1 and Phase 2. Discussion enabled me to address the aim of the study which is to explore and explain the impact of HRM on performance in medium sized IT firms in Turkey. Specifically, in phase 1, I highlight the nature and kind of HRM practices and its links to employee skills, knowledge and creativity (human capital), organisational knowledge, work culture that promote sharing and support (social capital), and employee performance (OCB) and finally firm performance (CE and financial performance). This discussion addressed two critical research questions which are to highlight the nature and kind of HRM practices exist in medium sized IT firms, to explore nature and kind of innovation and developing a model to explain the mechanism between HRM and performance. Discussion on Phase 2 explained how this model works and shows the linkages between HRM and performance. In the following chapter, I present contributions, implications and limitations of the study.

## 7 Contributions, implications, limitations and future research

### 7.1 Introduction

This chapter summarises the key findings of the study, discusses theoretical and practical implications, highlights the limitations and provide directions for future research. First, I present a summary of research, the research aim and questions, overview of the model, and an overview of methodology to remind the background, research questions, methodology and findings of the study for the convenience of reader. Then, I present theoretical and practical contributions. Finally, this chapter ends with the acknowledgement of research limitations and proposals for future research directions.

### 7.2 Summary of research and findings

For medium sized IT firms, HRM practices are an important tool as they seek to achieve and sustain advantage thorough employee OCB and corporate entrepreneurship. This research contributes to the on-going debate on HRM and performance in the HRM literature in several ways. First, it explored the kind and nature of existing HRM practices prevalent in medium-sized IT firms and their linkages to firm performance via innovation and creativity. Then it developed an integrated multi-level model utilising the RBV of the firm and SET based on both the literature analysis and findings of phase 1 of this research. This model proposed that HRM practices contribute to corporate entrepreneurship that consists of innovation, reactivity and risk taking, via intellectual capital of the firm, which are the human and social capital of the firm. It also proposed that HRM practices enhance employee OCB and it contributes towards firm's overall performance. The phase 2 of this research tested the proposed model with a questionnaire survey. The results of MSEM supported all hypotheses linked to the model. As it is proposed in the model, HRM practices enhance entrepreneurial orientation of the firm directly and intellectual capital of the

firm mediates this relationship. HRM practices also facilitate employee OCB and social capital and human capital of the firm mediate this relationship. As propagated by the SET, HRM practices encourage employees to take responsibilities and perform creative behaviours. Furthermore, this facilitates corporate entrepreneurial orientation of the firm in the long run and lead firm to have better financial performance.

In sum, the research contributes to the literature of HRM, debate on HRM and performance, HRM in mid-sized firms in the IT sector and HRM in an emerging market context - Turkey. My findings confirmed that HRM practices contribute to both employee and firm performance. Overall, the findings suggest that HRM practices can be a critical tool for medium-sized IT firms to gain competitive advantage and improve organisational performance. It is hoped that future research will build on the findings of this research as well as address the limitations of the research to further examine how and why HRM practices influence individual and firm level performance in both industry and national context.

#### 7.2.1 Research aim and questions

Overall, this research aimed to understand the nature and kind of both HRM practices and innovation prevalent in the high-technology MSBs in the Turkish context and their impact on both employee and business performance. To address this aim, following four research questions were developed. in table 7.1, research questions and findings from both phases are presented together to show how the study answers each research questions.

- What is the nature and kind of HRM (including high-performance work practices) practices existing in the Turkish medium-sized IT firms?
- What is the nature and kind of innovation existing in the research firms?
- What kind of multi-level model is suitable to understand the impact of HRM on innovation at both the individual and organisational levels for the research context?

- What are the suitable mechanisms to empirically and robustly test such a model?

To achieve the above-mentioned aim and address the research questions, a mixed methods approach was adopted which consisted of two phases. Phase 1 was exploratory in nature and used a qualitative research design. Phase 1 of my research helped to address the first three research questions. I conducted semi-structured interviews with employees and managers in medium-sized IT firms in Turkey (details of these were provided in Chapter 3, Section 4.2). Accordingly, in phase 2 of the research, a questionnaire survey was conducted to empirically examine the model via hypotheses testing. In this regard, six hypotheses were developed and support was found for all of them confirming the robustness of my integrated model for my research context in explaining the key mechanisms via which HRM contributes to both individual and organisational performance. In particular, the key mechanisms, which stood out include HRM practices, social and human capital of the firm, OCB, CE and financial performance.

This study used perspectives of the RBV and SET. Based on the RBV perspective, medium-sized IT firms can gain competitive advantage through HRM practices that enhance employees' KSAOs and organisational knowledge and culture. Furthermore, drawing upon the SET, employees change their behaviours and commit to tasks, which go beyond their job contract. A combination of HRM activities (e.g., informality, social events, feedback, etc.) along with the demands of the research sector also enables employees to be creative.

*Table 7-1: Research questions and summary of findings*

Research Questions	Findings from Phase 1	Findings from Phase 2
1. What is the nature and kind of innovation existing in the Turkish	<ul style="list-style-type: none"> <li>• Types of Innovation: Product, Process and Marketing Innovation</li> <li>• Nature of Innovation: Innovation is embedded within firm's entrepreneurial</li> </ul>	<ul style="list-style-type: none"> <li>• Corporate entrepreneurship contributes to financial performance of the firm</li> <li>• Intellectual capital of the firm enhances firm</li> </ul>

medium-sized IT firms?	<p>orientation.</p> <ul style="list-style-type: none"> <li>• Antecedents of Innovation: knowledge, skills and experience embedded within employees and organisation, financial resources, business strategy, entrepreneurial orientation.</li> <li>• Outcomes of Innovation: Competitive advantage, better firm performance,</li> </ul>	entrepreneurial orientation
2. What is the nature of HRM (including high-performance work practices) practices existing in the research firms?	<ul style="list-style-type: none"> <li>• Existing HRM practices: Staffing, Performance appraisals and feedback, knowledge and information utilisation, Job design, Social events and activities.</li> <li>• The nature of HRM: Simple and less sophisticated form, depends on managers' responsibilities,</li> <li>• The contribution of HRM: developing human capital, establishing knowledge and information at the firm, competitive advantage.</li> </ul>	<ul style="list-style-type: none"> <li>• HRM practices enhance to citizenship behaviours.</li> <li>• HRM practices influence firm's corporate entrepreneurship.</li> <li>• HRM practices help firm to build the human and social capital of the firms.</li> <li>• HRM practices indirectly contribute to the financial performance of the firm.</li> </ul>
3. What kind of multi-level model is suitable to understand the impact of HRM on innovation at individual and organisational levels in the research context?	<ul style="list-style-type: none"> <li>• Based on RBV and Social Exchange Theories, a multi-level theory developed.</li> <li>• Drawing upon the emerging relationship between themes, HRM practices contributes corporate entrepreneurship via intellectual capital of the firm while it also enhances employee OCB at the individual level.</li> </ul>	

### 7.2.2 Overview of methodology adopted

To address the research's aim and questions, I adopt a realist approach and mixed method research design. As mentioned above, a qualitative study was conducted to explore the nature and kinds of innovation, highlight the prevalence of core HRM practices and develop an integrated multilevel framework to explain how the mechanisms between HRM and performance in the Turkish medium size IT firms'

context. Semi-structured interviews were administered with 55 participants from 14 medium sized IT firms located in Turkey. For this, two interview schedules were developed, one each for core employees and the managers. I adopted a thematic analysis to enable me to have an in-depth understanding of the data and draw relationship among the research variables (see Chapter 3, Section 3.4).

As detailed earlier (see Chapters 3, 5 and 6), during phase 2 of this study, I tested the multilevel model of HRM and performance via two separate questionnaire surveys. For one survey, the employees answered questions regarding HRM practices, perceived human and social capital and their organisational citizenship behaviour while managerial level respondents reported regarding both social and human capital of the firm, corporate entrepreneurship and financial performance.

### 7.2.3 Overview of the multi-level model

The phase 1 of my research via the qualitative study enabled me to develop an integrated model of HRM and performance. This model consists of several variables at both firm and employee levels. The model emphasizes the importance of employees' perception regarding HRM practices in medium-sized firms, where HRM practices are not well established and formalised. For an in-depth understanding, employees provided practical information and evaluation of HRM practice in their organisations. The model also suggested focusing on employee OCB as an individual level outcome. The main reason for focusing on OCB was that in small firms in particular, employees are expected to go beyond their call of duty. At the individual level, the model also suggested that knowledge, skills and experience embedded in individuals (human capital) and organisation (social capital) mediate the relationship between HRM and OCB. At the firm level, the model proposed that HRM practices contribute to corporate entrepreneurship directly and indirectly via intellectual capital of the firm. And the financial performance of the firm is influenced by HRM via corporate entrepreneurship.

Overall, this model integrates RBV and social exchange theories to have an in-depth understanding regarding how HRM practices facilitate and enhance firm performance. Due to its multi-level nature, it has both individual and firm level variables. This model contributes to the literature on strategic HRM research by explaining the influence of HRM over corporate entrepreneurship. Furthermore, this model also contributes to the existing knowledge by adopting a multi-level approach that employs both employees' and managers' perspectives. It also brings both the size and sector specific explanation to limelight, as there is a need for studies for medium sized firms context, given their contributions towards a nation's GDP. In the following section, I present the theoretical and practical contribution of the research.

### 7.3 Theoretical contributions

In this section, I present the theoretical and methodological contributions of my study. In general, the study makes a number of significant contributions to the knowledge of HRM and performance and in particular, within my research context. This presentation includes discussions on the contributions to the fields of RBV, SET, HRM, innovation, human capital, social capital, CE, OCB, MSBs, and emerging economies.

First, this research provides an integrated perspective on the HRM–performance relationship based on a combination of the RBV and SET to the HRM literature. Particularly, RBV helps to explain how HRM fosters sustainable competitive advantage in MSBs via CE. In this integrated perspective, SET helped to develop an understanding from the employees' perspectives. As MSBs invest in HRM practices that helps employee to develop new KSAOs and improve work culture, employees' OCB is expected to be higher. To date, many studies have supported the link between HRM and performance but there was a lack of theoretical explanation to address the influence of HRM at multi-levels. Bringing RBV and SET together, the multi-lens feature of the research addresses the call for theoretical proposals to study innovation with cross-level and multilevel approaches to explain the effects of variables at different levels of analysis simultaneously on innovation (Anderson et al., 2014).

Second, this study contributes to the field of HRM not only by confirming the existing knowledge related HRM practices but also going further by investigating complex mixture of constructs helping to highlight the impact of HRM on performance. Overall, the study confirms the impact of HRM on both firm and employee performance. More specifically, it identifies the prevalence of HRM practices that are considered critical for medium-sized IT firms in Turkey and provided an in-depth understanding at the micro level. Particularly, staffing, feedback on performance, knowledge and information utilisation, team based job design and social events are emerging as a key set of HRM practices within the research context. This set of HRM practices enabled the researcher to investigate different linkages between HRM and new variables and highlight the context-specific nature of such linkages.

Third, this study contributes to the field of innovation. The findings confirmed the main types of innovation valid for the research context. Furthermore, the study takes a further step and investigated innovation as an outcome of HRM at the macro level. The study shows that HRM practices play a critical role to exploit the potential of employees and organisational capabilities for successful innovation in MSBs in Turkey. Given the complex context where MSBs with limited resources are forced to pick up HRM practices to create a system that foster innovation. Within this consideration, this study suggests an explanation for the impact of HRM practices on innovation and contributes to knowledge regarding how HRM could be designed in a given context to foster innovation.

Fourth, the study contributes to the field of intellectual capital of the firm. The study investigated the intellectual capital of the firm based on two constructs: human capital and social capital as both an outcome of HRM practices and antecedents of performance. In doing so, the study provides an explanation to the mechanism operating between HRM and performance and the critical role of intellectual capital on innovation in the research context. Through this mechanism, human and social capital of the firm are considered important for the success of organisations.



Fifth, the literature of CE is another field which this study contributes to. As it is suggested in the literature on CE, HRM practices should be able to foster CE (e.g., Tang et al., 2015; Zhang and Jia, 2010). My findings support this suggestion. Moreover, this study suggests a mechanism through which HRM practices affect CE. In this mechanism, HRM practices help firms to enhance employee skills, knowledge and abilities (human capital) and organisational knowledge, work culture and values (social capital) which eventually increase firms' entrepreneurial orientation. Thus, this study furthers both HRM research and the corporate entrepreneurship literature by identifying the influence of HRM on CE and which HRM practices can be deployed to influence corporate entrepreneurship (Tang et al., 2015).

Sixth contribution of the study is to the field of medium-sized businesses. There have been investigations of HRM and performance but mostly situated within large-size firm's context. Even there is an emerging interest in smaller firms, medium-sized firms have been largely ignored within the HRM field (see Shipton et al., 2016 for an exception and details). This research, contributes to HRM literature by bringing in evidence of such investigation with a specific focus on medium sized IT firms. As sustained competitive advantage in MSBs requires to develop an effective HRM (Cadwick and Dabu, 2009), this study provides a framework in which HRM could be designed to increase firm's human and social capital to impact both employee and organisational performance.

This study also responds to the regular calls to conduct research in the emerging economies context. The study confirmed that MSBs in an emerging economy seek to leverage their intangible and tangible resources to achieve sustainable competitive advantage. MSBs has to create an effective system to exploit their stocks of knowledge (from the industry, network and technological know-how) (Kazlauskaite, Sarapovas, Gelbuda and Autio, 2015), and intellectual capital (human and social capital). This study provides critical insights regarding which HRM practices can help firms to increase their performance. As MSBs are constrained by limited resources around the

globe, in emerging economies, it may be a greater challenge to access critical resources (i.e., financial resources, technological infrastructure, ecosystem of know-how). However, this study shows that in Turkey, techno parks are helping MSBs to access such resources and advantages (low tax rates, financial subsidiaries). The study also suggests a framework to demonstrate how theories (i.e., RBV and SET) developed in the West could be applied in other contexts in general, and in Turkey in particular.

Another contribution of the study is proposing an integrated multi-level model that explains the linkages between HRM and both employee and firm level performances. The theoretical frameworks (RBV and SET), adopted in this research helped to highlight the process of the integration of HRM and performance ( see Figure 4.4). This model addressed the call made by researchers in the literature on HRM and CE (see Hayton et al., 2013; Fu et al., 2015). This model proposes that influence of HRM practices is expected to affect positively the levels of employee creativity (human capital: knowledge, skills and abilities) and organisational collaboration (social capital: interaction, helping behaviours and relational connections) within the firm. These practices and constructs have been linked to important individual, unit, and firm-level performance outcomes (Hayton et al., 2013; Sun et al., 2007; Wright and Boswell, 2002; Youndt and Snell, 2004). This model is unique in investigating a cross-level investigation between the constructs. It is based on the theoretical work based in the HRM literature, which has focused on how the link between HPWS and performance is channelled through a firm's human resources (Hayton et al., 2013; Wright et al., 1994; Tang et al., 2015). In particular, a firm's HRM practices are considered as a critical part in developing entrepreneurial behaviours that enhance sustainable competitive advantage (Hayton et al., 2013; Wiklund and Shepherd, 2003; Tang et al., 2015). This competitive advantage eventually leads firms to have better performance. As the findings from MSEM (see Table 5.1) confirmed that HRM practices have an impact on overall firm performance in the long run.

The study collected data from multi-level participants who are managers and employees. Having multi-level data, enabled the study to have an in-depth understanding of HRM from multiple perspectives. Moreover, employing both semi-structured interviews and survey study made the study to have a rigorous methodology. Overall, the study provided more solicit views (Cooke and Saini, 2010) from participants at CEO and owner level, senior manager/executive level and line employee level. Therefore, another contribution of the research is the empirical testing of the multi-level model to understand the impact of HRM practices on individual and organisational level performance in the research context as data is collected from medium-sized IT firms in Turkey. Thus, it contributes to our knowledge by providing information regarding HRM practices and performance in a very dynamic and knowledge intensive industry from an emerging economy.

Another important methodological contribution of the study is that this study developed a five-item scale to measure the effectiveness of social events as a HRM practice (see appendix A, Questionnaire for employees) on performance. As social events were reported as an important HRM practice in the Phase 1 of my exploration, it is included into the integrated model of HRM and performance. As social events and activities are under researched in the literature, there were no available scales to measure these practices in the study's context, hence, I had to develop a new scale. Such a scale should be helpful for future research. For the procedure of development please see chapter 3 and section 5.2 and 5.4.

Through the introduction of the multi-level model detailing the interconnectedness of the HRM practices and their impact on organisational performance, the research has key implications for both practitioners and academics alike. These are elaborated below.

#### 7.4 Practical implications

This study also has a number of practical implications for HRM professionals and organizations in Turkey in particular and global context in general. First, there is a strong relation between being proactive and innovative in business strategy and investing in HRM. Even most firms can be categorised as innovative in the study, but there are significant differences in their HRM strategy to support the development of their businesses. The primary reasons for these differences can be listed as size, availability of resources, organisational climate, firm culture, demographics of owners, amongst others. As my results show, HRM is not often developed and structured in most medium-sized firms, i.e., there is no dedicated HRM department, and there is a lack of HRM professional expertise. HRM should be considered as a strategic partner in MSBs to develop and sustain a high value-added workforce (Giauque et al., 2010). To pursue the strategic HRM approach, firms must start by enhancing their professional expertise regarding HRM at the management level. Given the financial burden of dedicated HR department can be costly for MSBs, firms can seek consultancy services regarding some HRM practices and policies to some extent.

