A STUDY ON KNOWLEDGE MANAGEMENT AMONG IT FIRMS IN CHENNAI

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ABSTRACT: *Knowledge leads people in the effective usage of information so that they can make more informed and successful decisions in addition to enhanced customer interactions. Some organizations have learned the value of knowledge the hard way when they lost it through manpower reduction or retirement programs. Conversely, some organizations that have managed their knowledge in a professional, proactive and systematic manner have become more innovative, agile, and successful. A holistic approach to managing the knowledge of an organisation is very critical to the value proposition. The holistic vision encompasses the creation of a KM strategy and architecture thatsynchronizes with any company's mission and strategy. This study attempts to analyse the need for knowledge management in select IT Companies in Chennai, ascertain the type of KM practices adopted by the select IT companies and understand the type of relationship between knowledge management practices and knowledge management climate prevailing in the select IT companies.It is no doubt that human capital together with financial capital and technology capital, would contribute to the capabilities of the IT companies to adjust to the market dynamics.*

Key Words: Knowledge management, practices, vision, strategy

INTRODUCTION

Identification of knowledge, as a recognized field of principal investigation for business use, in addition to academic research, has spurred continuing demand for information systems. Organizational expenditures on IT have generated significant benefits for the employees and are growing at a faster pace. As organizations grow, they are challenged by rapidly changing economic forces that necessitates the development of faster and more accurate responses. However, the information explosion threatens to overwhelm and overload individual and corporate response mechanisms.

Knowledge leads people in the effective usage of information so that they can make more informed and successful decisions in addition to enhanced customer interactions. Some organizations have learned the value of knowledge the hard way when they lost it through manpower reduction or retirement programs. Conversely, some organizations that have managed their knowledge in a professional, proactive and systematic manner have become more innovative, agile, and successful. These companies are able to connect a high percentage of their employees and keep them focused on the enterprise strategy and goals by having them generously share their experiences as well as insights with one another. This chapter presents the basic concepts

REVIEW OF LITERATURE

John E. Dittrich, J. Daniel Couger and Robert A. Zawacki (1985) conducted a study among 963 systems analysts and programmers and 261 operations employees from nine companies collecting data through questionnaire. The questions included perceptions of fairness (equity), job satisfaction and intention to quit. The study showed that fairness factor was considered as a significant individual variable with respect to job satisfaction for both groups. Intention to quit was strongly related to perceptions of equitable treatment. The management had a direct control over the key factors affecting job satisfaction and intention to quit.

The article by John M. Ivancevich, H. Albert Napier, James C. Wetherbe (1985) investigated the concepts of occupational stress, Type A behaviour pattern, work attitudes, health symptoms and health behaviour among information systems personnel. Type A behaviour pattern was identified to be significant moderator for some stressor criterion associations. It has been concluded that more managerial understanding of the person's environment fit in general and individual employee predisposition toward Type A behaviour in particular to nurture and maintain healthy work environment.

NEED FOR THE STUDY

A holistic approach to managing the knowledge of an organisation is very critical to the value proposition. The holistic vision encompasses the creation of a KM strategy and architecture

thatsynchronizes with any company's mission and strategy, and development of an appropriate mindset that creates cultural norms — trust, sharing, common goals, caring, quest for learning, and acceptance of change— that permeates every aspect of the organization.

A holistic approach to KM also includes thinking in terms of the importance of stakeholder value, and rewarding those stakeholders who put their own human capital at risk to make an organization succeed. By leveraging institutions knowledge, they can dramatically improve their ability to compete and provide products or services that generate the greatest return on investment. Knowledge encompasses knowledgeabout customers, products, processes, competitors and so on, which can be locked away in the employee's minds or filed on paper or in electronic form. An organisation-wide approach to knowledge management can lead to exponential improvements in sharing knowledge - both explicit and tacit, and subsequently surge benefits.

OBJECTIVES OF THE STUDY
- To study the need for knowledge management in select IT Companies in Chennai.
- To ascertain the type of KM practices adopted by the select IT companies
- To analyse the relationship between knowledge management practices and knowledge management climate prevailing in the select IT companies.

METHODOLOGY
The research design used for the study is descriptive research. The study includes both primary and secondary data. The tool used for the study is a structured questionnaire which was designed keeping in mind the objectives of the study. The respondents identified for the study were employees who were responsible for implementing knowledge management practices in the chosen IT firms in Chennai. The sample size was limited to 125 respondents and the sampling technique was convenience sampling.

