

*Full Length Research Paper*

# The effect of knowledge management practices on organizational performance: A conceptual study

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As organizations increasingly become aware of knowledge as a key strategic asset, they are being forced to revise their strategy on how to effectively utilize that asset to not only achieve competitive advantage but maintain it as well. Previous researches have provided many reasons for failure to implement knowledge management properly. No serious attempt has been made to integrate all the successful factors proposed by the knowledge management researchers in the past. This study focuses on the integrative effect of processes, intellectual capital, culture and strategy with cohesion of all stake holders on knowledge management which effects organizational performance. A sharing culture should be developed, to create knowledge sharing environment. The strategy should be developed with the active participation of the middle management and their input should be given importance. This study fills that gap and presents a conceptual frame work model of process, intellectual capital, culture and strategy (PICS) for successful implementation of knowledge management. The effective utilization of knowledge will not only create competitive advantage but maintains it as well, that would improve organizational performance.

**Key words:** Knowledge management, organizational culture, intellectual capital, integrative approach, strategic knowledge management, organizational performance.

## INTRODUCTION

The technological advancements in the recent past have changed management styles. The dependence on technology has increased manifolds, but main competence is human and his knowledge. The Oxford dictionary (2001) defines knowledge as, set of information or whatever is acknowledged qualitatively by the organization or the worker within. It is essential to distinguish between data, information and knowledge. Data consists of raw facts, while information is a flow of messages of interrelated data. Knowledge is actionable information that processes in the human mind and through technology.

According to American Production and Quality Control

(1995) knowledge management is, "the strategies and processes of identifying, capturing and leveraging knowledge." Bukowitz and Williams (1999) defined knowledge management as the procedure used by the organization to create capital from its intellectual or knowledge-based assets. Knowledge rich service industry is growing faster than ever and the knowledge worker accounts for majority of the new jobs. A majority of the organizations worldwide implementing knowledge management have found it relatively easier to put technology and process in place, where as the people and their leadership capabilities have paused greater challenges.

Blair (1995) revealed that the breakdown of tangible and intangible assets ratio was 62:38 in 1962 and the same figure had reversed in 1992. Weber (2000) wrote that book value of company's marketable intangible assets had accounted for more than 80%. This research

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would study how the integrated effect of processes, intellectual capital (human), culture, and organizational strategy improves knowledge management and that in return affects the organizational performance. Lang (2001) emphasized that intellectual capital is the key element in knowledge creation. She insisted that, "knowledge is both produced and held collectively rather than individually in knit groups, or communities of practices." Knowledge management is built around people, process and methods (Malhotra, 2003). Human being is the critical element in knowledge management. The strategies, processes and decision making is done by humans and its effective usage will ensure minimization of risk strategic and financial matters.

The purpose of this research is to develop a conceptual framework model of process, intellectual capital, culture and strategy (PICS) for effective knowledge management practice that would ensure improved organizational performance. Culture is the most significant feature in promoting the practice of knowledge management. Organizational learning is a precious strategic competence. Knowledge is a strategic capability and it will produce value that keeps organization ahead of competition.

There has been significant research conducted over the past decade evaluating knowledge and how successfully it can be managed (Wiig et al., 1997; Muller and Raich, 2005; Chong and Choi, 2005; Keramati and Azadeh, 2007; Jadoon and Hasnu, 2009; Zack et al., 2009; Heisig, 2009). Minnone and Turner, 2009, Turner and Minnone, 2010) have identified as important key variables namely, process, intellectual capital (human), culture and strategy in knowledge management. The rationale of the study is to provide a conceptual framework model to improve knowledge management practices through effective integration of these variables and effective utilization of knowledge resources. It will study the integrative effect of processes, intellectual capital (human), culture and strategy on knowledge management.

- (i) Effect of Process on knowledge management.
- (ii) Effect of Intellectual capital (human) on knowledge management.
- (iii) Effect of Culture on knowledge management.
- (iv) Effect of Organizational strategy on knowledge management.
- (v) How to improve stakeholder knowledge sharing mechanism.
- (vii) The effective utilization of Knowledge resources.
- (viii) The effect of knowledge management on organizational performance.

The possibility of knowledge management to generate competitive advantage is optimistically related to

organizational performance.

This study further explores how to plan, develop and decide effective strategy and manage organizational knowledge effectively for competitive advantage and to measure the impact of knowledge management on organizational performance.

## LITERATURE REVIEW

Harrison and Leitch (2000) advised that organizations must continuously update their knowledge resource to stay in the competition. The easy excess to information and choice of products is forcing managers to think differently, ensuring effective resource utility as core aspect of strategy. Ofek (2010) emphasized that the FIFA 2010 world cup is the recent example, where Adidas being the official sponsor of the event, ended up gaining half the online market buzz than its competitor Nike. The success of Nike is due to the intelligent utilization of its market knowledge with timely and effective decision making.