Furthermore, this study shows that firms benefit from several HRM practices such as staffing, performance appraisals and feedback, especially if HRM can be planned and implemented carefully via key mechanisms such as human capital, social capital, CE and OCB. As shown by the study, these practices have a positive impact on employee creativity, which eventually enhances innovation at the firm level. However, companies and managers must be careful when administering these practices because of their unique organisational environment, which has been nurtured based on informal relationships and practices. Furthermore, the informality of HRM practices can limit the effectiveness of HRM. HRM managers and executives, therefore, should consider the balance between organisational environment and formality of HRM practices. For example, the findings from Phase 1 showed that having HR managers to provide feedback to core employees (e.g. software developers), this evaluation cannot be

perceived useful for employees, particularly, when HR manager has a lack of knowledge or expertise on the job. Instead, feedback on performance should be provided by line managers or team leader when it is available. Overall, rigid enforcement of policies and practices can also have negative effects on employee behaviour (Hayton et al., 2013). For managers, it is wise to keep balance between traditional HRM practices such as employee monitoring, job descriptions and HRM practices that focuses on knowledge and information sharing, team based job design, feedback on performance that enhance human and social capital and CE at medium-sized IT firms.

As it is discussed in chapter 4 (section 2.1.1.2), the high profile of core employees (engineering background, specific knowledge and expertise) in IT firms have influence on the managing of HRM practices. With these workforce characteristics, firms must adopt different, if not more advanced, management approaches from traditional industry (Tsai, 2010). As Bacon and Hoque (2005) suggest that firms are employing a high proportion of skilled labour, they should invest in HRM than their counterparts. When practices and procedures of HRM are designed, they must be well established in simple form and communicated in the firms with clear descriptions to reduce the chance for a conflict between core employees and HR managers.

Another important implication is the contribution of HRM to innovation is affected by the firms' commitment to continuously pursue innovation. Based on the innovative activities and commitment at the firm level for them, we may classify firms into three categories. First category of firms is concentrated on product innovation (e.g., Producing firm-based software). Second category firms focus on both market and product innovation (e.g., entering new markets such as other countries, new customer groups), and the third category firms have a commitment to the product, market and administrative innovation (e.g., creating management practices, see chapter 4, section 3.1). For the third category of firms, HRM is an important and strategic partner to support innovation in firms. This clearly indicates that the first category firms have a well-established HRM and more sophisticated practices. For the second category firms, HRM is not a

strategic partner but it is becoming. These types of firms are in a transition mode and they just begin investing in HRM. For the first category of firms, HRM does not exist as a dedicated department and some HRM practices are managed by owners and senior managers. In such firms, HRM practices can only have limited contribution by enabling workplace environment and small size of organisation where there is more friendly culture. The take away from this for managers/owners is to find out the category of innovation their firm is pursuing and accordingly match the HRM practices suitable for the same and then create/develop such HRM practices.

The motivation of medium sized firms for continuous business growth leads them to seek for opportunities, which can be turned into a business advantage. Moreover, competition in IT sector is extremely strong. It requires different kinds of strength to stay competitive in the market. For this reason, the competitive advantage becomes critical for the firms in the Turkish IT sector. However, medium-sized firms are constrained by their limited resources to invest in innovation activities. Committing a novel and completely new product requires investing in R&D, which can be too risky for MSBs due to the lack of capital investment. Instead of investing in R&D, firms are bringing different products according to customer demands, which require a very well organised and high-skilled workforce and business model. My findings suggest that medium-sized firms are becoming more organised, and adopt structured approach to HRM. For this reason, they are able to utilize opportunities in the market than other firms. For instance, recruiting best candidates with required KSAOs and experience is critical for the success of firms in IT industry. Medium-sized firms must seek ways to improve their staffing practices to attract, select, hire and retain best candidates and employees. Furthermore, firms should enhance providing feedback on performance which addresses employees' need for development and future performance. Team-based job design also fosters employees' creativity and development as creating sharing opportunities for experienced employees and learning opportunities for inexperienced employees. Overall, it can be concluded that investing in HRM help firms

to gain competitive advantage by enhancing employees' creativity, skills and knowledge (human capital) and organisational knowledge and culture (social capital), behaviour (OCB) and increasing innovation and proactiveness (CE) to capitalise opportunities gain competitive advantage as it is presented in the integrated model of HRM and performance (see Figure 4.4).

The study also has suggestions and insights for policy makers (government agencies such as KOSGEB) and professional bodies (i.e. TUBISAD) on how and what kind of HRM strategy can help MSBs in IT industry to improve performance. The study suggests that MSBs can facilitate firm and employee performance by adopting a specific set of HRM practices. Policy makers and professional bodies can help MSBs to establish such strategic approach to HRM by providing guidance, professional support and HRM related consultancy services. As it is mentioned earlier, MSBs do not have complex and sophisticated HRM practices and even a little effort on HRM can affect performance.

My research findings show that HRM practices can contribute towards firm's entrepreneurial performance by contributing to both human and social capital. Even though there are limited number of HRM practices considered in the MSBs context, these practices are useful and helpful for the firms in pooling human capital, which is the most important component for success in IT sector. Moreover, relatively small size of the firm makes it easy to manage HRM practices in a work environment where interpersonal relationships are important and structures are not rigid. In this type of organisations where HRM can foster open communication channels both formal and informal, mutual understanding among members, helping each other, information sharing practices which are critical for entrepreneurial orientation and eliminate barriers to creativity and innovation (Hayton et al., 2013). This research is drawing on the social exchange theory proposed and then confirmed that HRM practices develop employees' shared perceptions of a supportive work culture that enhance discretionary behaviours that contribute to organizational performance (Sun et al., 2007).

## 7.5 Limitations and directions for future research

The research has some limitations that need to be acknowledged. First, the study used cross-sectional design and the findings are correlational rather than casual. Nevertheless, the adoption of a mixed method design helped to highlight the relationship between HRM and performance and how HRM contribute to performance. Future research can adopt a longitudinal research design, which can help to demonstrate the casual basis of the relationships reported in this research.

Second limitation of the study is that organisational performance was measured from two perspectives: employee OCB, CE and subjective financial performance rated by managers. This compromise to go for these performance measures was made because during phase 1 of the study it became clear that it will not be possible to get objective measures for performance. Boxall and Purcell (2008) suggested that that organisational performance could be measured from different stakeholders' perspectives such as employees, customers, shareholders or other groups of interest. Thus, to overcome this weakness, future research that focuses on HRM and performance in IT sector should consider not only financial measure but also other outcomes for different stakeholders' perspectives such as service quality, customer satisfaction, productivity as well as employee outcomes such as job satisfaction.

For this study, the sample included medium-sized firms in information and communication technologies industry. However, the analysis of this sector shows variations regarding their concentration in the sector as some of them are software companies, while others are IT consultancies only provide services for their clients. There also are telecommunication firms which focus on hardware and communication technologies. The heterogeneity of the sample may constrain the generalisation of the findings. Future research, therefore, must consider focusing on specific firms that operate in same focus market for more generable results.



Another limitation of the study is that the findings do not allow us to make a comparison between medium-sized and large-sized and small-sized firms in the IT sector. For a comprehensive understanding of how HRM helps firms to gain a competitive advantage in IT sector, future research must adopt a comparative approach by including other sized firms.

Another limitation is that the study, with data obtained from medium sized IT firms in Turkey, brings empirical support for the link between HRM and performance from an emerging economy context even the findings are consistent with previous research in the literature. Thus, the extent to which these findings are generalizable to other national contexts and industry is limited. Future research can be conducted in different national contexts and industry that helps determining the external validity of these findings for a better understanding of the link between HRM and performance.

Another source of limitation for this research was that a number of clusters at level two is just meeting the minimum number for a multi-level analysis. In Phase 2, I collected data from 21 firms that makes there are only 21 clusters at level 2 while it is suggested to be around 30 (Preacher et al., 2010). Having a small number of clusters is criticised by scholars (Preacher et al., 2010; Hox and Maas, 2001). However, Preacher et al. (2010) state that less is known about cluster size. However, MSEM results showed support for the proposed relationships so it indicates that with a larger number of clusters, the support would have been stronger. Thus, having more clusters at firm level would enhance the validity of the results in future research.

Lastly, this study recognizes the fact that are several variables, apart from the ones identified in this study which contribute to organisational performance and it is mindful of the fact there are other outcomes of HRM focus of an organisation and individuals beyond the two variables isolated in this study (corporate entrepreneurship and Employee OCB). Future research must consider new variables to explain the mechanism between HRM and performance.

## References

- Abstein, A., & Spieth, P. (2014). Exploring HRM meta-features that foster employees' innovative work behaviour in times of increasing work-life conflict. *Creativity and Innovation Management*, 23(2), 211–225. <http://doi.org/10.1111/caim.12053>
- Adler, P.S. & Kwon, S.-W. (2013). The mutation of professionalism as a contested diffusion process: clinical guidelines as carriers of institutional change in medicine. *Journal of Management Studies*, 50 (5), 930-962.
- Akbar, Y.H. (2006). A research agenda'. *International Journal of Emerging Markets*, 1(1).
- Akhtar, S., Ding, D.Z., & Ge, G.L. (2008). Strategic HRM Practices and Their Impact on Company Performance in Chinese Enterprises. *Human Resource Management*, 47(1), 15–32.
- Aktharsha, U., & Sengottuvel, A. (2016). Knowledge Sharing Behaviour and Innovation Capability: HRM Practices in Hospitals. *SCMS Journal of Indian*, (2000), 118–131. Retrieved from <http://search.proquest.com/openview/886849c101c9b3727ac09540cd4ff353/1?pq-origsite=gscholar&cbl=546310>
- Alfes, K., Shantz, A. D., Truss, C., & Soane, E. C. (2013). The International Journal of Human The link between perceived human resource management practices, engagement and employee behaviour: A moderated mediation model. *The International Journal of Human Resource Management*, 24(2), 37–41.
- Aljanabi, A. Q. R. A., Noor, N. A. M., and Dileep Kumar, M. (2014). The mediating role of absorptive capacity in its effect on organizational support factors and technological innovation. *Information Management and Business Review*, 6(1), 25-41.
- Allen, D.G., Shore, L.M., and Griffeth, R.W. (2003). The Role of Perceived Organizational Support and Supportive Human Resource Practices in the Turnover Process. *Journal of Management*, 29, 99–118.
- Altinay, L., Altinay, E., & Gannon, J. (2008). Exploring the relationship between the human resource management practices and growth in small service firms. *The Service Industries Journal*, 28(7), 919–937. doi:10.1080/02642060701846804
- Amabile TM. (1996). *Creativity in context*. Boulder, CO:Westview.
- Anand, N., Gardner, H.K. & Morris, T. (2007). Knowledge-based innovation: emergence and embedding of new practice areas in management consulting firms. *Academy of Management Journal*, 50(2), 406-428.
- Andenova, V. and Zuleta, H. (2007). The effect of enforcement on human resources practices: a case study in rural Colombia. *International Journal of Manpower*, 28 (5), 344-53.
- Anderson JC, Gerbing DW (1988). Structural equation modelling in practice: a review and recommended two-step approach. *Psychol Bull* 103(3):411–423
- Applebaum, E., Bailey, T., Berg, P., & Kalleberg, A. L. (2000). *Manufacturing advantage: Why high performance work systems pay off*. Ithaca, NY: Cornell University Press.
- Armstrong, C., & Shimizu, K. (2007). A review of approaches to empirical research on the resource-based view of the firm. *Journal of Management*, 33, 959–986.
- Armstrong, C., Flood, P.C., Guthrie, J.P., Liu, W., MacCurtain, S. and Mkamwa, T. (2010). The impact of diversity and equality management on firm performance: beyond high performance work systems. *Human Resource Management*, 49 (6), 977-998.
- Arthur, J. B. (1994). Effects of human resource systems on manufacturing performance and turnover. *Academy of Management Journal*, 37, 670-687
- Arthur Andersen (2000), Human Resource Management Research Towards 2001. Istanbul: Sabah yayincilik.

- Askun, O.B. and Yozgat, U. (2004). *İnsan Kaynakları İşlevlerinden Eğitimin Stratejik Önemi ve İlaç Sektöründe Bir Araştırma*. 12. Ulusal Yönetim ve Organizasyon Kongresi, Bildiri Kitabı, 48-52.
- Anderson, N., Potocnik, K., & Zhou, J. (2014). Innovation and creativity in organizations: A state-of-the-science review, prospective commentary, and guiding framework. *Journal of Management*, 40(5), 1297–1333. doi:10.1177/0149206314527128
- Aryee, S., Budhwar, P. S., & Chen, Z. X. (2002). Trust as a mediator of the relationship between organizational justice and work outcomes: test of a social exchange model, 285(March), 267–285. doi:10.1002/job.
- Aryee, S., Walumbwa, F. O., Seidu, E. Y. M., & Otaye, L. E. (2012). Impact of high-performance work systems on individual- and branch-level performance: Test of a multilevel model of intermediate linkages: Correction to Aryee et al. (2012). *Journal of Applied Psychology*, 97(3), 667–667. <http://doi.org/10.1037/a0028116>
- Audretsch, D. (2002). The innovative advantages of US cities. *European Planning Studies*, 10, 165–176.
- Avcikurt, C., Altay, H., & Ilban, M. O. 2010. Critical success factors for small hotel businesses in Turkey: An Exploratory study. *Cornell Hospitality Quarterly*, 50, 124-135.
- Avermaete, T., Viaene, J., Morgan, E. J., Pitts, E., Crawford, N., & Mahon, D. (2004). Determinants of product and process innovation in small food manufacturing firms. *Trends in Food Science & Technology*, 15(10), 474–483. <http://doi.org/10.1016/j.tifs.2004.04.005>
- Aycan, Z. (2001). Human resource management in Turkey. *International Journal of Manpower* 22,3, 22(3), 252–260.
- Bacon, N., Ackers, P., Storey, J., & Coates, D. (1996). It ' s a small world : managing human resources in small businesses. *The International Journal of Human Resource Management*, 7(1), 82–99.
- Bacon, N., & Hoque, K. (2005). HRM in the SME Sector: Valuable Employees and Coercive Networks. *International Journal of Human Resource Management*, 16(11), 1976–1999.
- Baden-Fuller, C. (1995). Strategic innovation, corporate entrepreneurship and matching outside-into inside-out approaches to strategy research. *British Journal of Management*, 6 Special Issue, S3–S16.
- Bae, J., and Lawler, J.J. (2000). Organizational and HRM strategies in Korea: Impact on firm performance in an emerging economy. *Academy of Management Journal*, 43, 3, 502–517.
- Bagozzi, R.P. & Edwards, J.R. (1998). A General approach for representing constructs in organizational research. *Organizational Research Methods*, 1, 45-87. <http://dx.doi.org/10.1177/109442819800100104>
- Bakry, F. M., (2013). *Management Innovation, Radical Innovation and Business Performance: The Role of Knowledge Resources for High Technology SMEs*. Dissertation thesis of Doctor of Philosophy, University of Strathclyde, Glasgow, UK.
- Banks, G. C., & Kepes, S. (2015). The influence of internal HRM activity fit on the dynamics within the “black box.” *Human Resource Management Review*, 25(4), 352–367. <http://doi.org/10.1016/j.hrmr.2015.02.002>
- Baron, R., & Kenny, D. (1986). The moderator-mediator variable distinction in social psychological research. *Journal of Personality and Social Psychology*, 51(6), 1173–1182. <http://doi.org/10.1037/0022-3514.51.6.1173>
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99–120.
- Barney JB (1997). *Gaining and Sustaining Competitive Advantage*. Reading, MA: Addison-Wesley.

- Barringer, B. R., & Bluedorn, A. C. (1999). The relationship between corporate entrepreneurship and strategic management. *Strategic Management Journal*, 20, 421–444.
- Barczak, G., Lassk, F., & Mulki, J. (2010). Antecedents of Team Creativity: An Examination of Team Emotional Intelligence, Team Trust and Collaborative Culture. *Creativity and Innovation Management*, 19, 332–345.
- Becker BE, Huselid MA. (1998). *High performance work systems and firm performance: A synthesis of research and managerial implications*. In Ferris GR (Ed.), *Research in personnel and human resources management* (Vol. 16, pp. 53–101). Stamford, CT: JAI Press.
- Becker, B.E., Huselid, M.A. and Ulrich, D. (2001), *The HR Scorecard: Linking People, Strategy and Performance*. Harvard Business School Press, Boston, MA.
- Becker, B., Huselid, M.A., Pickus, P.S., and Spratt, M.F. (1997). HR as a Source of Shareholder Value: Research and Recommendations. *Human Resource Management*, 36, 39–47.
- Becker BE and Gerhart B (1996) The impact of human resource management on organisational performance: Progress and prospects. *Academy of Management Journal* 39(4), 779–801.
- Bentler, P. M., & Chou, C.-P. (1987). Practical issues in structural modelling. *Sociological Methods & Research*, 16(1), 78–117.
- Benzing C., Chu, H. M., & Kara, O. 2009. “Entrepreneurs in Turkey: A factor analysis of motivations, success factors, and problems. *Journal of Small Business Management*”, vol. 47, pp. 58-91.
- Betz, F. (2011), *Managing Technological Innovation: Competitive Advantage from Change*, John Wiley & Sons, New York, NY.
- Big 500 List, 2015. The survey of the first 500 Companies in Information and Technology industry in Turkey. Istanbul.
- Birkinshaw, J., Hood, N. & Johnson, S. (1998). Building Firm-specific Advantages in Multinational Corporations: The Role of Subsidiary Initiative. *Strategic Management Journal*, 19(3): 221–42.
- Bhatnagar, J. (2007). Talent management strategy of employee engagement in Indian ITES employees: Key to retention. *Employee Relations*, 29(6), 640–663.
- Björkman, I., Fey, C. F., & Park, H. J. (2007). Institutional theory and MNC subsidiary HRM practices: Evidence from a three-country study. *Journal of International Business Studies*, 38(3), 430–446.  
<https://doi.org/10.1057/palgrave.jibs.8400267>
- Blau PM (1964) *Exchange and Power in Social Life*. New York: John Wiley & Sons.
- Blalock, H. M. (1969). *Theory construction: From verbal to mathematical formulations*. Englewood Cliffs, NJ: Prentice-Hall.
- Bock, G., Zmud, R. W., Kim, Y., & Lee, J. (2005). Behavioural intention formation in knowledge sharing: Examining the role of extrinsic motivators, social-psychological forces, and organizational climate. *MIS Quarterly*, 29, 87–111.
- Bogdan, R. & Biklen, S.K. (1992). *Qualitative research for education*. Allyn and Bacon, Boston.
- Boon, C., Den Hartog, D. N., Boselie, P., & Paauwe, J. (2011). The relationship between perceptions of HR practices and employee outcomes: examining the role of person–organisation and person–job fit. *The International Journal of Human Resource Management*, 22(1), 138–162.  
<http://doi.org/10.1080/09585192.2011.538978>
- Bornay-Barrachina, M., Rosa-Navarro, D. D., Lo ´pez-Cabrales, A., & Valle-Cabrera, R. (2012). Employment relationships and firm innovation: The double role of human capital. *British Journal of Management*, 23, 223–240.
- Boselie, P., Dietz, G., & Boon, C. (2005). Commonalties and contradictions in HRM and performance research. *Human Resource Management Journal*, 15(3), 67–94.

