



HRM Practices and Innovation Capabilities in the Hotel Industry: Mediating Role of Human and Social Capital

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Abstract

The objective of this study is to investigate the effect of human resource management (HRM) functions on innovation capabilities through mediation of intellectual capital. This study has also tried to examine the effect of HRM practices on both components of intellectual capital: human and social capital. This study has been carried in the hotel industry of Pakistan. A random sample of 300 hotel HR managers was collected in Lahore, Pakistan. Structural equation modeling is used to analyze the most important relationships. Findings show that HRM practices: recruitment and selection, training and development, and information technology are positively related to human and social capital. Moreover, findings reveal that there is positive relation between human and social capital, and innovation capabilities. Finally, findings show that human and social capital fully mediates the relation between HRM practices and innovation capabilities. These findings could be of greater importance for the companies working in hotel industry. This study could help the managers in realizing that firms can increase competitive advantage based on innovation by managing their intangible assets (human and social capital).

Keywords: *Human Resource Management, Innovation Capabilities, Intellectual Capital, Human capital, Social Capital, Structural Equation Modeling (SEM).*

1. Introduction

Companies are facing continuous threats and opportunities because of changing business environments and rapid globalization. This situation is encouraging firms to become highly innovative in order to manage these threats and opportunities. Similarly, the express growth of information and communication technologies have urged firms to bring unique ideas and creative solutions in their operations so that they can come up with innovative outcomes. In an organizational context, human resource management (HRM) functions are the important mean of improving firms' innovation capacities (Tan & Nasuridin, 2011). According to (Subramaniam & Youndt, 2005) the most effective way to innovate is by using its intellectual capital. Therefore, it has become important for the managers to take initiatives in pursuing effective human resource management (HRM) practices that can generate and improve intellectual capital assets of the company. These intellectual capital assets can enhance firms' innovation capabilities and performance (Peña, & Sanchez de Pablo, 2016). It has widely accepted that HRM practices are considered as an essential mean of extracting positive behaviours and effective skills of employees (Schmidt, & Hayes, 2002). Which further lead to the organizational innovation (Tan & Nasuridin, 2010) and achievement of organizational goals (Chen & Huang, 2009). Previously, there are several studies which have observed the association between HRM practices and organizational outcomes for instance sales performance, and flexibility (Chand & Katou, 2007).

Given the importance of innovation in an organization, certain authors have analyzed the relation between HRM functions and organizational innovation (Laursen & Beugelsdijk, 2008). Most of these studies have analyzed the direct influence of HRM practice on innovation whereas other studies have investigated this link through mediating variables such as knowledge management capability (Chen & Huang, 2009), market direction (Harris & Ogbonna, 2001), social surroundings, However, more work needs to be done on the mediating role of the variables (Donate et al., 2016). Hence, it has become essential to further study indirect consequences of HRM practices on organizational innovation. Recently, Donate et al., 2016 executed a study, in which they analyzed the mediating role of intellectual capital in the relationship between HRM practices and modernization capabilities.

However, it has not examined the specific HRM practices, for instance, selection/recruitment, career development and training etc. in relation with intellectual capital. Keeping this in view, my study will investigate the influence of specific HRM functions on innovation capabilities all the way through mediating role of intellectual capitals (human and social capital). Moreover, Donate and his colleagues have not analyzed the impact of each of the two distinctive

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HRM systems on both components of intellectual capital. My study has examined the influence of each specific HRM practice on both components of intellectual capital. Further, it has been noted that habitually authors have examined the relation of HRM functions and innovation in the manufacturing industry. However, this relationship is not properly explored in the service industry (Nieves & Quintana, 2016). This study has the aim to cover this gap by investigating the relation between HRM practices and innovation capabilities in the service industry of Pakistan. The service sector of Pakistan is playing an important role in the country's economic growth. According to economic survey 2015-2016, the service industry is growing at more rapid pace than commodity producing sector. Statistics have shown that the service sector in FY 2016 grew at 5.71% as compared to commodity producing sector which grew at 3.29%. These statistics cover both private and public service sector.

Based on the identified gap above, this study will address the following research questions; first, how HRM functions impact innovation capabilities via the mediation of intellectual capitals in the service industry? Second, what is the effect of specific HRM practices on intellectual capital? To answer the above-mentioned questions, the following is the objective of study: investigate the influence of specific HRM practices on innovation capabilities by incorporating the mediating role of human and social capital and to analyze the impact of specific HRM practices on both components of intellectual capital. The intellectual-based view, a different branch of Resource-based view (RBV), can explain the importance of intellectual capital as mediating variables in a better way. According to this view, the intangible assets of the company which develop and grow over the period of time can become the best source of competitive gain for the business (Lubatkin, & Srinivasan, 2006).

These intangible assets comprise of both collective and individual knowledge that is rooted in technology, employees, culture, procedures and relationship networks (Kong, 2009). Therefore, these assets can be linked with intellectual capital. Human and social capital has been considered for this study which is the element of human capital. There is a third component of intelligence that is called organizational capital that can be considered as an intangible asset in the form of artefacts like IT devices, organizational routines and structures but these artefacts do not present in the mind of employees (Bontis&enz, 2002). Therefore, it has not considered in this study. This study has several theoretical and practical contributions.

