Considering the Relation between Knowledge Management and Customer Relationship Management in Banks

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ABSTRACT

Modern organizations require to pay a great attention to their customers as their properties in competitive markets of today to guarantee their existence. Knowledge-base and pioneer organizations reduce their marketing costs and as the result, their production costs by attraction of satisfaction of their customers. As an invisible property, knowledge management has been a crucial subject in recent years to perform programs and management systems successfully. In a manner that, the efficiency of organizations related to creation, serve, transmission and application of knowledge in a proper time. Customer relationship management helps organizations save their customers and establish a creative relationship with them. Knowledge management is known as one of the hidden and substructural factors, to establish management and technical systems. Ongoing study aims to consider the role of knowledge management and its dimensions (possession, save, processing and transmission of knowledge) in banks of Khuzestan Province in 2011. Statistical society of this study includes personnel and supervisors of resource mobilization office and technical experts. A questionnaire, arranged based on Cochran Formula for limited societies and was distributed among 294 people. The research is according to descriptive and correlative method. Two researcher-made questionnaires were the tools to gather information which were distributed after assessment of their validity and reliability. Questionnaires were gathered after completion and were analyzed by SPSS18 and Liserel Software.

The results of hypothesis test indicate that there is a direct and meaningful relation between three variable dimensions of knowledge management (possession of knowledge, processing knowledge and saving knowledge) and customer relationship management in banks. Results of regression analysis also show that three out of four aspects of knowledge management explain clearly 0.542% of customer relationship management variance in the equation. The variable of "possession of knowledge" is the most determining factor which affects human power efficiency in the statistical society. This factor explains 47% of changes in dependent variable which is represented in model performance of structural equations for each main hypothesis, Liserel model, confirmatory factorial analysis for observed variables and all hidden variables. Proportion and suitability of model shows fitness of the model based on K-square and P-value.

KEYWORDS: Knowledge management, customer relationship management, possession of knowledge, processing, saving and transmission of knowledge

INTRODUCTION

In recent years, knowledge is referred to as a means to reduce the distance between developing and developed countries.[6] Management of such this hidden property has attracted a great attention during past decades. In such a case that performance of an effective strategy for knowledge management to turn the organization to an knowledge-based organization, is the essential term for organizations during knowledge-base economy era.[11,7,5,2] From 1970s and after fast progress in higher technologies in the world especially in telecommunications and computer science, economic development patterns of the world changed basically and from 1990s knowledge was replaced with financial and physical capitals as the most important factor.[1] Modern organizations reveal products and services which are defined by all customers, one by one. A customer relationship management is something beyond traditional operational automation through technical methods for sale, marketing, provision chain or services, and a customer relationship management (CRM) system is higher than mere quality of services to customer services. CRM systems are the systems about entire development of company and attitude of organization to customers.[8]

LITERATURE REVIEW

Various descriptions are offered for knowledge management which are caused by various viewpoints of researchers and their attention to a special factor.[13] Jones (2005) believes that knowledge management is a

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systematic and comprehensive approach to define, manage and multiplex all mental properties such as databases, documents, trends, policies and experiences in the mind of people. Choo (2005) describes knowledge management as a framework to insert structures and processes in personal, group and organizational levels for an organization to learn from whatever has and to take whatever has not. This new knowledge creates value for customers and beneficiaries. Such this management framework, integrates people, processes and technology to make a permanent development.

Knowledge process pattern of Bokoitz and Williams categorizes knowledge into two strategic and tactical sections. Tactical section includes some processes to achieve required knowledge for activities, to apply knowledge to create value, to learn, to exchange and to multiplex knowledge. Strategic process is to achieve knowledge through tactical process somewhere which strategy of organization is used in order to provide targets of organization.[18]

In this study, knowledge management is considered based on following criteria:

1- To take knowledge: The organization takes tacit and implicit knowledge as data or high-level information. For example if employees does not record any step to resolve a special problem or does not take sales information, operations will not turn to knowledge. [16]

2- Saving: Raw knowledge (data and information) should be saved somewhere to be managed, protected and shared. Such this saving equipment may be production system, data center or groupware application. [16]