DATA ANALYSIS
One SampleT-Test for Need for Knowledge Management
In IT companies, factorssuch   as, 'Prerequisites', 'Imperatives', 'Change Management' and 'Restructuring' determine the need for knowledge management. All these factors are mostly practiced by the IT Companies; it is necessary to identify the major factor, which is the basis for knowledge management need.

Table 1: One Sample T-Test for Need for Knowledge Management

Factors	Mean	Test Value	t-value	Significance
Prerequisites	4.31	4	6.575	.000
Imperatives	4.13	4	2.710	.008*
Change Management	3.98	3	22.093	.000
Restructuring	3.65	3	14.405	.000

Note : * Insignificant

From the table above, the mean values 4.31, 4.13, 3.98, and 3.65 are obtained for the factors 'Prerequisites', 'Imperatives', 'Change Management', and 'Restructuring respectively. The t-test value for the test value 4 confirms that the mean value of prerequisites is significantly greater than 4 at 5 percent level of significance. This again confirms that the respondents strongly agree to the factor 'Prerequisites'. However, the t-test value for mean value of Imperatives with the test value 4 is insignificant at 5 percent level of significance. This shows that the employees in IT Companies have agreed to the Imperatives like corporate restructuring, changed employee expectations, and renewed focus on work

It is also inferred from the above table that the t-test value for the test value 3 reveals that the mean values of Change management and Restructuring are significantly greater than 3 at 5 percent level of significance. This shows that the employees in IT Companies have agreed that the Change management and Restructuring are important for knowledge management need. The comparison of the mean values of these four factors reveals that prerequisites have emerged as 'predominant factor' of knowledge management need. It is concluded that the Prerequisites like organisation's products/services; Quality awareness, increased competition, IT revolution, and Liberalization, Privatization, and Globalization are predominant variables among other variables of knowledge management need. It is also observed that the imperatives accelerate the knowledge management practices towards constructive Change management techniques and Revitalizations of their employees' potential.

One Sample T-Test for Knowledge Management Practices

Knowledge management practices in the IT Companies are determined by three factors namely; 'Work Environment', 'Personality Development' and 'Team Building' and they contribute significantly to the IT Companies. It is necessary to identify the major factors contributing to the welfare of the IT Companies. This object can be realized by comparing the mean values of these two factors. The three factors obtained from the variables of 'Genesis of knowledge management practices' are tested with parametric one sample t-test to find out the significance. The values of mean, t-test value and t-value and significance from the test are exhibited in the table given below:

Table 2: One Sample T-Test for Knowledge Management Practices

Factors	Mean	Test Value	t-Value	Significance
Work Environment	4.19	4	4.006	.000
Personality Development	4.58	4	15.674	0.000
Team Building	4.17	4	4.445	.000

From the table above, the mean values 4.19, 4.58, and 4.17 are obtained for 'Work Environment', 'Personality Development', and 'Team Building' respectively. The t-test value for the test value 4 shows that the mean values of Work Environment, Personality Development and Team Building are significantly greater than 4 at 5 percent level of significance. This shows that the employees in IT Companies have strongly agreed that all three factors are very much important for the betterment of the organisation.

The comparison of mean values of Work Environment, Personality Development, and Team Building reveals that the employees in IT Companies have given greater emphasis on Personality Development than the other two factors. It is very clearfrom the above table that the mean value of Personality Development is more than the mean value of other two factors. Hence, it is concluded that the employees in IT Companies achieve the organisation's development by way of developing their individual personality and team building.

Correlation between Knowledge Management Practices and Knowledge Management Climate

In this analysis, the knowledge management practices namely Performance Appraisal, Career Planning and Development, Training and Development, Job Rotation, Employee Welfare and Reward System, Other knowledge management practices and knowledge management climate are considered for the statistical analysis.

According to *T.V.Rao,* there is linkage between knowledge management practices and knowledge management climate. The factor analysis on the above-mentioned knowledge management practices and the knowledge management Climate ascertained the existence of 19 and 5 factors respectively. The Karl Pearson's co-efficient of Correlation is applied on the two blocks of knowledge management practices and knowledge management climate to establish their individual relationships.