- Bourdieu, P. (1986). *The forms of capital*. In J. G. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241–258). New York: Greenwood.
- Boxall, P. (1996). The strategic HRM debate and the resource-based view of the firm. *Human Resource Management Journal*, 6, 59–75.
- Boxall, P. and Purcell, J. (2008). *Strategy and Human Resource Management*, 2nd ed., Palgrave MacMillan, New York, NY.
- Brand, M. J., & Bax, E. H. (2002). Strategic HRM for SMEs: Implications for firms and policy. *Education & Training*, 44(8/9), 451–463.
- Bratnicki, M. (2005). Organizational entrepreneurship: theoretical background, some empirical tests, and directions for future research. *Human Factors and Ergonomics in Manufacturing*, 15(1), 15-33.
- Brislin, R.W. 1970. Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, 1, 185-216.
- Brockbank, W. (1999). If HR Were Really Strategically Proactive: Present and Future Directions in HR's Contribution to Competitive Advantage. *Human Resource Management*, 38, 337–352.
- Browne, M.W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K.A. Bollen & L.S. Long, (eds.). *Testing Structural Equation Models*, (pp. 136–162.), Newbury Park, CA: Sage Publications.
- Bryman, A. (2008). *Social research methods, Third edition*. Oxford: Oxford University Press.
- Bryson, A., Forth, J., & Kirby, S. (2005). High-Involvement Management Practices, Trade Union Representation and Workplace Performance in Britain. *Scottish Journal of Political Economy*, 52(3), 451–491.
- Bucic, T., & Gudergan, S. P. (2004). The impact of organizational settings on creativity and learning in alliances. *M@n@gement*, 7(3), 257-273.
- Budhwar, P.S., & Baruch, Y. (2003). Career Management Practices in India: An Empirical Study. *International Journal of Manpower*, 24(6), 699–719.
- Budhwar, P.S., & Boyne, G. (2004). Human Resource Management in the Indian Public and Private Sectors: An Empirical Comparison. *International Journal of Human Resource Management*, 15(2), 346–370.
- Budhwar, P.S., Luthar, H., & Bhatnagar, J. (2006a). Dynamics of HRM Systems in BPOs Operating in India. *Journal of Labour Research*, 28(3), 339–360.
- Budhwar, P.S., Varma, A., Singh, V., & Dhar, R. (2006b). HRM Systems of Indian Call Centres: An Exploratory Study. *International Journal of Human Resource Management*, 17(5), 881–897.
- Buyukuslu, A. R. (1998). Türkiye’de İnsan Kaynakları Yönetimi ve Gelişimine Kritik Bir Yaklaşım. *MESS Mercek, Türkiye Metal Sanayicileri Sendikası*, 11-15.
- Byrne, B. (2012). *Structural equation modelling with Mplus: Basic concepts, applications and programming*. New York, Taylor & Francis Group, LLC
- Byron, K., Khazanchi, S., and Nazarian, D. (2010). The Relationship Between Stressors and Creativity: A Meta-Analysis Examining Competing Theoretical Models. *Journal of Applied Psychology*, 95, 201–212.
- Cabello-Medina, C., López-Cabrales, Á. & Valle-Cabrera, R. (2011). Leveraging the innovative performance of human capital through HRM and social capital in Spanish firms. *International Journal of Human Resource Management*, 22(4), 807-828.
- Cakar, N. D., & Erturk, A. 2010. Comparing innovation capability of small and medium-sized enterprises: Examining the effects of organizational culture and empowerment. *Journal of Small Business Management*, 48, 325-359.
- Camelo-Ordaz, C., Garcia-Cruz, J., Sousa-Ginel, E. & Valle-Cabrera, R. (2011). The influence of human resource management on knowledge sharing and innovation in Spain: the mediating role of affective commitment. *International Journal of Human Resource Management*, 22(7), 1442-1463.

- Cardon, M. S., & Stevens, C. E. (2004). Managing human resources in small organizations: What do we know? *Human Resource Management Review*, 14(3), 295–323. <http://doi.org/10.1016/j.hrmr.2004.06.001>
- Carrier, C. (1994). Intrapreneurship in large firms and SMEs: a comparative study. *International Small Business Journal*, 12(3), 54-62.
- Caspi, A., Hador, B., Weisberg, J., Uyargil, C., Dundar, G., and Tuzuner, V.L. (2004). Turkey and Israel: HRM as a Reflection of Society. In C. Brewster, W. Mayrhofer and M. Morley (Eds.), *Human Resource Management in Europe*. (pp. 385–404). *Evidence of Convergence?* Oxford: Elsevier Butterworth- Heinemann,
- Cassell, C., Nadin, S., Gray, M., & Clegg, C., 2002. Exploring human resource management practices in small and medium sized enterprises. *Personal review*, 31(6), 671–692.
- Castrogiovanni, G. J., Urbano, D., & Loras, J. (2011). Linking corporate entrepreneurship and human resource management in SMEs. *International Journal of Manpower*, 32(1), 34–47. doi:10.1108/01437721111121215
- CBI, (2011). Future champions: Unlocking the growth in the UK's medium-sized businesses.
- Ceylan, C. (2013). Commitment-based HR practices, different types of innovation activities and firm innovation performance. *The International Journal of Human Resource Management*, 24(1), 208–226. <http://doi.org/10.1080/09585192.2012.680601>
- Cetinel, F., Yolal, M., & Emeksiz, M. 2009. Human resources management in small- and medium-sized hotels in Turkey. *Journal of Human Resources in Hospitality and Tourism*, 8, 43-63.
- Chadwick, C., & Dabu, A. 2009. Human resources, human resource management, and the competitive advantage of firms: Toward a more comprehensive model of causal linkages. *Organization Science*, 20, 252-272.
- Chandler GN, Mcevoy GM, 2000. Human resource management, TQM, and firm performance in small and medium-size enterprises. *Entrepreneurship: theory and practice*, Fall, 25, 43.
- Chen, C.J. & Huang, J.W. (2009). Strategic human resource practices and innovation performance-the mediating role of knowledge management capacity. *Journal of Business Research*, 62(1), 104-114.
- Chi, N.W., & Lin, C.Y. (2011). Beyond the high-performance paradigm: Exploring the curvilinear relationship between high-performance work systems and organizational performance in Taiwanese manufacturing firms. *British Journal of Industrial Relations*, 49(3), 486–514.
- Christensen, J. F. (2002). Corporate strategy & the management of innovation & technology. *Industrial & Corporate Change*, 11 (2), 263-288
- Cronbach, L. J. (1946). Response sets and test validity. *Educational and Psychological Measurement*, 6, 475–494.
- Chuang, C, & Liao, H. 2010. Strategic human resource management in service context: Taking care of business by taking care of employees and customers. *Personal Psychology*, 63, 153-196.
- Chuang, C.-H., Chen, S., & Chuang, C.-W. (2013). Human resource management practices and organizational social capital: The role of industrial characteristics. *Journal of Business Research*, 66(5), 678–687. <http://doi.org/10.1016/j.jbusres.2012.04.002>
- Churchill, G. A., & Iacobucci, J. D. (2009). *Marketing Research: Methodological Foundations (10 ed.)*. London: Cengage Learning.
- Combs, J., Liu, Y., Hall, A., & Ketchen, D. (2006). How much do high-performance work practices matter? A meta-analysis of their effects on organizational performance. *Personnel Psychology*, 59(3), 501–528. doi:10.1111/j.1744-6570.2006.00045.x
- Coleman, J. S. (1988). Social capital in the creation of human capital. *The American Journal of Sociology*, 94(S1), S95–S120.



- Collings, D. G., Demibra, M., Mellahi, K., & Tatoglu, E. (2010). Strategic orientation, human resource management practices and organizational outcomes: evidence from Turkey. *The International Journal of Human Resource Management*, 21(14), 2589–2613. <http://doi.org/10.1080/09585192.2010.523577>
- Collins, C.J., & Clark, K.D. (2003). Strategic Human Resource Practices, Top Management Team Social Networks, and Firm Performance: The Role of Human Resource Practices in Creating Organizational Competitive Advantage. *Academy of Management Journal*, 46, 740–751.
- Collins, C. J., & Smith, K. G. (2006). Knowledge Exchange and Combination: The Role of Human Resource Practices in the Performance of High-Technology Firms. *Academy of Management Journal*, 49(3), 544–560. <http://doi.org/10.5465/AMJ.2006.21794671>
- Collis, D. J., & Montgomery, C. A. 1995. *Competing on resources: Strategy in the 1990s*. Harvard Business Review, 73(4): 118-128.
- Connell, J. & Burgess, J. (2013). Vulnerable Workers in Emerging Middle Eastern Economy: What are the Implications for HRM? *International Journal of Human Resource Management*, 24(22): 4166–4184.
- Cooke, F. L. & Saini, D. S. (2010). Diversity management in India: A study of organizations in different ownership forms and industrial sectors. *Human Resource Management*, 49, 477–500. doi:10.1002/hrm.20360
- Cooke, B., Macau, F., & Wood, T. (2013). Brazilian management gurus as reflexive soft-HRM practitioners: an empirical study. *International Journal of Human Resource Management*, 24(1), 110–129. <https://doi.org/10.1080/09585192.2012.669779>
- Cooke, F. L., Wood, G., & Horwitz, F. (2015). Multinational firms from emerging economies in Africa: Implications for research and practice in human resource management. *The International Journal of Human Resource Management*, 26(21), 2653–2675. <https://doi.org/10.1080/09585192.2015.1071546>
- Covin, J.G. & Miles, M.P. (2007). Strategic use of corporate venturing. *Entrepreneurship, Theory and Practice*, 31(2), 183-207.
- Covin JG, Green KM & Slevin DP (2006). Strategic process effects on the entrepreneurial orientation–sales growth rate relationship. *Entrepreneurship Theory and Practice* 30(1): 57–81.
- Crossan, M. M., & Apaydin, M. (2010). A multi-dimensional framework of organizational innovation: A systematic review of the literature. *Journal of Management Studies*, 47(6), 1154–1191. doi:10.1111/j.1467-6486.2009.00880.x
- Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. Sydney, Australia: Allen and Unwin.
- Cunningham, L. X., & Rowley, C. (2010). Small and medium-sized enterprises in China: A literature review, human resource management and suggestions for further research. *Asia Pacific Business Review*, 16(3), 319–337. <http://doi.org/10.1080/13602380903115948>
- Danneels, E. 2002. The dynamics of product innovation and firm competences. *Strategic Management Journal*, 23, 1095–1121.
- Damanpour, F. 1996. Organizational complexity and innovation: Developing and testing multiple contingency model. *Management Science*, 42(5): 693-717.
- Damanpour, F. (2010). An integration of research findings of effects of firm size and market competition on product and process innovations. *British Journal of Management*, 21(4), 996–1010. <http://doi.org/10.1111/j.1467-8551.2009.00628.x>
- Damanpour, F., Szabat, K. & Evans, W. (1989). The relationship between types of innovation and organizational performance. *Journal of Management Studies*, 26, 587–601.
- Datta, D.K., Guthrie, J.P. & Wright, P.M. (2005). Human resource management and labour productivity: Does industry matter? *Academy of Management journal*, 48(1), 135-145.

- Davenport, T.H. (1993). *Process Innovation: Reengineering Work through Information Technology*, Harvard Business Press, Boston, MA.
- Day, G. S. (1994). The capabilities of market-driven organizations. *Journal of Marketing*, 58, 37–52.
- De Saá-Pérez, P., Díaz-Díaz, N. L., & Ballesteros-Rodríguez, J. L. (2012). The role of training to innovate in SMEs. *Innovation: Management, Policy and Practice*, 14(2), 218–230. doi:10.5172/impp.2012.14.2.218
- De Winne, S. & Sels, L. (2010). Interrelationships between human capital, HRM and innovation in Belgian start-ups aiming at an innovation strategy. *International Journal of Human Resource Management*, 21(11), 1863-1883.
- Della, E., & Solari, L. (2013). High-performance work systems and the change management process in medium-sized firms. *The International Journal of Human Resource Management*, 24(13), 2583–2607. <https://doi.org/10.1080/09585192.2012.744337>
- Delery, J. E., & Doty, D. H. (1996). Modes of theorizing in strategic human resource management: tests of universalistic, contingency, and configurational performance predictions, 39(4), 802–835.
- Denton, K. (2006). High performance work systems: The Sum is really greater than its parts. *Measuring Business Excellence*, 10(4), 4–7.
- Denzin, N.K. & Lincoln, Y.S. (2000). Introduction: The discipline and practice of qualitative research. In N.K. Denzin & Y.S. Lincoln (eds.), *Handbook of qualitative research*, 2nd eds. Thousand Oaks, CA: Sage Publications.
- Dess, G.G., Lumpkin, G.T. & McGee, J.E. (1999). Linking corporate entrepreneurship to strategy, structure, and process: suggested research directions. *Entrepreneurship, Theory and Practice*, 18(9), 677-95.
- DiMaggio, P.J., and Powell, W.W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48, 147–160.
- Donate, M. J., Peña, I., & Sánchez de Pablo, J. D. (2015). HRM practices for human and social capital development: effects on innovation capabilities. *The International Journal of Human Resource Management*, 27(9), 1–26. <http://doi.org/10.1080/09585192.2015.1047393>
- Dorenbosch, L., Engen, M.L., & Verhagen, M. (2005). On-the-job Innovation: The Impact of job design and human resource management through production ownership. *Creativity and Innovation Management*, 14, 129–141.
- Dougherty, D. (1992). Interpretive barriers to successful product innovation in large firms. *Organization Science*, 3(2), 179-202.
- Dowling, P.J., Festing, M. & Engle, A.D. (2013). *International Human Resource Management*, 6th ed., Cengage Learning EMEA, Hampshire.
- Dubois, B., & Burns, J. A. (1975). An analysis of the meaning of the question mark response category in attitude scales. *Educational and Psychological Measurement*, 35, 869–884.
- Dulac, T., Coyle-Shapiro, J.A.M., Henderson, D.J., and Wayne, S.J. (2008). Not all responses to breach are the same: The interconnection of social exchange and psychological contract processes in organizations. *Academy of Management Journal*, 51, 1079–1098.
- Dunning, J.H. & Lundan, S.M. (2008). Institutions and the OLI paradigm of the multinational enterprise. *Asia Pacific Journal of Management*, 25(4), 573-593.
- Easterby-Smith, M., Thorpe, R., & Lowe, A. (2004). *Management Research (Second Edition)*. London: Sage Publications.
- Edgar, F., & Geare, A. (2009). Inside the “black box” and “HRM. *International Journal of Manpower*, 30(3), 220–236. doi:10.1108/01437720910956736



- Edwards, P. & Ram, M., 2006. Surviving on the margins of the economy: working relationships in small, low-wage firms. *Journal of management studies*, 43 (4), 895–916.
- Eisenberger, R., Fasolo, P. & LaMastro, V. (1990). Perceived organizational support and employee diligence, commitment, and innovation. *Journal of Applied Psychology*, 75(1), 51-59.
- Eisenhardt, K.M. & Tabrizi, B.N. (1995). Accelerating adaptive processes: product innovation in the global computer industry. *Administrative Science Quarterly*, 40(1), 84-110.
- Erturk, A. (2014). Influences of HR Practices, Social Exchange, and Trust on Turnover Intentions of Public IT Professionals. *Public Personnel Management*, 43(1), 140–175. <http://doi.org/10.1177/0091026013517875>
- Escribá-Esteve A, Sánchez-Peinado L & Sánchez-Peinado E (2008). Moderating influences on the firm's strategic orientation–performance relationship. *International Small Business Journal*, 26(4): 463–489.
- Evans, W. R. (2005). High-performance work systems and organizational performance: The Mediating role of internal social structure. *Journal of Management*, 31(5), 758–775. <http://doi.org/10.1177/0149206305279370>
- Fay, D., Shipton, H., West, M. A., & Patterson, M. (2014). Teamwork and organizational innovation: The Moderating role of the HRM context. *Teamwork and Organizational Innovation*, 1–17.
- Ferligoj A, Prasnikar J & Jordan V (1997). Competitive advantage and human resource management in SMEs in a transitional economy. *Small Business Economics*, 9(6): 353-376.
- Ferris, G.R., Hochwater, W.A., Buckley, M.R., Harrel-Cook, G. & Frink, D.D. (1999). Human Resources Management: some new directions. *Journal of Management*, 25(3), 385-414.
- Flanagan DJ & Deshpande SP (1996). Top managements perceptions of changes in HRM practices after union elections in small firms: Implications for building competitive advantage. *Journal of Small Business Management*, October, 23-33.
- Fleetwood, S., & Hesketh, A. (2008). Theorising under-theorisation in research on the HRM-Performance Link. *Personnel Review*, 37(2), 126–144. <http://doi.org/10.1108/00483480810850506>
- Foss, N. J., Laursen, K., & Pedersen, T. (2011). Linking Customer Interaction and Innovation: The Mediating Role of New Organizational Practices. *Organization Science*, 22(4), 980–999. <http://doi.org/10.1287/orsc.1100.0584>
- Ford, C.M., & Gioia, D.A. (2000). factors influencing creativity in the domain of managerial decision making. *Journal of Management*, 26, 705–732.
- Fornell, C., & Larcker, D. 1981. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18, 39-50.
- Forth, J., Bewley, H., & Bryson, A. (2006). *Small and Medium-sized Enterprises: Findings from the 2004 Workplace Employee Relations Survey*. London: Department of Trade and Industry.
- Freeman, E. (1985). *Strategic management: A stakeholder approach*. Boston MA: Pitman.
- Fu, N., Flood, P. C., Bosak, J., Morris, T., & O'Regan, P. (2015). How do high performance work systems influence organizational innovation in professional service firms? *Employee Relations*, 37(2), 0142–5455.
- Gardner, T.M., & Wright, P.M. (2009). Implicit Human Resource Management Theory: A Potential threat to the internal validity of human resource practice measures. *International Journal of Human Resource Management*, 20, (1), 57–74.
- Gao, L., Liu, X. & Zou, H. (2013). The role of human mobility in promoting Chinese outward FDI: a neglected factor? *International Business Review*, 22(2), 437-449.