The acceptance of knowledge management importance brought out numerous framework models for its successful implementation. No model has been universally accepted as a knowledge management implementation success model. This study intends to bring forth a conceptual model (PICS) based on the recommendations of the previous research work. The PICS (processes, intellectual capital (human), culture and strategy) model is not a revised version of a previous model but, conceptualization of different variables which are supposed to play integrative role in knowledge management. Table 1 shows the theoretical justification for each variable in research conducted in the recent past.

Davenport and Prusak (1998) have clearly identified culture as an important ingredient which lays the foundation for successful implementation of knowledge management systems. Malhotra (2003) advocates strongly the need to develop a culture, where learning, sharing, and creating knowledge is present at all levels. He predicts that this will be a sign of successful firms of future. Once you have awareness of such culture, the employees will be hired with an urge for intellectual curiosity. Malhotra (2003) reveals that in order to succeed you have to develop a learning culture, which will be quick to adopt change. His philosophy is that in today's environment only certain thing is change. Organizations that will be ready to change and take timely decisions will have the competitive advantage. Zack et al. (2009) explains that in order to create that culture, there needs to be performance outcome incentives that will not only motivate and enhance employee commitment levels, but

also provide them security regarding jobs to ensure continuous usage, sharing and application of combined organizational knowledge.

There is always some difference on what the employees want from their contribution in the organization and their agreement with what methods will produce the required output. This difference is changed into cooperation by use of power tools by management. The management team has to play an assertive role in defining what needs to be done and how it should be done. If employees' means of doing things succeed over and over again, consensus begins to form. MIT's Professor, Edgar Schein, portrays this process as the method by which a culture is built. Employees do not think that their methods of working will achieve success. They start following priorities and procedures by default, meaning that a culture is developed. Culture in convincing but unspoken ways, depicts the acceptable methods by which employees address routine problems. It defines the priorities given to solve different type of problems (Christensen, 2010).

Ritchie (2000) studied organizational culture and concluded that culture was a strong and positive factor in an organization. It not only influenced productivity, commitment, motivation, and actions of employees but their performance as well. He was of the view that culture has positive effect on employee attitudes. He suggested that management must realize the value of relationship between a powerful culture and beneficial outcomes. Zack et al. (2009) argued that culture has influence on performance of organization. Those organizations that have realized its importance give value to their employees and incentives for knowledge sharing and create an atmosphere which is beneficial for knowledge management systems to succeed.

Chong and Choi (2005) studied the critical factors in successful implementation of knowledge management and have quoted several previous researches which agree that knowledge friendly culture should be in place or developed if successful implementation of knowledge management is required. Weber (2007) researched the failure factors of knowledge management and analyzed that when culture and processes are not properly aligned system tends to fail, while developing systems input is not taken from all stake holders.

Management does not support it and responsibilities are not enforced effectively. The knowledge is not shared properly because there is not enough awareness about knowledge management within the organization.

Davenport and Prusak (1998, 2000) explained that knowledge is obtained from information as information is gained from data. If information is to be developed into knowledge; human has to do bulk of the work. They have

identified a process for that. You compare that information, analyze the consequences and create connection between what is known and present information. Based upon experience and expertise a decision will be taken. Human alone can do that based upon its experience and expertise, what works on ground and what does not. Malhotra (2003, 2005) identified knowledge management as an equation built around human, process and technology. Technology cannot give you sustainable competitive edge in the long term automated teller machines (ATM) were one example. ATM machines were a competence which was easily copied by competitors and hence it was not a competitive edge after a short period of time. Majority of frame work models failed due to similar reasons.

The process of knowledge creation, sharing, and its effective utilization is built around human (Malhotra, 2003, 2005). Davenport and Prusak (1998, 2000) explains that sharing must be initiated at human level and once it is working its application on technology will produce positive results. Many previous models failed because their focus was not on humans but technology. Technology has no capability to analyze the information provided to it, while human has that ability. The responsibility of effective management is to ensure that prompt and effective decisions are taken. Hamid (2008), research on knowledge identification and creation, concluded that basic social interaction is done with management and employees identification of knowledge and employees are encouraged to not only increase their knowledge, but share it for the benefit of the organization and themselves as well. Without motivation, sense of security, healthy reward system, this cannot be achieved.

Chong and Choi (2005) after studying critical success factors recommended that employee training and involvement in decision making process is crucial. They need to be given sense of security, motivated through incentives, training and empowered with authority to ensure successful knowledge management. Malhotra (2003, 2005) identified that humans and processes are crucial to knowledge management. Processes have to be developed by humans who compare, connect, conclude and derive knowledge from data. It is important for the success of knowledge management that all stake holders should be involved in decision making process.