Table 3: Correlation between Knowledge Management Practices and Knowledge Management Climate

Factors	Cultural Changes	General Climate	Management Mechanism	Empower-ment	Risk Management
Work culture	.318**	.129	.426**	.322**	.218**
Futuristic strategy	.003	.458**	.404**	.290**	.449
Guiding values	-.024	.350**	.322**	.145	.126
Review	.317**	.227**	.307**	-.007	.056
Feedback	0.294**	0.524**	0.348**	0.205*	0.320**
Employee Commitment	0.210**	0.257**	0.394**	0.130	0.076
Awareness	-0.220**	-0.018	0.261**	0.171*	-0.060
Career advancement	0.273**	0.235**	0.255**	0.256**	0.365**
Training mechanism	-0.021	0.290**	0.440**	0.474**	0.271**
Training infrastructure	0.280**	0.303**	0.453**	0.194*	0.293**
Induction training	0.135	0.128	0.441**	0.402**	0.214**
Orientation	0.449	0.137	0.142	-0.092	0.120
Accommodative approach	-0.085	0.118	0.306**	0.168*	-0.086
Internal check	0.069	0.213**	0.034	0.292**	0.217**
Ideal welfare measures	0.450**	0.462**	0.569**	0.409**	0.400**
Accountability	0.460**	0.339**	0.468**	0.164*	0.282**
Loyalty	0.125	0.228**	0.202*	0.081	0.352**
Quality management	0.458**	0.356**	0.473**	0.333**	0.500**

Participative management	0.349**	-0.100	0.140	-0.022	0.118

Correlation is significant at the 00.01 level (2-tailed)0.
Correlation is significant at the 00.05 level (2-tailed)0.

It is inferred from the above table that the factor 'Work Culture' of Performance Appraisal asserts a significantrelationship with the factors 'Cultural Changes', 'Knowledge Management Mechanism Climate, 'Empowerment' and 'Risk Management'. This prompts a conclusion that the evaluation of Performance Appraisal with more promptitude and sharpnesswould induce the authenticated responsibility among the employees to meet various exigencies of administration in future, whereas it does not have significant relationship with 'General Climate'. This shows that the employees in IT Companies are highly responsible and open minded in realizing their responsibilities without expecting any appreciation from the top management. They have the nerve for sustained hard work to meet out the risk involved in their assignments.

'Futuristic Strategy' has positive correlation with 'General Climate', 'Knowledge Management Mechanism Climate' and'Empowerment'. The prudential strategies of top-level management in IT Companies ensure a favourable atmosphere among the employees to create an optimistic environment to fight against the dire consequences of negations of the service. The knowledge management practices are dedicated to extract a maximum performance from the employees within the short span of time. But, the factor 'Futuristic Strategy' does not have significant relationship(significance value is more than 0.05) with 'Cultural Changes' and 'Risk Management'. This implies that the futuristic strategies are not massive enough in IT Companies to make radical changes in the culture of the employees and their risk taking abilities.

'Guiding value' has positive correlation with 'General Climate' and 'Knowledge Management Mechanism Climate'. This showsthat a transparent Performance Appraisal exercised diligently in IT Companies enlightened the employees in accepting the proper and constructive knowledge management climate in the IT Companies. This leads to the conclusion that the Performance Appraisal System and its implementation strengthen the knowledge management policies of IT Companies to produce an optimistic climate. The 'Guiding Values' and their influences conspicuously create a mechanism visibly workable for promotions and pragmatic approaches of top-level management, whereas it does not have significant relationship (significance value is more than 0.05) with the factors 'Cultural Changes', 'Empowerment', and 'Risk Management'. The employees of IT Companies possess an opinion that a strict Performance Appraisal leads to dejections and uninteresting approaches in the work environment.

The factor 'Review' is positively correlated (significance value is less than 0.05) with the factors 'Cultural Changes', 'GeneralClimate', and 'knowledge management Mechanism Climate' of knowledge management Climate survey. The frequent reviews of Performance Appraisal make the employees more responsible, loyal, and trustworthy in the formation of the conducive knowledge management Climate. The relationship between thefactor 'Review' with 'Empowerment' and 'Risk Management' of knowledge management Climate survey is not significantly correlated (significance value is more than 0.05).

'Feedback' is positively correlated (Significance value is less than 0.05) with all the factors of knowledge managementClimate Survey. Therefore, it is concluded that the identification of training needs relating the measure of performance of employees are useful in creating a good work environment in IT Companies.

