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Integrating competitive strategy with knowledge management for organizational performance- An Implementation Perspective

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Abstract

Today world has witnessed a significant change happened over a period of time. It is due to the quest for knowledge on the part of individuals and organizations. Knowledge is considered as important and valuable resource. Managing knowledge can work as connecting variable between competitive advantage and organizational performance. Today managers are finding knowledge management key and tools to manage knowledge are having capability to create uncontested market space[21] and have serious concern to manage knowledge. Flows and structures of knowledge in business are very complex. The objective of this research , when in today's rapidly changing world and competition intensive environment organizations are deploying and utilizing capital intensive systems and technology driven products with information technology based computer infrastructure, is to propose the implementation of knowledge management systems to improve the performance of organization by aligning strategic competitive intent with knowledge management strategy. Strategic competitive intent, knowledge management strategy, organizational performance and implementation techniques are main parameters taken to produce implementable perspective.

Introduction

Knowledge management is tried to define as a method to simplify and improve the process of sharing, distributing, creating, capturing and understanding knowledge in firm. Knowledge management is description, organization, sharing and development of knowledge in organization, again knowledge management is a discipline focused on systematic and innovative methods, practices and tools for managing the generation, acquisition, exchange, protection, distribution and utilization of knowledge, intellectual capital and intangible assets[13].

It is difficult to integrate and align organization strategic competitive intent with knowledge management. This requires, primarily, defining clear strategic intent and knowledge management strategy using information systems (IS). Managing information and knowledge have capability to improve organizational performance. Even knowledge management tools can be utilized to develop core competency and strategic competencies.

Strategy implementation entails entire set of works and activities in organizations and capabilities to create and manage knowledge are key strengths for any organization. There is strong link between both and support each other. The focus on implementation leads to investigate key variables of strategic competency and intent and knowledge management creating tools and capabilities.

Time line leading to the knowledge

The Past, Present and Future

	System/Thinking Approach	Software Engineering	Systems Engineering	Knowledge management
Management Concept	Systems/Project management	DBMS	Information systems	Development KM tools
Systems	Data processing systems	MIS	DSS	KMS
Technology Elements	Data	Information	AI	Knowledge
Age	Industrial	Technology	Information	Knowledge

Organizations are able to improve their performance by augmenting their existing capabilities and developing new capabilities. In past few years, the role of information, knowledge and systems related to knowledge management has contributed in defining processes and firms performance. These differences have been matter of discussion among, researchers, academicians and managers. In order to compete and grow effectively, organizations should focus on the level of existing knowledge and develop new tools and techniques to create new knowledge. To integrate strategic competitive intent with knowledge management for implementation, knowledge

repositories can play an important role and knowledge repositories have two aspects- knowledge and database repositories and knowledge and systems infrastructure. Managing and implementing knowledge management is intricate due to its multidimensional and varieties of application across all operational and tactical frontiers.

Literature Review

Several literatures indicate that area of knowledge management has evolved and found popularity in business and academics equally. Advancement in information systems especially deployed information infrastructure along with technology have helped in developing and implementing strategies meant to knowledge management.

Serban and luan (2002) have cited five reasons for interest, emergence and growth in the field of knowledge management[20].

1- Information overload and chaos
2- Information Congestion
3- Information and Skill segmentation and specialization
4- Workforce mobility and turnover
5- Competitive intent

Human Resource Management and Organizational Performance and knowledge management

Several studies have investigated the relation among HRM, KM and organizational performance[19]. Studies have found that to get organization perform these three should be aligned with strategic competitive intent.

Organizational Culture, Higher education and Knowledge Management

To understand the role of higher education institutions and accredited business schools, few institutions and universities have adopted models proposed by experts in the area [6]. Candy recommended use of fourfold division of academic work- scholarship of discovery, scholarship of application, scholarship of integration and scholarship of teaching. This model keeping in view the individuals staying in an information age and society, work and grow in knowledge-based workplaces, proposes academic communities must be considered as knowledge based organizations.

(Santo,2005) along with (Candy,2000)[6,18] believe that we are living in the age of knowledge organizations in which generating, sharing and repertory knowing are imperative for organizational culture. They observe, however, that educational institutions are among at rear end to KM principles and programs. Education institution's contribution in creating knowledge may be capable in developing organizational culture to perform with sustainable competitive advantage.