3- Processing: Raw knowledge changes to information or organizational value during processing. Processing includes saving, filtration, organization, analysis, comparison, correlation, investigation or other skills. This feature is beyond titling the knowledge to provide this possibility for others to recover information simply or to be free from complicated, developed and statistical analysis to discover hidden relationships and supports.[15]

4- Transmission of knowledge: Zak (1999) says that when knowledge is created, it should be transmitted to reveal advantages of knowledge. Such this transmission may occur from a person to person, to groups or operational processes and trends. Transmission should occur when it can help solution of problems or improvement of functions. Knowledge transmission can help create new insights.[20]

CRM is one of the important concepts for banks. Total target in any organization is to offer services and products to customers. This satisfaction and permanency is more valuable for organizations than attraction of new customers. Organizations, in modern world, offer productions and services which are defined by all customers. A customer relationship management is something beyond traditional operational automation through technical methods for sale, marketing, provision chain or services, and a customer relationship management (CRM) system is higher than mere quality of services or customer services. Being comprehensively acquainted with requirement of customers and having a 360° viewpoint (complete) about them, organizations are able to offer their products or services in higher quality and strengthen their relationship with customers.[17]

Phillip Cutler, the famous researcher about marketing, believes that management of e-relation with customers is a part of electronic business that describes electronic tools and platforms to manage various affairs of organizations and enables them to offer their services faster and more accurate and in a vast area and duration with lower prices. They also can customize and privatize their services.[10] CRM can also be mentioned as a tool to attract and save economical valuable customers, to remove invaluable items,[14] to compound softwares, hardwares, processes, applicable programs and management undertakes,[4] to provide required process for business and to create and save relationship with customers through e-business. The Swini group has indicated customer relationship management as "the entire tools, technologies and processes for management, development, acceleration and support interactions about customers, viewpoints and commercial partners in the organization". This comprehensive description of CRM includes following components: [19]

1- Collaborative CRM: To create online relationships, to develop interchanges and customized orders between companies, to establish interaction between business, channels, customers, providers and partners.

2- Operational CRM: To develop customer services, online marketing, sale department automation, etc. this component is customer facing automation which manages contacts, interactions and relations between customer and other parts of company such as marketing, sale and services.

3- Analytical CRM: To create stores, to develop relationships, to analyze data, etc. This category uses customer data to establish a suitable relationship between a business and customers. Analytical CRM help modeling and creating a relationship as private as possible.

Peter Darker (1993) believes that the most important wealth resource in a post-capitalist society is knowledge and information. Information technology (IT), as a modern media, includes messages and concepts to develop an information society and change it to a knowledge society based on Mc Buhan theory. Speed and continuation of IT is described by the concept of knowledge management and during fourth wave of human life.

In documents, researchers emphasize that the importance of knowledge management is to organize knowledge in order to enable people and organization to have a better and effective performance.[9] Dilon[3] expresses that knowledge management is an important factor which can take benefit from technology to make information processing environments more important. This is true especially for banks and financial institutions which have a narrow competition to attract and save customers.

Authors of this paper believe that reinforcement and application of knowledge management in banks leads to an improved customer relationship management; so, the main target of this research is to recognize the effects of knowledge management on improvement of customer relationship management.

METHODOLOGY

Current study is categorized as an applied descriptive study according to its target and based on its subject and structure of its hypotheses. The target is to describe conditions and phenomena. These phenomena include aspects of knowledge management and its relation with customer relationship management in the banks. As this study considers the effect of KM on CRM, the research is categorized as correlative studies. In this order, Pierson methodology is used and independent variable of KM and dependent variable of CRM and their various aspects are considered. Study hypotheses are described as below according to the target, method and variables:

Main hypothesis: There is a meaningful relation between knowledge management and customer relationship management in banks.

Subsidiary hypothesis 1: There is a meaningful relation between possession of knowledge and customer relationship management in banks.

Subsidiary hypothesis 2: There is a meaningful relation between saving and customer relationship management in banks.

Subsidiary hypothesis 3: there is a meaningful relation between processing and customer relationship management in banks.

Subsidiary hypothesis 4: There is a meaningful relation between knowledge transmission and customer relationship management in banks.

