

## KNOWLEDGE MANAGEMENT TOWARDS COMPETITIVE ADVANTAGE: A CASE STUDY OF TELECOM INDUSTRY

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### ABSTRACT

The purpose of this study is to find out the basic components which can be obtained from Knowledge Management (KM) as pre-requisites for Competitive Advantage (CA) in the telecommunication industry. With the aim to explore the dynamic and competitive nature of telecom industry, the research was conducted with the help of an extensive review of Pakistan's telecom industry followed by the questionnaire survey from 300 respondents, having at least engineering degree from five capital cities. Correlation and regression analysis in SPSS was used for reaching the conclusion. The results indicate that KM has strong relationships with Economic Growth (EG), Innovations/Developments (I/D), Individual Capabilities (IC) and Organizational Capabilities (OC). And they have a strong correlation with CA. All of the assumed hypotheses were supported except the relationship between EG and CA was rejected in regression analysis. The study adds a noteworthy idea to the body of knowledge regarding KM and CA in the telecom industry. The variable used in this research also adds a unique combination through which CA can be obtained and KM can be used. The paper has strong application in the telecom industry's top and middle management for achieving CA. Although the study was conducted in the telecom sector, yet it claims for its application in other industries as well. CA in any industry is not an easy task to be achieved so easily. There may have many other factors that can contribute a lot but due to the limited scope of the study, they were not included. They can be studied and added to the work of this paper in the future.

**Keywords:** Knowledge Management, the Competitive advantage, Individual Capabilities, Economic Growth and Innovations/Developments.

### INTRODUCTION

Telecommunication Organizations need to have some specific features in order to maintain or get a better position in the modern telecommunication market (Durango, Colo., 2015). The dynamic nature

of the world for needs and demands makes it even more complex (Global Telecommunications study, 2017). One of the core elements through which telecommunication organizations can positively face

the situation is their competitive advantage (Telecommunications Industry Outlook -2017). To make it self-suitable for serving people and to achieve its strategic goals, organizations should have to manage their knowledge and information in a manner to give it better competencies than their rivals. Pakistan's Telecommunication market consists of cellular communication services, telephony, and broadband. Its infrastructure and services are upgrading dramatically and once reached the world's third fast-growing Telecommunication market in 2008. Due to the development of the deregulation policy of Pakistan, the sector welcomed foreign investors and provides an equal investment opportunity for all.

With the entrance of more investors, a race began among them to lead the market. For this purpose, each company or telecom service provider offered different types of packages and services to the people. The competition among them is still in process. If one organization has economically better rates for its consumers, another has quality in its offering or a large coverage area or network. Statistics of Pakistan's mobile industry are given in the statistics provided by PTA (PTA, Telecom Indicators, 2024).

The race of the telecommunication organization is an ongoing process and will continue in time to come. There will be organizations that will lose their strength in the market as WARID, and there will be an organization that will lead the market (Telecom Industry 2018). This research tries to find out the factors which help attain competitive advantage (CA) in the telecommunication market.

The competitive advantage of a telecommunication organization is one of the core factors having a strong impact on the organization's routine operations and long-term planning. It is perhaps the most important thing due to which a technological firm can achieve its strategic vision. Through CA a firm can get a better market position than its competitors and plan more effectively than rivals (Telecom Industry 2018).

Now the question is what gives a firm or organization CA over other firms in a market? How can a company achieve it, when there are equal opportunities for all firms? The answer is through proper Knowledge Management. KM gives a company CA through modern innovations, existing

product development, etc. (PTA, Telecom Indicators, 2024) showing the 3G/4G statistics of the Pakistani industry. This study explains the parameters which make the way of getting CA. These are innovations, individual skills and capabilities, organizational capabilities, and economic growth or financial position.