- Gbolahan, F. R. (2012). Impact of human resource management practices on organizational performance in Nigeria: An empirical study of Ecobank Nigeria Plc in the last five years. *International Journal of Contemporary Business Studies*, 3, 43–63.
- Georgiadis, A., & Pitelis, C. N. (2012). Human resources and SME performance in services: Empirical evidence from the UK. *The International Journal of Human Resource Management*, 23(4), 37–41.
- Gerhart, B., Wright, P.M., McMahan, G. C., & Snell, S. A. (2000). Measurement erroring research on human resources and firm performance: How much error is there and how does it influence effect size estimates? *Personnel Psychology*, 53(4), 803–834.
- Giannetti, C., & Madia, M. (2013). Work arrangements and firm innovation: Is there any relationship? *Cambridge Journal of Economics*, 37, 273–297. doi:10.1093/cje/bes067
- Giannikis, S., & Nikandrou, I. (2013). The impact of corporate entrepreneurship and high-performance work systems on employees' job attitudes: empirical evidence from Greece during the economic downturn. *The International Journal of Human Resource Management*, 24(19), 3644–3666. <http://doi.org/10.1080/09585192.2013.778316>
- Giauque, D., Resentera, F., & Siggen, M. (2010). The relationship between HRM practices and organizational commitment of knowledge workers. Facts obtained from Swiss SMEs. *Human Resource Development International*, 13(2), 185–205. doi:10.1080/13678861003703716
- Gibbs, T., & Ashill, N. J. (2013). The effects of high performance work practices on job outcomes: Evidence from frontline employees in Russia. *International Journal of Bank Marketing*, 31(4), 305–326. <http://doi.org/10.1108/IJBM-10-2012-0096>
- Gilbert, C., De Winne, S., & Sels, L. (2011). The influence of line managers and HR department on employees' affective commitment. *The International Journal of Human Resource Management*, 22(8), 1618–1637. <http://doi.org/10.1080/09585192.2011.565646>
- Gilman, M., & Raby, S. (2013). National context as a predictor of high-performance work system effectiveness in small-to-medium-sized enterprises (SMEs): A UK–French comparative analysis. *The International Journal of Human Resource Management*, 24(2), 372–390. <http://doi.org/10.1080/09585192.2012.672447>
- Gittell, J. H., Seidner, R., & Wimbush, J. 2010. A relational model of how high-performance work systems work. *Organization Science*, 21: 490-506.
- Godard, J. (2004). A Critical Assessment of the High-Performance Paradigm. *British Journal of Industrial Relations*, 42:2(June), 349–378.
- Gong, Y., Law, K. S., Ghang, S., & Xin, K. R. 2009. Human resources management and firm performance: The differential role of managerial affective and continuance commitment. *Journal of Applied Psychology*, 94, 263-275.
- Gong, Y., Huang, J. C., & Farh, J. L. (2009). Employee learning orientation, transformational leadership, and employee creativity: The mediating role of employee creative self-efficacy. *Academy of Management Journal*, 52(4), 765–778. <http://doi.org/10.5465/AMJ.2009.43670890>
- Gong, Y., Zhou, J., & Chang, S. (2013). Core Knowledge Employee Creativity and Firm Performance: The Moderating Role of Riskiness Orientation, Firm Size, and Realized Absorptive Capacity. *Personnel Psychology*, 66(2), 443–482. <http://doi.org/10.1111/peps.12024>
- Gould-Williams, J. (2003). The importance of HR practices and workplace trust in achieving superior performance: A study of public-sector organizations. *International Journal of Human Resource Management*, 14, 28–54.
- Gould-Williams, J., & Davies, F. (2005). Using social exchange theory to predict the effects of HRM practice on employee outcomes. *Public Management Review*, 7(1), 1–24. doi:10.1080/1471903042000339392

- Gouldner, A. W. 1960. The norm of reciprocity. *American Sociological Review*, 25, 161-178.
- Graen, G. B. & Cashman, J. F.. (1975). A role making model in formal organizations: A Developmental approach. In J. G. Hunt & L. L. Larsons (eds.), *Leadership Frontiers* (pp. 143 – 65). Kent: OH: Kent State University Press.
- Grant, R.M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17, winter, 109–122.
- Guest, D. E. (1987). Human resource management and industrial relations. *Journal of Management Studies*, 24(5): 503-521.
- Guest, D.E. (1997). Human resource management and performance: a review and research agenda. *International Journal of Human Resource Management*, 8(3), 263-76.
- Guest, D. E. & Conway, N. (1997). Employee motivation and the psychological contract. *Institute of Personnel and Development*. 21, 1 – 60.
- Guest, D.E., Mitchie, J., Conway, N., & Sheehan, M. (2003). Human resource management and corporate performance in the UK. *British Journal of Industrial Relations*, 41(2), 291-314.
- Guest, D., and Conway, N. (2011). The Impact of HR practices, HR effectiveness and a “Strong HR System” on organizational outcomes: A Stakeholder perspective. *International Journal of Human Resource Management*, 22, 1686–1702.
- Gong, Y., Zhou, J., & Chang, S. (2013). Core Knowledge Employee Creativity and Firm Performance: The Moderating Role of Riskiness Orientation, Firm Size, and Realized Absorptive Capacity. *Personnel Psychology*, 66(2), 443–482. <http://doi.org/10.1111/peps.12024>
- Guan, J. (2003). Innovative capability and export performance of Chinese firms. *Technovation*, 23, 737–747.
- Gunday, G., Ulusoy, G., Kilic, K., & Alpkan, L. (2013). Effects of Innovation Types on Firm Performance, 7(2), 243–262.
- Gurbuz, S., & Mert, I. S. (2011). Impact of the strategic human resource management on organizational performance: evidence from Turkey. *The International Journal of Human Resource Management*, 22(8), 1803–1822. <http://doi.org/10.1080/09585192.2011.56566>
- Gurkov, I., Zelenova, O., & Saidov, Z. (2012). Mutation of HRM practices in Russia: an application of CRANET methodology. *The International Journal of Human Resource Management*, 23(7), 1289–1302. <https://doi.org/10.1080/09585192.2011.581633>
- Guth,W.D.,& Ginsberg, A. (1990). Corporate entrepreneurship. *Strategic Management Journal*, 11 Special Issue, 5–15.
- Guthrie, J. P. 2001. High-involvement work practices, turnover, and productivity: Evidence from New Zealand. *Academy of Management Journal*, 44, 180- 190.
- Haas, D. F. & Deseran, F. A. (1981). Trust and symbolic exchange. *Social Psychology Quarterly*. 44,1 pp3 – 13.
- Hair, J. F., Black, B., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis (7th ed.)*. A Global Perspective, New Jersey, USA: Person Education Inc.
- Hair JF, Anderson RE, Tatham RL & Black WC (2014). *Multivariate Data Analysis*. Englewood Cliffs, NJ: Prentice-Hall.
- Hale, D. (2012). The Importance of Emerging Markets. *CFA Institute Conference Proceedings Quarterly*, 29(3), 43-50.
- Hammer, M., & Champy, J. (1994). Avoiding the hot- test new management cure. Inc., 16(4), 25–26.
- Han, J.K., Kim, N. & Srivastava, R.K. (1998). Market orientation and organizational performance: is innovation a missing link? *Journal of Marketing*, 62(4), 30-45.
- Hansen B. & Hamilton R.T. (2011). Factors distinguishing small firm growers and non-growers. *International Small Business Journal* 29(3): 278–294.

- Harney, B., & Dundon, T. (2006). Capturing complexity: Developing an integrated approach to analysing HRM in SMEs. *Human Resource Management Journal*, 16(1), 48–73. doi:10.1111/j.1748
- Hayton, J. C., Hornsby, J. S., & Bloodgood, J. (2013). Part II: The Contribution of HRM to corporate entrepreneurship: A Review and agenda for future research. *M@n@gement*, 16(4), 381–409. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=93744043&site=ehost-live>
- Hatch, N. W., & Dyer, J. H. (2004). Human capital and learning as a source of sustainable competitive advantage. *Strategic Management Journal*, 25, 1155–1178. doi: 10.1002/smj.421
- He, H., Pham, H. Q., Baruch, Y., & Zhu, W. (2014). Perceived organizational support and organizational identification: Joint moderating effects of employee exchange ideology and employee investment. *International Journal of Human Resource Management*. doi:10.1080/09585192.2014.908315
- Hecht, T. D., and Allen, N. J. (2009). A longitudinal examination of the work – nonwork boundary strength construct. *Journal of Organizational Behavior*, 30, 839–862. <https://doi.org/10.1002/job>
- Heck, R. H., & Thomas, S. L. (2009). *An introduction to multilevel modelling techniques* (2nd ed.). New York, NY: Routledge.
- Henderson R, Cockburn I. (1994). Measuring competence: Exploring firm effects in pharmaceutical research. *Strategic Management Journal*, 15, 63–84.
- Heneman, R. L., Tansky, J. W., & Camp, S. M. (2000). Human resource management practices in small and medium-sized enterprises: Unanswered questions and future. *Research Perspectives*, 11–27.
- Hernández, A., Drasgow, F., & González-Romá, V. (2004). Investigating the functioning of a middle category by means of a mixed-measurement model. *The Journal of Applied Psychology*, 89(4), 687–699. <https://doi.org/10.1037/0021-9010.89.4.687>
- Hirst G, van Knippenberg D, Zhou J. (2009). A cross-level perspective on employee creativity: Goal orientation, team learning behaviour, and individual creativity. *Academy of Management Journal*, 52, 280–293.
- Hitt, M.A. & Ireland, R.D. (2000). The intersection of entrepreneurship and strategic management research. In D.L. Sexton, and H. Landstrom, (Eds.), *Handbook of Entrepreneurship* (pp. 45-63.), Blackwell Publishing, Oxford.
- Hocking, J. B., Brown, M., & Harzing, A. W. (2007). Balancing global and local strategic contexts: Expatriate knowledge transfer, applications, and learning within a transnational organization. *Human Resource Management*, 46(4), pp. 513-533.
- Hofstede G. 1980. *Culture's Consequences: Interactional differences in work-related values*. Sage: Newbury Park, CA.
- Hong, J., Wang, C. & Kafourous, M. (2014). The role of the state in explaining the internationalization of emerging market enterprises. *British Journal of Management* (In Press, DOI: 10.1111/1467-8551.12059).
- Hooi L. W., & Ngui, K. S. (2014). Enhancing organizational performance of Malaysian SMEs, The role of HRM and organizational learning capability. *International Journal of Manpower*, 35, 441–458. <http://doi.org/http://dx.doi.org/10.1108/BIJ-10-2012-0068>
- Hornsby, J. S., & Kuratko, D. F. (1990). Human resource management in small business: Critical issues for the 1990s. *Journal of Small Business Management*, 28(3), 9–18.
- Horwitz, F., & Budhwar, P. S. (2015). *Handbook of human resource management in emerging markets*. [electronic resource]. Cheltenham: Edward Elgar Pub. Ltd., 2015.

- Hox, J. J., & Maas, C. J. M. (2001). The accuracy of multilevel structural equation modelling with pseudo balanced groups and small samples. *Structural Equation Modelling*, 8, 157–174.
- Hsu, I., Lin, C. Y., Lawler, J. J., & Wu, S. (2007). Toward a model of organizational human capital development: Preliminary evidence from Taiwan. *Asia Pacific Business Review*, 13, 251–275.
- Hu, L., & Bentler, P.M. (1998). Fit indices in covariance structure modelling: Sensitivity to under parameterized model misspecification. *Psychological Methods*, 3, 424–453.
- Huergo, E. (2006). The role of technological management as a source of innovation: Evidence from Spanish manufacturing firm. *Research Policy*, 35, 1377–1388.
- Huselid, M. A. (1995). The Impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38(3), 635–672. doi:10.2307/256741
- Husin, S., Chelladurai, P., & Musa, G. (2012). HRM Practices, Organizational Citizenship Behaviors, and Perceived Service Quality in Golf Courses. *Journal of Sport Management*, 26, 143–158.
- Ibarra, H. (1993). Network centrality, power, and innovation involvement: determinants of technical and administrative roles. *Academy of Management Journal*, 36(3), 471–501.
- Ichniowski C, Shaw K, Prensushi G. (1997). The effects of human resource management practices on productivity: A study of steel finishing lines. *The American Economic Review*, 87, 297–313.
- Ichniowski, C., & Shaw, K. (1999). The Effects of human resource management systems on economic performance: An international comparison of U.S. and Japanese plants. *Management Science*, 45(5), 704–721. <http://doi.org/10.1287/mnsc.45.5.704>
- Intan-Soraya, R., & Chew, K. W. (2010). A framework for human resource management in the knowledge economy: Building intellectual capital and innovative capability. *International Journal of Business and Management Science*, 3, 251–273.
- Ipe, M. (2003). Knowledge Sharing in Organizations, A Conceptual Framework. *Human Resource Development Review*, 2(4), 337–359.
- Jabbour, C., Santos, F., & Nagano, M.S. (2010). Contributions of HRM Throughout the Stages of Environmental Management: Methodological Triangulation Applied to Companies in Brazil. *International Journal of Human Resource Management*, 21(7), 1049–1089.
- James, L. R. (1982). Aggregation bias in estimates of perceptual agreement. *Journal of Applied Psychology*, 67, 219–229.
- Janssen, O. (2000). Job demands, perceptions of effort reward fairness and innovative work behaviour. *Journal of Occupational and Organizational Psychology*, 73(3), 287–302.
- Jawahar, I.M. (2007). The Influence of Perceptions of Fairness on Performance Appraisal Reactions. *Journal of Labor Research*, 28, 735–754.
- Jick, T. D. (1979). Mixing qualitative and quantitative methods: Triangulation in action. *Administrative Science Quarterly*, 24(4), 602–661.
- Jiménez-Jiménez, D., & Sanz-Valle, R. (2008). Could HRM support organizational innovation? *The International Journal of Human Resource Management*, 19(7), 1208–1221. doi:10.1080/09585190802109952
- Jiang, K., Lepak, D. P., Hu, J., & Baer, J. C. (2012). How does human resource management influence organizational outcomes? A Meta-analytic investigation of mediating mechanisms. *Academy of Management Journal*, 55(6), 1264–1294. doi:10.5465/amj.2011.0088