The factor 'Employees Commitment' has positive relationship with the factors 'Cultural Changes', 'General Climate' and 'KnowledgeManagement Mechanism Climate' of knowledge management Climate Survey. Therefore, it is concluded that the unstinted devotion of employees towards their responsibilities is useful for the IT Companies to implement the measures towards goal achievement and ultimatum. There is no significant relationship (significance value is more than 0.05) between 'Employees Commitment' and the factors 'Empowerment' and 'Risk Management' of Knowledge Management Climate Survey. Since the employees are adequately committed in IT Companies they do not require the empowerment and they are not accessible to any risk-taking processes.

'Awareness' is positively correlated (Significance value is lessthan 0.05) with the factors 'knowledge management Mechanism Climate' and 'Empowerment'. It is also inferred that the factor 'Awareness' of Career Planning and Development is not significantly correlated with factors 'General Climate' and 'Risk Management'. The employees in IT Companies can ascertain their career opportunities and they have positive impact on the customer service and other important responsibilities of the IT companiesThey also understand that their career advancement does not have any influence in an environment free from risk and knowledge management practices. There is negative correlation between 'Awareness' and 'Cultural

Changes'. Therefore, it is concluded that the employees in IT Companies have certain amount of doubt that the cultural changes in their environment would hamper their career advancement.

'Career Advancement' is significantly correlated (Significance value is less than 0.05) with all factors of knowledgemanagement Climate. There is a positive correlation between'career advancement' of Career Planning and Development and 'Cultural Changes', 'General Climate', 'knowledge managementMechanism Climate', 'Empowerment' and 'Risk Management' of knowledge management Climate Survey. The top-level management of the IT Companiesisenthusiastic in materializing the theoretical aspects of knowledge management practices to create an optimistic knowledge management climate to attract their employees magnetically to join the torrent of career advancement.

'Training Mechanism' is not at all correlated with the factor 'Cultural Changes', whereas it is positively correlated with thefactors 'General Climate', 'knowledge management MechanismClimate', 'Empowerment', and 'Risk Management' of knowledge management Climate Survey. Therefore, it is concluded that the main objectives of Training Mechanism in IT Companies are to improve the climate rather than making any significant radical changes in their culture. They are very firm in their ideology of extracting maximum potential from their employees.

All the factors of knowledge management Climate Survey are having significant relationship (Significance value is less than0.05) with the factor 'Training Infrastructure'. This shows that the training infrastructure is well planned in the IT Companies to employ multifarious strategies in making their employees suitable elements to catalyze the knowledge management practices in their working environment.

One of the factors of 'Training & Development' is 'Inductive Training' in IT Companies. It has positiverelationship with the factors 'Knowledge ManagemenMechanism Climate', 'Empowerment', and 'Risk Management' of knowledge management Climate Survey. However, it has no correlation with 'Cultural Changes' and 'General Climate'. The exposure of the employees to the inception of training makes them experience their personal strength to fight against indomitable administrative errors and risk involved in their day-to-day proceedings.

'Orientation' is the first factor emerged from 7 variables of jobrotation. It does not have any correlation with all the factors of knowledge management Climate Survey. This shows that Job Rotation is incompatible with the improvement of knowledge management climate. It is considered as a tool of innovation to produce increased knowledge among the employees of IT Companies.

The factor 'Accommodative Approach' is significantly correlated(Significance value is less than 0.05) with 'Knowledge Management Mechanism Climate' and Empowerment'Moreover, there is no correlation between 'Accommodative Approach' and 'Cultural Change', 'General Climate' and 'Risk Management'. The propensities of the top-level management ofIT Companies for consulting their employees during postings increase their responsibilities to practice knowledge management to increase the organisation's efficiency and the individual efficiency.

'Internal Check' is positively correlated (Significance value isless than 0.05) with the factors 'General Climate', 'Empowerment', and 'Risk Management'. Job rotation creates awareness among the employees about their limitations and made them think twice in materializing their administrative decisions. In fact, this is considered as a climate with decency and decorum to suppress corruptions and malpractices at the work place. However, there is no correlation (Significance value is more than 0.05) between 'Cultural Change' and 'knowledgemanagement Mechanism Climate' with the factor 'Internal Check'. The internal check amplifies the administrative capacities of the employees and in no case it clears the way to create a collective situation for the betterment of the organization.

