

# STUDYING THE ORGANIZATIONAL LEARNING AND ORGANIZATIONAL EFFECTIVENESS AMONG THE CELLULAR COMPANIES OF PAKISTAN

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## Abstract

*This study has attempted to examine the association among organizational learning and effectiveness. The theoretical model of this work has been conceived in light of the two posed research questions that are (a) To what degree can organizational learning be related with effectiveness and (b) Does commitment mediate the association of organizational learning and effectiveness? Five (05) Cellular companies of Pakistan were chosen as population. Simple random sampling technique was used to collect the data among a sample of 500 middle managers. The relationships of variables were tested using Andrew Hayes (2014) Process Regression Method. The results indicated that the organizational learning has a significant indirect effect on the dependent variable i.e. organizational effectiveness, through the mediation effect of organizational commitment.*

**Keywords:** Organizational Learning, Organizational Commitment, Organizational Effectiveness, Mediation Effect.

**JEL Classification:** L860

## Introduction

The twenty first century is witness to significant technological advancement whereby business processes, contexts and markets have changed and are changing globally. Due to the availability of products and services at customers' doorsteps competition among businesses is at its peak and it has become very hard to survive without efficiency and effectiveness. Needs, wants and demands of customers are growing at a pace that has never been seen before, which is becoming alarming for the firms. Hence, organizations have to learn to undertake continuous innovation to create value and attract customers.

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Researchers have also acknowledged learning as a core element in enabling innovation to take place in organizations (Bertugalia et al., 1997; Marsicks, 2003; Wang et al., 2005; Skerlavaj, 2007; Maurer & Weiss, 2010; Hu, 2014; Tang & Yeh, 2015; Schuchmann & Seufert, 2015; Fang, Li & Lu, 2016; Zhao, Li, & Liu, 2016).

Numerous research studies have proved that learning and commitment influence organizational effectiveness. Thus, learning and organizational commitment are two of the most crucial strategic approaches for enhancing organizational effectiveness (Hult, Hurkey & Knight, 2004; Blumentritt & Danis, 2006; Hsu, 2007; Lin et al., 2008; Man & Wafa, 2009; Rhee et al., 2010; Mundra et al., 2011; Ramos et al., 2012; Ganter & Hecker, 2013; Kiani & Gillani, 2014; Forsman., 2015; Hinterhuber et al., 2016). It is pertinent to mention that negligible research studies have attempted to explore the nature of relationship of the two key study variables of organizational learning and organizational effectiveness, therefore there is further need to explore the hidden underlying factor that affects the nature of relationship between the two variables (Said, 2016; Ugurlu & Kurt, 2016). This arises the need to further discover the relationship of organizational learning and firm's effectiveness keeping in view the different segments, sectors, organizational settings etc. for further validation of possible association (Ugurlu & Kurt, 2016). This serves as imminent gap in the existing literature. In addition to this gap, it is also crucial to state that negligible worthy work have been conducted so far to investigate the effect of organizational learning on a firm's effectiveness with mediation of organizational commitment.

The telecom sector is one of the few sectors in Pakistan that survived the recent global recession. Expanding usage of telecom and growing technology adoption in the daily life of the public has made the telecom sector as one of the most important sectors within the communication industry. The telecom sector has recently introduced numerous innovative services including the mobile enabled payment mechanism that has opened up new avenues in the emerging markets. It involves the introduction of many financial services such as bill payments, e-commerce, money transfers, and other basic banking activities. This has fueled intense competition among the market players.

PTA's annual report 2016 revealed some interesting facts with regard to the advances in telecom technology, growth in the data market with investments in 3G and 4G services, increase in broadband subscriptions and realignment of market shares of cellular companies. On the one hand, the PTA Annual Report 2016 indicated that both cellular mobile subscriptions and mobile penetration have shown significant growth year on year, after suffering a decline in 2015. Cellular mobile market shares of the two market leaders Mobilink/ PMCL and Telenor remained at 29% in 2016, with CM Pak gleaning some share off the smaller players. The approval of the merger of PMCL and Warid Telecom (8% market share) by PTA in 2016, would give the two companies an edge over Telenor. It is however notable that CM Pak was able to secure a strong position in mobile broadband subscribers share (23%), remaining only slightly behind Mobilink/PMCL and Telenor (PTA, 2016). It would be appropriate to state that in telecom sector of Pakistan, sustaining major market share has now become

dare for the market players knowingly that survival lies closely interlinked with competitive advantage in the vibrant Pakistan market. This is also evident from the literature that learning is the key essential element for gaining organizational effectiveness (Armstrong & Foley, 2003; Vijande et al., 2012; Alegre & Chiva, 2013; Kiani & Gillani, 2014; Sung, & Choi, 2014; Vargas, 2015; Fernandez-Mesa & Alegre, 2015; Husain, Dayan & Di Benedetto, 2016; Sheng & Chien, 2016).