According to history and literature of this study and its hypotheses, information management is considered as a independent variable and these aspects are considered for assessment: possession of knowledge, saving, processing and knowledge transmission. According to the model of Suini's group, any relationship with customers includes collaborative, operational and analytical aspects. Authors have deleted collaborative indicator which was for customers and have considered operational and analytical aspects which are specialized for employees and technical experts to consider customer relationship management as a dependent variable. This conceptual model is represented to show variables of this study:
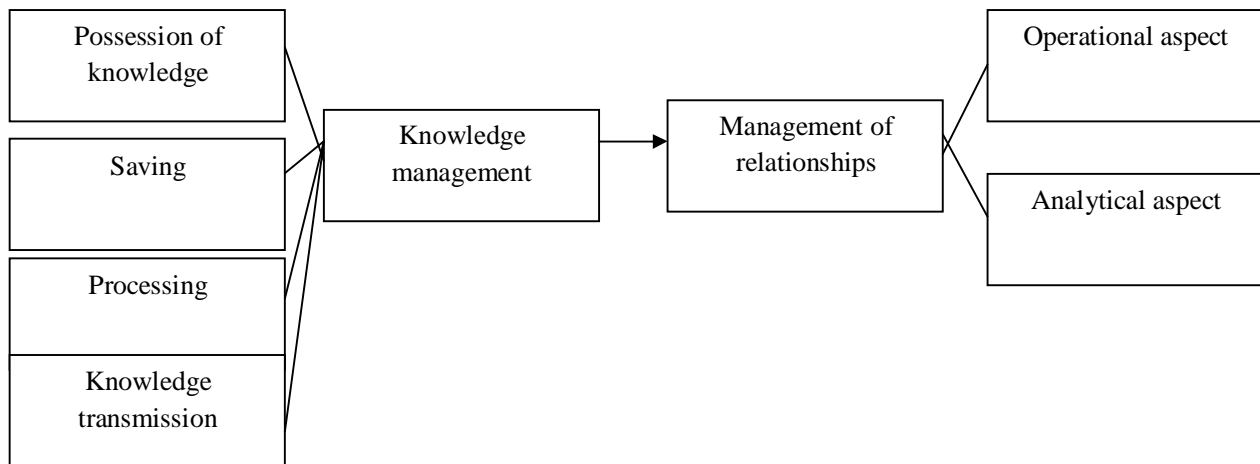

Chart 1. Perpetual research model

In order to gather data and information to test the hypotheses, a standard questionnaire with five multiple choices and in Likert framework was used based on the type of hypotheses, study problems and statistical society (employees and personnel of study banks). Resources and tools were confirmed by experts. Cronbach's Alpha of knowledge management questionnaire, including 22 questions, was achieved by SPSS software as 0.864 and of customer relationship management questionnaire, including 26 questions, was achieved by the software as 0.78 to assess permanency of questionnaires. Statistical society of this study includes personnel and

employees of banks of Khuzestan Province of Iran. To access sample volume, 294 people were selected randomly and based on Cochran's formula for a limited society. Descriptive statistical analysis methods (including tables, charts, diagrams, indicators of central tendency, distribution, amplitude, …) and Pierson correlation index of inferential statistical analysis, regression and confirmatory path analysis were used to analyze data. Statistical tests were performed by means of SPSS and Liserel softwares.

Achievements:

A- Descriptive achievements of study

Considering situation of variables of research:

To assess and evaluate the variable of knowledge management level in study banks, the four aspects (possession of knowledge, saving, processing and knowledge transmission) were used. This variable includes 22 characteristics in ordinal level of measurement and in Likert spectrum and is designed with five multiple choices. A distance variable - with amplitude of 88 - was calculated after summing up grade characteristics. 110 refers to high level of knowledge management and 22 refers to low level. According to table 1, it can be said that knowledge management in study organizations is almost beneath the mean level (mean=63.5). Knowledge management level in these four aspects is represented in table 2.