- Jiang, J., Wang, S., & Zhao, S. (2012). Does HRM facilitate employee creativity and organizational innovation? A study of Chinese firms. *The International Journal of Human Resource Management*, 23(19), 4025–4047.
- Johns, R. (2005). One size doesn't fit all: Selecting response scales for attitude items. *Journal of Elections, Public Opinion & Parties*, 15, 237–264. doi: 10.1080/13689880500178849
- Jorgensen, F. (2016). Ensuring engagement and commitment to innovative behaviours in high growth medium-sized firms. In H. Shipton, P. Budhwar, P. Sparrow & A. Brown (Eds.) *Human resource management, innovation and performance*, (p. 115–129). Palgrave MacMillan, London, UK.
- Judge, W.Q., Naumova, I. & Douglas, T. (2009). Organizational Capacity for Change and Firm Performance in a Transitional Economy. *International Journal of Human Resource Management*, 20(8): 1737–1752.
- Kabasakal, H. & Bodur, M. (1998). Leadership, values and institutions: The Case of Turkey. In S.F. Pasa, H. Kabasakal, & M. Bodur (2001). *Society, Organizations, and Leadership in Turkey*. Applied Psychology: An International Review, 50 (4): 559–89.
- Kabst, R. (2004). Human resource management for international joint ventures: expatriation and selective control. *The International Journal of Human Resource Management*, 15(1), 1–16.
- Kang, S.-C., Morris, S. S., & Snell, S. A. (2007). Relational archetypes, organizational learning, and value creation: Extending the human resource architecture. *Academy of Management Review*, 32, 236–256.
- Kang, S.-C., & Snell, S. A. (2009). Intellectual capital architectures and ambidextrous learning: A framework for human resource management. *Journal of Management Studies*, 46, 65–92. doi:10.1111/j.1467-6486.2008.00776.x
- Kang, S.-C., & Snell, S. A. (2009). Intellectual capital architectures and ambidextrous learning: A framework for human resource management. *Journal of Management Studies*, 46, 65–92. doi:10.1111/j.1467-6486.2008.00776.x
- Kaplan, K. J. (1972). On the ambivalence–indifference problem in attitude theory: A suggested modification of the semantic differential technique. *Psychological Bulletin*, 77, 361–372.
- Kaya, N. (2006). The impact of human resource management practices and corporate entrepreneurship on firm performance: evidence from Turkish firms. *The International Journal of Human Resource Management*, 17(12), 2074–2090. <http://doi.org/10.1080/09585190601000204>
- Kathuria, R. & Joshi, M.P. (2007). Environmental influences on corporate entrepreneurship: executive perspectives on the internet. *International Entrepreneurship and Management Journal*, 3(2), 127–44.
- Katou, A. and Budhwar, P. (2010) Testing Competing HRM–Performance Linkage Models: Evidence from the Greek Manufacturing Sector. *The European Journal of International Management*, 4(5): 464–487.
- Katou, A. a. (2012). Investigating reverse causality between human resource management policies and organizational performance in small firms. *Management Research Review*, 35(2), 134–156. <http://doi.org/10.1108/01409171211195161>
- Katou, A., & Budhwar, P. (2014). HRM and firm performance. In J. R. Crawshaw, B. Budhwar, & A. Daviss, *HRM and firm performance. Human Resource Management: Strategic and International Perspectives*, (pp. 26–47). London, Sage.
- Kazlauskaitė, R., Šarapovas, T., Gelbūda, M., & Autio, E. (2015). The resource-based view and SME internationalisation: An emerging economy perspective. *Entrepreneurial Business and Economics Review*, 3(2), 53–64. <http://doi.org/10.15678/EBER.2015.030205>

- Keaveney, S. (1995). Customer switching behaviour in service industries: An exploratory study. *Journal of Marketing*, 59(1), 71–82.
- Kehoe, R. R., & Wright, P. M. (2013). The impact of high performance human resource practices on employees' attitudes and behaviors. *Journal of Management*, 39(2), 366–391. <http://doi.org/10.1177/0149206310365901>
- Kemelgor, B.H. (2002). A comparative analysis of corporate entrepreneurial orientation between selected firms in The Netherlands and the USA. *Entrepreneurship & Regional Development*, 14, 67-87.
- Kesting, P., Mueller, S., Jorgensen, F., & Ulhoi, J. P. (2011). Innovation and network collaboration: an HRM perspective. *International Journal of Technology Management*, 56(2/3/4), 138. <https://doi.org/10.1504/IJTM.2011.042979>
- Kidwell, R.E. & Fish, A.J. (2007). High- performance human resource practices in Australian family businesses: preliminary evidence from the wine industry. *International Entrepreneurship and Management Journal*, 3(1), 1-14.
- Kim, S., & Wright, P. M. (2011). Putting strategic human resource management in context: A contextualized model of high commitment work systems and its implications in China. *Management and Organization Review*, 7(1), 153–174.
- Kim, H-D. and Tung, R. (2013) Opportunities and Challenges for Expatriates in Emerging Markets: An Exploratory Study of Korean Expatriates in India. *International Journal of Human Resource Management*, 24(5): 1029–1050.
- King, E. B., de Chermont, K., West, M., Dawson, J. F., & Hebl, M. R. (2007). How innovation can alleviate negative consequences of demanding work contexts: The influence of climate for innovation on organizational outcomes, 631–645. <http://doi.org/10.1348/096317906X171145>
- Kinnie, N., Purcell, J., Hutchinson, S., Terry, M., Collinson, M., & Scarbrough, H., 1999. Employment relations in SMEs – market-driven or customer-shaped. *Employee relations*, 21(3), 218–235.
- Khavul, S., Benson, G.S. & Datta, D.K. (2010). Is Internationalization Associated with Investments in HRM? A Study of Entrepreneurial Firms in Emerging Markets. *Human Resource Management*, 49(4): 693–713.
- Klaas, B. S., Yang, H., Gainey, T., & McClendon, J. A. (2005). HR in the small business enterprise: Assessing the impact of PEO utilization. *Human Resource Management*, 44(4), 433–448. doi:10.1002/hrm.20083
- Čalopa, M. K., Horvat, J., & Kuzminski, L. (2015). The Role of Human Resource Management Practice Mediated by Knowledge Management (Study on companies from ICT sector, Croatia). *TEM Journal*, 4(2), 178–186.
- Kline, R.B. (2011). *Principles and practice of structural equation modelling (4th ed.)*, New York: Guilford Press.
- Kogut B, Zander U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organisational Science*, 3, 383–97.
- Kok de, J. & Uhlaner, L.M., 2001. Organization context and human resource management in the small firm. *Small business economics*, 17, 273–291.
- Kong, E., & Thomson, S. B. (2009). An intellectual capital perspective of human resource strategies and practices. *Knowledge Management Research & Practice*, 7, 356–364. doi:10.1057/kmrp. 2009.27
- KOSGEB, (2012). Enhancing the competitiveness of SMEs in Turkey. Ankara.
- Kotey, B., & Slade, P. (2005). Formal human resource management practices in growing small firms. *Journal of Small Business Management*, 43(1), 16–40.
- Koyuncu, M., Burke, R. J., Acar, F. T., & Wolphin, J. (n.d.). Human resource management practices in small- and medium- sized enterprises in Turkey. 1–19.

- Kozan, M. K., Oksoy, D. & Ozsoy, O. 2006. Growth plans of small businesses in Turkey: Individual and environmental influences. *Journal of Small Business Management*, 44, 114-129.
- Kuratko, D.F., Hornsby, J.S. & Bishop, J.W. (2005). Manager's corporate entrepreneurial actions and job satisfaction. *International Entrepreneurship and Management Journal*, 1 (3), 275-91.
- Kuvaas, B. (2008). An Exploration of How the Employee–Organization Relationship Affects the Linkage Between Perception of Developmental Human Resource Practices and Employee Outcomes. *Journal of Management Studies*, 45, 1–25.
- Kuvaas, B., Dysvik, A., & Buch, R. (2014). Antecedents and employee outcomes of line managers' perceptions of enabling HR practices. *Journal of Management Studies*, 51(6), 845–868. <http://doi.org/10.1111/joms.12085>
- Liao, H., Toya, K., Lepak, D. P., & Hong, Y. 2009. Do they see eye to eye? Management and employee perspectives of high-performance work systems and influence processes on service quality. *Journal of Applied Psychology*, 94, 371-391.
- Lado, A. A., & Wilson, M. C. 1994. Human resource systems and sustained competitive advantage: A competency based perspective. *Academy of Management Review*, 19, 699-727.
- Lado, A.A., Boyd, N.G., Wright, P., & Kroll, M. (2006). Paradox and the theorizing within the resource-based view. *Academy of Management Review*, 31(1), 115–131.
- Laursen, K. & Foss, N.J. (2003). New human resource management practices, complementarities and the impact on innovation performance. *Cambridge Journal of Economics*, 27(2), 243-263.
- Lee, N., & Lings, I. (2008). *Doing business research: a guide to theory and practice*. Sage.
- Lee, J. & Kim, M. (2014). Market-driven technological innovation through acquisitions: the moderating effect of firm size. *Journal of Management*.
- Legge, K. (1995). *Human resource management: Rhetoric and Realities*, London, Macmillan.
- Lengnick-Hall, C.A. (1992), Innovation and competitive advantage: what we know and what we need to learn. *Journal of Management*, 18 (2), 399-429.
- Lepak, D.P., Taylor, M.S., Tekleab, A., Marrone, J.A. and Cohen, D.J. (2007). An examination of the use of high investment human resource systems for core and support employees. *Human Resource Management*, 46(2), 223-246.
- Lerner, M., & Haber, S. (2000). Performance factors of small tourism ventures: The interface of tourism, entrepreneurship and the environment. *Journal of Business Venturing*, 16(1), 77–100.
- Liao H, Liu D, Loi R. (2010). Looking at both sides of the social exchange coin: A social cognitive perspective on the joint effects of relationship quality and differentiation on creativity. *Academy of Management Journal*, 53, 1090–1109.
- Li, Y., Zhao, Y., & Liu, Y. (2006). The relationship between HRM, technology innovation and performance in China. *International Journal of Manpower*, 27(7), 679–697. <http://doi.org/10.1108/02656710210415703>
- Licuanan, B.F., Dailey, L.R., & Mumford, M.D. (2007), Idea evaluation: Error in evaluating highly original ideas. *Journal of Creative Behavior*, 41, 1–27.
- Lin, C.Y.Y., Lu, T.C. & Lin, H.W. (2012). A different perspective of expatriate management. *Human Resource Management Review*, 22(3), 189-207.
- Liu, N.-C., & Liu, M.-S. (2011). Human resource practices and individual knowledge-sharing behavior – an empirical study for Taiwanese R&D professionals. *The International Journal of Human Resource Management*, 22(4), 981–997. <http://doi.org/10.1080/09585192.2011.555138>
- Lopez-Cabrales, A., Pérez-Luño, A. & Cabrera, R.V. (2009). Knowledge as a mediator between HRM practices and innovative activity. *Human Resource Management*, 48(4), 485-503.



- Lozano, L.M., Garcia-Cueto, E., & Muniz, J. (2008). Effect of the number of response categories on the reliability and validity of rating scales. *Methodology: European Journal of Research Methods for the Behavioural and Social Sciences*, 4, 73-79. doi: 10.1027/1614-2241.4.2.73
- Lumpkin, G.T. & Dess, G.G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, 2(3), 135-72.
- Ludtke, O., Marsh, H.W., Robitzsch, A., Trautwein, U., Asparouhov, T., & Muthén, B. (2008). The multilevel latent covariate model: A new, more reliable approach to group-level effects in con- textual studies. *Psychological Methods*, 13, 203-229.
- Maassen, G. H., & Bakker, a. B. (2001). Suppressor Variables in Path Models: Definitions and Interpretations. *Sociological Methods & Research*, 30(2), 241–270. <https://doi.org/10.1177/0049124101030002004>
- MacDuffie, J, P. 1995. Human resource bundles and manufacturing performance: Flexible production systems in the world auto industry. *Industrial and Labor Relations Review*, 48, 197-221.
- Macky, K., & Boxall, P. (2007). The Relationship between High-performance Work Practices and Employee Attitudes: An Investigation of Additive and Interaction Effects. *International Journal of Human Resource Management*, 18, (4), 537–567.
- Macky, K., & Boxall, P. (2008). High-involvement work processes, work intensification and employee well-being: A study of New Zealand worker experiences. *Asia Pacific Journal of Human Resources*, 46(1), 38–55. <https://doi.org/10.1177/1038411107086542>
- Madigan, M., Norton, J., & Testa, I. (1999). *The Quest for Work ñ Life Balance* [online]. Rogers Media.
- Madhok, A. & Marques, R. (2013). Competing on action: Business models and the competitiveness of emerging market enterprises. *Schulich School of Business York University Ontario, Canada, Working Paper*, 1–30.
- Madjar, N. (2008). Emotional and informational support from different sources and employee creativity. *Journal of Occupational and Organizational Psychology*, 81(1), 83–100. <http://doi.org/10.1348/096317907X202464>
- Malek, M.A. and Budhwar, P. (2012) Cultural Intelligence as a Predictor of Expatriate Adjustment and Performance in Malaysia. *Journal of World Business*, 48: 222–231.
- Mallen, F., Chiva, R., Alegre, J., & Guinot, J. (2015). Organicity and performance in excellent HRM organizations: the importance of organizational learning capability. *Review of Managerial Science*. <http://doi.org/10.1007/s11846-014-0164-2>
- Marlow, S. (2002). Regulating labour management in small firms. *Human Resource Management Journal*, 12(3), 25-43.
- Martin, G., Reddington, M. & Alexander, H. (2008). *Technology, outsourcing and transforming hr*, Oxford: Elsevier.
- Mayson, S., & Barrett, R. (2006). The ‘Science’ and ‘Practice’ of HRM in Small Firms. *Human Resource Management Review*, 16, 447–455.
- Mellahi, K., Frynas, J. G., & Collings, D. G. (2016). Performance management practices within emerging market multinational enterprises: the case of Brazilian multinationals. *International Journal of Human Resource Management*, 27(8), 876–905. <https://doi.org/10.1080/09585192.2015.1042900>
- McClean, E., & Collins, C. J. 2011. High-commitment HR practices, employee effort, and firm performance: Investigating the effects of HR practices across employee groups within professional services firms. *Human Resource Management*, 50, 341-363.
- MacKinnon, D.P., Krull, L., & Lockwood, C. M. (2000). Equivalence of the mediation, confounding, and suppression effect. *Prevention Science*, 1, 173-181. doi:10.1023/A:1026595011371
- MacKinnon, D. P. (2008). Introduction to Statistical Mediation Analysis. *Structural Equation Modeling*, 477. <https://doi.org/10.4324/9780203809556>

- McEvily, S., Das, S., & McCabe, K. (2000). Avoiding Competence Substitution Through Knowledge Sharing. *Academy of Management Review*, 25(2), 249–311.
- McEvoy, G. M., & Buller, P. F. (2013). Human resource management practices in mid-sized enterprises. *American Journal of Business*, 28(1), 86–105. <http://doi.org/10.1108/19355181311314789>
- McGrath, R.G., Tsai, M.H., Venkataraman, S., & MacMillan, I.C., 1996. Innovation, competitive advantage and rent: A model and test. *Management Science* 42, 389–403.
- Messersmith, J. G., & Guthrie, J. M. (2010). High performance work systems in emergent organizations: Implications for firm performance. *Human Resource Management*, 49, 241–264. doi:10.1002/hrm.20342
- Messersmith, J. G., & Wales, W. J. (2011). Entrepreneurial orientation and performance in young firms: The role of human resource management. *International Small Business Journal*, 31(2), 115–136. <http://doi.org/10.1177/0266242611416141>
- Miles, M.P. and Covin, J.G. (2002). Exploring the practice of corporate venturing: some common forms and their organizational implications. *Entrepreneurship, Theory and Practice*, 26(3), 21–40.
- Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management Science*, 29(1,) 191–710.
- Montoro-Sánchez, Á., & Soriano, D. R. (2011). Human resource management and corporate entrepreneurship. *International Journal of Manpower*, 32(1), 6–13. <http://doi.org/10.1108/014377211111121198>
- Moorman, R. H. (1991). Relationship between organizational justice and organizational citizenship behaviours: do fairness perceptions influence employee citizenship? *Journal of Applied Psychology*, 76, 845–55.
- Moorman, R. H., Blakely, G. L. & Niehoff, B. P. (1998). Does perceived organizational support mediate the relationship between procedural justice and organizational citizenship behavior? *Academy of Management Journal*. 41(3), 351 – 7.
- Morris, M.H. & Kuratko, D.F. 2002. *Corporate entrepreneurship*. New York: Harcourt.
- Morris, M.H., & Jones, F.F. (1993). Human resource management practices and corporate entrepreneurship: An Empirical assessment from the USA. *The International Journal of Human Resource Management*, 4, 873–896.
- Morrison, E. W. (1996). Organizational citizenship behavior as a critical link between HRM practices and service quality. *Human Resource Management*, 35(4), 493–512. [http://doi.org/10.1002/\(SICI\)1099-050X\(199624\)35:4<493::AID-HRM4>3.0.CO;2-R](http://doi.org/10.1002/(SICI)1099-050X(199624)35:4<493::AID-HRM4>3.0.CO;2-R)
- Mumford, M.D. (2000). Managing creative people: Strategies and tactics for innovation. *Human Resource Management Review*, 10, 313–351.
- Muthén, B. O., & Asparouhov, T. (2011). *Beyond multilevel regression modelling: Multilevel analysis in a general latent variable framework*. The Handbook of Advanced Multilevel Analysis, 15–40.
- Muthen, B., & Asparouhov, T. (2015). Causal Effects in Mediation Modelling: An Introduction with Applications to Latent Variables. *Structural Equation Modelling-a Multidisciplinary Journal*, 22(1), 12–23. <http://doi.org/Doi10.1080/10705511.2014.935843>
- Nahapiet, J., and Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23(2), 242–266.
- Nair, S., Pillai, K. G., Hirekhan, M., & Budhwar, P. (2016). Innovativeness of Indian firms - catalysts and deterrents. In H. Shipton, P. Budhwar, P. Sparrow, & A. Brown (Eds.), *Human resource management, innovation and performance*. (pp. 97–114). London (UK): Palgrave Macmillan. DOI: [10.1057/9781137465191\\_7](https://doi.org/10.1057/9781137465191_7)