Thus, keeping in view the mentioned literature gap and the growing vibrant market dynamics of the Pakistan's telecom sector this study aims to discover relationship among three major study variables of organizational learning, commitment and effectiveness, specifically in cultural context of Pakistan's telecom industry. The specific research statement of this work is:

To further explore the possible factors influencing the association between the organizational learning and organizational effectiveness among the cellular companies of Pakistan?.

The importance and contribution of this study will recommend the telecom sector of Pakistan with those critical success factors that could help them to take strategic and proactive measures for the attainment of organizational effectiveness in the current competitive dynamics. Present literature contains several conceptual interpretations of the research variables. This study will validate the conceptualization of the key study variables of organizational learning, organizational effectiveness and organizational commitment and explore the nature of relationship among variables in the present complex dynamics of cellular firms of Pakistan. Therefore, this work attempts to contribute by reviewing the existing theories and validate in cultural context of Pakistan. This evidences the contribution of this work that some of the conceptual interpretations are re-tested within the cultural context of Pakistan.

This study discourse the following questions;

- a) To what degree can organizational organizational learning be related with organizational effectiveness?
- b) To what extent organizational commitment mediates between organizational learning and organizational effectiveness?

### **Literature Review**

In today's complex business world individuals in business organization badly need to help each other for the achievement of organizational goals. Existing systems, infrastructures and process-flows of organizations must be designed to enhance speedy flow of knowledge which can further minimize the dependence of management through teamwork. Team work can flourish knowledge transfer among different members. De Geus (1988) is of the view that the greatest learning

can be seen within teams that accept the Aristotelian concept that the whole is greater than the sum of its parts. Open and effective communication patterns are being developed through team learning within the organization which further enhances the will of member to promote and share their knowledge for achieving good results. Team learning can be elaborated into three dimensions (a) Innovative and coordinated action (b) Collective potential of team and (c) Role of team members (Senge, 2006).

In addition to the team learning it is believed that employees of organization need to take calculated risk otherwise they will not be able to tackle with uncertainties of highly competitive business environments (Goh, 1997). It is the responsibility of managers to ensure that employees are authorized enough to accomplish their tasks and their leaders shall provide them the requisite directions and support for the accomplishment of goals (Parek, 2003).

Information is made readily available to the concerns for decision making through learning processes within the organization later on this information is shared within and outside organization's expert networks. Garvin et al. (2008) is further of the view that learning organizations learn from external factors such as suppliers, clients, customers and industry stakeholders which form the 'organizations adopted information'. Thus, hypothesis is as follows:

*H1: Organizational learning positively impacts on organizational effectiveness.*

The concept of organizational commitment evolved as a focus of interest in the researches of the past decades (Clugston, 2000). Wilson (2005) argued that empowering your employees by delegating the authority may be productive if employees are known with the fact that support of managers may be available. It is obvious that things cannot be made effective without the support of managers. Simonsen (1997) emphasize that this positive support of management reflects commitment and it is a powerful source to bring change in the behaviors of employees and ensure change in organization. Armstrong (2006) has presented three aspects of organizational commitment:

- i) desire of an employee to continue membership with the organization.
- (ii) belief of an employee to acceptance the values and goals of organization and
- (iii) willingness of employees to put effort on behalf of their organization.

Thus, it can be said that organizational commitment is a commitment of an employee targeted towards the organization.