Table 1.Descriptive statistics about knowledge management

Descriptive statistics for independent variable	Standard deviation	Variance	Minimum statistics	Maximum statistics	Mean	Total
Knowledge management	3.41	11.78	54	72	63.5	294
Possession of knowledge	2.4	5.6	12	23	16.9	294
Saving	1.9	3.4	22	31	27.04	294
Processing	1.11	3.8	5	12	9.03	294
Transmission of knowledge	0.985	0.991	7	11	9.6	294

Totally, the two aspects (operational and analytical aspects) were used to assess and measure customer relationship management in banks. This variable includes 26 characteristics in the level of ordinal assessment and according to Likert spectrum with 5 multiple choices. A distance variable - with amplitude of 100 - was calculated after summing up grade characteristics. 125 refers to high level of customer relationship management and 25 refers to low level. According to table 2, it can be said that customer relationship management in study banks is almost above the mean level (mean=88.5). Customer relationship management level in two operational and analytical aspects is represented in table 2.

Table 2. Descriptive statistics about customer relationship management

Descriptive statistics for independent variable	Standard deviation	Variance	Minimum statistics	Maximum statistics	Mean	Total
Human power efficiency	9.4	85.19	69	115	88.5	294
Operational aspect	8.6	73.8	32	75	53.2	294
Analytical aspect	3.5	3.6	27	43	28.2	294

B- Hypothesis test:

To consider hypotheses in study banks, Pierson test was used and the results are represented in table 3.

Subsidiary hypothesis 1: There is a meaningful relation between possession of knowledge and customer relationship management in banks.

The results of Pierson R-test indicate that there is a meaningful correlation (sig=0.000) between possession of knowledge and customer relationship management. The total results say that more positive conception of personnel to possess knowledge, increases success of customer relationship management in banks. The correlation between two variables is linear and both of them will increase or decrease at a time. Correlation intensity between two variables is strong (R=0.518); so, the hypothesis is approved temporarily.

Subsidiary hypothesis 2: There is a meaningful relation between saving and customer relationship management in banks.

There is a meaningful correlation (sig=0.000) between saving and customer relationship management. The total results say that more positive conception of personnel to saving, increases success of customer relationship management in banks. The correlation between two variables is linear and both of them will increase or decrease at a time. Correlation intensity between two variables is strong (R=0.204); so, the hypothesis is approved temporarily.

Subsidiary hypothesis 3: There is a meaningful relation between processing and customer relationship management in banks.

There is a meaningful correlation (sig=0.000) between processing and customer relationship management. The total results say that more positive conception of personnel to processing, increases success of customer relationship management in banks. The correlation between two variables is linear and both of them will

increase or decrease at a time. Correlation intensity between two variables is strong (R=0.483); so, the hypothesis is approved temporarily.

Subsidiary hypothesis 4: There is a meaningful relation between knowledge transmission and customer relationship management in banks.

There is not a meaningful correlation (sig=0.301) between knowledge transmission and customer relationship management. The total results say that conception of personnel about knowledge transmission has no effect on customer relationship management in banks; so, the hypothesis is approved temporarily.

Main hypothesis: There is a meaningful relation between knowledge management and customer relationship management in study banks.

The results of Pierson test indicate that variables of knowledge management and customer relationship management have a relationship of R=0.71 in banks of Khuzestan Province and it can be said that correlation intensity between two variables is 0.71 which is a very strong level. The correlation between these two variables is direct (positive) and meaningfulness level (sig=0.000) is less than research alpha (α=0.05) which refers to a meaningful relationship between these two variables; so, the main hypothesis of study is approved temporarily. It can be said according to these achievements, the higher conception of personnel about knowledge management will improve customer relationship management in Khuzestan province. Higher conception of knowledge management, customer relationship management in banks is elevating positively.

Table 3. Relationship correlation test between organizational justice and human power efficiency

	Correlation coefficient	Meaningfulness level	Results
Subsidiary hypothesis 1	0.518	0.000	approved
Subsidiary hypothesis 2	0.204	0.000	approved
Subsidiary hypothesis 3	0.483	0.000	approved
Subsidiary hypothesis 4	0.201	0.301	Rejected
Main hypothesis	0.71	0.000	approved

Table 4. Correlation test and relationship between aspects of knowledge management and aspects of customer relationship management

