

Impact of Human Capital Variables on the Effectiveness of the Organizations

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Abstract

This study is conducted to assess the impact of Human Capital Variables i.e. acquisition of knowledge, skills & expertise of the employees on the satisfaction of the employees and then on the effectiveness of the organizations. Simple random probability method was used for sampling selection & primary data was collected by administering questionnaires. Independent Samples T- Test showed that both genders are provided equal chances of human capital development. Effectiveness of the organization was measured by assessing the satisfaction & commitment level of the employees & customers with the organization. Satisfaction & commitment was measured by already established tools. Correlation technique showed that human capital development has strong significant positive relation with satisfaction level of the employees and customers, which will eventually lead to the organizational performance. This research will have implications not only for employees but also for HRM & Training & Development Managers.

Keywords: human capital, Employee satisfaction, customer satisfaction, Organization effectiveness.

1. Introduction

Human resource is the greatest asset for every organization. Each and every basic function of an organization such as cash flow management, dealing with customers etc is executed by employees. HRM best practices are adopted by the organization to improve the overall performance of employees, which ultimately leads to increased organizational effectiveness (Delaney and Huselid, 1996). Whereas Dessler (2003) has mentioned that performance of employees can be enhanced by "recruiting, screening, training and appraising". Beardwell, et al (2004) have described human resource management as modern improvement that continuously redesign the employment relationship. Delaney and Huselid (1996) also defined that in HRM practices commitment play a key role. In

simple term aim of HRM is to enhancing the skills of employee, increasing their level of commitment which leads to increase the organization performance, output and efficiency. Globalization and job market saturation has resulted in greater focus on human capital. All the countries reiterate more human capital growth towards speeding up the economic development by allocating essential time and hard work. According Marimuthu et al (2009), Human capital means important aspect in alleviating a firm possessions and employees in order to boost productiveness as well as maintain competitive benefits. To continue competitiveness in the organization human capital is key augment output. Human capital is related to procedure that includes training, education and other professional initiatives so that level of knowledge, skills, abilities and social values of employees are increased. This will relate to employees satisfaction and performance and ultimately firm performance. Marimuthu et al (2009) defined that human capital is vital key for organization mainly for employees' constant enhancement in term of knowledge, skills, and abilities.

Individual and organization are two main components of human capital. According to Garavan et al., (2001) human capital has four characteristics namely, flexibility and adaptability, enhancement of individual competencies, the development of organizational competencies and individual employability. These characteristics can increase value and output of organization and individual (Noudhaug, 1998); higher performance of human capital leads to achieve competitive advantage (Iles et al., 1990); higher organizational commitment and improved organizational retention (Robertson et al., 1991). Collis and Montgomery (1995) explained that Human capital is more focused on creation of competitive advantage. From economic point, transaction cost is a main indication of firm's competency level that can be achieved by improving the uniqueness of human capital that helps the firm to invest its resource in more productive way and minimization of risk. Hence in order to compete in today's competitive environment organization have to improve proficiency of their employees. Human Resources Development (HRD) deals with the provision of learning, development and training prospect in order to improve effectiveness of individuals, team and organization performance. HRD helps to fulfill the needs of organization by providing up to date knowledge to employees (Torraco and Swanson, 1995). Along with meeting organizational needs HRD is held responsible for forecasting of the long term work related learning capacity (Watkins 1989). According to Kumpikaite (2004) the main aim of HRD is to train the employees, develop their skills in a way that help to achieve best possible results. HRD explains the competency development in people and formation of conditions (through public policy, programmers and other interventions) to help people apply these competencies for their own benefit and for their organization. Thus HRD focuses on the activities that boost the ability of all human being to acquire maximum output. HRD in a way show the relationship between individuals and society. HRD actually represent relationship between individuals and society regarding their abilities and capacities for the continuation of economic development.

2. Literature Review

A research was conducted by Saeedi et al (2012) to assess the relation between human capital & employee performance. Primary data through close ended questionnaire was collected from 98 employees of Karaj Municipality, India. Standard instruments were used for measuring human capital & employee performance variables. Data was analyzed

through correlation, Chi- Square method, Binomial tests & fuzzy topsis tests. Analysis showed that there was significant positive relation between human capital & employee performance & non-significant relation between the performance of the employees and their demographics. Analysis also showed that human capital increases the productivity of the employees. It was also concluded that employee performance is excelled when their qualification is enhanced, involvement in decision making is increased, their new ideas are supported & by posting them at the right places.

