Establishment and Implementation of Knowledge Management
(Case Study: Saipa Sales and After Sales Service Organization)

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Abstract

Knowledge management as a new approach means the conscious and systematic efforts of an institution for distributing, fostering and applying the knowledge in a way that adds value to the institution and creates positive results in achieving its goals. This study attempts to examine the establishment and implementation of knowledge management in Saipa sales and after sales service Organization according to the conceptual model of Nonaka & Takeuchi. The effects of organizational processes, leadership, culture, technology and measuring knowledge factors on implementing knowledge management are investigated. The results show that all the selected factors lead to the positive establishment and implementation of knowledge management in Saipa organization, where technology has the highest impact and leadership has the lowest.

Keywords: Knowledge management, Organizational Processes, Technology, Leadership, Culture, Measuring knowledge

1. Introduction

Knowledge is and has always been important, but now today is better and more important due to applying the power of knowledge to gain sustainable competitive advantage (Ansari et al., 2012). Famous economic theorists have expressed knowledge as the ultimate competitive advantage for new organizations and stated that it is the only source which is difficult to imitate or copy. The owner of knowledge has a unique good. It is obvious that this resource should be preserved and uses every method to disseminate it (Bhatt, 2008).

In this regard, it is necessary to assess all stages of knowledge management including sharing and applying knowledge, because it seems that sharing it is important in the discussion of organizational innovation more than the knowledge creation (Taylor and Wright, 2004). In some organizations, all the efforts are only in the process of knowledge creation and application does not have an appropriate position.

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Given the importance of knowledge management in today's organizations and its impact on organizational creativity and innovation in order to provide better service to customers resulting in the increase of market share, some hypotheses were examined as the main hypotheses.

1.1 Importance to the organization

Considering that 75 percent of the information that people need for their specialized tasks cannot be found in corporate documents. And typically 30% of their time is spent on finding answers to problems that have already occurred and resolved in the organization. And about 40 percent of managers and staff time is spent on organizing the information. On the other hand the current culture in most organizations is maintaining the knowledge instead of sharing it and the knowledge and experience are easily removed from the organization by the retirement and transfer of managers and professionals from organizations without being recorded in order to be provided to the next generation. We do not document them by things that we learn during weekdays and we will not pass the experiences to the others, so that the issue will impose many financial costs to the organizations. Also the organization are often very slow in learning that causes delays in providing better services and opportunities over time.

There are reasons for better understanding of the knowledge management and the importance of implementing it in today's organizations.

1.2 The existing problems

1. One of the obstacles to knowledge management in organizations that is remembered as the most important factor is the manpower strength in sharing knowledge, because it considers knowledge as power and its loss or reduction as power loss. It considers its knowledge as the job guarantee, thus it avoids sharing its knowledge and expertise. To eliminate the barriers, the false manpower attitude must be changed.
2. other barriers include organizational factors. Inflexible hierarchical structures cannot be a suitable background for the establishment of knowledge management. Other structural factors are the lack of trust and support of top management to the activities and programs of knowledge management and inappropriate leadership styles. In this regard, the description of unsuitable and repeated jobs, confusion and conflict in the organization's structure would be undesirable for knowledge management. So that reforming the salary systems is necessary to increase the financial incentives.
3. Cultural factors can also have a significant role in knowledge management and if the culture of partnership and mutual trust do not exist in the organizational culture, knowledge management will face unpleasant challenges. Therefore, the authorities and organization management should strengthen the culture of knowledge sharing in the organization.

2. Research Background

Clear and accurate expression of the history and development of knowledge management is not possible. In fact, knowledge management has existed since the first human and even in the hunting era. Accordingly, the human being began gathering and sharing information and knowledge related to the topic of hunting and also developing his understanding of the environment in the field of food resources, opportunities and threats in the realm. Human being, at first instinctively and then consciously, was looking for knowledge and the right tools to survive and cope with wild animals and natural disasters. Human life gradually changed and added his experiences, so that his knowledge was transferred from generation to generation using the primary tools.

Knowledge was used and managed to meet the needs of communities in historical periods and different areas including agriculture and industry eras. Thus, knowledge management is not a new concept in the history of human development. However, the term knowledge management has been recently paid much attention.