It has extended the framework of (Donate et al., 2016) in two ways. First, it has analyzed the effect of specific HRM practices on innovation capabilities through the mediation of human and social capital. Second, it has examined the impact of specific HRM practice on both human and social capitals which has not done before. Moreover, it has conducted for the first time in the service industry of Pakistan. Therefore, it can identify important predictors of innovation for the companies working in the service industry. Fourth, it can help the companies and decision makers in managing their intellectual capital which may become the source of competitive advantage. Finally, it can enable the companies to enhance the innovation capabilities of their employees by taking effective HRM initiatives. This study is ordered in the subsequent ways. First, the literature review will be conducted to review the previous studies in order to identify the research gap. Second, the theoretical framework and hypotheses development will be presented. Third, research methodology and data analysis will be given. Next, the findings will be discussed in light of previous studies. Finally, the conclusion along with managerial contributions and study limitations will be given.

2. Literature Review

Innovation and originality can be defined as a process by which companies identify and use opportunities to extend unique products, services, procedures and processes (Van de Ven, 1986). Previously, several companies were able to sustain even with the minor focus on innovation, by just paying attention to developing quality products and updating them to the standards which had retained their competitiveness within the market. However, due to technological advancements and globalization, the survival of companies has been more dependent on innovation. Therefore, they need dynamic innovative abilities which can enable them to, get a better learning curve, increase productivity, develop unique ideas and new products, and identify and grab opportunities (Teece, 2009).

According to (Ottenbacher & Salem 2014) innovation is one of the essential predictors of performance. It provides an opportunity to newcomers to explore markets and secure a strong position in it (Wang & Ahmed, 2004). Furthermore, it enables the firms in determining their level of competitiveness that can become the basis of success for them (Damanpour & Avellaneda, 2009). Companies can bring innovation into their business processes and activities by effectively using its human resources. HRM focuses on the matter of how to improve the inventiveness of the people and how to increase their motivation level so that they can bring innovation in the shape of unique ideas, new products and services. According to firm RBV view, company's initiatives related to HRM practices can enhance its competitive abilities (e.g. innovation capabilities). These initiatives may include HRM practices such as



selection and recruitment, training and career development, and teamwork (Park & Kim, 2013). Previously, considerable studies have studied the relationship between HRM practices and number of organizational outcomes. These studies have examined equally direct and indirect effects of HRM practices. (Rondeau & Wager 2001) found that the implementation of progressive HRM practices and supportive workplace climate is positively associated with several organizational outcomes. (Chand & Katou, 2007) analyzed that HRM practices like selection/recruitment, planning, training, job design, and pay system, are positively associated with the hotel performance. Similarly (Osman & Galang, 2011) reported that efficient execution of HR functions or practices and firm performance are positively related.

There are certain studies which have explored the positive effect of HRM practices on a financial performance like profitability, return on sales, and sales growth (Mendelson, 2008). Apart from other organizational outcomes in the literature of HRM, authors have also examined that how HRM practices are linked with organizational innovation. According to (Laursen & Foss, 2003) HRM practices for instance selection, training, appraisal and compensation can help the organizations in encouraging employees to involve in innovative and creative thinking. (Jimenez & Sanz-Valle's, 2008) reported that a broad set of HRM practices are positively associated with innovation. (Beugelsdijk, 2008) found that task autonomy, performance-based pay and training play an important role in developing incremental innovation. Further, (Zhou & Kleinknecht, 2011) examined that training initiatives, functional flexibility like internal labour mobility, and highly qualified employees have a positive influence on product innovation. A considerable amount of studies have also examined the relationship between HRM practices and organizational performance (including organization innovation) through mediating variables. These variables include turnover and productivity (Huselid, 1995) Knowledge management capacity (Chen & Haung, 2009) market orientation (Harris & Ogbonna, 2001) organizational learning (Perez, 2005), customer satisfaction, social climate (Collins & Smith, 2006), knowledge management effectiveness (Tan & Nasurdin, 2011) intellectual capital (Donate et al., 2016) and human capital (Nieves & Quintana, 2016). However, the indirect effect of HRM practices and innovation through the intervention of intellectual capital is not properly researched. Hence, leaving room for the future research.

My study has identified a research gap based on the following reasons. First, keeping in view the knowledge-based view, (Youndt & Snell, 2004) suggest that the mediating role of intellectual capital needs further exploration to explain the link of HRM practices with organization performance. Similarly, several authors also agree that constituents of intellectual capital like human capital and social capital can well explain this link (Shaw et al., 2013). Second, there is no such study which has examined the influence of specific HRM practices on organization innovation via an intellectual capital. In this regard (Donate et al., 2016) recommend that more research is required to analyze the influence of specific HR practices on intellectual capital. Third, most of the studies executed have analyzed the association between HRM practice and organization performance in the manufacturing industry. Therefore, it has become important to examine this relationship in the service industry. In order to fulfil the identified gaps above, this study has investigated the impact of specific HRM practices (selection/recruitment, training, and information technology) on innovation capabilities via a mediating role of intellectual capital (social and human capital).