## 2. Literature Review:

### 2.1 Knowledge Management

Modern markets are getting more complex day by day due to the rapid growth of products and services. It solely depends upon the organization's knowledge to fulfill the market demand and compete with competitors (Girard, John, 2015). This shows the dependence on competitive advantage over KM (Grant, R.M. 1996). Knowledge itself does not make any sense; it needs to be managed in a more attractive and efficient style than competitors of an organization to ensure its competitive edge and position in the market (Pfeffer, J. 1998). KM is a tool for achieving customer relationships (Sayed Fayaz Ahmad, 2015), it also gives information about the competitors (Sayed Fayaz Ahmad, 2015).

Knowledge can be broadly divided into two main categories i. e Tacit Knowledge and Explicit Knowledge. None of the above can be advantageous for the organization until it applies to a specific task, product, or process. Therefore knowledge must be used to enhance employees' competencies and skills (Nordhaug, O. 1994). Some of the most important competencies are economic assets, skills need for operating a technological device or machinery, and organizational capabilities (Dosi, G. 1988). These capabilities are the base of organizational CA (Leonard-Barton, D. 1992). Core capabilities are defined as the capabilities which are superior to those of competitors and are unique (Leonard-Barton, D. L. 1995). We argue that CA can be achieved only through the effective management of knowledge and information. Knowledge in a firm, if created, modified, and used effectively will give the firm a better and strong position than its competitors.

### 2.2 Innovations

Knowledge management is defined as "the creation of knowledge which is related to a specific task, its

distribution in the organization purposely, and its use in the creation of products and services (Girard, John, 2015). It can also be used in the creation of systems” (Nonaka, I., & Takeuchi, H. 1995). Changes are essential for every organization for the maintenance of stability, flexibility, and smooth running of the system. This is possible only with the use of knowledge and its management, and its use in a regular disorganizing process (Johannessen, J.-A. 1994). Companies that attempt to capture a better position in the market and want a monopoly need to make innovations regularly. This is possible only if they manage their knowledge in a monopolistic manner. In other words, firms that are market-oriented and are in the mouth of tough competition are required to make innovations regularly (Schumpeter, J. A. 1928). Many researchers see innovations as incremental and radical (Freeman, C. C. 1992) (Mokyr, J. 1990). Innovations are divided into two main types: the first one is product innovation and the second one is process innovation (Teece, D. J. 1989). Process innovations are further divided into Organizational and Technology.

An organization’s innovation is about the new market and inside the company organization. Technology innovation is about instruments, the degree of automation, and machines (Gehlen, A. 1980). It is observed from the literature survey that innovations are very important for the soft running of an organization. It not only blesses the firm with a high market share but also gives it a competitive advantage. Through innovations, organizations can also build and maintain better customer relationships. The author has formulated the following hypothesis for the research.

*H<sub>1</sub>: Knowledge Management has a positive influence on Innovations/Development.*

*H<sub>2</sub>: Innovations/Development has a positive correlation with Competitive Advantage*

### 2.3 Individual Capabilities

Employees are one of the most precious assets of any organization. They need to be committed and trained (Zahid, 2011) and are one of the sources of CA. Their satisfaction can be enhanced through proper training and effective leadership styles etc. (Muhammad Ibrahim, 2012). Competitive advantage over competitors needs to be maintained by the

organization. Its failure ends competitive advantage in the market. Therefore these advantages must be not easily copied by the competitors (Hart, S. L. 1995). Another way of keeping the firm’s advantages safe and the secret is to keep the firm’s assets and resources safe and in such a manner that are not easily available for copying. Resources that create an invisible asset based on human skill and are people-centered are tacit (Reed, R., & R. 1990). People skills are important for producing many invisible assets of the organization (Cohendet, P., Heraud, & Zuscovitch, 1993, Serenko, Alexander, 2010). Another researcher also finds tacit knowledge important for generating competence and competitive factors (Quinn, J. B. 1992). Managing human knowledge is more important than organizing physical assets in winning and victorious firms. And every manager values individual knowledge and skills as a competitive strength of their organization (Jacobson, R. 1992). According to research, invisible assets are produced by Tacit Knowledge and employees are the ones who produce them (Reed, R., 1990). It is also obtained that IAs are among the main success elements (Itami, H., & Roehl, T. W. 1987) for organizations and is the single foundation of competitive advantage (Eliason, G. 1996). It is the cause of new knowledge development and innovation (Nonaka, I., 1995) and is obtained through training (Barton, D. L. 1995). Another important knowledge is T-shaped skills which are defined as the combination of Theoretical and practical understanding (Maturana, H. R., & Varela, F. J. 1987). Metaknowledge is also essential for workers who are about a product or a process. It develops a behavior of an individual and the way of his/her thinking (Lundvall, B.-A. 1995).

