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## **The Mediating Role of Human Capital Development between Human Resource Practices and Firm Performance: An Empirical Study of Higher Education Institutions in Faisalabad**

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### **Abstract**

In a globalized world the concept of human capital development (HCD) is receiving great attention and also enormous importance especially in the era of economic recession. Today human capital development (HCD) is much common characteristic for all small to large businesses globally. In both developed and developing economies too much emphasis is given to HCD to speed-up the economic growth. Therefore, HCD is considered as one of the basic elucidations to enter the global arena and also the most critical source of competitive advantage which can guide the organizational performance towards the positive direction. This study is an attempt to investigate the degree to which HCD have a direct impact on organizational performance. Furthermore, the study focuses on key HRM practices which are carried out to develop the human capital and also impacts directly on the firm's performance. Moreover, the mediating role of HCD between HRM practices and firm performance

is also investigated. The primary data were collected using the questionnaire survey technique from 235 universities employees. To analyse the collected data, descriptive statistics, structural equation modelling (SEM), mediation analysis, and confirmative factor analysis (CFI) were conducted using SPSS and AMOS 24. The results reveal that human capital development has a significant and positive direct and indirect impact on organizational performance. This study recommends that the implementation of HRM practices such as innovative recruitment and selection, career advancement, compensation, and training and deployment will help in the development of human capital which leads to excellent firm performance. This study is limited to universities only and ignores behavioural factors of employee's attitude, expertise, and experience.

**Keywords:** Human Capital Development; HRM Practices; Organizational Performance; Education Industry

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## 1. Introduction

Human Capital is a fundamental and novel concept for organizations, societies and country/regions, as it is widely discussed by both academic researchers and HR practitioners (Heijden, 2002). Ukenna et al., (2010) have identified the

positive relationship between human capital and organizational financial and non-financial performance. Human capital or human resources are considered as the most significant and valuable resources in any company because their knowledge, skills, training, and education increase the value of organization (Batarliene et al, 2017). It can easily be argued that human capital is one among the important factors of economic growth. In the early 1980s, the new economic theory was developed to overcome the short comings of classical theory which emphasize the significant role of innovation and education on long-term economic growth (Pelinescu, 2015). Moreover, in contrast to this, the market value theory has highlighted the influence of intangible assets such as research and development and patent intellectual capital on the market value of firms as well as on their growth nationally or globally.

Jamal and Saif, (2011) explained human capital as the dominant factor in the success or failure of an organization and also discussed its significance and value for the organization. Pelinescu, (2015) has discussed the importance of human capital in relation to economic growth and found its significant impact on economic growth. ALmasarweh, (2016) argued that the attention toward the firm's human capital should be given to become successful in the competitive market environment. Marimuthu, Arokiasamy, and Ismail, (2009) affirmed that the development of human capital is a fundamental way for organizations to enter in the international arena. Human capital comprises many attributes like knowledge, skill, competency, and personal characteristics that support personal and economic well-being (Emmanuel, Aina Oluwaywmisi, & Abosede, 2015). In the underdeveloped countries, investment in intangible resource (like human capital) is not as significant as the investment in tangible assets. Many researchers acknowledged that higher spending on education results in an increase in economic activities and labor productivity (Griliches, 1977; Hanushek & Woessmann, 2007).

Most of the HCD literature explains the importance of implementing human resource practices, human capital development in order to enhance productivity and firm performance both in short and long-run. These studies have been conducted mostly in developed countries, where generally a handsome amount has been invested in the development of human capital. This study is being carried out in an underdeveloped country like Pakistan, to explain the relationship between human resource practices, human capital development and firm performance. This study is conducted on higher education institutes (universities)

or knowledge-intensive organizations operating in Faisalabad, Pakistan. As argued by Starbuck, (1992), the organizations which give more value and importance to knowledge development than other physical or financial capital development, can be stated as knowledge-intensive organizations. The provision of innovative solutions to complex problems is another characteristic of these organizations. Furthermore, knowledge-intensive organizations use their intangible assets, human capital, and knowledge as a tool to compete in the market (Jamal & Saif, 2011). The study will try to minimize the gap prevailing in the already available literature on HCD. To achieve the study objective, knowledge-intensive higher education industry (the universities) located in Faisalabad is taken as study sample.