3. Theoretical Framework and Hypotheses Development

Resource Based View (RBV) and the model given by (Youndt et al., 2004) has been used to support the study. According to RBV, firms' strategic efforts need them to acquire specific resources which will assist to gain competitive rewards which should be valuable, scarce, and difficult to copy and substitute (Barney, 1991). RBV is a common perspective to explain the association between performance and HRM (Paauwe & Boslie, 2005). An important branch of RBV is intellectual based view considers tangible assets to be the best source of competitive advantage (Reed et al., 2006). These intangible assets represent both collective and individual knowledge that is rooted in employees, technology, culture, managerial procedures and routines, and relationships networks (Bontis, & Kong, 2009). In literature, the concept of intellectual capital is well supported by RBV (Peppard & Rylander, 2001).

3.1 Intellectual Capital

Intellectual capital is termed as the set of organization's resources involvement of human skills, collective knowledge (i.e. hidden), experience and other intellectual resources which may create value for the organization (Bontis, 2002). It is usually established that intellectual capital is comprised of three components; human capital,

relational/social capital and structural/organizational capital (Dzinkowski, 2000). However, this study has considered both human and social capital. Human capital incorporates several elements of the human resource, including knowledge, skills, experience, innovative capability and talents of individuals (Roos & Jacobsen, 1999). Human capital management is an HRM approach in which people are considered as intangible assets whose future value can be improved through investments (Shaw et al., 2013). Social capital includes personal and collective knowledge which is nested in relationships networks (Donate et al., 2016). These networks cover relationship links within and outside the organization.

3.2 Human Resource Management Practices

Three types of HRM practices have been identified from previous literature (Nieves & Quintana, 2016) in order to analyze their impact on innovation capabilities via an intellectual capital: 1) recruitment and selection 2) training and development practices 3) use of information technology. Following are the reasons behind including these specific HRM practices. First, a rigorous process of recruitment and selection enables the firm to identify the best candidates (Nieves & Quintana, 2016). Second, Training and development help to develop the company's intellectual capital (Minbaeva & Snell, 2009). Third, use of information technology tends to enhance the likelihood of workforce to gain the variety of knowledge (Youndt et al., 2004), that may broaden knowledge capabilities of the employees. The study has extended the Youndt and Colleagues' HRM, intellectual capital and organizational performance model by analyzing the influence of three HRM practices on innovation capabilities (i.e. organizational performance) through the mediation of intellectual capital. The Youndt and Colleagues' model has not included the innovation capabilities as one of the dimensions of organizational performance. Therefore, it is an essential addition to this model.

3.3 HRM Practices and Human Capital

The recruitment procedures by which a larger number of competent candidates can be accessed; along with suitable selection process may improve the knowledge level among newly hired employees (Huselid, 1995). Researchers revealed that there are several introductory sessions in staffing and selection procedures which can assist to develop the human capital (Cabrales & Valle, 2008). An empirical investigation done by (Youndt & Snell, 2004) highlighted that a company's awareness in HRM like efforts made for the attraction of the qualified candidates is linked with the skills level, knowledge and experience. These efforts can enable the companies in improving human capital. Further studies found that rigorous selective staffing and adequate training build up the quality of human capital (Donate et al., 2016). Therefore, this study has proposed that,

H1: Recruitment and selection HRM practices have a positive influence on the company's level of human capital.

The impact of training and development in the individual understanding and skills is widely acknowledged (Nieves & Quintana, 2016). Training initiatives not only enhance the performance of an employee but also support employees to bring into line their knowledge according to the organizational goals (Real & Valle, 2011). Moreover, on a complimentary basis organizations can help their employees to build distinctive or competitive knowledge by encouraging professional development (Lepak & Snell, 2008). Recently, studies have also reported a positive effect of organizational training and development on human capital (Nieves & Quintana, 2016). Therefore, this study has proposed the following hypothesis;

H2: Training and development HRM practices have a positive influence on the company's level of human capital.

HR practices focused on usage of information technology (IT) are those which offer easy to get to use and incorporated technologies to employees (Youndt & Snell, 2004). IT allows accumulation of huge information and thus enhances the rate of access to the Knowledge, which can assist acquisition of knowledge and skills in employees (Nieves & Quintana, 2016). IT is also a perfect way of interaction and communication (Jaklic & Skerlavaj, 2013). It means communication and interaction, employees can exchange valuable information among them which further enhances their knowledge and skills. Hence, this study has proposed the following hypothesis;

H3: HRM practices that include the use of IT positively influence the company's level of human capital.

3.4 Human Capital and Innovation Capabilities

In the manufacturing sector, a specific unit or department held responsible for the innovation activities such as product development, and research and development (Chatman, & Joyce, 2007). However, in the service industry,



innovation is not systematic and limited to a particular unit but involve several departments in the innovation process (Hipp & Grupp, 2005). Literature shows that combination and exchange of already existing knowledge could influence the innovation activity within the organization (Dhanaraj & Parke, 2010). Hence, an increase in human capital can enhance the possibilities regarding the occurrence of these kinds of knowledge exchange and combination processes. (Wu, 2008). A considerable amount of studies have tested the direct influence of employee's education level on the firm's ability to innovate. (Collins & Clark, 2005) showed that level of education positively influences the rate of new service and product introduction. According to (Hayton & Kelley 2006), individuals with greater access to resources in terms of education, practical experience, thinking ability, and training are more expected to be innovative. (Bantel & Jackson, 1989) determined that the top management teams with a greater level of education have more thinking ability which allows them to generate creative organizational outcomes. In the same way, (Taylor & Greve, 2006) indicated that experienced employees may have more knowledge to combine and exchange and therefore they can influence firms' innovation performance. Thus, this study has proposed the following hypothesis;