Relationship knowledge is “know who” and involves the social ability to set up a relationship with the experts (Bierly, P., & Chakrabarti, A. 1996, Girard, John, 2015). It becomes crystal clear from the above literature survey that KM and Individual Capabilities are closely related to each other, the author hypothesized in the following way for validation.

*H<sub>3</sub>: Knowledge Management has also a positive influence on Individual Capabilities.*

*H<sub>4</sub>: Individual Capabilities has also a positive correlation with Competitive Advantage.*

#### 2.4 Organizational Capabilities

Knowledge is very important for any organization. Its creation and modification have a strong impact on the firm's strategy (Sarrafzadeh, M., Martin, B., & Hazeri, A. 2006, Girard, John, 2015). KM encourages the creation and sharing of organizational knowledge and increases the benefits of knowledge for the firm and customers (Hadaya, Pierre, 2017). It is KM, through which organizations use their knowledge in such a way to satisfy the customer in a better way than competitors do (Dröge, C., Claycomb, C., & Germain, R. 2003). Usually, organizations manage and integrate knowledge into their operations for obtaining their strategic performance (Nonaka, I., von Krogh, G., & Voelpel, S. 2006). Knowledge of an organization is defined as the overall information and understanding about the organization, its products, services, and processes. It is generated from the existing knowledge of the firm through amplification and modification (Levine, J. M., Higgins, E. T., & Choi, H-S. 2000). It needs to be used and generated in a well-manned way to enhance the organizational competencies as required (Sayed. Fayaz Ahmad, 2015). Knowledge creation not only enhances individual activities but also increases teamwork, enhances organizational capabilities, and gives the organization advantages to make suitable decisions (Choi, J.N. 2002, Girard, John, 2015). Most organizations are dynamic and make innovations with a small gap of time. The present technological and computer era has brought tremendous growth in the wants and demands of the market. Necessarily organizations have to improve their capabilities to fulfill the wants of the day (Hadaya, Pierre, 2017). This shows that the application and sharing of knowledge and skills are equally important for the creation of knowledge (Nonaka, I., von Krogh, G., & Voelpel, S. 2006). And the positive interaction of various organizational units for knowledge sharing proved important (Tsai, W. 2002). Knowledge also needs to be used in a very secure way. Through KM, managers can enhance this capability in an organization (Sayed. Fayaz Ahmad, 2015).

Knowledge in the organization gives a competitive advantage, especially in the information technology business (Johannessen, J.-A., Olaisen, J., & Olsen, B. 2001, Sayed Fayaz Ahmad, 2011). Through proper

KM information can be processed effectively and competitive advantages can be achieved (Blumenberg, S., Wagner, H.-T., & Beimborn, D. 2009) and assists in gaining a balance between Tacit Knowledge and Explicit knowledge (Statistics on the Growth of the Global Gross Domestic Product (GDP) from 2003 to 2013). It became known that OC is very important for an organization. It has a strong impact on all other capabilities of the organization. For the purpose to validate or reject the relationship between them, the author has formulated the following hypotheses.

*H<sub>5</sub>: The relationship between KM and Organizational Capabilities is positive.*

*H<sub>6</sub>: The correlation between Organizational Capabilities and CA is also positive.*

#### 2.5 Economic Growth

The quantity of products produced over time by the economy of an organization etc is known as economic growth. It is about how organizations, countries, etc improve their economies (Lucas, R. E. 1988). In this research paper, the relationship between KM and EG is going to find out. Previously, the relationship between the two was studied very rarely. The term is also deeply concerned with the production of a firm in the long run and with technological advancement. It is also related positively to the firm's capital, both human resource and physical, and to productivity due to new technological advancements and innovations (Clark, 2007).