Despite the widespread use of knowledge management in a variety of institutions and organizations, it is extremely difficult to provide a single definition. Here the question arises that "what the knowledge management actually refers to?" By examining the different definitions of knowledge management, it can be defined as "the process of creating, disseminating and applying knowledge to achieve organizational goals". In another definition, knowledge management is "a philosophy including the principles, processes, organizational structures, and employed technologies the helps people to share their knowledge and use it to achieve their goals" (Gurteen, 1999). Bukowitz defines knowledge management as "a process through which organization creates the capital due to the members' thoughts and knowledge-based assets" (Bukowitz and Williams, 1999). Koulopoulos and Frappaolo stated that the knowledge management emphasizes on the re-use of previous experiences and practices by focusing on the design and implementation of programs aimed at changing perspectives (Koulopoulos and Frappaolo, 1999). Knowledge management has acquired its reputations through applying knowledge in order to harmonize the dynamic changes in the organization and developing systems to accelerate the adaptability to the changes of the system environment. Organizations must be able to create and use new knowledge and reconstruct the existing knowledge to achieve their goals. While knowledge management has placed greater emphasis on information technology and, in many cases is defined as technology-based management, but it has a concept beyond it (Darroch, 2006).

Davenport and Lawrence (1998) considered the major components of knowledge management as:

1. Culture: Values and beliefs of members of the organization in the field of information and knowledge concepts;
2. Administrative process: how people gain information and knowledge in organizations;
3. Politics: strategies to overcome barriers in the process of knowledge and information sharing in organizations;
4. Technology: information systems in organizations.

Knowledge management includes the process of combining the knowledge and information in the organization, creating a suitable environment for production and applying the knowledge and training of creative and innovative human resources.

In this research, we have attempted to identify the key factors according to previous studies. These key factors are identified all around multiple axes in the implementation of knowledge management in companies and organizations. Most of the papers have considered these factors in their studies and the most important factors are (Skyrme and Amidon, 1997; Davenport and Lawrence, 1998):

1. Leadership: Is the role of top managers of companies and organizations in the implementation of knowledge management and without their attention to it, the probability of implementation will be very low.
2. Business processes in the implementation of knowledge management
3. Technology and information technology
4. organizational culture and readiness of the organization and staff to implement knowledge management
5. and ultimately the measurement

We also made a classification in different levels according to the previous studies on key factors of Table 1 (process, leadership, culture, technology and measuring KM) for Saipa after-sales service organization. In Table 1, some of the important literature review is summarized.

The model used in this study is based on Nonaka & Takeuchi model (Nonaka & Takeuchi, 1995). This model focuses on two types of knowledge (Explicit / tacit) and the method of converting them to each other and creation of knowledge at all organizational levels is concerned. The use of dynamic models into these two types of knowledge and knowledge management in relation to the spiral is assumed in this model. Moreover, it is assumed that only people is creating knowledge. Thus, the process of organizational knowledge creation should be an ongoing process in which the knowledge is organized and led by people. Nonaka & Takeuchi underlines four patterns for organizational knowledge creation in every organization (Nonaka & Takeuchi, 1995):

1. From tacit knowledge to tacit knowledge (socialization): When people directly "tacit knowledge to share with others. Example" through constant communication.
2. From tacit knowledge into explicit knowledge (outside the building) and encryption coding experience and insight into a form that is usable by others. For example, "through dialogue and questions and answers, tacit knowledge itself offs the ground.
3. From explicit knowledge to explicit knowledge (combination): a combination of different parts of tacit knowledge and present it to the new form. For example, "information in a particular area of the sector and the different departments and agencies to collect and include in a single report.
4. From Explicit knowledge to tacit knowledge (internalization): When people internalize and share their explicit knowledge and tacit knowledge and expanding it to reconsider its use (Wiig and Prousak, 2009).