Josan (2013) has conducted research through content analysis to analyze the relationship between Human Capital & Organizational effectiveness. Organizational effectiveness is characterized by competitiveness, Innovation and excellence. Competitiveness depends on skills & human capital investment. Human capital investment is characterized by investing in education, health & training. She narrates that globalization has resulted in new economy named as knowledge economy, in which human capital variables- education & training- plays a significant role. Based on the existing literature it was analyzed that investment in human capital is directly proportional not only with the productivity of the organizations- trainings increase productivity by 16%; but also with profitability. An increase of over twice the size of the wages increased because of trainings was witnessed in materials. It was also concluded that in strategic triad- Business strategy, Human capital strategy and Human Resource Strategy – human capital strategy is a critical component.

Amin et al (2012) assessed the impact of human capital investment on the economic growth of Pakistan, through their research. Secondary data from 2000-2010 was collected from Economic Survey of Pakistan, State Bank of Pakistan & Labor Organization Annual Reports. Data was analyzed through correlation. Results yielded by the analyses showed that primary enrolment rates, higher education enrolment rates & life expectancy were positively related with economic growth. The study also showed that secondary enrolment rates were negatively related with economic growth.

Bontis and Serenko (2009) evaluated the antecedents and consequences of human capital model in the financial services industry of Canada. A close ended questionnaire was administered in 396 employees of credit unions. Data was analyzed through factor analysis and independent sample t-test. It was found that the knowledge management is the most important factor of organizational success, especially the sharing of knowledge coupled with effective training.

Salim et al (2004) conducted study in Egyptian software companies to assess the relation between human capital and organizational performance. A sample of 38 software companies, out of total 107, was selected; but only 16 companies responded. Data was collected through interviews and questionnaire. Correlation & regression were used for data analysis. It was concluded from analysis that performance of software firms was influenced by the intelligence, creative ideas, ambition and imitability of the employees.

Yahaya (2007) has conducted research to explore the effect of investment in human resources training and development on the efficiency of employees' in Nigerian Banks. This research based on descriptive survey. Data was collected through Training and Development Activities Scale (ATDAS) from three banks of Nigeria. A quantitative measure was used to in this research to evaluate employees' effectiveness. This was adopted from the measure published by the Institute for Intellectual Capital Research

(IICR), and approved by the Saratoga Institute. The study showed that Nigerian banks should provide the obligatory incentive to their employees, by effective training programs, compensation, and retirement benefits.

Marimuthu et al (2009) have conducted research to examine the relationship between human capital firm performances. Now-a- day's human capital has got more focus due to globalization and dispersion of job markets and also recessions in different economies. Through content analysis it was shown that all the countries are more concern about human capital development and they also allocate necessary time and efforts. It was concluded that human capital increase not only financial performance of the firms but also no-financial performance of the firms.

Katou (2008) has conducted research to assess the impact of HRM on the performance of manufacturing organizations in Greece. 'Structural equation modeling' methodology was used to conduct this research. Results came out from this study were that HRM policies such as resourcing and development, compensation and incentives are interrelated with organizational performance. By adopting the HRM policies, HRM skills, attitudes and behavior would be improved which in a way positively affect the organization performance.

Tayeh (2010) has accomplished research with an aim to determine the efficiency of human resources and excellence of services available for users in libraries especially in Al- Hussein Bin Talal University Library. It also articulate that how the personnel performance is affected by the different elements of human resources management (such as job planning, training, motivating) can affect the effectiveness of personnel performance. The research was based on sample questionnaires. The current study concluded that academic library administration should improve their performance and also showed that there is strong connection between key element (planning, training etc.) of human resources management and employees performance if these functions or elements work properly than leading to higher efficiency and creativity of Al- Hussein Bin Talal University Library.

Glade and Lvery (2003) have conducted research to determine the relationship between human resources management, working condition of organization and organization performance. It was observed through this research that there is significant connection between working condition, human resources practices and organization performance. This research concluded that the relation between HR practices & business performance is not explained by HR factor and their relation is partially mediated by work environment.