H4: The level of human capital is positively associated with the company's innovation capabilities

3.5 Mediating Role of Human Capital

Previously, few studies have examined the direct effect of HR practices on innovation (Laursen & Foss, 2011). However, it has been also assumed that HRM practices can impact innovation indirectly through certain organizational variables. In this regard (Cabralles et al., 2009) and (Cabralles & Valle, 2011) analyzed that HRM practices improve human capital that further positively influences innovation performance. From the perspective of RBV, Human resource practices help in the development of firms' specific assets which ultimately become the source of competitive advantages for them (Lado & Wilson, 1994). Precisely, HRM practices can influence firm performance by enhancing human capital (Wang, & Takeuchi, 2007). Similarly (Jiang & Baer, 2012) analyzed that organizations which have a high quality of human capital developed may impact the innovation performance. Recently, (Nieves & Quintana, 2016) reported a positive influence of HRM practices on innovation through the mediation of human capital. Therefore, this study has purposed that

H5: Human capital mediates the relationship between HRM practices (Recruitment/selection, Training and development, IT HRM practices) and innovation capabilities

3.6 HRM Practices and Social Capital

Social capital is composed of knowledge resources available through, rooted inside, and extracted from the company's network of internal and external associations (Adler & Kwon, 2002). Social capital in comparison to human capital is not just limited to individual capacities but it contains value derived from the relationship networks developed within or outside the organization. Social capital is an important factor, keeping in mind the importance of the social capital a considerable amount of studies have enlightened it is influenced by HRM practices (Donate et al., 2016). These HRM practices may also include recruitment/selection, training and development, and information technology. (Rayton & Hutchinson, 2009) examined that firms' selection process not only just focus on attracting candidates with the right skills and knowledge for the jobs but also those individuals which have interpersonal and collaborative skills. It was reported that interpersonal and collaborative skills enhance the social capital within the company (Leana and Van Buren, 1999). For the development of social capital, firms need to hire those employees which can share working norms and which are also able to work in collaboration with hired members to achieve common goals (Bigley & Pearce, 1998). Similarly (Dyer and Noboeka, 2000) reported that selection and job security can develop long-term interpersonal bonds among organizational members which may become the source of social capital within the organization. Thus, this study has proposed the following hypothesis;

H6: Recruitment/selection HRM Practices have a positive effect on the company's level of social capital

Like recruitment and selection HRM practices, training can also influence the social capital. According to Davis (2005), practices such as selective training, flexible job tasks, self-direction teams, and open communication influence several dimensions of the firm's social structure. Similarly, (Collins & Smith, 2006) and (Gittell, 2000) analyzed that HRM practices like selection, training and compensation system may influence the social interaction. This social interaction can help in developing social capital. (Yahya & Yean, 2016) found that HR practices based on commitment such as development, training, and compensation of employees are positively related to organizational social capital. Particularly, HRM training practices like HPWS (High-Performance Work Systems)

training practices do not just take technical skills into an account but also focus on relational skills (Lawler, 1992) that may result in the development of higher quality relationships (Treadway et al., 2005). Therefore, the following hypothesis is proposed;

H7: Training and development HRM practices are positively related to the company's level of social capital.

IT can be considered as a valuable tool in building relationships inside and outside the organization that further facilitate info and idea sharing (Alavi&Leidner, 2001). (Baharestan, &Rezaei, 2012) examined that IT has a significant influence on the intellectual capital. Specifically (Černe&Etinger, 2016) found that use of IT within the company is positively related to relational capital. In the same way, Leana and Van Buren (1999), communication practices that provide ways of collective work, and that convey the company's goals and values, may improve social capital within the organization. Moreover, (Wu, 2008) analyzed that HRM practices like information and communication, job design, compensation planning and staffing systems are all positively related to organizational assets. These assets may also include the intangible assets like social capital. Hence, we can say that HRM communication practices backed up by IT may impact the social capital. Keeping the above rationale in mind, this study has proposed that

H8: HRM practices that involve the use of IT are positively related to social capital

3.7 Social Capital and Innovation Capabilities

The relationship networks allow firms to get access to information about innovation (Rogers, 1995). A considerable amount of studies have analyzed the association between social capital and innovation. (Perez-Luno et al., 2011) showed that the relational social capital produces more radical innovation if it is combining with tacit knowledge. Subramaniam and (Youndt, 2005) examined that radical and incremental innovative abilities are affected by social capital. Landry, Amara, and (Lamari, 2002) found that networks significantly increase innovation. Further (Huggins&Thomson 2015) found that there is a positive influence of social capital accompanied with benefits of social networks on the softer form of innovation. Therefore, this study has proposed that;

H9: The level of social capital is positively associated with the company's innovation capabilities

3.8 Mediating Role of Social Capital

Studies have reported that HRM practices have an indirect effect on innovation through intellectual capital. (Youndt et al., 2004) examined that organizational performance is indirectly positively influenced by HRM practices through the mediation of intellectual capital. They have also included social capital as an important component of intellectual capital. Similarly (Li et al., 2016) found that the commitment-based HR practices are positively related to organizational social capital which further influences organization performance. Particularly (donate et al., 2016) analyzed that collaborative HRM practices influence innovation capabilities through the mediation of social capital. Hence, this study has proposed that each specific HRM practices may have an indirect impact on innovation capabilities through the mediation of social capital.