2.1 Research Variables:

Organizational Process: some factors affecting the organization processes in this investigation include:

1. Evaluation of specific processes in organization
2. Identifying processes for evaluating the hidden knowledge

Leadership: some of the leading factors in this investigation are includes:

1. Does it support the suitability of the organization?
2. Are the employees deserved for gaining rewards?

Culture: some of the cultural factors in the research include:

1. Does it respect the customer as a culture in the organization?
2. Do employees have confidence in the words of one another?

Technology: some technological factors in the study include:

1. Does the integrated space technology available to existing employees?
2. Does the technology for a closer relationship between the organization and customers?

Finally, the measurement of knowledge: knowledge of the factors measured in the study included:

1. Is there any indicator to measure knowledge management?
2. Are the indicators including both financial and non-financial?

3. Research Hypotheses

The aim of this study is to investigate the factors affecting the implementation of knowledge management in Saipa organization. According to the literature review the relation between five factors namely organizational process, leadership, culture, technology and measuring knowledge with knowledge management implementation is examined. With this regards, we proposed the following hypotheses:

Hypothesis H1- factors of organizational processes has a significant positive role in implementing knowledge management at SAIPA after sales services organization

Hypothesis H2- factor of leadership has a significant positive role in implementing knowledge management at SAIPA after sales services organization

Hypothesis H3- factors of culture has a significant positive role in implementing knowledge management at SAIPA after sales services organization

Hypothesis H4- factors of technology has a significant positive role in implementing knowledge management at SAIPA after sales services organization

Hypothesis H5- factors of measuring knowledge has a significant positive role in implementing knowledge management at SAIPA after sales services organization

4. Methodology

This study is applied descriptive research. To collect related literature, related books, articles and journals were studied and as data collection procedure and for analyzing the collected data, a questionnaire has been used.

The model used in this study is based on Nonaka & Takeuchi model (Nonaka & Takeuchi, 1995). We considered five factors namely organizational process, culture, technology, leadership and measuring knowledge and investigated their effects on knowledge management implementation.

The population under study was the managers (financial, information technology, and legal), and employees in different units of Saipa sales and after sales service organization. SPSS statistical software is used for statistical analysis and the reliability of the study is evaluated using Cronbach's alpha. We calculate the alpha level that is equal to 0.8412, which indicates the reliability of the results.

The whole population was about 180 persons and among which 33 persons were randomly selected. With respect to gender, 36 percent were female and 64 percent were male. 24 percent of the respondents were managers and 76 percent were experts and employees. Regarding age, 9 percent of respondents were under 30 years and 91 percent were over 30 years. 39 percent of respondents were under 10 years of work experience in the company, while 61 percent of respondents were over 10 years of work experience.

According to Table 2, all 33 persons (100%) responded to questions about organizational process, leadership, culture, technology and knowledge management measures and completed the questionnaires. The case study summery with the total number of population is shown in Table 2.

Therefore, a total of 33 persons were participated in the sampling, whose gender, age, organizational context, and work experience have been indicated in Table 3.

4.1 Data Analysis and Hypotheses testing

Hypothesis H1: The role of organizational processes in implementing the knowledge management at Saipa organization.

Table 4 shows the responses for organizational process factor. According to Table 4, 56.9 percent of respondents chose the weak (or null) option for organizational processes in implementing the knowledge management at SAIPA after sales services organization and 43 percent chose the organizational processes in implementing the knowledge management at SAIPA after sales services organization as highlight (average - good - excellent).

Hypothesis H2: The role of leadership in implementing the knowledge management at SAIPA after sales services organization

Table 5 shows the responses for leadership factor. According to Table 5, 59.1 percent of respondents chose the weak option for leadership in implementing the knowledge management at SAIPA after sales services organization and 40.9 percent chose the leadership in implementing the knowledge management at SAIPA after sales services organization as highlight (average - good - excellent).

Hypothesis H3: The role of culture in implementing the knowledge management at SAIPA after sales services organization

Table 6 shows the responses for culture factor. According to Table 6, 37.6 percent of respondents chose the weak option for organizational culture in implementing the knowledge management at SAIPA after sales services organization and 62.4 percent chose the technology in implementing the knowledge management at SAIPA after sales services organization as highlight (average - good - excellent).