- Narasimha, S. (2000). Organizational knowledge, human resource management and sustained competitive advantage: Toward a framework. *Competitiveness Review*, 10(1): 123–135.
- Neely, A., Filippini, R., Forza, C., Vinelli, A., & Hii, J. (2001). A Framework for analysing business performance, firm innovation and related contextual factors: Perceptions of managers and policy makers in two European regions. *Integrated Manufacturing Systems*, 12(2), 114–124.
- Nelson, R.R., & Winter, S.G. (1982). *An Evolutionary theory of economic change*, Cambridge, MA: Harvard University Press.
- Newman, A., Miao, Q., Hofman, P. S., & Zhu, C. J. (2015). The impact of socially responsible human resource management on employees' organizational citizenship behaviour: The mediating role of organizational identification. *The International Journal of Human Resource Management*, 51, 1–16. <http://doi.org/10.1080/09585192.2015.1042895>
- Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. New York: Oxford University Press.
- O' Regan, N., & Sims, M. A. (2008). Identifying High-Technology Small Firms: A Sectoral Analysis. *Technovation*, 28, pp.408–423.
- OECD, (2016). Economic Survey of Turkey. <http://www.oecd.org/turkey/economic-survey-turkey.htm>
- Oinas, P. & Van Gils, H. (2001). Identifying contexts of learning in firms and regions. In D. Felsentein, & M. Taylor, (eds.), *Promoting Local Growth: Process, Practice and Policy*, (pp. 61-79). Aldershot: Ashgate.
- Oldham, G. R., & Cummings, A. (1996). Employee creativity: Personal and contextual factors at work. *Academy of Management Journal*, 39(3), 607–634. doi:10.2307/256657
- Ogunyomi, P., & Bruning, N. S. (2015). Human resource management and organizational performance of small and medium enterprises (SMEs) in Nigeria. *The International Journal of Human Resource Management*, 5192(December), 1–23. doi:10.1080/09585192.2015.1033640
- Olander, H., Hurmelinna-Laukkanen, P., & Heilmann, P. (2011). Do SMEs benefit from HRM related knowledge protection in innovation management? *International Journal of Innovation Management*, 15(03), 593–616. <http://doi.org/10.1142/S1363919611003453>
- Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology*, 48, 775–802.
- Organ, D. W. (1988). *Organizational citizenship behavior*. Lexington, MA: DC Heath.
- Ortega, J. (2009). Why do employers give discretion? Family versus performance concerns. *Industrial Relations*, 48, 1–25.
- Özçelik, A. O., & Aydinli, F. (2006). Strategic role of HRM in Turkey: A Three-country comparative analysis. *Journal of European Industrial Training*, 30(4), 310–327. <http://doi.org/10.1108/03090590610673669>
- Paauwe, J. & Richardson, R. (1997). Introduction: special issue on HRM and performance. *International Journal of Human Resource Management*, 8(3), 257–62.
- Packham, G., Brooksbank, D., Miller, C., & Thomas, B. (2005). Climbing the mountain: management practice adoption in growth oriented firms in Wales. *Journal of Small Business and Enterprise Development*, 12(4), 482–497.
- Pare, G. & Tremblay, M. (2007). The influence of high-involvement human resource practices, procedural justice, organizational commitment, and citizenship behaviours on information technology professionals' turnover intentions. *Group & Organization Management*, 32, pp. 326–57.
- Parker, S. (2000). From passive to proactive motivation: The Importance of flexible role orientations and role breadth self-efficacy. *Applied Psychology*, 49, 447–469.

- Parkes, C., Scully, J., West, M. & Dawson, J. (2007). High commitment strategies. *Employee Relations*, 29(3), 306-18.
- Parzefall, M.-R., & Kuppelwieser, V. G. (2012). Understanding the antecedents, the outcomes and the mediating role of social capital: An employee perspective. *Human Relations*, 65(4), 447–472. doi:10.1177/0018726711431853
- Pearson, T.R., Stringer, D.Y., Mills, L.H. & Summers, D.F. (2006). Micro vs small enterprises: a profile of human resource personnel, practices and support systems. *Journal of Management Research*, 6(2), 102-112.
- Peng, J., Zhang, G., Fu, Z., & Tan, Y. (2014). An empirical investigation on organizational innovation and individual creativity. *Information Systems and E-Business Management*, 12(3), 465–489. doi:10.1007/s10257-013-0227-y
- Perrin, A. & Rolland, N. (2007). Mechanisms of intraorganizational knowledge transfer: The case of a global technology firm. *M@n@gement*, 10(2), 25-47.
- Pfeffer J. (1998). Seven practices of successful organizations. *California Management Review*, 40, 96–124.
- Ployhart, R. E., & Moliterno, T. P. (2011). Emergence of the human capital resource: A multilevel model. *Academy of Management Review*, 36(1), 127-150.
- Podsakoff, P. M., Mackenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organisational citizenship behaviors: a critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 26, 513–563. <http://dx.doi.org/10.1177/014920630002600307>
- Porter, M. E. (1980). *Competitive strategy: Techniques for analysing industries and competitors*. New York: Free Press.
- Preacher, K. J., Zyphur, M. J., & Zhang, Z. (2010). A general multilevel SEM framework for assessing multilevel mediation. *Psychological Methods*, 15(3), 209–233. <http://doi.org/10.1037/a0020141>
- Prieto, I. M., & Pilar Pérez Santana, M. (2012). Building ambidexterity: The role of human resource practices in the performance of firms from Spain. *Human Resource Management*, 51: 189-211.
- Psychogios, A. G., Szamosi, L. T., Prouska, R., & Brewster, C. (2016). A three-fold framework for HRM in SEE SMEs. *Employee Relations*, 38:3(August), 310–331.
- Ramsay, H., Scholarios, D. & Harley, B. (2000). Employees and high-performance work systems: testing inside the black box. *British Journal of Industrial Relations*, 38(4), 501-31.
- Rauch A, Wiklund J, Lumpkin GT & Frese M (2009). Entrepreneurial orientation and business performance: An assessment of past research and suggestions for the future. *Entrepreneurship: Theory and Practice*, 33(3), 761–787.
- Raudenbush, S. W. (1989). “Centering” predictors in multilevel analysis: Choices and consequences. *Multilevel Modelling Newsletter*, 1, 10-12.
- Razouk, A. (2011). High-performance work systems and performance of French small- and medium-sized enterprises: examining causal order. *The International Journal of Human Resource Management*, 22(2), 311–330. <http://doi.org/10.1080/09585192.2011.540157>
- Reid, R., Morrow, T., Kelly, B., & McCartan, P. (2002). People management in SMEs: an analysis of human resource strategies in family and non-family businesses. *Journal of Small Business and Enterprise Development*, 9(3), 245–259. <http://doi.org/10.1108/14626000210438571>
- Rhee, J., Zhao, X., & Kim, C. (2014). Effects of HRM practices on Chinese firms’ organizational performance: The moderating effect of CEO support. *Asian Social Science*, 10(13), 210–221. <http://doi.org/10.5539/ass.v10n13p210>
- Rhoades, L. & Eisenberger, R. (2002). Perceived organizational support: a review of the literature. *Journal of Applied Psychology*, 87(4), 698–714.
- Robson, C. (2011). *Real World Research: A Resource for Scientists and Practitioner Researchers*, Oxford: Blackwell.



- Romijn, H., & Albaladejo, M. (2002). Determinants of innovation capability in small electronics and software firms in southeast England. *Research Policy*, 31(7), 1053–1067.
- Rousseau, D.M. (1995). *Psychological Contracts in Organizations: Understanding Written and Unwritten Agreements*. Sage, Newbury Park, CA
- Rowden, R. W. (2002). High performance and human resource characteristics of successful small manufacturing and processing companies. *Leadership & Organization Development Journal*, 23, 79–83. doi:10.1108/01437730210419206
- Rumelt, R.P. (1984). Toward a Strategic Theory of the Firm. In R. Lamb, (ed.). *Competitive Strategic Management*. Englewood Cliffs, NJ: Prentice Hall.
- Ryan, G. W. and Bernard, H. R. (2000). Data management and analysis methods. In N. K. Denzin and Y. S., Lincoln (eds.). *Handbook of qualitative research*, Second edition. (pp. 769-802). London: Sage Publications.
- Saini, D. S., & Budhwar, P. S. (2008). Managing the human resource in Indian SMEs: The role of indigenous realities. *Journal of World Business*, 43(4), 417–434. <http://doi.org/10.1016/j.jwb.2008.03.004>
- Salas, E., Burke, C. S., & Cannon-Bowers, J. A. (2000). Teamwork: Emerging principles. *International Journal of Management*, 2, 339–356.
- Sanders, K., & Yang, H. (2015). The HRM Process Approach: The Influence of Employees' Attribution to Explain the HRM-Performance Relationship. *Human Resource Management*.
- Saunders, M.N.K., Lewis, P. & Thornhill, A. (2016). *Research Methods for Business Students*, 7th ed. Prentice Hall, Essex.
- Sathe, V. (2003). *Corporate Entrepreneurship: Top Managers and New Business Creation*. Cambridge University Press, Cambridge.
- Searle, R.H., & Ball, K.S. (2003). Supporting Innovation through HR Policy: Evidence from the UK. *Creativity and Innovation Management*, 12, 50–62.
- Seidel, V.P. & O'Mahony, S. (2014). Managing the repertoire: stories, metaphors, prototypes, and concept coherence in product innovation. *Organization Science*, 25(3), 691-712.
- Selvarajan, T.T., Ramamoorthy, N., Flood, P.C. & Guthrie, J.P. (2007). The role of human capital philosophy in promoting firm innovativeness and performance: test of a causal model. *International Journal of Human Resource Management*, 18(8), 1456-70.
- Seong, J. Y. (2011). The effects of high performance work systems, entrepreneurship and organizational culture on organizational performance. *Seoul Journal of Business*, 17(1), 3–36.
- Scheible, A. C. F., & Bastos, A. V. B. (2013). An Examination of Human Resource Management Practices' Influence on Organizational Commitment and Entrenchment. *Brazilian Administration Review*, 10(1), 57–76.
- Schmelter, R., Mauer, R., Borsch, C., & Brettel, M. (2010). Boosting corporate entrepreneurship through HRM practices: Evidence from German SMEs. *Human Resource Management*, 49, 715–741.
- Shalley, C.E., & Gilson, L.L. (2004). What leaders need to know: A Review of social and contextual factors that can foster or hinder creativity. *The Leadership Quarterly*, 15, 33–53.
- Shalley, C. E., & Zhou, J. (2008). Organizational creativity research: A historical overview. In J. Zhou & C. E. Shalley (Eds.), *Handbook of organizational creativity* (pp. 3–31). New York, NY: Erlbaum.
- Shapira, Z. (2011). I've got a theory paper – do you? Conceptual, empirical, and theoretical contributions to knowledge in the organizational sciences. *Organization Science*, 22 (5), 1312-132.
- Shaw, J. D., Park, T. Y., & Kim, Y. (2013). A resource-based perspective on human capital losses, HRM investments, and organizational performance. *Strategic Management Journal*, 34, 572–589. doi:10.1002/smj.2025

- Sheehan, M. (2013). Human resource management and performance: Evidence from small and medium-sized firms. *International Small Business Journal*, 32(5), 545–570. doi:10.1177/0266242612465454
- Shipton, H., West, M., Parkes, C., Dawson, J. F., & Patterson, M. (2006). When promoting positive feelings pays: Aggregate job satisfaction, work environment features and innovation in manufacturing organizations, (March 2015), 37–41. doi:10.1080/13594320600908153
- Shipton, H., West, M. A., Patterson, M., Birdi, K., & Dawson, J. (2006). HRM as a predictor of innovation. *Human Resource Management Journal*, 16(1), 3–27. <http://doi.org/10.1111/j.1748-8583.2006.00002.x>
- Singh, J. (2000). Performance productivity and quality of frontline employees in service organizations. *Journal of Marketing*, 64(2), 15–34.
- Smith, K.G., Collins, C.J., & Clark, K.D. (2005). Existing knowledge, knowledge creation capability, and the rate of new product introduction in high technologies. *Academy of Management Journal*, 48(2), 346–357.
- Snape, E., & Redman, T. (2010). HRM practices, organizational citizenship behaviour, and performance: A multi-level analysis. *Journal of Management Studies*, 47(7), 1219–1247. doi:10.1111/j.1467-6486.2009.00911.x
- Subramaniam, M. & Youndt, M.A. (2005). The influence of intellectual capital on the tapes of innovative capabilities. *Academy of Management Journal* 48(3), 450–463.
- Sumelius, J., Bjorkman, I., Ehrnrooth, M., Makela, K., & Smale, A. (2014). What Determines Employee Perceptions of HRM Process Features? The Case of Performance Appraisal in MNC Subsidiaries. *Human Resource Management (Wiley)*, (4). 569. doi:10.1002/hrm.21604.
- Sun, L., Aryee, S., & Law, K. S. (2007). High-performance human resource practices, citizenship behaviour, and organizational performance: A relational perspective. *Academy of Management Journal*, 50(3), 558–577.
- Sun, L. Y., Zhang, Z., Qi, J., & Chen, Z. X. (2012). Empowerment and creativity: A cross-level investigation. *Leadership Quarterly*, 23(1), 55–65. <http://doi.org/10.1016/j.leaqua.2011.11.005>
- Swart, J., & Kinnie, N. (2010). Organisational learning, knowledge assets and HR practices in professional service firms. *Human Resource Management Journal*, 20(1), 64–79. <http://doi.org/10.1111/j.1748-8583.2009.00115.x>
- Stevenson, H. H., & Jarillo, J. C. (1990). A paradigm of entrepreneurship: Entrepreneurial management. *Strategic Management Journal*, 11, 17–27.
- Storey, J. (1992). *Developments in the Management of Human Resources*. Oxford: Blackwell.
- Storey, J. (1995). *Human Resource Management: A Critical Text*. London: Routledge.
- Storey and Sisson, K. (1993). *Managing Work and Organisations*. Buckingham: Open University.
- Storey, D. J., Saridakis, G., Sen-Gupta, S., Edwards, P. K., & Blackburn, R. A. (2010). Linking hr formality with employee job quality: The Role of firm and workplace size. *Human Resource Management*, 49(2), 305–329.
- Takeuchi, R., Lepak, D. P., Wang, H., & Takeuchi, K. 2007. An empirical examination of the mechanisms mediating between high-performance work systems and the performance of Japanese organizations. *Journal of Applied Psychology*, 92, 1069–1083.
- Takeuchi, R., Chen, G. & Lepak, D.P. (2009). Through the looking glass of a social system: cross-level effects of high-performance work systems on employees' attitudes. *Personnel Psychology*, 62(1), 1–29.
- Tan, D. & Mahoney, J.T. (2006). Why a multinational firm chooses expatriates: integrating resource-based, agency and transaction costs perspectives. *Journal of Management Studies*, 43(3), 457–484.
- Tang, G., Wei, L.-Q., Snape, E., & Ng, Y. C. (2015). How effective human resource management promotes corporate entrepreneurship: evidence from China. *The*

- International Journal of Human Resource Management*, 26(12), 1586–1601.  
<http://doi.org/10.1080/09585192.2014.953973>
- Taylor, A. B., MacKinnon, D. P., & Tein, J. Y. (2008). Tests of the three-path mediated effect. *Organizational Research Methods*, 11, 241–269.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18, 509–533.
- Teece, D. J. (1998). Capturing value from knowledge assets. *California Management Review*, 40(3), 55–79.
- Teece, D. J. (2009). *Dynamic capabilities and strategic management*. Oxford: Oxford University Press.
- Tharenou, P., Saks, A.M., & Moore, C. (2007). A Review and Critique of Research on Training and Organisational-Level Outcomes. *Human Resource Management Review*, 17, 251–273.
- Tierney P, & Farmer, S.M. (2011). Creative self-efficacy development and creative performance over time. *Journal of Applied Psychology*, 96, 277–293.
- Truss, C., Gratton, L., Hope-Harley, V., McGovern, P. & Styles, P. (1997). Soft and hard models of human resource management: A reappraisal. *Journal of Management Studies*, 34(1), 53–73.
- Tsai, W., and Ghoshal, S. (1998). Social capital and value creation: The role of intrafirm networks. *Academy of Management Journal* 41(4): 464–476.
- Tsai, C.-J. (2010). HRM in SMEs: homogeneity or heterogeneity? A study of Taiwanese high-tech firms. *The International Journal of Human Resource Management*, 21(10), 1689–1711. <http://doi.org/10.1080/09585192.2010.500490>
- TUBISAD, (2014). Information and communication technology industry report for the economy of Turkey, Istanbul.
- TUIK, (2015). Small and medium sized enterprises statistics, Ankara. <http://www.turkstat.gov.tr/PreHaberBultenleri.do?id=21864>
- UNHCR, 2015. Facts and Figures about Refugees. <http://www.unhcr.ie/about-unhcr/facts-and-figures-about-refugees>
- Übüş, Ü., Alas, R., & Elenurm, T. (2013). Impact of innovation climate on individual and organisational level factors in Asia and Europe. *Journal of Business Economics and Management*, 14(1), 1–21. doi:10.3846/16111699.2011.642081
- Urbano, D. & Toledano, N. (2008). Los proyectos innovadores en las pymes españolas. Un estudio de casos multiple. *Economía Industrial*, 368, 213–25.
- Uyargil, C. & Özçelik, O. (2001). Some characteristics of the Turkish HR managers/professionals and a comparative study with three European countries (United Kingdom, Germany and Spain). *Paper Presented at global HRM conference*, June 19th–22, Barcelona.
- Veronica, E., & Indradevi, R. (2014). Key predictors of employee commitment and organizational citizenship behavior. *Asian Social Science*, 10(13), 22–30. <http://doi.org/10.5539/ass.v10n13p22>
- Verreynne, M.L., Parker, P. & Wilson, M. (2011). Employment systems in small firms: A multilevel analysis. *International Small Business Journal*. DOI:10.1177/0266242611401445.
- Wall, T. & Wood, S. (2005). The romance of human resource management and business performance and the case for big science. *Human Relations*, 58(4), 429–62.
- Walsworth, S., & Verma, A. (2007). Globalization, Workplace Practices and Innovation: Recent Evidence from the Canadian Workplace and Employee Survey. *Industrial Relations: A Journal of Economy and Society*, 46, 220–240.
- Wang, Z.M., & Zang, Z. (2005). Strategic human resources, innovation and entrepreneurship fit: A cross-regional comparative model. *International Journal of Manpower*, 26, 544–559.
- Wang, M.-H., Huang, C.-F., & Yang, T.-Y. (2012). The Effect of Project Environment on the Relationship between Knowledge Sharing and Team Creativity in the Software