H10: Social capital mediates the relationship between HRM practices (Recruitment/selection, Training and development, IT HRM practices) and innovation capabilities.

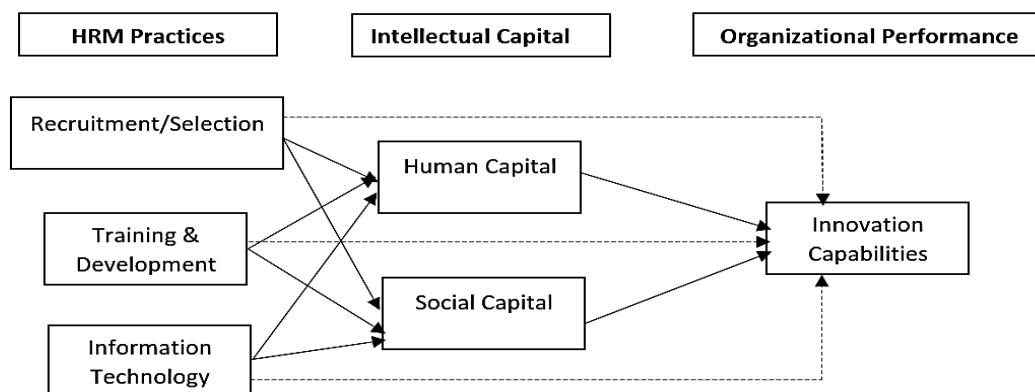




Figure 1. Schematic Diagram

4. Research Methodology

4.1 Population, Sample and Data Collection

This study has been conducted in hotel industry of Pakistan. The population of this study is hotel managers working in HR department. A random sample of 300 hotel managers was collected from Lahore, Pakistan. The data collection was done in the following steps. In first step, a list of hotels in Lahore developed from the online databases (e.g. www.jovago.net). Secondly, a predetermined questionnaire covering questions on HRM practices, intellectual capital, and innovation capabilities administrated personally and by email. The data was collected from HR department or managers who are involved in HR related activities. Among 300 questionnaires which were filled by the managers, 261 questionnaires qualified for the analysis. This study has employed structural equation modelling (SEM) to estimate the variables. (Hair et al., 2007) suggested that while applying SEM, the minimum ratio of observations to variables is 10:1. This study has fulfilled the minimum ratio requirement as there are 43 observations for each of the six variables.

Table 1 provides the information about sample characteristics. Results reveal that most of respondents are males which account for 75% of the total sample. Age statistics show that majority of the respondents have age ranged between 18 to 29 years. Results about education show that 57% of the total sample have bachelor's degree. Further results show that mostly respondents have experience ranged between 4 and 5 years. It means that respondents have spent good time in the hotel industry. Finally, results reveal that 51% of the respondents hold the position of senior supervisor followed by 33% (assistant hotel managers) and 16% (hotel managers).

4.2 Measurement

Five-point Likert scale used to measure variables under study. Scale responses ranged from 1 = strongly disagree to 5 = strongly agree. All of the three variables, selection/recruitment, training and development, and IT practices, were measured by adapting the scales used by (Nieves & Quintana 2016). These measures were originally based on research by (Youndt & Snell, 2004) (Collins & Smith, 2006). Human capital and social capital are based on study by (Youndt & Snell, 2004). Innovation capabilities were measured by adapting the scale developed by (Nasution et al., 2010).

Table 1. Sample Profile

Gender		
	Frequency	Percent
Male	195	74.7
Female	66	25.3
Total	261	100.0
Age		
18-29	149	57.1
30-39	63	24.1
40-49	31	11.9
50+	18	6.9
Total	261	100.0
Qualification		

Ordinary Level	7	2.7
Advanced Level	37	14.2
Bachelor's Degree	145	55.6
Professional Qualification	42	16.1
Post Graduate Qualification	30	11.5
Total	261	100.0
Experience		
	Frequency	Percent
1-2	47	18
3-4	58	22.2
5-6	130	49.8
10 & Above	26	10.0
Total	261	100.0
Position		
	Frequency	Percent
Hotel Manager	42	16.1
Assistant Hotel Manager	86	33.0
Senior Supervisor	133	51.0

5. Data Analysis

The estimation of study variables is done by employing SEM. Data analysis is comprised of five major sections; descriptive analysis, reliability analysis, confirmatory factor analysis (CFA), hypotheses testing, and mediation analysis.

5.1 Descriptive Analysis

Table 2 shows that the mean values of selection/recruitment, training and development, and information technology are 4.13, 3.88, and 3.65. These values indicate that respondents have positive attitudes regarding HRM practices. Further results reveal that respondents have positive perception about the human and social capital with mean values (3.81, 3.98). The mean value of innovation capabilities is 3.64 which shows that respondents are more inclined to innovative activities.