Aspects of variables	Correlation coefficient	Knowledge possession	Processing	Saving	Knowledge transmission	Operational	analytical
Knowledge possession	Intensity	1	0.628	0.475	0.301	0.440	0.410
	meaningfulness		0.000	0.000	0.000	0.000	0.000
	amount	294	294	294	294	294	294
Processing	Intensity	0.628	1	0.544	0.586	0.587	0.570
	meaningfulness	0.000		0.000	0.000	0.000	0.000
	amount	294	294	294	294	294	294
Saving	Intensity	0.475	0.544	1	0.613	0.641	0.614
	meaningfulness	0.000	0.000		0.000	0.000	0.000
	amount	294	294	294	294	294	294
Knowledge transmission	Intensity	0.301	0.586	0.613	1	0.721	0.743
	meaningfulness	0.000	0.000	0.000		0.000	0.000
	amount	294	294	294	294	294	294
Operational	Intensity	0.440	0.587	0.641	0.721	1	0.745
	meaningfulness	0.000	0.000	0.000	0.000		0.000
	amount	294	294	294	294	294	294
analytical	Intensity	0.410	0.570	0.614	0.743	0.745	1
	meaningfulness	0.000	0.000	0.000	0.000	0.000	
	amount	294	294	294	294	294	294

Fitness model of explaining factors of customer relationship management

To define fitness of this model, aspects of knowledge management (knowledge possession, saving, processing and knowledge transmission) which are measured in distance assessment level were inserted into the equation as independent variables. In this study, multi-variable regression analysis is done by means of step-to-step 12 method. The results of regression analysis refer to explaining factors of customer relationship management which are inserted among all independent variables. In total model, all variables are inserted in regression equation and explain almost 0.542 percent of changes of dependant variable. According to statistics of table 5 it can be indicated that multiply correlation coefficient is 0.74 (MR=0.74) and its square root is 0.548; so, three dimensions of positive concept of employees of knowledge possession, saving and processing, purely include 0.542 of customer relationship management variance in study organizations. Other variances can be explained by external and unknown factors which are not included in this study. Knowledge possession is the most important factor which is more effective than others.

Table 5. Multivariable regression analysis statistics of customer relationship management

Multiply correlation coefficient	R-square explain coefficient	Adjusted R-square
0.72	0.548	0.542

Table 6. Multivariable regression analysis statistics customer relationship management

Resource of changes	Level of freedom	Sum of squares	Mean of squares	F statistics	Meaningfulness
Regression effect	4	3061.563	765.391	88.117	0.000
Remainder	291	2527.65	8.686		
Total	295	5589.213	--		

The results of variance analysis show that explaining variables are meaningfully able to foresee the changes of dependant variable (customer relationship management); in other words, AR explaining model is an adjusted meaningful model.

Table 7. Statistics of independent variables, inserted into regression model
(remained regression in the model)

Variable	B	Std.B	Beta	T	SigT
Intercept	5.619	4.025	-	1.396	0.000
Knowledge possession	0.881	0.078	0.487	00.312	0.000
Processing	1.047	0.093	0.470	11.221	0.000
saving	0.842	0.178	0.194	4.739	0.000

**Table 8. Statistics of independent variables, excluded from total model**

Collinearity statistics Tolerance	Partial correlation	sigT	T	Beta in	Variable
0.954	0.123	0.245	1.17	0.09	Knowledge transmission

Confirmatory path analysis based on model of structural equations:

In order to know about existence or nonexistence of any cause and effect relationship between variables of this research and to consider proportion of observed data with model of research, as it can be seed in the chart, output of software indicates suitability of processed structural model to be executed in structural equations of main hypothesis of study (ratio of x^2 to DF is less than 1 and as the result, x^2 is low). Structural model of research is fitted properly according to following table; in other words, observed data is correlated to model of research.