- Development Context. *International Journal of Business & Information*, 7(1), 59–80.
- Min, W. Z., Ling, K. C., and Piew, T. H. (2015). The Effects of Technological Innovation, Organizational Innovation and Absorptive Capacity on Product Innovation: A Structural Equation Modeling Approach. *Asian Social Science*, 12(1), 199. <https://doi.org/10.5539/ass.v12n1p199>
- Way, S. a. (2002). High performance work systems and intermediate indicators of firm performance within the US small business sector. *Journal of Management*, 28(6), 765–785. <http://doi.org/10.1177/014920630202800604>
- Wayne, S. J., Shore, L. M. & Liden, R. C. (1997). Perceived Organizational Support and Leader –Member Exchange: A Social Exchange Perspective. *Academy of Management Journal*. 40(1), 82 – 111.
- Wei, L.-Q., Liu, J., & Herndon, N. C. (2011). SHRM and product innovation: testing the moderating effects of organizational culture and structure in Chinese firms. *The International Journal of Human Resource Management*, 22(1), 19–33. <http://doi.org/10.1080/09585192.2011.538965>
- Weinstein, M., & Obloj, K. (2002). Strategic and environmental determinants of HRM innovations in post-socialist Poland. *The International Journal of Human Resource Management*, 13(4), 642–659. <https://doi.org/10.1080/09585190210125831>
- Wernerfelt, B. (1984). A Resource Based View of the Firm. *Strategic Management Journal*, 5, 171–80.
- Westhead, Paul, & David J. Storey, (1996). Management training and small firm performance: Why is the link so weak? *International Small Business Journal*, 14(4), 13–24.
- West, M. A., Borrill, C., Dawson, J., Brodbeck, F., Shapiro, D., & Haward, B. (2003). Leadership clarity and team innovation in health care. *Leadership Quarterly*, 14, 393-410.
- West, M. A., & Farr, J. L. 1990. Innovation at work. In M. A. West & J. L. Farr (Eds.), *Innovation and creativity at work: Psychological and organizational strategies*, (pp. 3-13). Chichester, England: Wiley.
- Whitener, E.M. (2001). 'Do "high commitment" human resource practices affect employee commitment? A cross-level analysis using hierarchical linear modelling. *Journal of Management*, 27(5), 515-535.
- Wiklund, J. & Shepherd, S. (2003). Knowledge based resources, entrepreneurial orientation, and the performance of small and medium sized businesses. *Strategic Management Journal*, 24, 1307–1314.
- Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, 17, 601-617. <http://doi.org/gv5>
- Wood, S. (1996). High commitment management and payment systems. *Journal of Management Studies*, 33(1), 53–78.
- Wood, G., Mazouz, K., Yin, S. & Cheah, J.E-T. (2014). Foreign Direct Investment from Emerging Markets to Africa: The HRM Context. *Human Resource Management*, 53: 171–201.
- World Bank, (2015). Country Report: Turkey. <http://www.worldbank.org/en/country/turkey/overview>
- Wright, P. M., & Boswell, W. R. (2002). Desegregating HRM: A Review and Synthesis of Micro and Macro. *Human Resource Management Research*, 28(3), 247–276. doi:10.1177/014920630202800302
- Wright, P.M. & McMahan, G.C (1992). Theoretical perspectives for strategic human resource management. *Journal of Management*, 18(2), 295-32.
- Wright, P. M., McMahan, G. C. & McWilliams, A. (1994). Human resources and sustained competitive advantage: A resource- based perspective. *International Journal of Human Resource Management*, 5, 301–326.



- Wright, P & J. Barney. 1998. On becoming a strategic partner: The role of human resources in gaining competitive advantage. *Human Resource Management* 37(1): 31–46.
- Wright, P. M., Dunford, B. B., & Snell, S. A. (2001). Human resources and the resource-based view of the firm. *Journal of Management*, 27(6), 701–721.
- Wright, P.M. & Haggerty, J.J. (2005), Missing variables in strategic human resource management: time, cause, and individuals. *Management Review*, 16(2), 164-73.
- Wright, P. M., Gardner, T. M., Moynihan, L. M., & Allen, M. R. 2005. The relationship between HR practices and firm performance: Examining causal order. *Personnel Psychology*, 58, 409–446.
- Wright, P.M. & Nishii, L.H. (2007). Strategic HRM and organizational behaviour: Integrating multiple levels of analysis. *Working Paper 07-03*, Cornell University, New York, NY.
- Wu, N., Bacon, N., & Hoque, K. (2013). The adoption of high performance work practices in small businesses: the influence of markets, business characteristics and HR expertise. *The International Journal of Human Resource Management*, 25(8), 1149–1169. <http://doi.org/10.1080/09585192.2013.816865>
- Yeniyurt, S., Henke, J.W. Jr & Yalcinkaya, G. (2014). A longitudinal analysis of supplier involvement in buyers' new product development: working relations, interdependence, co-innovation, and performance outcomes. *Journal of the Academy of Marketing Science*, 42(3), 1-18.
- Wu, I.-L., & Chiu, M.-L. (2015). Organizational applications of IT innovation and firm's competitive performance: A resource-based view and the innovation diffusion approach. *Journal of Engineering and Technology Management*, 35, 25–44. <http://doi.org/10.1016/j.jengtecman.2014.09.002>
- Yildiz, G., Bayraktaroglu, S., Ozdemir, Y., & Balaban, U. Oz. (2008). A Snapshot view of HRM in Turkey : Evidences from companies located in marmara region. *ICME - International Conference on Management and Economics*, (3-28), 97–106.
- Yilmaz, C., Alpan, L., & Ergun, E. (2005). Cultural determinants of customer- and learning oriented value systems and their joint effects on firm performance. *Journal of Business Research*, 58, 1340–1352.
- Yu, C., Yu-Fang, T., & Yu-Cheh, C. (2013). Knowledge Sharing, Organizational Climate, and Innovative Behavior: A Cross-Level Analysis of Effects. *Social Behavior and Personality: An International Journal*, 41(1), 143–156. <http://doi.org/10.2224/sbp.2013.41.1.143>
- Youndt, M. A., & Snell, S. A. (2004). Human resource configurations, intellectual capital, and organizational performance. *Journal of Managerial Issues*, 16(3), 337–360.
- Zacharatos, A., Barling, J., & Iverson, R. 2005. High-performance work systems and occupational safety. *Journal of Applied Psychology*, 90, 77-93.
- Zahra, S. A. (1993). A conceptual model of entrepreneurship as firm behavior: A critique and extension. *Entrepreneurship: Theory and Practice*, 17, 5–21.
- Zahra, S. A. (1996). Governance, ownership, and corporate entrepreneurship: The moderating impact of industry technological opportunities. *Academy of Management Journal*, 39(6), 1713–1735. <http://doi.org/10.2307/257076>
- Zahra, S.A. (1991) Predictors and financial out- comes of corporate entrepreneurship: an exploratory study. *Journal of Business Venturing*, 6(4), 259–85.
- Zahra, S., & Nielsen, A. P. (2002). Sources of capabilities, integration and technology commercialization. *Strategic Management Journal*, 23, 377-398.
- Zaltman, G., Duncan, R. & Holbek, J. (1973). *Innovations and Organizations*. New York: Wiley.
- Zanko, M., Badham, R., Couchman, P., & Schubert, M. (2008). Innovation and HRM: Absences and politics. *The International Journal of Human Resource Management*, 19(4), 562–581. <http://doi.org/10.1080/09585190801953616>

- Zheng, C., O'Neill, G., & Morrison, M. (2009). Enhancing Chinese SME performance through innovative HR practices. *Personnel Review*, 38(2), 175–194. <http://doi.org/10.1108/00483480910931334>
- Zhong, Y., Zhu, C. J., & Zhang, M. M. (2015). The management of Chinese MNEs' expatriates. *Journal of Global Mobility: The Home of Expatriate Management Research*, 3(3), 289–302. <https://doi.org/10.1108/JGM-12-2014-0053>
- Zhou, K.Z. & Wu, F. (2010). Technological capability, strategic flexibility, and product innovation. *Strategic Management Journal*, 31(5), 547-561.
- Zupan, N. and Kase, R. (2005). Strategic Human Resource Management in European Transitional Economies: Building a Conceptual Model on the Case of Slovenia. *International Journal of Human Resource Management*, 16(6): 882–906.

## Appendix A

### Semi-structured Interview Scheme for HR and R&D Managers

- 1. What types of innovation(s) exist in your organisation? What is the nature of it? What types of Innovation(s) you are pursuing? Why? How important is it for the Industry or the competition?**

Product Innovation, Process Innovation, Organisational Innovation, Market Innovation

- 2. What are the conscious efforts you make to be innovative? For example:**

Dedicated Budget, Equipment and Facilities, Rewards and benefits practices, Business Policy,

- 3. What factors are contributing towards your innovation?**

External Factors: Competition, Location, Market or industry, Customer demands,

Internal Factors:

Organisational Level: Management, Structure and Strategy, Leadership support, Ownership, age

Team Level: Team Structure, climate and Leadership

Individual Level: Personal traits, Self-concepts, KSAOs, Job and Tasks, Motivation

- 4. What kind of HRM practices exist in your organisation?**

What are the motivation enhancing practices? Please explain.

What are the KSAOs enhancing practices? Please Explain.

Can you list the most important HR practices those affect Innovation in your organisation?

How the firm pursues innovation in relation to generic (formal or informal) HR functions like recruitment and selection, training & development and performance appraisal & reward, and why?

- 5. Can you tell me about the alignment of HR practices with innovation policies and initiatives? How do you perceive the contribution of HR towards innovation?**
- 6. For the purposes of our research, we are particularly interested in human resources practices and workforce strategies we have labelled "high-performance work practices." Does this term bring to mind any practices that are currently used in your organization? (How so?) What HPWPs would you describe as in use in your organization?**
- 7. Please share about your understanding regarding HRM effectiveness and its relation to Innovation? Please elaborate.**

### Interview scheme for Employees

- 1. What types of Innovation(s) exist in your organisation/ department? What is the nature of this Innovation?**

**Probes**

Product Innovation: new products or services

Process Innovation: adaptation of new infrastructure or implementation of new technology

Organisational Innovation: administration, management, purchase and sales, HRM

Market Innovation: exploitation of territorial areas or penetration of market segments

- 2. What are the efforts made for Innovation in your organisation?**

**Probes:**

Dedicated R&D budget,

Equipment and facilities,

Rewards and benefits,

Job Security,

Business Policy

- 3. Can you tell me about your job and job related tasks? How complex is it? How does it affect your creative behaviour and performance?**

**Probes:**

Does your job provide opportunities for you to learn and use a variety of skills?

How does it provide autonomy and flexibility for you?

How does job routinization affect your performance and creativity?

- 4. What motivates you to enhance your creative behaviour and performance?**

Rewards and benefits, job security, promotion, self-concept?

- 5. How Team Structure and Leadership affect your creativity?**

- 6. How do you perceive organisational support and leadership towards employee creativity?**

- 7. Can you tell us about your Organisational Climate? How does it affect your creative behaviour and performance? Co-worker support, information sharing, supervisory support,**

- 8. How do HRM practices contribute to employee creativity?**

Can you share with us your personal experience regarding HRM practices in the firm?

How were the practices conveyed/communicated to you?

What practices helped you to enhance your KSAOs? Did these practices make any change towards your individual performance? Creative thinking process and innovative behaviour?

What Motivational practices are available to promote employees to perform better? (Rewards, Bonuses, and intrinsic rewards) what kind of rewards motivate you personally?

What HR practices available concerning Task and job complexity? How these practices help you with your job?

Can you tell us about your team experience? How were these teams formed? How was the team climate? How did it help your performance concerning creativity and innovation?

How do you perceive communication and support among your colleagues? Does it help your job performance?

9. For the purposes of our research, we are particularly interested in human resources practices and workforce strategies we have labelled “high-performance work practices.” **These are the HR practices that enhance both employee and firm performances. Does this term bring to mind any practices that are currently used in your organization? (How so?) What HPWPs would you describe as in use in this organization?**
  
10. **What else would you like to tell us concerning creativity, Innovation, HRM and other factors suitable for this research?**

## CONSENT FORM

Please initial to indicate consent

1. I confirm that I have read and understand the information leaflet about the purpose of the study and the particular form of participation required. I have had the opportunity to consider the information, ask questions and have these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw from the study at any time, without giving a reason.
3. I agree to my responses being analysed for a PhD project, for publication of results in academic and practitioner journals.
4. I agree to participate in the study titled: 'IMP/HPWP and firm performance: the case of Turkish MSBs context' conducted by the

Work and Organisational Psychology Group at Aston Business School,  
Birmingham, B4 7ET, UK

Name of participant: -----

Date: -----

Signature: -----

Further questions about the research can be directed either to myself or my supervisor at

the below given detail

Appendix B  
Themes and codes for the Phase 1

<b>Themes and Codes</b>	<b>Definitions</b>
<b>Innovation</b>	
Product	introduction of a good or service that is new or has significantly improved characteristics or intended uses
Process	the implementation of a new or significantly improved production or delivery method
Marketing	To increase the company's sales, marketing innovations aim to respond better to customers' needs
Management	the invention and implementation of a management practice, process, structure,
<b>Innovation Codes</b>	<b>Effort</b>
a dedicated Budget	Financial investment in innovation activities
Established R&D teams	Research and development teams at firms
Access to Tools and sources	Availability to required material for innovation, (e.g., software, training, equipment, place, time)
Personal Resources	Firms hiring strategy; enough number of people, work load per person,
Collaboration with third parties; government, universities	Receiving support and collaboration (e.g. funding, human resources, training etc.)
leadership	Receiving encouragement and support from senior and executive managers
investing in facility and workplace	Expanding work place, creating space for R&D activities, providing recreational areas,
climate for innovation	Feeling comfortable to create and share knowledge
monetary incentives	Offering Reward and bonus schemes for employees
<b>Factors Affect innovation</b>	
advancement in the technology	Required changes Led by technological changes
nature of the sector	Dynamic and rapidly changing nature of IT industry
competition in the market	Number of rivalry firms, quality and in the industry
Customers' demands and inputs	Trying to meet demands and needs from customers in products, service or delivery methods.

human capital	Quality of human capital (e.g., knowledge, skills, abilities etc.)
techno park and location	Being in techno parks enable access to an ecosystem of knowledge and monetary advantages (e.g., tax)
Leadership	

<b>Codes for Personnel Factors enhance creativity performance and related codes</b>		<b>Definitions</b>
Achieving new challenges		Wants to overcome challenges task and projects, create unique solutions.
Colleagues' appreciation.		Having peers respect, support after finishing a project or solving a problem.
Self-realisation		Feeling satisfied and fulfilled by showing his/her knowledge, skills and expert
Developing new skills and knowledge		Learning and developing new KSAOs by working on challenging works
Customer satisfaction		To increase customer's satisfaction
financial incentives		Monetary awards to foster creativity and innovation

<b>Codes for Organisational Factors</b>	<b>Definitions</b>
Dynamic environment	Efforts to keep up with changing competitive environment of the industry
flat organisations	Less hierarchical organisation structure which facilitates knowledge and information exchange
knowledge and information	Knowledge and information created or acquired by the firm via past projects, collaborations etc.
climate enables people to participate	consensual culture, valuing organizational coherence, and maintaining a harmonious atmosphere through discussion, participation, and knowledge sharing (Yu et al., 2013)
Help and support	Established values and norms to promote help and support between employees



<b>job related factors</b>	<b>Definitions</b>
Job requires to develop new skills and knowledge.	Dynamic nature of the industry requires to develop new KSAOs for perform job.
Important to be creative at the job	Customer needs and projects requires employees to create unique solutions.
interaction with customers	Customer involvement in the project and work (e.g., developing customer-specific IT infrastructure) brings more sophisticated problems to solve.

	<b>Definitions</b>
<b>HRM practices</b>	
Staffing	It includes practices regarding employment such as recruiting, talent hunting, selection, hiring, training, retention,
Performance Appraisals and feedback	Feedback received by employees from supervisors, hr managers or executives regardless of any structure or timeline
Training and Development	Practices or opportunities enable employees to develop new KSAOs
information sharing	Practice enable employees to access to job related knowledge and information, critical information and decisions made at the firm (Prince et al. 2011)
Team and project based Work	Job design practice in which employees are assigned in one project team or more.
Social activities and Events	Events are organised by firms or employees to promote interaction between employees (Chuang et al, 2013).
monitoring	keep close on employees to ensure that the employees do exactly what they are told, perform tasks in expected ways, and do not do things that may not be approved (Zhou, 2003)
motivation	Practices to enhance intrinsic motivation related to exploring, risk taking and creativity (e.g., recognition or acknowledgments)
flexibility	flexibility is considered as a capability of a firm to pro-act, or to respond, to changing competitive environment that may create sustainable competitive advantage for the firm (Eisenhardt and Martin 2000; Ketkar and Pett, 2010)
Compensation	It is a practice to manage wages of employees at the firm. it also includes cash bonuses and other benefits which are rewards employees to foster creativity.

Participation	Employees participation in job related decision processes, HRM practices etc.
job safety	Providing guidelines regarding job safety regulations and ensuring employees follow these guidelines.
Communication	Activities to facilitate information exchange, knowledge sharing, updating.