Table 2. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Selection/Recruitment	261	2.50	5.00	4.1258	.64170



Training and Development	261	2.00	5.00	3.8840	.61214
Information Technology	261	1.50	5.00	3.5948	.85280
Human Capital	261	1.80	5.00	3.8100	.68751
Social Capital	261	1.40	5.00	3.9762	.62700
Innovation Capabilities	261	1.00	5.00	3.6421	.73185
Valid N (listwise)	261				

5.2 Reliability Analysis

The reliability of each construct is tested through Cronbach's Alpha. According to Nunnally & Bernstein (1994), the value of Cronbach's Alpha greater than 0.7 (but less than 0.8) and 0.8 is considered as satisfactory and excellent reliability. Results show that the value of Cronbach's Alpha in case of selection/recruitment, training and development, information technology, and innovation capabilities is greater than 0.8. Therefore, these constructs have excellent reliability. However, in case of human and social capital, the value of Cronbach's Alpha is greater than 0.7 but less than 0.8, which is also considered as satisfactory reliability. Hence, it has proved that overall reliability is good.

5.3 Confirmatory Factor Analysis

Confirmatory factor analysis is done in order to validate the measurement model. Before determining the convergent and discriminant validity, measurement model has assessed through fit indices. According to recommended fit indices, χ^2/df should be less than 3, RMSEA should be less than 0.08, CFI should be greater than 0.9 (Hu & Bentler, 1999). Table 3 shows that model has good fit as all values fall under recommended criteria ($\chi^2 = 635.744$, $df = 361$, $\chi^2/df = 1.761$, RMSEA = 0.054, CFI = 0.92). The convergent validity is assessed by using three criteria (Bagozzi & Yi, 1981): factor loadings must exceed 0.5, composite reliability (CR) must exceed 0.7, and average variance extracted (AVE) for each construct must exceed 0.5. Results show that all the factor loadings for constructs are greater than 0.5 (Table 4). Furthermore, the CR values range from 0.78 to 0.87, and AVE of mostly constructs is greater than 0.5 (Table 4). Hence, the convergent validity of all measures is satisfied. Next discriminant validity is determined. According to (Fornell & Larcker, 1981), the discriminant validity would be satisfied if the square root of the AVE of a latent variable is greater than the correlations among rest of latent constructs and the variable itself. Table 4 shows that square root of the AVE of each construct is greater than the correlations. Hence, discriminant validity of the constructs is also satisfied.

Table 3. Fit Indices of Measurement Model

χ^2	Df	χ^2/df	RMSEA	CFI
653.744	361	1.761	0.054	0.92

Table 4. Results of Convergent and Discriminant Validity

Constructs	Range of Loadings	CR	AVE	Correlations					
				1	2	3	4	5	6
Recruitment /Selection	0.55-0.80	0.87	0.54	0.73					
Training & Development	0.50-0.77	0.78	0.40	0.196*	0.63				
IT	0.73-0.80	0.81	0.60	0.029	0.468**	0.77			
Human Capital	0.54-0.78	0.80	0.52	0.186*	0.369*	0.305*	0.72		

Social Capital	0.55-0.79	0.80	0.51	-0.054	0.263* *	0.201**	0.407* *	0.71	
Innovation Capabilities	0.51-0.90	0.82	0.62	0.120*	0.165 **	0.140*	0.227 **	0.179 **	0.79

** $p < .01$; *** $p < .001$ (Square root of AVE given in the diagonal)

5.4 Hypotheses Testing

The structural model is developed in order to test the study hypotheses. Table 5 shows that model has good fit as fit indices fall within recommended criteria ($\chi^2 = 683.65$, $df = 392$, $\chi^2/df = 1.744$, RMSEA= 0.053, CFI=0.90) (Browne et al., 1993). After assessing the model fit, hypothesized paths are tested by analyzing the significance levels of the estimates.

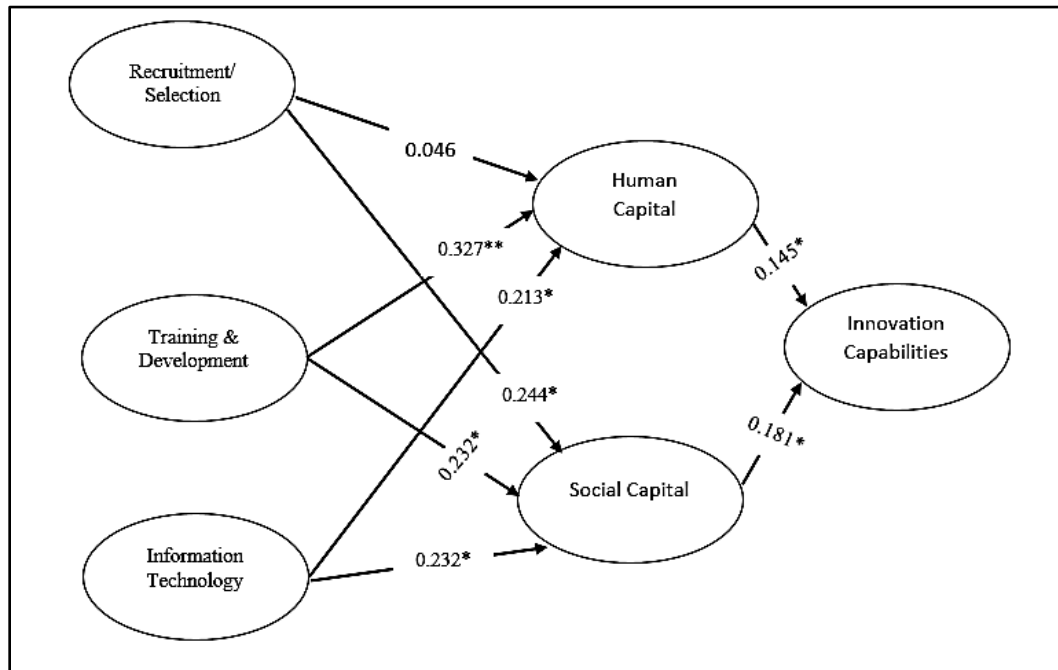
Table 5. Fit Indices of Structural Model