Moreover, studies also confirm that organization commitment can further be dimensionalized into two other dimensions of commitment with sacrifice and commitment with alternatives (Joo, 2007). Published literature suggests that for the diversified measurement of organizational commitment, three approaches merit attention i.e. (i) calculative commitment (ii) antecedent commitment and (iii) moral commitment (Ferris & Aranya, 1983). The following research

hypothesis is developed in light of the above opinion of experts:

*H2: Organizational learning is positively related to organizational commitment.*

The latent construct of effectiveness has been defined differently by different researchers in their studies. Bernard (1938) is considered to be one of the initial foundation setters for the construct in a way that accomplishment of organizational goals was given as a baseline to measure the effectiveness of organization. Similarly, Cameron (1978) has proposed nine dimensions that help define organizational effectiveness. However, Taylor and Bowers (1972) are considered as major contributors in terms of operationalization of latent construct as they categorized the construct into four dimensions i.e. (i) organizational climate (ii) managerial leadership (iii) peer relationships (iv) satisfaction. Survey of Organization (SOO) instruments given by Taylor and Bower are commonly used measures for measurement of construct in quantitative studies to assess organization, benchmarking, diagnosis and employee development (Cummings & Worley, 2005).

Three dimensional conceptual model has been given by Dikmen which emphasize on the effectiveness of organization that includes the means of effectiveness, groups effecting the external environment and the external forces of macro-environment. It is argued by the researchers that effectiveness of an organization can be enhanced by enhancing the commitment of the organization (Dikmen, Birgonul & Kiziltas, 2005). It can be seen that organizational effectiveness is a broader aspect which covers organizational climate, managerial leadership, profitable business transactions, satisfaction and capability to obtain more resources. In view of the existing literature, the following research hypothesis is formulated:

*H3: Organizational commitment positively impacts on organizational effectiveness.*

Numerous previous researches have also stated that there exists some association between these study variables (Ahmad & Bakar, 2003; Cho & Kwon, 2005; Atak, 2011; Agahei et al., 2012). Therefore, this study intends to check the mediation effect of organizational commitment between learning and effectiveness. In the light of above, Hypothesis 4 is as under:

*H4: Organizational commitment mediates the association of organizational learning and organizational effectiveness.*

### **Research Methodology**

Existing research instruments of learning are adopted from the existing theoretical work of Marsick and Watkins (2003) and Hafford (2014). Similarly, the research instruments of commitment and effectiveness are also adopted from the previously published theoretical work of Mowday et al. (1999) and Escriing et al. (2005).

Cellular companies of Pakistan were chosen as population of this study because of their intensely competitive environment, and the intense tug-of-war for market share. The telecom sector is

also fast becoming a major contributor towards Pakistan's economic development. Furthermore, it is also facing a high level of market competition. Middle managers are the unit of analysis. A total of 500 questionnaires were circulated among middle managers of cellular companies through a random sampling method.

The overall response rate was 58.40 percent. In order to ensure the accuracy in survey process, the response biasness test was conducted. Non response bias may be checked through comparing the characteristics of participants who returned the completed survey with the attributes of those participants who did not returned the completed survey. Table 01 shows the results of response biasness test and it was found that the three demographic attributes (gender, age and education) of participants and non-respondents are statistically non – significant with the p-value (of .939, .921 and .613 respectively) greater than 0.05 with the t-value also less than 0.2. Thus, it reflects that there is no statistically significant difference exists among the demographic characteristics (gender, age and education) of respondents and non-respondent participants with no or negligible biasness in responses.

Table 1

*Mean Differences of Characteristics of Respondents vs. Non-Respondents*

Variable		N	Mean	t	p - value	Mean difference
Gender	Respondent	292	2.15	-.077	.939	-.019
	Non - Respondent	208	2.17			
Age	Respondent	292	2.91	-.064	.921	-.016
	Non - Respondent	208	2.93			
Education	Respondent	292	1.68	.011	.613	.003
	Non - Respondent	208	1.68			

#### Data Analysis

##### *Descriptive Statistics & Reliability Analysis*

Table 02 shows the results of reliability analysis and descriptive statistics of the research measures of the study variables. The results show that the values of Cronbach alpha of all research measures fall within the acceptable range.

##### *Discriminate Validity Analysis*

Sekaran (2003) explained discriminate validity analysis as a form of analysis that depicts all research measures of the conceptual interpretation may be different from each other and remain

clearly distinguishable. Fornell (2010) explained that the discriminate validity among the research measures can be computed by comparing the average variance extracted (AVE) of the constructs with the shared variance with other constructs. It was further explained that the square root of average variance extracted ( $\sqrt{\text{AVE}}$ ) should be greater than the correlation of the constructs. Table 03 presents the results of the discriminate validity analysis. It is found that the all research measures of the study constructs possess the higher value of square root of average variance extracted thus, it discriminates better the shared variance between the latent variables.