Objective of Study

This study is related to alignment of competitive strategic intent with organizational knowledge management strategy for implementation of knowledge management culture to improve the performance of organization.

Hypotheses

Strategic Competitive Intent- The basic purpose of strategic intent linked with competition is to draft program and processes of business to meet uncertainty and challenges.

Knowledge Management Strategy – There are different variables which play important role in managing knowledge strategy are explicit and implicit knowledge, adaptation, role of learning and repository of knowledge.

Hypothesis-1 Firms or Organizations as predictor, investigator or conventionalist lay emphasis on improvement, Skills adoption, Inventive techniques and adaptation.

Implementing knowledge management strategy

Information systems and technology have enabling tools to integrate knowledge management and strategic intent. Systems and database management and other security and communicative techniques are used to make implementation effective and efficient. To understand implementation which may differ from industry to industry, it may differ from unit to unit of same organization too.

Hypothesis-2 Organization in the area of improvement, skills adoption, inventive techniques and adaptation put stress on encryption, customization and synchronization of database.

Organizational Performance – Assessing output from knowledge management implementation is very difficult. Since knowledge of organizational processes and changes in process require deep understanding. Impact of these on implementation of knowledge management strategy with strategic intent can only be measured by continuous and long term recording.

Hypothesis- 3 those organizations lay stress on encryption, customization and synchronization has positive impact on different parameters of organizational performance.

Research Design-

Empirical data collection was done using survey method of research.

Instrument-

This instrument contained questionnaire using nominal scale and likert scale with 7-point forwarded to respondent through e-mails.

Demographics-

Different features of organizations like revenue, types and counts of employees, nature of industry were collected with appropriate demographics like experience, age, education, level of position.

Knowledge management perspective- This section of instrument carry to two constructs. These two constructs comprise nine measuring items in total.

Strategic Competitive intent- this part is comprised with three constructs i.e. enterprising, executive and technical. And these constructs was defined by nine parameters as scale of measurement.

Approach to implement- In this section three constructs have been incorporated to measure total of four parameters for scale.

Organizational Performance- Total of four parameters has been developed for two constructs as measuring scale.

Sampling-

In this study investigation is aimed to establish relation of knowledge management strategy with strategic competitive intent. Competitive intent is supported by great information systems deployment and investment. To define industries of India incorporated in this study are manufacturing, financial services and education. Manufacturing industry include FMCG, white consumer goods, scientific development industries, automobile and chemical. Financial Service Industry comprises banking and insurance. And education industry consists of accredited institution.

Out of 500 manufacturing firms form the manufacturing industry, 300 firms were part of sample. 176 services firms were taken out of 250 firms of financial services. 100 accredited educational institutions were opted out of 200 institutions.

Total of 576 survey questionnaires were sent to senior information executives (SIEs) and senior knowledge executives (SKEs). Out of these 576, 136 completed surveys were found. 23.6% of response rate out of total 576 surveys.

Table-1

Demographics

Organizations	Nos. of Respondents	Percentage
Manufacturing	79	58.08%
Financial Services	34	25.00%
Educational Inst.	23	16.92%
	136	
Revenue		
<6000M	46	33.82%
6000M-15000M	40	29.41%
15000M-60000M	24	17.94%
60000M-125000M	20	14.70%
>125000M	6	4.41%
	136	
Employees		
>6000	17	12.50%
3000-6000	28	20.58%
1500-3000	69	50.73%
<15000	22	16.17%
	136	
Experience		
>25years	52	38.23%
15-25Years	57	41.91%
<15Years	27	19.85%
	136	
Qualification		
Post Graduate	11	8.08%
Under Graduate	48	35.25%
Intermediate	77	56.61%
	136	
Designation		
SIE	72	52.94%
SKE	24	17.64%
Production Exe	33	24.26%
Service Exe	7	5.14%
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Age		
>60	51	37.50%
60-40	38	27.94%
40-25	37	27.20%
<25	10	7.35%
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Validating scale-

1- Confirmatory factor analysis used as validating measure
2- Measurement model tried to be apprised for a model fit.
3- Criteria for chi-square/degree of freedom(χ^2/df) kept to less than 2.98
4- Adjusted goodness of fit must be greater than 0.78
5- Goodness of fit larger than 0.89

6- Normal fit index greater than 0.89
7- Comparative fit index larger than 0.89
8- Reliability has been assessed by composite reliability index
9- Validity for convergence was assessed using three measures- Item loading greater than (0.69), statistically significant composite reliability larger than (0.78) and average variance of every construct greater than (0.78).