Hypothesis H4: Technology's role in implementing knowledge management at SAIPA after sales services organization

Table 7 shows the responses for technology factor. According to Table 7, 19.7 percent of respondents chose the weak option for technology in implementing the knowledge management at SAIPA after sales services organization and 80.3 percent chose the technology in implementing the knowledge management at SAIPA after sales services organization as highlight (average - good - excellent).

Hypothesis H5: The role of knowledge measurement in implementing knowledge management at SAIPA after sales services organization

Table 8 shows the responses for measuring knowledge factor. According to Table 8, 44.7 percent of respondents chose weak or absent options for measuring the knowledge management at SAIPA after sales services organization and 55.3 percent chose the knowledge management at SAIPA after sales services organization as highlight (average - good - excellent).

The result of hypotheses testing is illustrated in Table 9. According to the Table 9, key indicators for knowledge management in SAIPA organization were evaluated showing that the technology factors had the top priority at the organization. Other indicators of culture, measurement, knowledge management and leadership processes are in the next priorities.

The strength points of SAIPA organization is in technology, culture and measuring knowledge factors. The process and leadership factors can be improved by organizational processes based on knowledge management guidelines and defining new strategies based on knowledge management in the organization.

5. Conclusion

In this research we studied factors affecting knowledge management implementation in Saipa sales and after sales service organization. The model used in this study was based on Nonaka & Takeuchi model. We considered five factors namely organizational process, culture, technology, leadership and measuring knowledge and investigated their effects on knowledge management implementation. The results indicated that all the selected factors lead to the positive establishment and implementation of knowledge management in Saipa organization, where technology had the highest impact and leadership had the lowest.

References

Ansari, M. Rahmany, H. and Mood M., (2012). A conceptual model for success in implementing knowledge management: A case study in Tehran municipality, Journal of Service Science and Management, 5(2), 212-222.

Bhatt, F.D., (2008). Knowledge Management in Organizations: Examining the interaction between technologies techniques, and people. Journal of knowledge management, No.27, P-P: 23-37.

Bukowitz, W.R., Williams, R.L., (1999). The Knowledge Management Fieldbook, Pearson Education Limited, London.

Darroch, J., (2006). Knowledge Management, Innovation and Firm Performance. Journal of Knowledge Management. Vol. 9, Issue 3, P: 101 - 116.

Davenport, T.H., and Lawrence, P., (1998). Working Knowledge: How Organizations Manage What They Know. Cambridge. MA: Harvard Business School Press.

Gurteen, D., (1999). Creating a Knowledge Sharing Culture. Knowledge Management Magazine, Vol. 2, No.5.

Koulopoulos, T., Frappaolo, C., (1999). Smart Things to Know About Knowledge Management, Capstone, Milford Connecticut.

Liebowitz, J., (1999). Key ingredients to the success of an organization's KM strategy. Knowledge and Process Management. 6(1), 37-40.

Nonaka, I. and Takeuchi, H., (1995). The Knowledge Creating Company: How Japanese companies create the dynamics of innovation. Oxford University Press, Oxford, 122.126.

Skyrme, D., Amidon, D., (1997). The knowledge agenda. Journal of Knowledge Management, 1(1), 27-37.

Taylor, W.A., Wright, G.H., (2004). Organizational readiness for successful knowledge sharing: Challenges for public sector managers. Information Resources Management Journal, 17(2), 22-37.

Wiig, K., Prousak, J., (2009). Knowledge Management Foundation Arington: TX: Schama Hibbard, J. knowing what we know. Information weec, October, No.20, P:16-25.

Wong, K. Y., (2005). Critical success factors for implementing knowledge management in small and medium enterprises. Industrial Management & Data Systems, Vol. 105 Iss: 3, pp. 261–279.

Yeh, Y., Lai, S., Ho, C., (2006). Knowledge Management Enablers: A case study. Industrial Management & Data Systems, 106(6), 793-810.