χ^2	Df	χ^2/df	RMSEA	CFI
683.65	392	1.744	0.053	0.90

Table 6 identifies that all hypothesized paths of the model are supported by the statistics except in the case of relationship between selection/recruitment and human capital (H1). H2 posits that Training and development HRM practices have positive influence on company's level of human capital and it is supported with $\beta = 0.327$ and $p < 0.01$. H3 posits that HRM practices that include use of IT have a positive influence on the company's level of human capital and it is supported with $\beta = 0.213$ and $p < 0.05$. H4 posits that the level of human capital is positively associated with company's innovation capabilities and it is supported with $\beta = 0.145$ $p < 0.05$. H6 posits that recruitment/selection HRM Practices have a positive effect on the company's level of social capital and it is supported with $\beta = 0.244$ and $p < 0.05$. H7 posits that training and development HRM practices are positively related to the company's level of social capital and it is supported with $\beta = 0.232$ and $p < 0.05$. H8 posits that HRM practices that involve use of IT are positively related to social capital and it is supported with $\beta = 0.232$ and $p < 0.05$. H9 posits that the level of social capital is positively associated with company's innovation capabilities and it is supported with $\beta = 0.181$ and $p < 0.05$.

Table 6. Results of Structural Model

Hypotheses	Hypothesized Paths	Stand Regression Weight (β)	t-value	Result
H1	Recruitment/Selection \rightarrow Human Capital	0.046	0.587	Not Supported
H2	Training & Development \rightarrow Human Capital	0.327**	3.192	Supported
H3	IT \rightarrow Human Capital	0.213*	2.4	Supported
H4	Human Capital \rightarrow Innovation Capabilities	0.145*	2.12	Supported
H6	Recruitment/Selection \rightarrow Social Capital	0.244*	2.36	Supported
H7	Training & Development \rightarrow Social Capital	0.232*	2.20	Supported
H8	IT \rightarrow Social Capital	0.232*	2.28	Supported
H9	Social Capital \rightarrow Innovation Capabilities	0.181*	2.13	Supported
* $p < .05$; ** $p < .01$; *** $p < .001$				



* $p < .05$; ** $p < .01$; *** $p < .001$

Figure 2. Structural Model

5.5 Mediation Analysis

In order to analyze the mediating role of human and social capital, two models are developed. Further, bootstrapping approach is used to determine the significance of direct and indirect effects. According to Cheung and Lau (2008), bootstrapping approach in SEM is best method for testing mediation.

5.5.1 Mediation Model 1

In model 1, the mediating role of human capital is analyzed among the relationship between HRM practices (recruitment/selection, training and development, and information technology) and innovation capabilities. Table 7 shows that model has good fit with all fit indices fall within recommended criteria ($\chi^2 = 557.908$, $df = 271$, $\chi^2/df = 2.059$, $RMSEA = 0.064$, $CFI = 0.85$) (Browne et al., 1993).

Table 7. Fit Indices of Mediation Model 1

χ^2	Df	χ^2/df	RMSEA	CFI
557.908	271	2.059	0.064	0.85

After good model fit, direct and indirect effects of HRM practices on innovation capabilities have been calculated by using bootstrapping method with the help of generating 2000 bootstrap samples with bias-corrected confidence intervals. Indirect and direct effects have been provided in Table 8. It shows that all of the three HRM practices (1. recruitment/selection, 2. training and development, and 3. information technology) have insignificant ($p > 0.05$) direct effects on innovation capabilities. However, apart from recruitment/selection, training and development, and information technology have significant ($p < 0.05$) indirect effects on innovation capabilities through mediation of human capital. It means, human capital fully mediates the relationship between HRM practices (training and development, and information technology) and innovation capabilities, and hence H5 is accepted.

Table 8. Results of Mediation Model 1

	Direct effects on Innovation Capabilities			Indirect effects through Human Capital on Innovation Capabilities		
		BCCI			BCCI	
Predictors	Est.	L	U	Est.	L	U
Recruitment/Selection	0.138	-0.909	0.161	0.26*	0.012	0.077
Training & Development	0.149	-0.014	0.421	0.64**	0.046	0.174
IT	-0.002	-0.102	0.111	0.041	-0.063	0.468

* $P < 0.05$, ** $p < 0.01$

5.5.2 Mediation Model 2

In model 2, the mediating role of social capital is analyzed among the relationship between HRM practices (recruitment/selection, training and development, and information technology) and innovation capabilities. Table 9 shows that model has good fit with all fit indices fall within recommended criteria ($\chi^2 = 600.011$, $df = 315$, $\chi^2/df = 1.905$, RMSEA = 0.059, CFI = 0.85) (Browne et al., 1993).