Four models of measurement were incorporated in survey, model meant for knowledge management strategy displayed poor fit with model below the acceptable limit. While measurement models for implementation, organizational performance and strategic intent exhibited good fit.

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Table-2

Reliability, Validity of Convergence, Discriminant							
					Correlation		
Measurement Scale	Construct	Loading	Reliability	Ave.	Etr/Md	I&S/Hm	Exe/Ld/I&S
	Enterprising	0.81-0.83	0.91	0.77	_	_	_
Strategic Competitive Intent	Executive	0.79-0.81	0.89	0.82	0.49	_	_
	Technical	0.79-0.83	0.88	0.8	0.48	_	0.49
Knowledge Management	Change	0.81-0.84	0.93	0.81	_	_	_
	Direction	0.80-0.82	0.91	0.8	0.53	_	_
	IS Support	0.82-0.89	0.79	0.78	0.49	_	_
Implementation	Resource Mgmt.	0.81-0.87	0.78	0.77	0.47	_	0.43
Performance		0.80-0.83	0.9	0.81	_	_	_

Note- Etr- Enterprising, Md- Method learning, Exe- Executive, Ld- Learning direction, I&S- Information and systems, Hm- Human Resources

Analysis and Findings-

Analyzing knowledge management strategy and strategic competitive intent-

This research examined empirically these different strategies viz. predictor, investigator and

conventionalist. On the basis of these three strategies cluster were created and these three strategies worked well to understand clusters. Firms in these clusters were of size 31, 62 and 43. Sample organizations were large business organizations of related industry. Strategies predictor, investigator and conventionalist were distributed like 22.79%, 45.58% and 31.61%.

Organization having knowledge base and tools for managing business are capable to bring new services or products or both for changing market dynamics. More appropriate approach for organization to focus on opportunities available and then launching new products or services to markets with inventive approach or methods.

Thereby higher percentage of organization is to adopt investigative strategy that is 45.58%.

Predictor strategy must be next step to follow in India. Means major portion of organization understudy presently interested in maintaining comparatively no new Move strategy or stability approach. Those organizations involved in improvement estimate viz. change and learning method or less than 3.8 mean values by using 7 point likert scale. Skill adaptor was having estimate more than four when used two variables as measure. Organizations using inventive techniques strategy and adaptor strategy used two variables having value less than 3.8 and more than 3.8.

The distributions of organization using different strategies were 29(21.35%), 30(22.05%), 32(23.52%) and 45(33.08%).

Table-3 summarized the connection between knowledge management strategy and strategic competitive intent. Hypothesis 1 was tested for the relation using table 3 along with Chi square statistics with degree of freedom (df) is equal to 5.8. Does hypothesis one was considered to be accepted organizations accepted predictor and fairly large conventional strategy in Indian perspective.

Organizations adopting predictor strategy lay stress on exploring New Market opportunities and new products and services. In pursuing this strategy need a special kind of knowledge management strategy that can help these organizations constantly designing processes forms and learning. Investigatory strategy is basically to stay stable. This is strategy try to be selected in products and services to maintain balance between cost and competition based differentiation. This is strategy need greater role of knowledge management. Conventionalist strategy, firms adopting this is strategy try to operate at lower cost and fairly stable market conditions and products. In addition an Indian perspective both kind of strategy adopting forms are nearly equal in percentage like 54.40% and 55.80%.