Table 2  
*Descriptive Statistics and Reliability Analysis*

Variable	Content/Sub-Scale	Mean	S.D	Cronbach alpha
Organizational Learning	Continuous learning	2.92	0.990	0.94
	Inquiry & dialogue	2.87	0.931	0.92
	Team learning and collaboration	2.98	0.916	0.88
	System creation	3.03	0.953	0.87
	People empowerment	2.99	0.985	0.89
	System connection	2.97	0.963	0.82
Commitment	Willingness to put effort on organizational behalf	3.03	0.983	0.76
	Strong belief on organizational goals	2.99	0.964	0.79
	Strong desire to maintain membership	3.09	0.994	0.84
	Financial Performance	2.98	0.750	0.93
Organizational Effectiveness	Customer Satisfaction	3.01	0.853	0.91
	Reputation	2.99	0.686	0.90
	Brand Image	2.99	0.985	0.93
	Innovative Performance	2.97	0.963	0.95
	Market Share	2.87	0.93	0.89

Table 3  
*AVE Indices for discriminate validity*

Constructs	AVE	$\sqrt{\text{AVE}}$	1	2	3
(1) Organizational learning	0.422	.649	.649		
(2) Organizational commitment	0.443	.665	.581	.665	
(3) Organizational effectiveness	0.530	.728	.381	.467	.728

Hair et al. (2010) explained that the univariate normality is the most basic assumption of Regression Analysis that basically comprises of the two basic of Kolmogorov-Smirnov and

Shapiro-Wilk tests. These tests compute the differences between the significance level (dispersion of data) of the constructs with the expected normal population. The authors have further explained that the research study that comprises of the sample frame of fifty (50) or less may use the statistics of Shapiro-Wilk statistical test while on the other hand, the research study that comprises of bigger sample frame (of more than 50) may consider the statistics of Kolmogorov-Smirnov statistical test.

Table 4

*Univariate Normality of the Constructs*

Constructs	Mean	SD	Kolmogorov - Smirnov		
			Statistics	df	P - value
Organizational learning	2.95	.441	.002	291	.053
Organizational commitment	2.97	.525	.047	291	.074
Organizational effectiveness	2.88	.624	.033	291	.200

Table 04 depicts the results of univariate normality of constructs for this study. Results shows that gathered data of three constructs are normally distributed with the significant p-values of .002, .047 and the .033 with the p-values of .053, .074 and .200 (greater than the 0.05) that are found to be satisfactory.

*Hypothesis Testing & Mediation Analysis*

Regression based on Andrew Hayes (2014) procedure has been applied for the hypothesis testing. Table 5 shows the result of regression analysis, relating organizational effectiveness and organizational learning. The results show that 59.1 % of the criterion variable i.e. organizational effectiveness is being explained by learning, with significant p-value .001. Thus, it reveals that there exists a positive and significant association between predictor and criterion variables, thus testifying that Hypothesis 1 is correct.

Table 5

*Regressing organizational learning and organizational effectiveness*

Variable	Coefficient	SE	t	p
Constant	.176	.180		
Organizational learning	.952	.059	16.166	.001
R <sup>2</sup> = 0.591; F (1, 281) = 261.32; p = 0.001				



Table 06 illustrates the result of Andrew Hayes (2014) regression-based mediation. The results depict that 56.7 % of variance is being elucidated by organizational learning having p-value .001 in organizational effectiveness. Furthermore, it is also found that the estimate of confidence (t-value) is at  $15.41 > 02$ . Thus, it shows significant and positive association between criterion and the mediating variable, confirming that the Hypothesis 2 is correct.

Table 6  
*Model Coefficients for the Research Variables of Study*

Antecedent	Organizational Commitment					Organizational Effectiveness			
	Coefficient	S.E	t	p		Coefficient	S.E	t	p
Constant	$i_1$ -.1192	.2101	-.568	.001		$i^2$ .197	.178	1.12	.001
Learning	$\alpha$ 1.056	0.069	15.41	.001		$c'$ .767	.088	8.72	.001
Organizational commitment	--	--	--	--		$B$ .176	.063	2.81	.005
	$R^2 = 0.567,$ $F(1, 281) = 23.725$ $p = 0.001$					$R^2 = 0.608,$ $F(2, 280) = 139.57$ $p = 0.001$			

The result also summarizes that 60.8 % of variance on organizational effectiveness is being explained by both criterion and mediation variable. Furthermore, it is also evident that the association between the organizational commitment and effectiveness is positively significant, having p-value and t value of .005 &  $2.81 > 2$  with  $\beta = 0.176$  at 95 percent confidence interval. Therefore, it evidences about hypothesis 3 is correct.