Table 9. Fit Indices of Mediation Model 2

χ^2	Df	χ^2/df	RMSEA	CFI
600.011	315	1.905	0.059	0.85

After good model fit, direct and indirect effects of HRM practices on innovation capabilities have been calculated by using bootstrapping method with the help of generating 2000 bootstrap samples with bias-corrected confidence intervals. Table 10 provides the information about indirect and direct effects. It shows that all of the three HRM practices (1. recruitment/selection, 2. training and development, and 3. information technology) have insignificant ($p > 0.05$) direct effects on innovation capabilities. However, these HRM practices (1. recruitment/selection, 2. training and development, and 3. information technology) have significant ($p < 0.05$) indirect effects on innovation capabilities through mediation of social capital. It means social capital fully mediates the relationship between HRM practices (1. recruitment/selection, 2. training and development, and 3. information technology) and innovation capabilities, and thus H5 is accepted.

Table 10. Results of Mediation Model 2

	Direct effects on Innovation Capabilities			Indirect effects through Social Capital on Innovation Capabilities		
		BCCI			BCCI	
Predictors	Est.	L	U	Est.	L	U
Recruitment/Selection	0.376	-0.909	0.161	0.34**	0.011	0.088
Training & Development	0.179	-0.014	0.421	0.64**	0.031	0.121
IT	-0.004	-0.102	0.111	0.148*	0.053	0.361

* $P < 0.05$, ** $p < 0.01$



6. Discussion and Conclusions

The purpose of the study is to empirically investigate the effect of HRM practices on innovation capabilities in the hotel industry. Further, this study aims at analyzing the indirect effect of HRM practices on innovation capabilities through the mediation of human and social capital. In contrast to expectations, the findings reveal that recruitment/selection does not have a significant effect on human capital. According to (Chang et al., 2013) companies in the service sector have employees with a high degree of job turnover and low level of qualifications. It means, companies only spend resources in recruitment/selection when they require highly qualified candidates, who are expected to hold higher positions. In this situation, recruitment practices can attract candidates with talent, who fill up specific positions but they do not enhance the general level of human capital within the organization. This finding is well supported by (Nieves & Quintana, 2016). In the case of the relationship between training and development and human capital, this study has reported a positive and significant relationship.

This result is well supported by authors who examined that training and development initiatives are important investments instead of expenses (Change et al., 2011). Moreover, the findings show that there IT plays a positive role in the development of human capital. According to (Nieves & Quintana, 2016) IT is an important element of HRM practices which foster information and knowledge exchange among individuals. This interaction enables employees to acquire new knowledge which can further improve the company's level of human capital. The results related to the relation between HRM practices and social capital show that recruitment/selection, training and development, and information technology, are positively related to social capital. Recruitment/selection practices may attract those candidates which have an interest in team working and collaborative activities (Purcell et al., 2009) which can become the source of social capital within the organization. According to (Treadway et al., 2004) and (Evans & Devis, 2005), training and development play an important role in shaping the high-quality relationship among the employees. Therefore, training and development practices influence social capital. Furthermore, the results reveal that IT has a positive effect on social capital. IT can enhance both formal and informal communication between the employees and between employees and the environment which may become the source of social capital. The findings also show that human and social capital mediates the relation between HRM practices and innovation capabilities. Specifically, results reveal that human capital fully mediates the relationship between HRM practice (training and development, IT) and innovation capabilities. However, it has found that human capital do not mediate the relationship between recruitment/selection and innovation capabilities. Finally, results show that social capital fully mediates the relationship between HRM practices (recruitment/selection, training and development, IT) and innovation capabilities. The results related to mediating role of human and social capital is well supported by RBV (Paauwe & Boslie, 2005) and the model given by (Youndt & Snell, 2004).

7. Study Contributions and Limitation

This study has added knowledge in existing literature in the following ways. First, it has extended the framework of (Donate et al., 2016) and (Youndt & Colleagues, 2004) by analyzing the impact of specific HRM practices (recruitment/selection, training and development, IT) on innovation capabilities through mediating role of human and social capital. Second, it has examined the effect of specific HRM practices on both human and social capital in the same model which have not done before. Third, it has conducted for the first time in service industry. Practically, it can help the companies and decision makers in managing their intellectual capital which may become the source of competitive advantage. Finally, it can enable the companies to enhance innovation capabilities of their employees by taking effective HRM initiatives. This study has several limitations which set grounds for the future studies. First, it has chosen hotel industry to gather data. Future study can be done in other service industries like telecom industry, health sector etc. Second, it has not included other HRM practices; future studies can be done by including HRM practices like participation, empowerment or retention, which could better predict human capital or firm innovation capacity. There are several other mediating variables that can be incorporated in future studies while analyzing the relationship between HRM practices and organization innovation (e.g. learning capability).

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