## Appendix C

Dear Participant,

I am a doctoral researcher in the field of Work and Organisational Psychology at Aston Business School, Aston University. My research focuses on human resource management (HRM) practices and firm performance. HRM practices, such as staffing, team based work practices, information sharing, social activities and feedback and performance appraisals are known to have an impact on the firm's human and social capital which enhances firm entrepreneurial performance (which involve innovativeness, risk taking and venturing).

The objective of this survey to examine the influence of HRM practices on corporate entrepreneurship via employee creativity and social capital of the firm. A further objective of the survey is to test an integrated model of HRM, corporate entrepreneurship and firm performance.

Please read each question carefully and answer it according to how you personally felt about it. There are no right or wrong answers. For the study to be meaningful, it is important that you complete all the questions in the survey.

Please note that completion of this questionnaire is voluntary. Also, you are free to withdraw anytime and then your response will be excluded from this study. In accordance with the ethics of Aston University, individual responses will be kept completely confidential. If you would like any further information about the research, you can contact me directly at [arslans@aston.ac.uk](mailto:arslans@aston.ac.uk) or my supervisor Professor Pawan Budhwar at [p.s.budhwar@aston.ac.uk](mailto:p.s.budhwar@aston.ac.uk)

Thank you very much for your participation in this survey.

Yours sincerely,

Safa Arslan,

Doctoral Researcher,

Work & Organisational Psychology

[arslans@aston.ac.uk](mailto:arslans@aston.ac.uk)

(Please turn over when you are ready to begin...)

## CONSENT FORM

**Please initial the boxes below to indicate consent**

1	I confirm that I have read and understand the information leaflet about the purpose of the study and the particular form of participation required. I have had the opportunity to consider the information, ask questions and have these answered satisfactorily.	
2	I understand that my participation is voluntary and that I am free to withdraw from the study at any time, without giving a reason.	
3	I agree to my responses being analysed for a PhD project, for publication of results in academic and practitioner journals.	
4	I agree to participate in the study titled: 'HRM and firm performance: the case of Turkish MSBs context' conducted by the Work and Organisational Psychology Group at Aston Business School, Birmingham, B4 7ET, UK	

<b>Section A</b> <b>This Section of the survey focuses on Organisational Structure of the firm. For each statement, please indicate your judgment from 1 (strongly disagree) to 5 (strongly agree)</b>	Strongly disagree				Strongly agree
Our organization has a flat structure. (i.e. have few hierarchical levels)	1	2	3	4	5
Our organization avoids rigid departmentalization.	1	2	3	4	5
Our employees are given autonomy.	1	2	3	4	5
There is open communication throughout the organization.	1	2	3	4	5

<b>Section B</b> <b>This section of the survey focuses on perceptions of employees towards HR practices. For each statement indicate the frequency with the given practice applies to you. Please provide your judgement from 1 (strongly disagree) to 5 (strongly agree)</b>					
<b>Staffing</b>	Strongly disagree				Strongly Agree
Our company spends a great effort in selecting the right person for every position.	1	2	3	4	5
Our company uses extensive procedures in recruitment and selection, including a variety of test and interviews.	1	2	3	4	5
In recruiting, our company emphasizes the potential of new hires to learn and grow with the company.	1	2	3	4	5
Our company takes care on its image when recruiting and selecting employees.	1	2	3	4	5
Employees are selected based on their overall fit to the organization.	1	2	3	4	5
<b>Performance Appraisals and Feedback</b>					
Our employees receive a lot of developmental feedback.	1	2	3	4	5
Employees receive formal performance appraisals from more than one source. (i.e. from several individuals such as team leaders, senior managers)	1	2	3	4	5
Employees receive performance feedback on a routine basis.	1	2	3	4	5
Employees' performance appraisal emphasizes collective and long-term-based results.	1	2	3	4	5
Performance feedback helps you to improve your performance.	1	2	3	4	5
Often you use the feedback on performance to plan your future career.	1	2	3	4	5
<b>Knowledge utilisation and information sharing</b>					
Our employees know well our organisational level objectives and strategy.	1	2	3	4	5
We inform personnel about their performance.	1	2	3	4	5
Our organization facilitates employees to acquire required information easily at any time.	1	2	3	4	5
Our organization shares up-to-date information about competitors and industry trends with employees.	1	2	3	4	5
Employees in our organization openly discuss their mistakes in order to learn from them.	1	2	3	4	5
<b>Job design based on team work practices</b>					
Our company emphasizes employees' team work and network collaboration.	1	2	3	4	5
Our company emphasizes employees' job rotation and flexible work assignments in different work areas.	1	2	3	4	5
Our jobs involve a lot of teamwork.	1	2	3	4	5

We utilize cross-functional teams and networks.	1	2	3	4	5
We have joint employee-customer teams and networks.	1	2	3	4	5
<b>Social activities</b>					
There are social activities organised at the firm.	1	2	3	4	5
I attend social activities all the time.	1	2	3	4	5
Social activities enhances work environment.	1	2	3	4	5
Social activities facilitate the communication among employees.	1	2	3	4	5
Social activities make this firm an attractive work place.	1	2	3	4	5
<b>Section C</b> <b>This section of the survey focuses on employee creativity and social capital of the firm. Please provide your judgement from 1 (strongly disagree) to 5 (strongly agree)</b>	Strongly disagree				Strongly agree
<b>Employee creativity</b>					
Employees try to solve problems in different ways.	1	2	3	4	5
Employees are able to search for new working methods, techniques or instruments for their job related tasks.	1	2	3	4	5
Employees show innovative and creative behaviours.	1	2	3	4	5
Employees are able to take the risk of being innovative and creative.	1	2	3	4	5
Employees are able to anticipate problems and opportunities.	1	2	3	4	5
<b>Social capital</b>	1	2	3	4	5
Our employees are skilled at collaborating with each other to diagnose and solve problems.	1	2	3	4	5
Our employees share information and learn from one another.	1	2	3	4	5
Our employees interact and exchange ideas with people from different areas of the company.	1	2	3	4	5
Our employees partner with customers, suppliers, alliance partners, etc., to develop solutions.	1	2	3	4	5
Our employees apply knowledge from one area of the company to problems and opportunities that arise in another.	1	2	3	4	5

<b>Section D</b> <b>This section of the survey focuses on the firm's access to HR expertise. For each statement, please indicate your answer.</b>	Yes	No
There is a full time employed HR professional in the firm.		
There is an established HR department in the firm.		
The firms receives administrative consultancy from business advisory network or organisations.		
The firm has to have structured HRM practices to be eligible to join government funded project.		
The firm has ISO management quality certificate.		

<b>Section E</b> <b>This section of the survey focuses on customer interaction. For each statement, please indicate your judgment from 1 (not at all) to 5 (to a very large extent). In this organisation:</b>	Not at all				To a very large extent
To what extent you are involving customers in close collaboration on development projects.	1	2	3	4	5
To what extent you are communicating intensively with customers.	1	2	3	4	5
To what extent the overall strategy of the firm emphasizes close collaboration and dialogue with customers.	1	2	3	4	5

<b>Section F</b> <b>This section of the survey focuses on availability of resources for innovation. For each statement, please indicate your judgment from 1 (strongly disagree) to 5 (strongly agree)</b>	Strongly disagree				Strongly agree
The firm is allocating sufficient budget for innovation-related projects.	1	2	3	4	5
The firm is providing additional resources for the innovation management team.	1	2	3	4	5
The firm is identifying and supporting innovation champions.	1	2	3	4	5
The firm is promoting a collaborative social network for innovation that includes external experts.	1	2	3	4	5

<b>Section G</b> <b>This section of the survey focuses on alignment of HRM. For each statement, please indicate your judgment 1 (strongly disagree) to 5 (strongly agree).</b>	Strongly disagree				Strongly agree
HR practices help achieve business objectives, e.g. for succession planning, to reduce/expand the workforce.	1	2	3	4	5
HR is involved in business decision-making, e.g. to allocate resources, to assist in technology development.	1	2	3	4	5
The top HR executive is a strategic partner for other senior managers.	1	2	3	4	5
The top HR executive offers administrative consultancy to line managers for them to conduct day-to-day HR activities.	1	2	3	4	5
HR practices, such as recruitment and training, are used to implement business strategies.	1	2	3	4	5
HR strategy is formulated based on business strategy.	1	2	3	4	5

<b>Section H</b> <b>This section of the survey focuses on contingencies. For each statement, please indicate your judgment</b>	Strongly disagree				Strongly agree
It is higher business profits that determine changes in the functions of the HR department and not the opposite.	1	2	3	4	5
Describe the management style in the organisation.	Heavily centralised	Centralised	Neither	Decentralised	Heavily decentralised
Describe the organisational culture in the firm.	Power-oriented	Role-oriented	Project-oriented	Fulfilment-oriented	

<b>Section I</b> <b>This section of the survey is dedicated the demographics of participants and some basic information of their firms. Please indicate which suits best to you.</b>				
What is your job title? Please indicate it.				
How long you have been working at this firm?	1 year or less	1-2 years	3-4 years	5 years or more
What is the most recent degree you received?	Undergraduate	Masters`	PhD	High School
How old is your firm?	2 years or less	2-5 years	5-10 years	10 years or more
What is the size of your firm?	50 employee or less	50-80 employees	80-120 employees	120 employees or more
What city is your firm located?	İstanbul	Ankara	Kocaeli	Other:
Is it in a techno-park?				Yes      No

<b>Section J</b> <b>This section of the survey focuses on individual employee performance. For each statement, please indicate your judgment from 1 (strongly disagree) to 5 (strongly agree).</b>	Strongly disagree				Strongly agree
<b>Job satisfaction</b>	1	2	3	4	5
I feel happy in my work.	1	2	3	4	5
I value my work.	1	2	3	4	5
My work has important responsibilities.	1	2	3	4	5
Others value my work.	1	2	3	4	5
I feel important to my workplace.	1	2	3	4	5
<b>Commitment</b>					
I share many of the values of my organization.	1	2	3	4	5
I feel loyal to my organization.	1	2	3	4	5
I am proud to tell people who I work for.	1	2	3	4	5
<b>Citizenship behaviour</b>					
I am willing to risk disapproval in order to express individual beliefs about what is best for the company.	1	2	3	4	5
I attend functions that are not required, but help the company image.	1	2	3	4	5
I take steps to try to prevent problems with other workers.	1	2	3	4	5
I keep abreast of changes in the organization.	1	2	3	4	5
I am always ready to lend a helping hand to colleagues.	1	2	3	4	5
My attendance at work is above the norm.	1	2	3	4	5
I turn in budgets, sales projections, expense reports, and other documents earlier than required.	1	2	3	4	5
I Willingly help others to do the extra-role job.	1	2	3	4	5



<b>Section A</b> <b>This section of the survey focuses on employee creativity and social capital of the firm. Please provide your judgement from 1 (strongly disagree) to 5 (strongly agree). In this Organisation:</b>	Strongly disagree				Strongly agree
<b>Employee Creativity</b>					
Employees try to solve problems in different ways.	1	2	3	4	5
Employees are able to search for new working methods, techniques or instruments.	1	2	3	4	5
Employees show innovative and creative behaviours.	1	2	3	4	5
Employees are able to take the risk of being innovative and creative.	1	2	3	4	5
Employees are able to anticipate problems and opportunities.	1	2	3	4	5
<b>Social Capital</b>	1	2	3	4	5
Our employees are skilled at collaborating with each other to diagnose and solve problems.	1	2	3	4	5
Our employees share information and learn from one another.	1	2	3	4	5
Our employees interact and exchange ideas with people from different areas of the company.	1	2	3	4	5
Our employees partner with customers, suppliers, alliance partners, etc., to develop solutions.	1	2	3	4	5
Our employees apply knowledge from one area of the company to problems and opportunities that arise in another.	1	2	3	4	5

<b>Section B</b> <b>This section of the survey focuses on corporate entrepreneurship. For each statement, please indicate your judgment from 1 (strongly disagree) to 5 (strongly agree).</b>	Strongly disagree				Strongly agree
Relative to our competitors, our company has higher propensity to take risk.	1	2	3	4	5
Relative to our competitors, our company is not averse to high-risk projects.	1	2	3	4	5
Relative to our competitors, our company is willing to apply new ideas.	1	2	3	4	5
Relative to our competitors, our company has higher ability to identify customer needs and wants.	1	2	3	4	5
Relative to our competitors, our company has higher level of innovation.	1	2	3	4	5
Relative to our competitors, our company has a tendency to engage in strategic planning activities.	1	2	3	4	5
Relative to our competitors, our company has higher ability to identify new opportunities.	1	2	3	4	5
Relative to our competitors, our company is effort to early action in each opportunity.	1	2	3	4	5
Relative to our competitors, our company is effort to do comprehensive and pretentious strategic actions.	1	2	3	4	5

<b>Section C</b> <b>This section of the survey is dedicated the demographics of participants and some basic information of their firms. Please indicate which suits you the best.</b>				
What is your job title? Please indicate it.				
How long you have been working at this firm?	1 year or less	1-2 years	3-4 years	5 years or more
What is the most recent degree you received?	Undergraduate	Masters`	PhD	High School
How old is your firm?	2 years or less	2-5 years	5-10 years	10 years or more
What is the size of your firm?	50 employee or less	50-80 employees	80-120 employees	120 employees or more
What city is your firm located?	İstanbul	Ankara	Kocaeli	Other:
Is it located in a techno-park?				Yes No

<b>Section D</b> <b>This section of the survey focuses on the firm`s access to HR expertise. For each statement, please indicate your answer.</b>	Yes	No
There is a full time employed HR professional in the firm.		
There is an established HR department in the firm.		
The firms receives administrative consultancy from business advisory network or organisations.		
The firm has to have structured HRM practices to be eligible to join government funded project.		
The firm has ISO management quality certificate.		

<b>Section E</b> <b>This section of the survey focuses on customer interaction. For each statement, please indicate your judgment from 1 (not at all) to 5 (to a very large extent). In this organisation:</b>	not at all				to a very large extent
To what extent you are involving customers in close collaboration on development projects.	1	2	3	4	5
To what extent you are communicating intensively with customers.	1	2	3	4	5
To what extent the overall strategy of the firm emphasizes close collaboration and dialogue with customers.	1	2	3	4	5

<b>Section F</b> <b>This section of the survey focuses on availability of resources for innovation. For each statement, please indicate your judgment from 1 (strongly disagree) to 5 (strongly agree).</b>	Strongly disagree				Strongly agree
The firm is allocating sufficient budget for innovation-related projects.	1	2	3	4	5
The firm is providing additional resources for the innovation management team.	1	2	3	4	5

<b>Section H</b> <b>This Section of the survey focuses on Organisational Structure of the firm. For each statement, please indicate your judgment from 1 (strongly disagree) to 5 (strongly agree)</b>	Strongly disagree				Strongly agree
Our organization has a flat structure. (e.g. have few hierarchical levels)	1	2	3	4	5
Our organization avoids rigid departmentalization.	1	2	3	4	5
Our employees are given autonomy.	1	2	3	4	5
There is open communication throughout the organization.	1	2	3	4	5
The firm is identifying and supporting innovation champions.	1	2	3	4	5
The firm is promoting a collaborative social network for innovation that includes external experts.	1	2	3	4	5
<b>Section G</b> <b>This section of the survey focuses on alignment of HRM to business strategy. For each statement, please indicate your judgment 1 (strongly disagree) to 5 (strongly agree).</b>	Strongly disagree				Strongly agree
HR practices help achieve business objectives, e.g. For succession planning, to reduce/expand the workforce.	1	2	3	4	5
HR is involved in business decision-making, e.g. To allocate resources, to assist in technology development.	1	2	3	4	5
The top HR executive is a strategic partner for other senior managers.	1	2	3	4	5
The top HR executive offers administrative consultancy to line managers for them to conduct day-to-day HR activities.	1	2	3	4	5
HR practices, such as recruitment and training are used to implement business strategies.	1	2	3	4	5
HR strategy is formulated based on business strategy.	1	2	3	4	5

<b>Section I</b> <b>This section of the survey focuses on organisational performance. For each statement, please indicate your judgment from 1 (not at all) to 5 (to a very large extent).</b>	Strongly disagree				Strongly agree
Effectiveness: the firm meets its objectives.	1	2	3	4	5
Efficiency: the firm uses the fewest possible resources to meet its objectives.	1	2	3	4	5
Development: the firm is developing its capacity to meet future opportunities and challenge.	1	2	3	4	5
High level of product or service quality.	1	2	3	4	5
The organisation achieves high level of customer satisfaction.	1	2	3	4	5

<b>Section J</b> <b>This section of the survey focuses on financial performance of the firm. For each statement, please provide growth rates in sales, market share and profit compare to previous year in the firm.</b>	<b>Growth rate</b>
Sales growth	
Market share growth	
Profit growth	

<b>Section K</b> <b>This section of the survey focuses on firm performances. Please indicate your judgment regarding your firm performance indicator compare to industry's average from 1 (bad) to 5 (very good)</b>	Very bad				Very good
Sales	1	2	3	4	5
Market share	1	2	3	4	5
Return on sales	1	2	3	4	5
Return on assets	1	2	3	4	5
Overall profitability	1	2	3	4	5

<b>Section L</b> <b>This section of the survey focuses on contingencies. For each statement, please indicate your judgment</b>	Strongly disagree				Strongly agree
It is higher business profits that determine changes in the functions of the HRM department and not the opposite.	1	2	3	4	5
Describe the management style in the organisation.	heavily centralised	centralised	neither	decentralised	heavily decentralised
Describe the organisational culture in the firm.	power-oriented	role-oriented	project-oriented	fulfilment-oriented	

**Your opinion is highly valued.**

**Thank you for spending time to assist with this study.**

**End of Questionnaire**