## **2. Literature Review**

The human capital theory by Mincer J., (1958), Schultz W. T., (1962), and Becker S. G., (1962) explains human capital development as an investment on a human being. Whereas, Marimuthu, Arokiasamy, & Ismail, (2009) defined the human capital as the knowledge, skills, competencies, operative expertise, experience gained, and attribute embodied in the individuals that can assist in personal, social and economic wellbeing (Huang et al, 2013). Schultz T., (1971) classified five categories for investment in the human capital, education, on the job training, migration, health, and economic information. Moreover, it is also observed that high performing firms have highly invested in their human capital (Youndt, Subramaniam, & Snell, 2004). Munjuri, K'Obonyo, & Ogutu, (2015) stated that the competitive advantage relies on peoples- incorporated expertise, particularly in the industries based on knowledge. Rastogi, (2002) has suggested that organizations should consider human capital as a valuable input for continuous improvement mainly on knowledge, skills, and abilities. The most important asset for an organization is its human capital which distinguishes organization from its competitors and takes part in organizational productivity or performance (Huang et al, 2013). HCD is more frequently used by organizations for the enhancement of productivity. It includes many related processes of training, education and other professional initiatives taken with the intention to advance the level of knowledge, skills, abilities, and values of an employee which can guide the organizational performance upward (Marimuthu, Arokiasamy, & Ismail, 2009). Furthermore, ALmasarweh, (2016) described the human capital as, "all the attributes that individuals bring with them in the organization, such as education, training, experience, and age". The human capital is a buildup of

attitude, experience, knowledge, creativity, energy, and the passion of people they are showing to invest in their work-place (Weatherly, 2003).

The organizational performance conceptualized by Brumback, (1988) as outcomes and behaviors originated by the performer and converts the performance from theory to action. Furthermore, the behavior is not just the tool of outcome but also act as an outcome in its own way, as it can be characterizing as the product of mental and physical efforts applied in task. The definition of performance can be concluded as managing the performance of both inputs and outputs. While calculating performance the competency factor should also be considered (Armstrong, 2006). Venkatraman and Ramanujam, (1986) stated that a small meaning of performance is to consider the simple outcome based on financial indicators which are reflecting the achievement of economic goals of the organization (Alchian & Demsetz, 1972). Emmanuel, Aina Oluwaywmisi, and Abosedo, (2015) argued that when skilled and qualified employees of an organization are achieving organizational goals and ensuring its market competitiveness, the organization is performing well. Moreover, Campbell (1999) defines the performance as the behavior and action related to the achievement of organizational goals which can be scaled and measured.

Breaugh and Starke, (2000) in their study of HRM practices, define the recruitment as the organizational process of searching and attracting the potential employees while selection refers to screening the applicants and choosing the right person for right job (Torrington et al., 2014). The knowledge base of an organization is dependent to these actions, as these set of steps can determine the knowledge being brought into the organization (Winne & Sels, 2010). Moreover, this dependency link was also established between innovation and organizational knowledge base by Subramaniam & Youndt, (2005). While Jiang, Wang, and Zhao, (2012) acknowledged that the preference should be given to the potential candidates as they have more learning and innovative capabilities. It is unambiguous that, recruitment, selection, training, development, performance evaluation, and compensation management are significant determinants of organizational effectiveness (Bowen & Ostroff, 2004).

It is generally understood that on-job training and education can enhance one's competencies, that enable him to manage complexity and bring the new idea (Munjuri, K'Obonyo, & Ogutu, 2015). Knowledge can be gained through formal education and on-job training. The education and training obtained during their career can lift the one's abilities, work potential and problem-solving skills

(Awan & Sarfraz, 2013). Swanson, (1995) proved that the organizational constant training and development activities positively affect productivity and performance of the firm and employees' development directly interrelate with the firm's performance. The knowledge and skills embodied in employees through training and education increase their productivity (Rephann, Knapp, & Shobe, 2009). Robbins & Judge, (2010) argued that the organizational heftiness on training programs can deteriorate competencies of their workers while training can transform your workforce into more productive individuals (Koch & McGrath, 1996). Additionally, the constant training and development not only increase the knowledge and expertise of the employee but it will also fit the personal need for development (Kianto, Saenzb, & Aramburu, 2017). Castellanos & Martin, (2011) stated that empowering the employees in higher educational organizations is an important factor. Human resource management is a complex process by which an organization develops its human capital by developing the expertise of their employees, and attracting highly skilled persons from the external market (Hudson, 2009). According to Hasani & Sheikhesmaeili, (2016) the expertise and skills of employees are the most significant and renewable resources which organizations employ in their management process.