A rapid EG happened in the era of the industrial revolution (Kendrick, J. W. 1961). It is strongly linked with the productivity rate, which is the major source of increment in it. In the modern world, the further increment in EG occurred due to an increment in the number of inputs, which resulted in incredible numbers of outputs both in the form of goods and services (Hounshell, David A. 1984). It was the industrial revolution that changed many ways of production and processes and introduced new efficient and effective ways and methods for production (Barro, Robert J., and Jong-Wha Lee. 2001).

Several elements contribute to EG. Among them, the most important is human resources or employees of the firm. The skills and abilities of the workers are

highly necessary for the development of data and knowledge (Hanushek, Eric A., and Dennis D. Kimko. 2000). Human capital development is not an ordinary task that takes place everywhere. It can be achieved through a formal way like proper training, schooling, and supervision (Hanushek, Eric A., and Ludger Woessmann. 2008). One other research study found a strong correlation between the skills of workers and EG (Hanushek, Eric A., and Ludger Woessmann. 2011, Earl, M. J., & Scott, I. A. 1999). In this research, the relationship between KM and EG will find out. EG is due to the managing of knowledge but it needs to be checked and validated. The author has suggested that EG gives a firm CA and strengthens its position in the marketplace. The author has also proposed that KM gives high EG which further enhances and blesses CA to a firm. The following hypotheses were driven from the literature survey for the research.

*H<sub>7</sub>: The influence of Knowledge Management on Economic Growth is positive.*

*H<sub>8</sub>: The correlation between Economic Growth and Competitive Advantage is also positive.*

## 2.6 Competitive Advantage

The environment around us is competitive. Companies or organizations continuously create new knowledge and convert it into new services and products (Alexander, A.; Martin, D. 2013). Knowledge gives the organization to solve its problem effectively and get more opportunities as compared to its competitors (Parlby, D., & Taylor, R. 2000). Those organizations which have better knowledge management can better estimate the main goal, keep a focus on their findings, manage skills and their experiences and so easily implement their new ideas (Thompson, P. 1996, Lau, Ronald S, 2002).

Knowledge Management is very necessary for the planning and operation of organizations and companies. The growth of knowledge amplified improvements and innovations (Archibugi, D., & Michie, J. 1995). The research of Archibugi

suggested that modern economic systems are more Knowledge Intensive than ever before ( J. B., Anderson, P., & Finkelstein, S. 1996). When an organization gets a competitive edge based on knowledge, made hard for its competitors to reach it (Collins, H. M. 1990). There is a continuous process of elimination and production of opportunities due to competition rather than equilibrium in the market and so the importance of a knowledge-based economy is further increasing (Nonaka, I., & Takeuchi, H. 1995). It was also argued in research that 85 % of jobs in the USA and 80 % in Europe will be based on knowledge in 2000 (Cohendet, P., Heraud, J.-A., & Zuscovitch, E. 1993). Knowledge about the possibility of something is very necessary for the initialization of something new (Khan, KS, Muhammad KS, and Sayed FA, 2015). And it is believed that an organization can achieve its competitive advantages over other organizations, only if it can innovate and those innovations are not easily copied by its competitors. These abilities are unspoken resources and are skill-based (Hart, S. L. 1995). One other research also pointed out the usefulness of tacit knowledge, organizational work competence, and learning to reduce barriers and create competitive leadership (Levine, J. M., Higgins, E. T., & Choi, H-S. 2000). The main success factor of innovation is invisible assets due to the difficulty of coping with it. In summary, today each market is competitive and an organization has to survive in it (Khan, KS, Muhammad KS, and Sayed FA, 2014) . So if there is better knowledge management then it can keep a deep insight into the market, collect all the related information and analyze it for the best use. Through this, an organization can evaluate the market demands and can develop services and products better than competitors do.

## 2.7 Theoretical Model

The author has designed the following model for the role of KM in enhancing the CA. The author will check the relationship in the analysis section of the research as assumed in Figure 1.