Without proper integration Weber (2007) concluded that approach will fail to produce desired results. Hamid (2008), Weber (2007) agreed that in order to stay in the competitive race knowledge has to be up dated continuously. This will bring revision and change in processes, which will help keep the competitive advantage intact. Malhotra (2003, 2005) identified knowledge management as an equation built around human, process and technology.

According to Drucker (1993),

“the traditional factors of production- land, labor, capital - have not disappeared, but they have become secondary. They can be obtained easily, provided there is knowledge. And knowledge as the means to obtain social and economic results.....knowledge is now being applied to knowledge.”

A company's strategy describes the initiatives the management wishes to invest in. If this process is not managed skillfully, the result could be very different from what was intended to be achieved in the beginning (Christensen, 2010). Malhotra (2003, 2005) philosophically sums up the present global business situation as, “radical discontinuous change.” In today's environment the success and competitive advantage is on how effectively decisions are taken. The strategy has to be ‘doing the right thing’ which is effectiveness, rather than ‘doing things right’ which is efficiency. The success of Nike campaign in FIFA 2010 world cup is indisputable. They enjoyed the double business share than the official sponsor of world cup. This shows the sizing up of the event and its effective knowledge utility through a very thought out coordinated strategy which produced a string of success for Nike (Ofek, 2010). It is proven the fact that being efficient without being effective will certainly lead to failure. Malhotra (2003) strongly advocates taking advantage of your knowledge ahead of your competitor and making that knowledge obsolete before your competitor does it.

### **Contribution to the literature**

Malhotra (2003, 2005), globally known as pioneer of knowledge management said that knowledge management is a people, process and technology based equation. There has been a lot of scholarly work conducted over the years (Wiig et al. 1997, Muller and Raich 2005, Chong and Choi 2005, Keramati and Azadeh 2007, Jadoon and Hasnu 2009, Zack et al. 2009, Minnone and Turner, 2009, 2010), some of which have been identified as important, and they comprise processes, intellectual capital, culture and strategy to be key factors in knowledge management. This study is an effort to fill in the gap identified in the above mentioned research work. A conceptual frame work model is developed keeping in view the above recommendations. This model intends to achieve increased awareness of the importance of knowledge, for improved and effective working of organizations.

In a developing country like Pakistan, where service industry is in infant stage and has lots of room for growth and development. The service industry in previous years has seen not only majority of employment and growth, but it is expected to grow further in the years to come. The competition in the industry will encourage development of incentives and services to attract customers to gain and maintain competitive advantage. This study will help managers to understand not only the importance of knowledge management but make effective utilization of it for competitive advantage. The realization of effective knowledge usage will not only improve their personal lives but of organizations as well (Figure 1).

Chong and Chi (2005) explained that no serious effort has been made to integrate all the successful factors proposed by the knowledge management researchers in the past. This PICS Model is on the basis of the literature review recommendations displayed in Table 2. The integrative effect of processes, intellectual capital, culture and strategy with cohesion of all stake holders will yield the desired results. The environment where employees interact and implement has to be a sharing culture. Kiraka and Manning (2005) have argued that processes drive or are driven by the strategy of the organization. Once a sharing culture is developed employees will feel secure and share and contribute effectively without any fear. The middle management should be involved in development of strategy, their input will be key as they are the ones who not only get to implement strategy but who interact with the customers as well. The global acceptance of knowledge as critical success factor organizations must effectively manage the abilities, skills and knowledge of the employees in changing environment. In ever changing economic scenario the task is to convert employee capabilities into organization assets, and make its effective utilization as a core competency (Zárraga-Oberty and De Saá-Pérez, 2006). In the rapidly changing global environment in order to remain competitive organizations need to realize the importance of knowledge. The awareness will help foster a sharing culture, which respects and encourages diversity. The strengthening of human element for knowledge sharing will promote creativity and innovative thinking. The processes will be developed in alignment with strategies and goals of the organization. The effective and appropriate utilization of the knowledge resource before your competitor will give you not only the competitive advantage but also help maintain it by constant up gradation of knowledge base (Malhotra, 2005).

### **Hypothesis**

H<sub>1</sub>: There is a substantial positive relationship between

**Table 1.** Theoretical background of hypothesized work.

Variable	Theoretical background
Culture → KM	Davenport and Prusak (1998, 2000), Malhotra (2003; 2005), Chong and Choi (2005), Jadoon and Hasnu (2009), Zack et al. (2009), Ibrahim and Reid (2009).
Intellectual capital (Human) → KM	Davenport and Prusak (2000), Malhotra (2003; 2005), Chong and Choi (2005), Weber, (2007), Hamid (2008), Ibrahim and Reid (2009)
Process → KM	Davenport and Prusak (1998, 2000) Malhotra (2003; 2005), Chong and Choi (2005), Weber (2007), Hamid (2008), Ibrahim and Reid (2009).
Strategy → KM	Drucker (1993), Malhotra (2003, 2005), Chong and Choi (2005), Weber (2007), Hamid (2008), Ibrahim and Reid (2009), Minnone and Turner (2009; 2010)
KM → Organizational performance	Treacy and Wiersema (1995), Harrison and Leitch (2000), Zack et al. (2009), Heisig (2009), Ibrahim and Reid (2009).