Khan (2010) has carried out an empirical study on HRM practices on organizational performance of oil and gas industry of Pakistan. Data was collected through self-reported questionnaires. Factor analysis and regression analysis was performed for identification and association of these practices. Results of this study have shown that HRM practices have positive relation with organizational performance.

Khera (2010) has conducted research to find the relation between HR practices and Employee productivity in India. As recently human resource management have become a main focus of many organization because they considered it as main factor that can help to achieve competitive advantage. Sampling frame was employees of foreign, public & private banks. The purpose of this study is to observe and compare the quality of human

resource practice in different commercial banks in India and also determine how human resource practices contribute to the productivity of employees. Convenience sampling technique and Duncan's mean test have been used to evaluate and analyze the data. Findings of this study have shown that HRM policies can affect the HRM outcomes such as behavior, attitudes, skills which in a way improve the organizational performance hence relationship between HRM policies and organizational performance influenced through HRM outcomes.

Oforegbunam and Okorafor (2010) have carried out research on effects of human capital development on the performance of small and medium scaled enterprises in the southeastern region of Nigeria. On the job training, educational institutions and participation in training program by employees were used as main factors for human development capacity. Likert 5 point scale was used for the quantification of data. Multiple regression tool used in explore the effects of human capacity developments on the performance. Results of this research show that with the increase of human capital development performance of SME's improved and human capital in SME can be enhanced with 'on the job training' programs.

Magoutas et al (2009) have carried out research to assess the relation between human capital and growth rate of firm performance. In today's modern environment, human capital plays a vital role for an organization to get the competitive advantages. The database used in this research is provided by ICAP Hellas which gathers balance sheet and demographic data for SA and Ltd companies in Greece. They have concluded that like other variables such as firm size, physical investment and effectiveness etc., human capital has also optimistic and considerable impact on firm's growth rate.

2.1 Gap in the knowledge

Many studies have been conducted to find the relation between Human Capital and organizational performance; most of them are conducted in foreign countries. Only two studies were conducted in Pakistan; one was based on secondary data, evaluating impact of human capital investment on economic growth; and other was based on primary data, which has assessed the impact of HRM practices on organizational performance of oil and gas industry of Pakistan. None of these two studies have exactly assessed the relation between human capital and organizational performance. Therefore first hypothesis was inductively designed to examine the relation between human capital and organizational performance. i.e.

- **H₁**: Human capital developments will increase the organization performance.

Here non-financial organizational performance i.e., operational performance is used to assess the organizational performance. There are two parameters of this performance, one is its employee satisfaction and other is its customers' satisfaction. Therefore hypothesis 1 has two parts:

- **H_{1a}**: Human capital variable has positive relation with employee satisfaction.
- **H_{1b}**: Human capital variable has positive relation with customer satisfaction.

H₂ was designed intuitively to assess the level of provision of human capital development variable to both of genders. No any previous study has assessed this provision. i.e.

- **H₂**: Investment in human capital variable is more for males than for females.

3. Problem definition

Reluctance of the organization towards the human capital development will adversely affect not only the employees but also the organization.

4. Objectives

- To find the relation between human capital development and employee satisfaction.
- To find the impact of human capital development on organization performance.

5. Scope

Human capital development was assessed at Isra University, Hyderabad and Liaqat University of Medical & Health Sciences (LUMHS), Jamshoro; in different faculties i.e. medical; management and engineering. Parameters of the study were Education, Trainings, knowledge and Skills provided to the employees. This study also measured the relation of human capital development on employees' satisfaction, customer satisfaction and eventually on organization's performance.

6. Research Methodology

6.1 Population

This study has finite population. The "content" of population was all faculty members of three faculties, "Extent" was Isra & LUMHS University, & "Time" was Feb 2012.

6.2 Sampling

Simple random probability sampling method was used for sample selection.

6.3 Sample Size

Total sample size is 112, which was taken from the population of around 2,000 faculty members of both universities. According to Frankfort-Nachmias & Nachmias (1992) sample size must be 5% of the population; whereas the sample size for this study was more than 5% of the population.