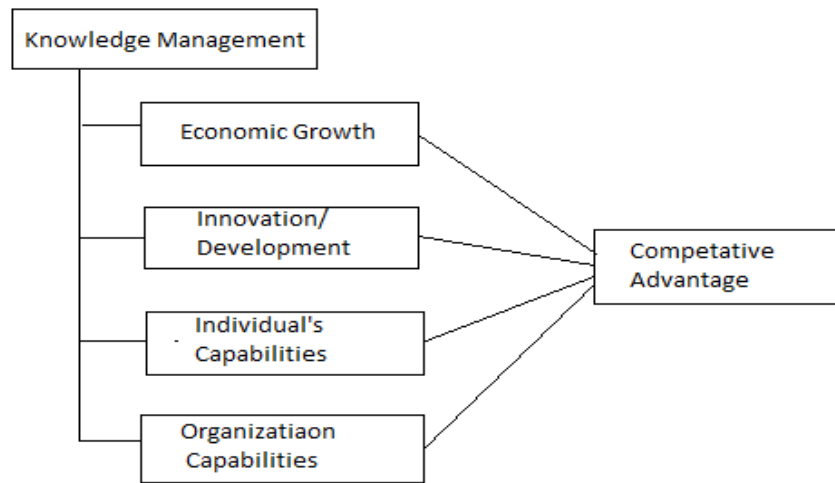


Figure 1: Role of KM in Improving CA

### 3. Research Methodology

The research method includes both qualitative and quantitative empirical validation of the proposed framework. We conducted a questionnaire survey after the development of a questionnaire from the Managers of telecommunication firms in Pakistan. The data was tested for its reliability first and then a complete research analysis was done by analyzing the data in SPSS software. Correlation and regression analysis were exercised for finding out the status of our proposed work.

### 4. Analysis

#### 4.1 Reliability test of the data

The data collected after the questionnaire survey was analyzed through SPSS software. To put the data for checking and validating the research assumption, the

data must be reliable. Therefore reliability test was done and the data was found reliable with a value of 0.739. The value obtained is enough for the goodness of the data. So we precede our analysis further.

#### 4.2 Correlation Analysis

The following table 4 shows the correlations among the variables. When the value of significance is less than 0.005, it means that there is some relationship between the variables. The value of the Pearson correlation ranges from 1 to -1, closer to 1 means a strong correlation, and closer to -1 means that the relationship is weak. The correlation matrix below shows that there all of the relations of the research intended are positive and significant. For example, the correlation value for KM and EC is (0.228) \*\* with a significance level of 0.001, and for KM and I is (0.566) \*\* with a significance level of 0.000 and so for all the other relationships.

Table 4: Correlations

		KM	EC	I	IC	OC	CA
KM	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	300					
EC	Pearson Correlation	.722**	1				
	Sig. (2-tailed)	.001					
	N	300	300				
I	Pearson Correlation	.566**	.204**	1			

	Sig. (2-tailed)	.000	.004				
	N	300	300	300			
IC	Pearson Correlation	.690**	.284**	.406**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	300	300	300	300		
OC	Pearson Correlation	.574*	.181*	.297**	.112	1	
	Sig. (2-tailed)	.001	.010	.000	.116		
	N	300	300	300	300	300	
CA	Pearson Correlation	.511**	.276**	.425**	.542**	.310**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	300	300	300	300	300	300

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

\* . Correlation is significant at the 0.05 level (2-tailed).

#### 4.3 Regression Analysis

Regression analysis is used to find out the impact of the independent variable over the dependent variable. The value of R-square is used for this purpose. When the value of R-square is closer to 1, it means that the percentage of predicting the dependent variable is high and the relationship is strong. Like correlation analysis here too the value of  $p < 0.005$  is used for the significance level.

**Hypothesis 1:** *H (1): KM has a positive influence on Innovations/Development.*

The relationship and intensity of KM and innovations are given in Table 5 below. The value of the R-square is 0.32, the F-test value is 93.28 and the significance level is 0.000. It shows that there is a strong and significant relationship between KM and organizational innovation or development. The prediction value of innovations from KM is 32 percent. The values reject the null hypothesis and our assumption that KM has a positive influence over innovations of products and services is true.