Table 1: Summery of Literature Review

	Author	Title	Subjects
1	Skyrme and Amidon (1997)	The experiences of large companies in the field of knowledge management	They identified seven key factors including : business requirement, architecture and landscape, leadership, knowledge, culture, continuous learning, developed technology infrastructure, organizational knowledge processes
2	Davenport and Lawrence (1998)	Common success factors among successful projects of knowledge management	1 .The support of senior management; 2. Expressing the objectives of promoting knowledge management. 3. Connecting the knowledge Management to the economic performance of unit. 4. Multiple channels for knowledge transfer. 5. Motivating rewards for users of Knowledge Management 6. Knowledge Culture. 7. Strong technical and organizational

			infrastructure; 8. standard, flexible knowledge structure
3	Liebowitz (1999)	Key factors in the success of knowledge management	1. The need for knowledge management strategy with support from senior management. 2. Knowledge top manager with the infrastructure of knowledge management, 3. Repositories as knowledge banks and institutional memory; 4. Systems and knowledge management tools 5. Rewards to encourage knowledge sharing; 6. Culture supportive of knowledge management.
4	Wong (2005)	Critical success factors for implementing knowledge management in small and medium enterprises	Management and leadership support of culture, information technology, strategy and objectives, measurement, organizational infrastructure, processes and possibility lies on each activity, motivational tools, resources, training and education and human resources management as critical factors for successful knowledge management implementation in small and medium size organizations.
5	Yeh et al. (2006)	Analyze the fundamental role of enablers for the implementation of knowledge management within the organization	Enablers decisive role in the successful implementation of knowledge management in small and medium is idolatry compared to large organizations with the resources, infrastructure and construction can vary Finally, the study concluded that the company Companies in this type of strategy enablers of knowledge management and leadership, top management support, organizational culture, information technology and human resources are . They also enable knowledge management has a positive impact on organizational performance

Table 2: Case Summery

Case Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
$Process[a]	33	100.0%	0	0.0%	33	100.0%
$leadership[a]	33	100.0%	0	0.0%	33	100.0%
$culture[a]	33	100.0%	0	0.0%	33	100.0%
$tech[a]	33	100.0%	0	0.0%	33	100.0%
$measurment[a]	33	100.0%	0	0.0%	33	100.0%

Table 3: Demographic Features of the Respondents

Work experience	age	position	gender
%39 Less than 10 years	%9 less than 30 years	%24 manager	%36 female
%61 Over 10 years	%91 over 30 years	%86 clerk and expert	%64 male

Table 4: Organizational Process Factor

	Responses		Percent of Cases
	N	Percent	
Absent	39	23.6%	118.2%
Weak	55	33.3%	166.7%
Medium	48	29.1%	145.5%
Good	20	12.1%	60.6%
Excellent	3	1.8%	9.1%
	165	100.0%	500.0%

Table 5: Leadership Factor

	Responses		Percent of Cases
	N	Percent	
Absent	20	15.2%	60.6%
Weak	58	43.9%	175.8%
Medium	31	23.5%	93.9%
Good	18	13.6%	54.5%
Excellent	5	3.8%	15.2%
	132	100.0%	400.0%

Table 6: Culture Factor

	Responses		Percent of Cases
	N	Percent	
Absent	14	8.5%	42.4%
Weak	48	29.1%	145.5%
Medium	62	37.6%	187.9%
Good	34	20.6%	103.0%
Excellent	7	4.2%	21.2%
	165	100.0%	500.0%

Table 7: Technology Factor

	Responses		Percent of Cases
	N	Percent	
Absent	6	3.0%	18.2%
Weak	33	16.7%	100.0%
Medium	74	37.4%	224.2%
Good	71	35.9%	215.2%
Excellent	14	7.1%	42.4%
	198	100.0%	600.0%

Table 8: Knowledge Measurement Factor

	Responses		Percent of Cases
	N	Percent	
Absent	16	12.1%	48.5%
Weak	43	32.6%	130.3%
Medium	46	34.8%	139.4%
Good	18	13.6%	54.5%
Excellent	9	6.8%	27.3%
	132	100.0%	400.0%

Table 9: Hypotheses Testing Results

Results	Factors	Hypotheses
positive %43.1	Process	H1
positive %40.9	Leadership	H2
positive %62.4	Culture	H3
positive %80.3	Technology	H4
positive %55.3	Knowledge Measurement	H5