The associations among variables can be seen in two OLS regression models are follows:

$$\begin{aligned} \text{Mediating Variable} &= -.1192 + 1.056 \text{ Independent Variable} \\ \text{Organizational Commitment} &= -.1192 + 1.056 \text{ Organizational learning} \end{aligned}$$

$$\begin{aligned} \text{Dependent} &= 0.197 + 0.767 \text{ Independent} + .176 \text{ Mediating} \\ \text{Organizational} &= 0.197 + 0.767 \text{ Organizational} + 0.176 \text{ Organizational} \\ \text{Effectiveness} &\quad \text{Learning} \quad \text{Commitment} \end{aligned}$$

As described in Table 07, indirect effect i.e. 0.186 can be seen which means that two individual cellular companies that differ by one unit in learning are found to differ by 0.186 units in

contributing effectiveness. By same token those with relatively more learning incline to achieve more commitment to the organization, which results into greater firm effectiveness. The results also show that this indirect effect is statistically different from zero at 95 percent confidence interval.

Table 7

*Total Effect Model of Regression Analysis*

Total Effect				Direct Effect				Indirect Effect	
Effect	SE	T	P	Effect	SE	t	P	Effect	Boot SE
.953	.059	16.17	.081	.767	.088	8.72	.061	.186	.085

The direct effect of learning  $c' = 0.767$  is the estimated difference in organizational effectiveness between two individuals in organizations experiencing the same level of commitment to the organization but differing by one unit in terms of practicing their organizational learning. The coefficient is positive, showing that the individuals holding more learning produce equally higher commitment, and enhance 0.767 units higher organizational effectiveness. However, the direct effect is statistically insignificant and not statistically different from zero i.e. t-value  $(8.72) > 02$  and p-value  $(0.061) > 0.05$ . although the value of total effect coefficient is available however we can further be confirmed by adding coefficients of both direct and indirect effects,  $c = (0.767 + 0.186) = 0.953$ . This shows that two individuals of organizations that differ by one unit in learning are assumed to differ by 0.953 units in contributing to organizational effectiveness. Results reflect that members having higher learning produce higher organizational effectiveness.

### Findings & Conclusion

The findings of this research work depict that organizational learning is considered as a key precursor element for commitment. The results of data analysis showed that the mediating variable organizational commitment positively mediates organizational learning and organizational effectiveness, and the three variables possess positive association with each other. Thus, it further paves the way to explore the other hidden variables that also affect the association of predictor and criterion variables. The results, findings and discussion made in this research work further yield the following recommendations and managerial implications for the cellular companies. Firstly, practitioners of cellular companies can utilize the research findings to affirm the organizational learning and extent of commitment their organization is holding. This will help the practitioners of cellular companies to have a clear snapshot of the study variables within their organization. It was also found that promoting team learning and collaboration encourages the learning among members of the organization. Thus, cross-functional or cross-departmental teams should be formed and encouraged to have interactive learning sessions, as the findings of this research suggests that teamwork serves as a good source of learning among all members of an organization and promotes healthy flow of

information across different levels in a company. In addition, the findings of this research also suggest that giving the employees of cellular company's greater authority and empowerment would positively impact their work performance, and turn them into more committed employees. Such employees would be positively motivated to exert full efforts towards the attainment of firm's objectives, and would possess a strong aspiration to continue their affiliation with their respective organizations.

### *Future Research Implications*

This work paves the way for future researches in the area. It also provides the basis for further exploration of other variables associations affecting the association among the criterion variable learning and predictor variable effectiveness. It is recommended that future researches may focus on exploring other critical factors that impact the relationship, and other interconnected processes. Furthermore, this research study is one industry analysis whereas the conceptual interpretation of learning capabilities and organizational effectiveness can also be validated and measured in the cultural context of Pakistan, by conducting similar research work in other industries of IT, health, education in companies operating in the public and private sectors. In addition, further research work can also be carried out to determine the association of study variables in different manners, by using the other different statistical methods such as structural equation model or conditional process analysis.

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