According to Winne & Sels, (2010) training and development activities will put the organization in balance position with its current and future required knowledge base. Furthermore, it results in innovation and contribution to human capital that could impact organizational performance (Cabello-Medina et al, 2011). With training, creativeness of employees and their capability to complete given tasks efficiently can be increased (Jiang, Wang, & Zhao, 2012). Subramaniam and Youndt, (2005) stated that the innovations principally relate to the human capital of the organization, in view of the fact that it is the workers who develop and employ the ideas in the work context. Therefore, this all process is dependent on knowledge, through which innovative ideas are developed and executed, in return the new knowledge bases, products and services are invented (Kianto, Sáenzb, & Aramburu, 2017).

Performance appraisals and compensation can impact the employee's skills, knowledge, and motivation which can enhance organizational performance (Kianto, Saenzb, & Aramburu, 2017). Managers should focus while carrying out performance appraisal on identifying the weak areas of employee's performance and to develop their human capital in line with organizational goals (Lepak & Snell, 2002) and the appraisal can be the predictor of innovation

(Shipton et al, 2006). Organizational compensation plans can influence the potential employees interested in joining the organization. The work quality, motivation, and performance level of these employees can be escalated to the high-performance levels through attractive compensation plans (Dineen & Williamson, 2012). Furthermore, Gupta & Shaw, (2014) acknowledged the employee's compensation as a key for successful human capital management and organizational effectiveness. Haider et al, (2015) stated that organizations are facing employee's retention challenge due to the competitive environment. It is essential for organizations to hire capable employees with the aim of being competitive. The retention of resourceful employees is a fundamental job for any organization (Hudson, 2009). Azeez, (2017) characterize employees turn over into two categories which are voluntary or involuntary, and recommended that the organizations should reward their employees with attractive compensation to retain them. The organizations should also focus on smooth workload to reduce the stress and to promote the relationship between management and employees (Mathimaran & Kumar, 2017).

### **3. Methodology**

In this study, the explanatory and cross-sectional research designed was utilized. The data were collected through questionnaire and items were adapted on the basis of their validations in prior studies.

#### *3.1. Sampling & Data Collection*

In this study, non-probability and convenience sampling techniques were used. 15 higher education organizations have been selected out of 18 and a total of 274 responses were received from which the 29 were excluded due to some missing information.

The majority of respondents were male (64 %) and the remaining 36 percent were females. 67 percent of the respondents were from academia, i.e. Lecturer/Asst. Professor/Associate Professor/Professor and 23 percent of the respondents were occupying the position of the Director / Dy. Director / Asst. Director. With respect to the qualification, the majority that is 40.4 percent were Ph.D. the 34 percent were MS/MPhil qualified. As for a length of service is

concerned, about 55 percent were having 1-10 years of job experience and the remaining 45 percent were with 11-15 year of experience.

3.2. Data Analysis

The data analysis was concluded in three steps. In the first step, the reliability analysis, descriptive statistics, and correlation analysis were conducted using SPSS 23. In second step, the structural equation modeling (SEM) was done by using IBM AMOS 23. In third step, the mediation effect was analyzed using Hayes & Preacher’s, (2014) model.

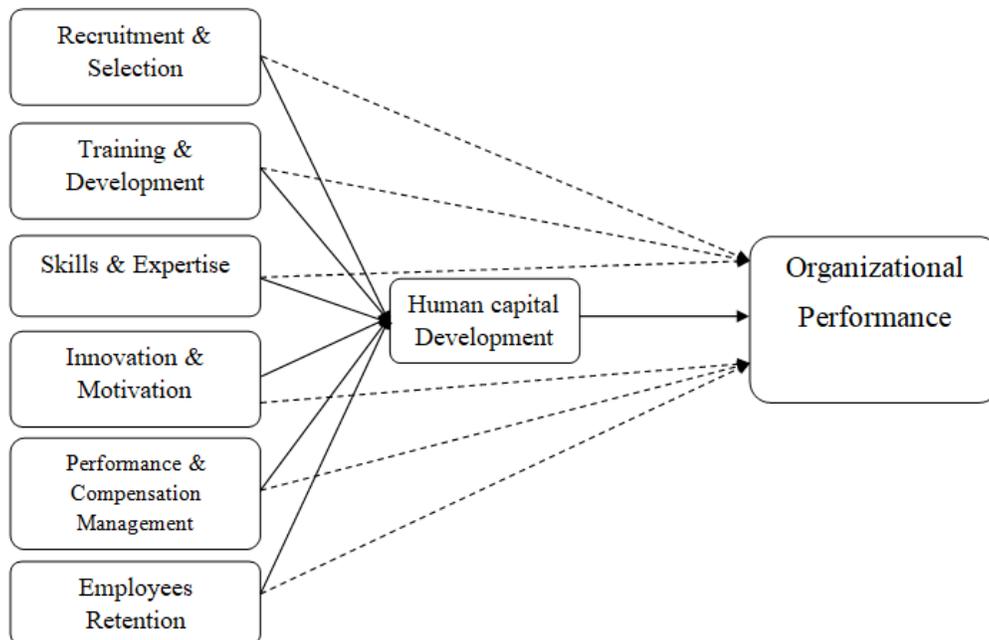


Figure #1: Frame work of study

4. Empirical Results

4.1. Reliability Analysis

The reliability analysis results are shown in table 01. The coefficient values are well above the recommended value of 0.60 by Hair et al., (2003) and 0.70

suggested by Nunnally & Bernstein, (1994) which confirm internal consistency between all the survey items.