**Table 5: Regression**

		B	Std. Error	Beta	t-statistics	Sig.	R-Square	F-Value	P-value
1	(Constant)	.947	.078		12.162	.000	.32	93.2	.000 <sup>a</sup>
	KM	.443	.046	.566	9.658	.000			

a. Predictors: (Constant), KM

b. Dependent Variable: I

**Hypothesis 2:** *H (2): The influence of Knowledge Management on Economic Growth is positive.*

There is also a predictable relationship between KM and EG. It is given by the regression analysis that the R-square value for this relationship is 0.52, and the

F-test value is 10 with a significance level of 0.001. In other words, the relationship is positive and significant. It confirms our assumption that the influence of KM on EG is positive and significant. Hence the null hypothesis is rejected and our proposed hypothesis is proved correct. Table 6 below shows the illustration of the model summary, ANOVA, and regression coefficients of the analysis.

**Table 6: Regression**

	B	Std. Error	Beta	t-statics	Sig.	R-Square	F-Stat	P-value
1 (Constant)	1.249	.142		8.807	.000	.52	10.867	.001 <sup>a</sup>
KM	.276	.084	.722	3.296	.001			

a. Predictors: (Constant), KM

b. Dependent Variable: EC

**Hypothesis 3:** *H (3): KM has also a positive influence on Individual Capabilities.*

The author assumed that there is also a positive relationship between KM with IC. The influence of KM over IC was checked through regression analysis and the value of R-square is 0.476, F-test value of 179

with a significance value of 0.000. The statistics show that the relationship is positive and significant as well as predictable to the certainty of 47 percent. So the author assumed the hypothesis is validated and proved true, and the null hypothesis is rejected. All of the statistical values of the regression analysis are given in the following table 7.

**Table 7: Regression**

	B	Std. Error	Beta	t-statics	Sig.
1 (Constant)	.401	.095		4.203	.000
KM	.754	.056	.690	13.407	.000

a. Predictors: (Constant), KM

b. Dependent Variable: IC

**Hypothesis 5:** *H (5): The relationship between KM and Organizational Capabilities is positive.*

The regression analysis of KM and OCs shows that the relationship is positive and significant. It means that with an increase in KM, OC will also increase.

The R-square value is 0.33; the F-statistics value is 6.7 and the significance level is 0.001. Therefore OC can be predictable with the certainty of 33 %. Further details of the regression are given in the following regression table 8.

**Table 8: Regression**

	B	Std. Error	Beta	t-statics	Sig.	R-Square	F-Static	P-Value
1 (Constant)	1.341	.110		12.194	.000	0.280	6.7	.000 <sup>a</sup>
KM	.168	.065	.574	2.589	.010			

a. Predictors: (Constant), KM

b. Dependent Variable: OC

**Hypotheses 6, 4, 2, 8:**

*H (.6): The correlation between Organizational Capabilities and CA is also positive.*

*H (4): Individual Capabilities have also a positive correlation with CA*

*H (2): Innovations/Development has a positive correlation with Competitive Advantage*

*H (8): The correlation between Economic Growth and CA is also positive*

Here, the author has selected Innovations, OC, IC, and EG as independent variables and CA as the dependent variable for regression analysis. The analysis shows that there is a positive and significant

relationship between innovation/development, ICs, and OCs of services and CA. The R-square value for this affiliation is 0.39, The F-test value is 31 with the significance level of 0.004, 0.000, and 0.001. All of the above three variables can be considered as predictor of CA with a certainty value of 31 percent. The only relationship which is insignificant is the relationship between EG and CA. Therefore for

innovations, organizational capabilities, and individual capabilities our assumption is true and the null hypothesis is rejected but for economic growth, the null hypothesis is validated and proved true. Hence our assumption about EG and CA is wrong and EG cannot be used and considered as the predictor of CA. Table 15 shows the details of the regression analysis.