It was assumed that the Standard Error was .05 i.e., $S.E = .05$; and square of mean standard deviation of population was 0.20 i.e s^2 . Total population of the study was 2,000.

$$S.E = s / \sqrt{n}$$

$$n = s^2 / S.E^2$$

Population was 2,000 and s^2 was set at 0.20 and S.E was 0.05

$$n = 0.20 / 0.0025$$

$$n = 80$$

The required samples were 80, but we administer 160 questionnaires and got 112 questionnaires, thus a response rate of 70%.

6.4 Data Collection

Primary data was used for this research. Instrument used for the collection of primary data was close ended questionnaire.

6.5 Variable of the Questionnaire

Two categories of the variables were measured through questionnaire:

Categorical Variables: Age, Gender, Degree, Designation.

Continuous Variables: Human Capital Development, Employee Satisfaction, Customer Satisfaction, & Organizational Performance.

6.6 Levels of Measurement

Categorical Variables: Nominal Scale

Continuous Variables: Ordinal Scale

6.7 Instruments

- Human Capital Development scale is designed by us whose Reliability tests are conducted; the croanbach Alpha value of that scale is .90.
- Employee satisfaction is measured through an 8-item scale developed by Nick Foster (1999) & later on used by Channar, Zahid (2010).
- Customer satisfaction scale was adopted from the instrument designed by Oliver (1997), latter on used by Bloemer en De Reuter (1998).
- Perceived Organizational Performance was measured by the scale designed by Svensson and Wood (2006), later on used by Masood (2010).

6.7.1 Reliability of Human Capital Development Scale

This scale was designed by the researchers; therefore it was necessary to assess its \reliability before its use. Reliability was measured through SPSS using Croanbach Alpha.

Scale: Human Capital Development

Table 1: Cases Summary

	N	%
Cases Valid	112	100.0
Excluded	0	.0
Total	112	100

Table 2: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.904	.903	16

The reliability test shows that this instrument is robust and can be used for measuring the Human Capital Development.

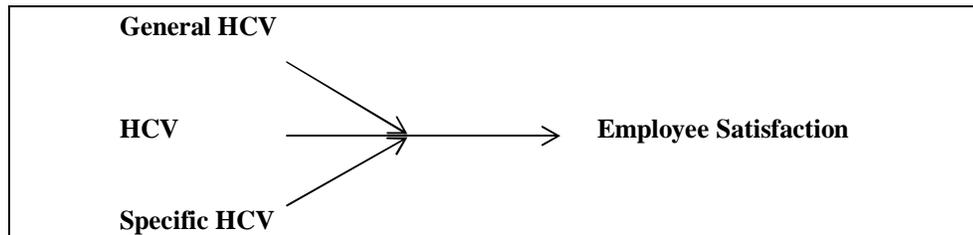
6.7.2 Validity of the questionnaire

For assessing content validity, face validity variety was used. For conducting face validity all the questions which were used in the questionnaire were reviewed and

examined by the committee of the Director research, Prof. Dr. Hammadullah Qazi; Chairperson department of management sciences, Prof. Dr. Asandas; and Dr Zahid ali Channar. It was examined that questions measured different aspects of the Human Capital Development and Employee satisfaction. For measuring HCD both aspects – general and specific - aspects were covered in the questions. General aspect included education and training and specific aspect included experience and assignments. Committee agreed that every question was related with the HCD and Employee Satisfaction.

Empirical validity of the questionnaire was assessed through prediction validity. The correlation analysis has validated that when HCV increases employee satisfaction also increases. This proves the empirical validity of the questionnaire.

For assessing construct validity a measuring instrument is related to a general theoretical framework. Theoretical assumption which was made for this study was:



This predicted relation was confirmed empirically, which proves that instrument has construct validity.

6.8 Data Analysis

First hypothesis was tested through Independent Samples Test. This technique is applied when data is normally distributed. Normally test for the variable “Human capital” was conducted through SPSS. The Kolmogorov value was .15 (as shown in table 3), which was more than .05 therefore data was normally distributed. For this test one categorical (having two categories) & one continuous variable is required. In this study categorical variable is “gender” having two categories- Male & Female; & one continuous variable is Human Capital Development.