Table 9. Fitness criteria of structural model

RMSEA	IFI	NNFI	NFI	CFI	GFI	RMR	AGFI
0.007	0.92	0.92	0.89	0.92	0.89	0.034	0.89
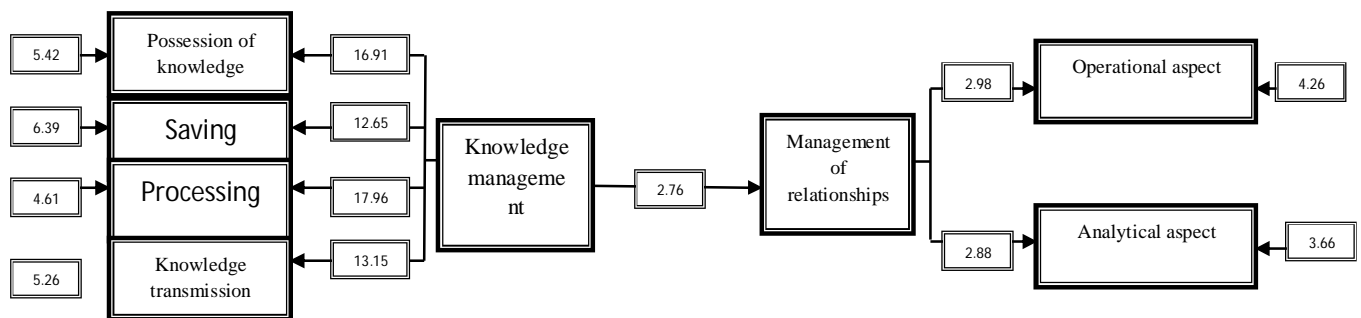
Chart 2.Liserel general model, designed to explain theoretical framework of study

Argument about results and suggestions:

The target of this study is to define a relationship between knowledge management (knowledge possession, saving, processing and knowledge transmission) and customer relationship management in the banks of Khuzestan Province of Iran. As the results showed, there was a direct and meaningful relation between three aspects of knowledge management (knowledge possession, saving, processing) and customer relationship management in these banks. Such this meaningful and direct relation indicated the importance of conception of employees about knowledge management in their organization.

The positive understanding of employees about "knowledge possession" has the most direct effect on customer relationship management in study banks. This aspect describes the method to obtain information and data as explicit knowledge and tacit knowledge. Explicit knowledge (obvious) can be multiplexed in words and figures and in the shape of data, formulations, details, manuals and others. Hidden knowledge (tacit) exists in the mind of people and appears deeply in actions, experiences, values and desires of people.[12]Namely to have a successful customer relationship management system, the customer data should be obtained, saved and recorded to be changed to information and knowledge. Generally, according to the results of this study it can be declared that if employees understand the importance of "knowledge possession", knowledge management system will be prospered and elevated. According to achievements, "saving" criterion as the third factor, has a positive effect on improvement of customer relationship management in banks of Khuzestan Province. The organization takes raw information and data and gathers them somewhere for further management, protection and representation. This saving instrument may be production system, databases or groupware application.[16]Attention of employees to the importance of "information processing" has the most direct effect to establish an improved customer relationship management in banks after "knowledge possession". In this stage, knowledge is in a case which is recoverable by others if required or may need a complex, developed and statistical analysis to reveal its hidden relations and supports.[15] In this stage, in fact, employees change the raw knowledge to an organizational valuable knowledge. This trend includes saving, filtration, organization, analysis, comparison, correlation, investigation or other skills. According to the results of various studies, knowledge transmission helps create new opinions. When knowledge is created, it should be transmitted to be useful. This transmission may be from person to person, to other groups or other working trends and processes. The transmission should be somewhere to be able to resolve problems and improve functions.[20] Of course in this study, no relation was observed between variable of knowledge and CRM.

Achievements of this study, totally, show that knowledge management has a direct and positive relation with CRM in banks of Khuzestan Province. So, in order to reinforce the agents to perform knowledge management, following suggestions may be considered:

Operational and supreme managers and also administrative staff of banks should believe in important role of knowledge management in their organization and its effect on organizational success and on improvement of CRM, and try to use knowledge management in key issues of their organization and in their decisions. In this regard, training staff to make them familiar with proper methods will be fruitful. Enough attention of bank managers to intellectual capitals and execution of knowledge-base strategies to define these programs will be a successful effort to establish knowledge management. Continuous bringing up of organizational knowledge by exchange of information in banks, appreciation of staff who share knowledge and allocation a special position (material and spiritual) for them will create enough motivation among employees to study and learn more. At last, providing appropriate information systems to save, transfer and exchange of knowledge such as internet, intranet, extranet and groupware and providing required feasibilities for easy access to suitable software to share information, providing required possibilities for easy access to suitable software to share information, and to create required skills to use information systems for further cooperation through required trainings are necessary steps to take.