**Table 9: Regression**

		B	Std. Error	t-statics	Sig.	R-Square	F-Statics	P-Value
1	(Constant)	.612	.101	6.036	.000	0.37	31.01	.000 <sup>a</sup>
	EC	.047	.033	1.411	.160			
	I	.154	.055	2.778	.004			
	IC	.264	.039	6.743	.000			
	OC	.143	.043	3.295	.001			

a. Predictors: (Constant), OC, IC, EC, I

b. Dependent Variable: CA

## 5. Discussion and Conclusion

The purpose of this study was to find out the main elements of CA. It was suggested by the evidence that although there are many other products of KM yet CA is one of the most important among them. Elements that comprise the CA are many, but we have studied a few in this research. Strong evidence shows that KM increases innovations, economic growth, individual capabilities, and organizational capabilities which are the competitive edge for any organization. The study suggests that competitive advantage is the most influential and necessary factor among all the other factors for any organization due to its strategic outcomes. Any organization, which wants to have a strategically suitable position must have CA over its competitors in the market. Innovations not only fulfill the updated needs of the market but offer a strong competitive edge to the organization. Without innovations, an organization fails to maintain its place in the market and ultimately disappears from the market and the minds of its products/ services customers. What makes innovations possible? The answer is KM and only KM. Knowledge about the market, customer needs and demand, and requirements of the modern-day

lead to innovations and developments. Management manages and uses this information to create and develop new things. This shows that KM organizations respond to and vary with the wants of the market; and bestow the organization with an important factor, innovations of CA which makes the organization strategically powerful, mature, and strong.

No one can deny the importance and strategic role of the economy. Every firm needs to have sufficient money for smooth operations and for further investment. The economy on the one side fulfills the need of the organization and owner and on the other hand grants opportunities for innovations. In the absence of sufficient wealth, the firms will fail to operate efficiently which ultimately leads to its closure. Economically strong firms will innovate products, will fulfill their customer demands timely and effectively; and will eventually put forward CA to the firms. Organizations consist of many types of building blocks. Among them, the most essential is human capital. Human capital can carry the organization exponentially to success. Without skilled and competent employees and workers, there is no advantage of any other capital. The skilled human resource makes the latest innovations and runs the operations of an organization effectively and

efficiently. KM is very necessary for modern times and is the need of the organization. It gives an organization CA which is very necessary for a strategic position. CA not only awards internal benefits to the organization but also provides unlimited external advantages. The literature and concluding remarks make it crystal clear that organizations should manage their knowledge and information to the best of their capability to achieve CA which is one of the strategic important factors for any organization.

### 5.1 Recommendations

1. To have CA in the market, an organization has to manage its knowledge effectively and efficiently. The research recommends that KM is a key to CA.
2. Innovations not only give the company new products and services but also provide new ways of customer satisfaction and market capture. Modern-day markets are dependent upon the innovations made by organizations and every organization needs to run with the modern-day needs to have a strategic position and high market share.
3. Proper KM is a key source of economic growth and position in one way or another. KM secures organizational information safe, product specification standardized; minimizes failure risks, and provides more success chances. This not only saves money but offers more and more opportunities for the firms. Therefore it is argued that one blessing of KM is economic growth and financial edge which is one of the necessary competitive factors.
4. KM also enhances organizational capabilities and promotes a performance-friendly organizational environment. Organizational capabilities give CA to an organization. It strengthens its strategic position provides the ability and potential to maintain its high market share and value, and helps an organization to sustain its competitive position. It clarifies the path to all other factors which improve and increases the CA of a firm. It is therefore argued that for accomplishing CA over the competitors, organizational knowledge and information should manage in such a pattern to develop OCs of the firm.
5. Achieving organizational vision is possible only through talented and trained workers. As the competencies of humans are dependent upon their

knowledge and corporate memory, therefore knowledge should be shared in a useful manner to increase human capabilities and skills. Through proper KM skills and capabilities of workers can be enhanced and developed to the desired level. This will not merely increase the internal potential of the firm but will also bestow CA in the marketplace.

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