**Table 1:** Summary of the Reliabilities

<b>Construct Name</b>	<b>Cronbach's Alpha</b>
Recruitment & Selection	0.848
Training & Development	0.830
Skills & Expertise	0.838
Innovation & Motivation	0.842
Performance & Compensation Management	0.855
Employees Retention	0.864
Human Capital Development	0.880
Organizational Performance	0.853

#### *4.2. Descriptive Statistics and Correlation Analysis*

Results of descriptive and correlation results are presented in table 2. Higher mean values confirm that the majority of respondents are agreeing that human capital development significantly influences firm performance. Moreover, the correlation among all study variable is significant and values are well below 0.85. According to Kline (2005), for the divergent validity of the variables, the correlation among the variable should be less than 0.85.

**Table 2:** Descriptive Statistics and Correlation Analysis

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Table 2: Descriptive Statistics and Correlation Analysis

<i>Variables</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>RnS</i>	<i>TnD</i>	<i>SnE</i>	<i>InM</i>	<i>PnC</i>	<i>Rn</i>	<i>HCD</i>	<i>OP</i>
<i>RnS</i>	3.68	0.77	1							
<i>TnD</i>	3.64	0.82	.787**	1						
<i>SnE</i>	3.72	0.81	.782**	.790**	1					
<i>InM</i>	3.60	0.82	.777**	.773**	.739**	1				
<i>PnC</i>	3.59	0.84	.694**	.745**	.668**	.756**	1			
<i>Rn</i>	3.69	0.81	.760**	.785**	.768**	.756**	.727**	1		
<i>HCD</i>	3.72	0.86	.777**	.751**	.769**	.751**	.732**	.728**	1	
<i>OP</i>	3.65	0.78	.785**	.812**	.793**	.778**	.730**	.779**	.796**	1

N= 235

\*\* Correlation is significant at the 0.01 level (2-tailed).

### 4.3. Measurement Model

Structural equation modeling (SEM) was utilized to test the study model. As recommended by Anderson & Gerbing, (1988) the confirmatory factor analysis (CFA) was conducted prior to the SEM analysis to validate and confirm the measurement of study model. RMSEA, TLI, CFI, and IFI fit indices were used to test the model fitness. Values  $\geq 0.95$  for CFI, TLI, IFI, and value  $\leq 0.08$  of RMSEA, show good model fit as shown in table 3.

**Table 3:** Measurement Models

<i>Measurement Models</i>	<i>Models</i>	<i>RMSEA</i>	<i>CFI</i>	<i>TLI</i>	<i>IFI</i>
<b>Recruitment &amp; Selection</b>	Original	0.07	0.99	0.98	0.99
<b>Training &amp; Development</b>	Original	0.04	0.99	0.99	0.99
<b>Skills &amp; Expertise</b>	Original	0.15	0.94	0.88	0.94
	Revised	0.08	0.98	0.95	0.98
<b>Innovation &amp; Motivation</b>	Original	0.163	0.93	0.87	0.93
	Revised	0.08	0.98	0.96	0.98
<b>Performance &amp; Compensation Management</b>	Original	0.05	0.99	0.99	0.99
<b>Employees Retention</b>	Original	0.07	0.98	0.97	0.98
<b>Human Capital Development</b>	Original	0.07	0.98	0.97	0.98
<b>Organizational Performance</b>	Original	0.06	0.97	0.96	0.97
<b>Overall Model</b>	Original	0.06	0.94	0.94	0.94
	Revised	0.05	0.95	0.95	0.95

#### 4.4. Test of Hypothesis

The structural equation modeling (SEM) was performed using AMOS to test the study hypotheses with the direct effect of independent variable on the dependent variable and results are shown in table 4. The mediation hypotheses were tested by adopted Hayes & Preacher (2014) model and results are presented in table 5.