REFERENCES

1- CHEN, J, Z. ZHU & H.Y.XIE (2004), MEASURING INTELLECTUAL CAPITAL: A NEW MODELAND EMPIRICAL STUDY, JOURNAL OF INTELLECTUAL CAPITAL, 5(1): 195-212.

2- DAVENPORT, T. H., AND BECK, J. C., (2002) "THE STRATEGY AND STRUCTURE OF FIRMS IN THE ATTENTION ECONOMY", IVEY BUSINESS JOURNAL, 66 (4), PP. 48-54.

3- Dillon, M., 1999, "Knowledge management opportunities for libraries and universities", Library and Information Science Annual, 7, 3-11.

4- FJERSMESTAD J. &N.C. ROMANO(2003); ELECTRONIC CUSTOMER RELATIONSHIP MANAGEMENT-REVISING THE GENERAL PRINCIPLES OF THE USABILITY AND RESISTANCE- AN INTEGRATIVE IMPLEMENTATION FRAMEWORK; BUSINESS PROCESS MANAGEMENT JOURNAL:VOL.9,NO.5

5- GROVES, S., (2002) "KNOWLEDGE WINS IN THE NEW ECONOMY", INFORMATION MANAGEMENT JOURNAL, 36 (2). 6.

6- Hassanzadeh, Mohammad (2007) Knowledge management, concepts and substructures. Ketabdar publishing.

7- HUNG, Y. C., HUANG, S. M., LIN, Q. P., TSAI, M. L., (2005) "CRITICAL FACTORS IN ADOPTING A KNOWLEDGE MANAGEMENT SYSTEM FOR THE PHARMACEUTICAL INDUSTRY", INDUSTRIAL MANAGEMENT & DATA SYSTEMS, 105 (2), PP. 164-183.

8- JEREMY GALBREATH ANDTOM ROGERS,"CUSTOMER RELATIONSHIP LEADERSHIP: A LEADERSHIP AND MOTIVATION MODEL FOR THE TWENTY-FIRST CENTURY BUSINESS", THE TQM MAGAZINE, VOL.11, NO. 3, 1999

9- Jantz, R., 2001, "Knowledge management in academic libraries: special tools and processes to support information professionals", Reference Service Review,29,1,33-9.

10- KOTLER,P. (2003); MARKETING MANAGEMENT; 11 TH EDITION. NEW JERSY: PRENTICE HALL. PP.52.& PP.40

11- LEVETT, G. P., & GUENOR, M. D., (2000) "A METHODOLOGY FOR KNOWLEDGE MANAGEMENT IMPLEMENTATION, JOURNAL OF KNOWLEDGE MANAGEMENT, 4 (3).

12- Nonaka, I. & H. Takeuchi (1995), The knowledge – Creating Company, Oxford University Press. Oxford

13- O'Dell, C. (1996), "A current review of knowledge management best practice", Conference on Knowledge Management and the Transfer of Best Practices, Business Intelligence,London

14- ROMANO,N.C. (2000) ; CUSTOMER RELATIONS MANAGEMENT IN INFORMATION SYSTEM RESEARCH; LONG BACH CALIFORNIA.

15- Ruding, Alen (2004) Knowledge management: Successful information-based global economy

16- Salavati, Adel; Hagh-Nazar, Fereshteh (2009) Analytical consideration of basic factors, effective on knowledge management system in administrative units of National Oil Company of Iran, Beyond Management, Third Year, No. 10, pp. 77-104

17- Sajjadiani, Sima; Karamati, Abbass; Aliun, Arezoo; Meshki, Hanieh (2007) Acceptance and Application of CRM in companies, a study in governmental companie, Article in the National Conference on Customer Relationship Management

18- Smith, R. (2001), "A roadmap for knowledge management" , available at : www2.gca.org/knowledgetechnologies/2001/proceedings

19- WWW.SWEENYGROUP.2001.COM 2009/24/3 ACCESSED

20- ZACK.M.H.(1999).DEVELOPING KNOWLEDGE STRATEGY. KNOWLEDGE MANAGEMENT REVIEW,41(3):125