Table-3

Correlation between knowledge management strategy and Strategic competitive intent

Strategic intent	Improver	Skills adopter	Inventive techniques	Adaptor	Total
Predictor	15 (54.40%)	7 (21.20%)	6 (18.19%)	5 (15.17%)	33 (24.26%)
Investigator	10 (16.66%)	19 (31.60%)	15 (25.00%)	16 (26.60%)	60 (44.11%)
Conventionalist	4 (9.30%)	4 (9.30%)	11 (25.50%)	24 (55.80%)	43 (31.61%)
	29	30	32	45	136

Analysis of strategy implementation-

Cluster analysis was same to understand different kinds of strategy implementation methods using two variables that is IS support and resource management. In this analysis three cluster options which were good selection. Size of organizations were 51(37.5%),40(29.41%) and 45(33.08%).

For establishing relationship between strategy implementation and knowledge management strategy table 4 displayed different variables with different attributes. Test result exhibited Chi square is equal to 25.9 and degree of freedom df is equal to 8.9, probability lesser than 0.02 hypothesis 2 was accepted.

Percentage of different approaches shown in table- 4 displayed the implementation of knowledge management strategies to analyze and conclude about approach to implement.

Table-4

Correlation between strategic knowledge management and implementation				
Implementation				
KM	Encryption	Customization	Synchronization	Total
Improver	13 (33.30%)	14 (35.80%)	12 (30.70%)	39 (100%)
Skill Adopter	8 (26.60%)	13 (43.30%)	9 (30.00%)	30 (100%)
Inventive Techniques	11 (37.90%)	6 (20.60%)	12 (41.30%)	29 (100%)
Adaptor	19 (50.00%)	7 (18.42%)	12 (31.57%)	38 (100%)
	51	40	45	136

Analysis of organizational performance-

Table-5 summarizes the relationship among organizational performance indicators and strategy implementation methods. t- Statistics were used and results displayed significant relation. Hypothesis 3 was accepted. For t- statistics $t = \frac{x - x}{s/\sqrt{n}} x = 3.8$, If try to understand further six Kinds of organizational performance indicators along three types of strategic implementation methods, the coordinated change and improvement (CC&I) were properly suited on encryption method, new product first to market (NPFM) suited well to customization and crises prediction (CPA) ability with synchronization. These methods and indicators lead to facilitate communication across organization by documented procedures and rules. Customization methods would help primarily in exchange of concepts and ideas by straight personal contacts with information systems and support network.

Table-5

Correlation between Performance and Implementation							
Performance							
Implementation	CAI	CC&I	NPFM	CPA	RCM	DRK	Averaging
Encryption	5.49	6.29	5.48	6.02	5.61	6.27	5.86
Customization	5.59	5.61	6.25	5.58	6.31	5.68	5.83
Synchronization	6.01	5.58	6.31	6.12	5.59	6.01	5.93

Note- CAI-Capability to Innovate, CC&I- Coordinated Change & Improvement, NPFM- New Product First to Market, CPA- Crises Prediction Ability, RCM- Responsiveness to Market Change, DRK- Diminished Redundancy of Knowledge

Conclusions and Suggestions-

Generally, Organizations follow different sort of competitive strategy. Predictor, Investigator and conventionalist strategic intent can lead to different knowledge management strategy. For managing knowledge and resources related of knowledge management strategies viz. improver, skill adopter, Inventive techniques and adaptors will be of utmost importance to improve organizational capabilities and performances. The performance of organization will be enhanced by using encryption, customization and synchronization as implementation methods.

Firms today are viewing management of knowledge as crucial resource to stay competitive. Different knowledge management perspectives and models are being used to effectively utilize knowledge as resource. The main idea here has been to generate, store and apply knowledge using technological perspective to enhance capabilities of organizations. Organizations must evaluate

the worth of knowledge as resource and again define strategy to get output. Finally it is organizational performance which is the result of strategy implementation of knowledge or strategic competitive intent.

Result for application can be suggested for practitioners where successful knowledge management model were absent. Different pattern according to the competitive strategic intent are available in analysis part of this study. Managers may use predictor-inventive techniques and customization pattern or may use investigator-skill acquirer and customization pattern. The use of these different patterns can lead to organizations perform better.

Further this study can be used for investigations in future. This study has tried to prepare model based on different typology of competitive strategies and knowledge management strategies. This study can be helpful to apply to other industries which are not the part of this investigation.

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