**Table 4:** Structural Path's Standardized Coefficients

<i>NO.</i>	<i>IV</i>	————→	<i>DV</i>	<i>Estimate</i>	<i>S.E</i>	<i>P-Value</i>
1	<b>Recruitment and Selection</b>	————→	Organizational Performance	0.829	.090	***
2	<b>Training and Development</b>	————→	Organizational Performance	.689	.077	***
3	<b>Skills and Expertise</b>	————→	Organizational Performance	.767	.084	***
4	<b>Innovation and Motivation</b>	————→	Organizational Performance	.728	.081	***
5	<b>Performance and Compensation Management</b>	————→	Organizational Performance	.702	.081	***
6	<b>Retention</b>	————→	Organizational Performance	.686	.076	***
7	<b>Human Capital Development</b>	————→	Organizational Performance	.789	.086	***

\*\*\*  $p < .001$ , \*\*  $p < .005$ , \*  $p < .01$ , *IV*= independent Variable, *DV*= Dependent Variable, *OP* = Organizational Performance

**Table 5:** The mediating effect of HCD on organizational performance

<i>NO</i>	<i>IV</i>	————→	<i>M</i>	————→	<i>DV</i>	<i>UL(95%)CI</i>	<i>LL(95%)CI</i>
1	<i>Recruitment and Selection</i>	————→	HCD	————→	OP	0.472	0.309
2	<i>Training and Development</i>	————→	HCD	————→	OP	0.559	0.369
3	<i>Skills and Expertise</i>	————→	HCD	————→	OP	0.528	0.320
4	<i>Innovation and Motivation</i>	————→	HCD	————→	OP	0.490	0.290
5	<i>Performance and Compensation management</i>	————→	HCD	————→	OP	0.392	0.194
6	<i>Retention</i>	————→	HCD	————→	OP	0.500	0.309

*LL*= lower limit; *UL*=upper limit; *CI* = confidence interval, *HCD* = Human Capital Development, *OP* = Organizational Performance, *IV*= Independent Variable, *DV*= Dependent Variable.

The results indicate that there is significant effects of recruitment and selection ( $\beta=.829$ ,  $p < .001$ ), training and development ( $\beta=.689$ ,  $p < .001$ ), skills and expertise ( $\beta=.767$ ,  $p < .001$ ), innovation and motivation ( $\beta=.728$ ,  $p < .001$ ), performance and compensation ( $\beta=.702$ ,  $p < .001$ ), retention ( $\beta=.686$ ,  $p < .001$ ) and human capital development ( $\beta=.789$ ,  $p < .001$ ) on organizational performance.

The results are shown in table 5 also indicate that human capital development mediates the relationship between independent and dependent variables significantly and positively

## 5. Conclusion

The main objective of the study was to empirically examine the impact of human capital development on the performance of higher educational organizations. Therefore, several organizational HRM practices adapted to develop their human capital have been identified through a review of past literature. Today human capital development (HCD) is much common characteristic for all small to large businesses globally. In both developed and developing economies much emphases is given on HCD to speed-up the economic growth. Therefore, HCD is considered as one of the basic elucidations to enter the global arena and also the most critical source of competitive advantage which can guide the organizational performance towards the positive direction. This study is an attempt to investigate the degree to which HCD have a direct impact on organizational performance. Furthermore, the study focuses on key HRM practices which are carried out to develop the human capital and also impact directly on the firm's performance. Moreover, the mediating role of HCD between HRM practices and firm performance is also investigated. Though this study is based on existing literature, it also identifies some long-term and short-term organizational HR strategies for human capital development. This study recommends that organizational HRM practices such as recruitment and selection, training and development, skills and expertise, innovation and motivation, performance and compensation can enhance human capital development which ultimately leads to organizational performance.

### 5.1. Limitations and Future Directions

In the current modern, competitive and challenging environment, many human resource managers are well-aware regarding the significance of resourceful and developed human capital. This study results will aid the organizations and their managers to be productive and helpful. Furthermore, it will be helpful for the managers and organizations in a way to identify the important factors which can be helpful in developing their human capital for achieving their goals and objectives. Organizations are striving to be more competitive and successful in the market by developing their human resource in such a way that they can achieve organizational goals and required performance. Effective organizational HRM policies and practices can enhance employee motivation and these surely will have an impact on organizational performance.

The organizational policymakers can get benefit from this study by considering the role of human capital in organizational performance. The study recommends that organization can develop its human capital by building a productive and creative work environment which can help in employee's innovative grooming.

The study has not explained some behavioral factors related to employee's personality, attitude, and experience level. Moreover, it ignored the organizations other than the higher education organizations, which may require more investigation. The size of the organization, composition, and nature of its business are also ignored during the study.

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