**Table 2.** Previous research work with future recommendations.

Scholar	Title	Conclusion	Future Research Recommendations
Zack et al. (2009)	KM and Organizational Performance	Gap exists between the KM practices that firms believe to be important and those that were directly related to organizational performance	Future work should investigate the influence of geography and culture on our findings
Jadoon and Hasnu (2009)	Collaboration dichotomes in KM success	Knowledge management Success is strongly and positively related to interdepartmental collaboration	Obtain quantitative findings by developing a research model which can respond better to the subtle interactions of culture and KM systems
Keramati and Azadeh (2007)	Effect of top management commitment on KM success	Shared facilities ease Knowledge management, Improves teamwork Lack of written strategy	How top management commitment could be enabling a KM strategy and a better driving the KM activities in academia environment?
Muller and Raich (2005)	Relationship between Leadership and Intellectual capital	The measurement of IC should give more attention to the relationships between different components of IC	Link different measures relationship to study intellectual capital to provide its better picture
Wiig et al. (1997)	Supporting KM: a selection of methods and techniques	Due to Knowledge Management's broad nature many methods and techniques can be included	Characteristics of KM needing further work intangibility measurability lead times agents with wills
Chong and Choi (2005)	Critical factors in successful implementation of KM	Identification of success variables	Further develop and enhance proposed factors of KM success

Table 2. Contd.

Heisig (2009)	Harmonisation of knowledge management – comparing 160 KM frameworks around the globe	Frameworks are distinguished in three layers Business focus Knowledge focus Enabler focus	Need to improve understanding of Knowledge Management in general and Knowledge in particular
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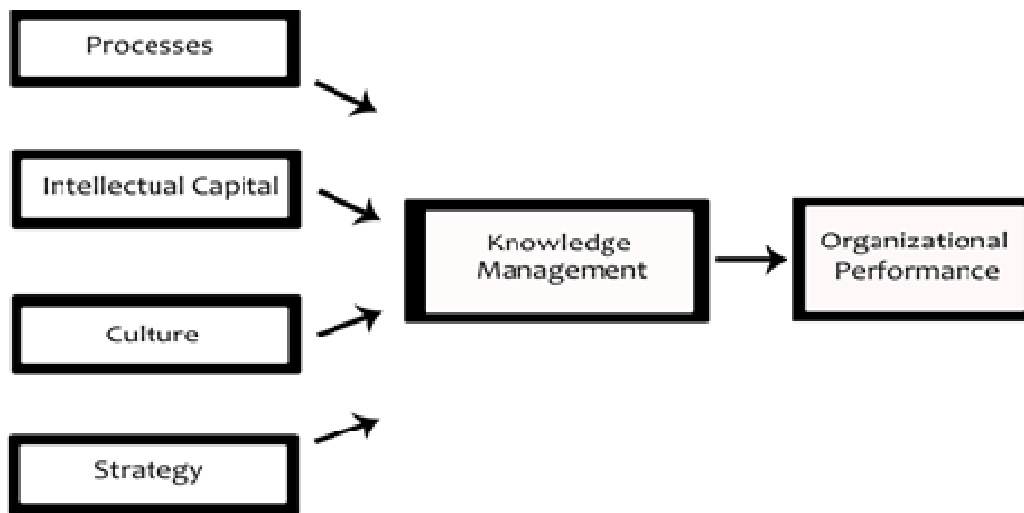


Figure 1. Conceptual frame work model (PICS).

between processes, intellectual capital, culture, and strategy and knowledge management.

H<sub>2</sub>: There is a substantial positive relationship between knowledge management and organizational performance.

**CONCLUSION AND RECOMMENDATIONS**

This study looks at how the knowledge within the organizations and outside can be shared among employees by development of a culture. The knowledge has become an asset of the organization and its effective utility as core competency will bring the desired results. The need to develop a culture where employees share at ease and without any fear will make implementation of strategy much easy and processes will become a mind-set rather than an obstacle. In an economically uncertain global environment where only change is certain (Malhotra, 2003) there is need for knowledge to be converted into core competency more than ever. There is growing need to bring all stakeholders into confidence

to evolve a strategy which would take all organizational knowledge into consideration and turn it into core competency for a sustained competitive advantage.

This PICS model will be tested in the future on local service industry. It is also recommended to other researchers to test and study its effectiveness in other geographic, economic and cultural settings.

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