Table 3: Normality Test

	Kolmogorov- Smirnov			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Thcapital	.087	111	.15	.893	111	.13

Table 4: Group Statistics

Gender	N	Mean	Std. Deviation	Std. Error Mean
Thcapital				
Male	58	53.851	11.012	2.119
Female	54	56.500	9.901	1.87

Table 5: Independent Sample T-test

	Levene's Test		t-test for Equality of Means						
	F	Sig	t	df	Sig (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval	
								Lower	Upper
Thcapital Equal Variance Assumed	.412	.524	-.938	53	.352	-2.64815	2.8217E0	-8.30E0	3.01148
Thcapital Equal Variance not Assumed			-.937	51.9	.353	-2.64815	2.82725E0	8.3216E0	3.02530

Analysis in table 4 showed that mean score of males is 53.851 and females are 56.500 on human capital development scale, with. P = 0.352. As the p value is more than .05 therefore we accept null hypothesis and reject alternative hypothesis.

- **H₀**: Investment in human capital variable is not more for males than for females.
- **H₁**: Investment in human capital variable is more for males than for females.

Second Hypothesis is tested through correlation. Two continuous variables used are: Human Capital Development & Employee Satisfaction.

Third Hypothesis is also tested through correlation. Two continuous variables used here are: Human Capital Development & Customer Satisfaction.

Fourth Hypothesis will be the consequence of second & third hypothesis.

Table 6: Correlation

	Thcapital	TCSatisfaction	TESatisfaction
Thcapital	1		
Pearson Correlation		.644	.724
Sig. (2-tailed)		.000	.000
N	112	112	112
TCSatisfaction	.644	1	
Pearson Correlation			.794
Sig. (2-tailed)		.000	.000
N	112	112	112
TESatisfaction	.724		1
Pearson Correlation		.794	
Sig. (2-tailed)		.000	.000
N	112	112	112

Results yielded by this technique show that human capita development has positive relation with Employee satisfaction; the strength of the relation is 0.644 which is quite strong. Moreover this relation is significant i.e. $P=0.000(P < .05)$. These conclusions lead to the rejection of null hypothesis and acceptance of alternative hypothesis.

- **H₀**: Human capital variable has no any relation with employee satisfaction.
- **H₁**: Human capital variable has positive relation with employee satisfaction.

Third hypothesis is also verified on the basis of above analyses. Results show that human capital variable & customer satisfaction are significantly positively related with each other, with a strength of 0.72, $P = 0.000$. On the basis of these results we will again reject null hypothesis and accept alternative hypothesis.

- **H₀**: Human capital variable has no relation with customer satisfaction.
- **H₁**: Human capital variable has positive relation with customer satisfaction.

Fourth hypothesis is the consequence of second and third hypothesis. Here organizational performance is measured by nonfinancial techniques. Through these techniques if the employees and customers are satisfied from the organization then organizations is performing well. It has been proved from second and third hypotheses that both employees and customers are satisfied from the organization, hence we accept alternative hypothesis and reject null hypothesis.

- **H₀**: Human capital developments will not increase the organization performance.
- **H₁**: Human capital developments will increase the organization performance.

7. Findings & Conclusions

Results yielded by the analyses showed that males are not preferred over females in the provision of the chances of their human capital development variable. Both are given almost equal chances of human capital development (trainings, education and assignments). The results have also confirmed that when employees are provided with ample chance of human capital development they become satisfied from the organizations, when they become satisfied from the organization they will automatically perform better in the organization which will lead to the satisfaction of the customers of the organizations. It is universally accepted that when employees and customers are satisfied from the organization, it means organization is performing well. Findings of this research show that employee and customers are satisfied from the organization, therefore we conclude that organization is performing well. Thus research showed that if organizations provide ample chances of human capital development that will increase the performance of the organizations.

8. Usefulness of the Study

This topic will have implications for HRM managers, Training & Development Department, Employees, Strategic HRM managers & Owners of the Business.

9. Future Study directions

In future research can be conducted on following topics:

- i. Scope of this study covers only faculty members, in future research can be conducted on non-faculty members.
- ii. A comparative study can be conducted between public & private universities.
- iii. Study can be conducted in manufacturing companies.
- iv. A Study can be conducted to find the relation between human capital and financial performance of the organization.

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