'Ideal Welfare Measures' and 'Accountability' are the two factorswhich emerge from 12 variables of 'Employee Welfare and Reward System' in IT Companies. These two factors are positively correlated with all the factors of knowledge management Climate Survey. It is found that the management of the IT Companies identifies that bothwelfare measures and accountability energize the employees to have more internal strength to create an optimistic climate for the development of IT companies.

Another factor 'Loyalty' is positively correlated (Significance value is less than 0.05) with the factors 'General Climate','knowledge management Mechanism Climate' and 'Risk Management', but it has no significant (Significance value is more than 0.05) relationship with the factors 'Cultural Changes' and 'Empowerment' of knowledge management climate survey. It is also understood that loyalty and trustworthiness of the employees are imperative to create an honest climate in the organisation. It leads to more pious and holistic approach of the employees towards the administration of IT companiesTheemployees of the IT Companies know too well of the indispensability of their loyalty and honesty.

'Quality Management' is having significant relationship (Significance value is less than 0.05) with all the factors ofknowledge management Climate Survey. The management of the IT Companies desires quality of service in the midst of tangible practices of knowledge management.

'Participative Management' has positive correlation with 'Cultural Changes' and does not have any correlation with otherfactors of knowledge management Climate Survey. This shows that the employees' participation compose them to obtain the responsibility of renewing the errors and mistakes in their proceedings.

FINDINGS OF THE STUDY

The overall conclusion establishes that IT companies have initiated measures for the effective implementation of knowledge management practices. They concentrate primarily on the imperatives to join the mainstream of liberalization. The innovative changes in management have emerged in the form of quality of service through the increased knowledge of employees. The process of restructuring in IT companies helps to attract maximum number of IT professionals towards the various service domains.

In IT companies the main knowledge management practices is identified as strategies to revamp the existing process to create a favourable work environment. It also targets the individuals to improve their personality for their successful discharge of duties. The top-level management teaches their employees for the collective team building.

The correlation analysis reveals that the KM practices in IT companies aim at their targeted outcomes in the form of developmental activities. In particular, the spirit of team-building objective is not satisfactorily achieved in their organization.

Work Culture, Futuristic Strategy, Guiding Value, Feedback of Performance Appraisal System, Employee Commitment, Career Advancement of Career Planning and Development, Training Mechanisms, Training Infrastructure, Inductive Training of Training and Development, Ideal Welfare Measures, Accountability, Loyalty of employees, Welfare and Reward System, Quality Management of Other Knowledge Management practices, General Climate, Knowledge Management Mechanism Climate, Empowerment and Risk Management of knowledge management Climate survey are positively correlated with knowledge management Outcomes.

This implies that the knowledge management practices and knowledge management Climate in IT companies produce positive knowledge management outcomes in the form of productivity and profitability.All the factors except Loyalty of Knowledge Management Practices, Knowledge Management Climate and KnowledgeManagement Outcomes are significantly correlated with the factor reengineering of organizational effectiveness. This implies that all the factors of Knowledge Management practices, Knowledge Management Climate and Knowledge Management Outcomes wheel the process of reengineering; they eventually give organizational effectiveness to IT companies. However, the factor Loyalty is not having any correlation with Reengineering. The loyalty of the employees helps organisations in implementing all the required processes but it may not help them to transform their entire culture. The reshaping of their organizational optimistic culture depends on assistance of suitable knowledge management practices and favourable outcomes.

CONCLUSION

In tune with the paradigm shift in Indian IT sector, the HR function in the IT companies has to extricate itself from the mode in which it found itself over the last four to five decades. As the market has changed, the customer too has changed, customer expectations have taken new forms, and people policies also have to change, as it is the people who will be the key differentiators in the new era. It is no doubt that human capital together with financial capital and technology capital, would contribute to the capabilities of the IT companies to adjust to the market dynamics.

REFERENCES

1. Demarest, M. (1997). Understanding knowledge management. Long Range Planning, 30(3), 374-384.
2. Mark Stam, Eric Mollema International Journal of Manpower, Vol. 20, Iss. 6, Sep 1999, n, Matching the demand for and supply of IT professionals: Towards a learning organisation, pp.375 – 387.
3. Ibid pp.77-85
4. John E. Dittrich, J. Daniel Couger and Robert A. Zawacki, Perceptions of equity, job satisfaction, and intention to quit among data processing personnel, Information & Management, Volume 9, Issue 2, Sep 1985, pp.67-75.