A STUDY ON KNOWLEDGE MANAGEMENT PRACTICES AND ITS IMPACT AMONG THE EMPLOYEES WITH SPECIAL REFERENCE TO COGNIZANT TECHNOLOGY SOLUTIONS, COIMBATORE.

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A PROJECT REPORT

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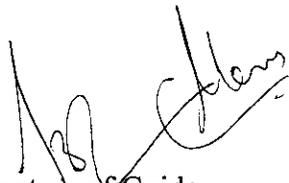
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For Cognizant Technology Solutions

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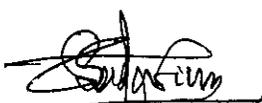Kalapatti Road, Coimbatore – 641 048.

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ABSTRACT

Knowledge Management is not something new. It is going to be something tangible and in another word there is a kind of revolution on this topic today. Nowadays all successful organizations are becoming knowledge based and they try to have knowledge management and knowledge sharing as integral part of their attendance for achieving competitive advantage among other businesses.

In this study, it is measured whether the implemented Knowledge Management practices in Cognizant Technology Solutions, Coimbatore improves the Quality of work in the organization. The study involves observing and analyzing the post implementation activities within the organization. The satisfaction level of the employees is analyzed using Descriptive Survey method and it is found that most of the employees in the organization feel that knowledge sharing is important and relevant and feels comfortable in using their KM system.

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LIST OF ABBREIVATIONS

NO.	SYMBOL	ABBREIVATIONS
1	KM	Knowledge Management
2	IT	Information Technology

CHAPTER 1

INTRODUCTION

CHAPTER 1

INTRODUCTION

1.1 Research Background - Description of specific industry

Cognizant Technology Solutions is an information technology services company with headquarters in New Jersey, United States and with significant operations in Chennai, India. The company was started in 1994 as a joint venture between Dun & Bradstreet and Satyam Computer Services Ltd. In 1996, the company became a division of the Cognizant Corporation, after the split-up of Dun & Bradstreet Corporation.

The company has been one of the fastest growing in the IT Services segment to cross $1Billion as revenues. In 1998, was listed on the NASDAQ. It became the first company in the world to be certified for CMMI-Level5. Cognizant has been named to the 2007 Fortune 100 Fastest-Growing Companies List for the fifth consecutive year, making it the only company receiving the "Five-year all-stars" distinction in 2007's list.

Currently, Cognizant has over 60,000 employees and serves over 500 customers across 9 industry verticals.

1.2 Identified Problem

The project "A Study on Knowledge Management Practices and its impact among the employees with special reference to Cognizant Technology Solutions, Coimbatore"

will identify and analyze the Knowledge Management practices existing in Cognizant Technology Solutions.

Analysis is done on the existing process of Knowledge Management that has been prevailing in the organization and to measure its effectiveness like Employee's contribution towards organizational knowledge, its use and re-use, recognition of efforts in knowledge sharing, enhanced innovations in the organization, hurdles and obstacles in sharing the knowledge, increased productivity, relevancy, comfort level for new employees etc.,

The above information is collected my means of normal data collection tools such as questionnaires, interview and observations. A structured questionnaire with Likert scale is designed to collect the data and responses will be collected to meet the above objectives. The Secondary data will be collected from the company's magazines, newspapers, websites and journals.

With the collected data, analysis is done on the process with statistical tools like Mean, Percentage Analysis and Chi Square test and suggests the organization with some advancement that can be implemented in the Process to improve Efficiency or else suggest them more suitable Process which will increase the organization standards and yield more gain to all.

1.3   Need for the Project

Corporate sectors adopt Knowledge Management practices as a strategy to exchange employees' knowledge and inherit institutional memories within the organization. The implementation of Knowledge Management practices allows employees to share their best practices at work in order to enhance productivity and reduce cost among all units of the organization. By this process companies would be able to reduce product development time, improve customer service, innovate and deliver high quality

products, enhance flexibility and adoption, capture information, create knowledge share and learn. None of this is possible without a continual focus on the creation, updating, availability, quality and use of knowledge by all employees and teams, at work and in the marketplace

In addition, Knowledge Management is a way to capture what the customers demand and respond quickly on the product development. The essence is to make the right knowledge available to the right person at the right time.

Assessing and evaluating the adopted Knowledge Management practices is as important as its implementation. Only when analyzed, it can be found if it really serves its purpose.

1.4 Objective and Scope of the project

Objective and Scope of the Project are listed below:

- To study the existing Knowledge Management practices in the organization
- To study the factors that influences the Knowledge Management practices in the organization
- To analyze the outcome of Knowledge Management practices in the organization
- To offer suggestions to the organization based on the findings of the study

CHAPTER 2

LITERATURE SURVEY

CHAPTER 2

LITERATURE SURVEY

2.1 Review of Literature

Fei Gao et al have found out that "Knowledge Management in business organizations has the task of managing the activities of knowledge workers or the transformation and interaction of organizational 'Static Substance Knowledge and Dynamic Process Knowledge' for products, services and practical process innovation. Knowledge Management is not simply about recording and manipulating explicit knowledge, but needs to address that which is implicit and from which benefit can therefore be derived only through process rather than content."

Ganesh D.Bhatt said that "To capitalize on knowledge, an organization must be swift in balancing its knowledge management activities. Such a balancing act requires changes in organizational culture, technologies and techniques. A number of organizations believe that by focusing exclusively on people, technologies and techniques, they can manage knowledge. However, that exclusive focus on people, technologies and techniques does not enable a firm to sustain its competitive advantages. It is rather, the interaction between people, technologies and techniques that allow an organization to manage its knowledge effectively.

Li-An Ho said that "Self-Directed Learning has a direct and significant impact on organizational learning and Knowledge Management capability. Self-Directed Learning influences organizational performance indirectly through organizational learning and Knowledge Management capability. In addition, organizational learning and Knowledge

Management capability have direct and significance influences on organizational performance.

Han-Kuk Hong et al found that from 49 system integration projects performed by a prominent consulting firm, a positive relationship between system integration project team member knowledge and project performance. Notably, tacit knowledge was found to be influential, but explicit knowledge was not. The leadership capability of team leaders and communication capability among team members were found to be important factors affecting project performance.

Thomas H. Davenport et al found out that "The key factors that can help a company to survive is create, share and use knowledge effectively. To transfer tacit knowledge from individuals into a repository, organizations can use some sort of community based electronic discussion. The more common type of success in knowledge management involves operational improvements limited to a particular process or function."

Volker Mahnke et al in their research have produced major evidence for the contention that deployment of knowledge management tools has important implications for their performance of MNC subsidiaries. Also, absorptive capacity is subject to managerial discretion because Knowledge Management tools, such as group benchmarking, communities of practice, learning culture etc significantly influence levels of absorptive capacity.

Le Chen et al in their study have established that firstly, both organizational and technical environments have the capacity to either positively or negatively impact the intensity of KM activities, and both environments serve as stimuli in increasing each other's dynamism; secondly, certain types of KM activities are stronger "energy receivers" and easily to be "powered up" by manipulating factors representing these two environments. Then, through interactions between KM activities, the intensity of the whole strategic KM cycle will be increased thus helping to strengthen organizational competitive advantage.

Nikhil Mehta in his research provides evidence of various strategic, technological, and cultural issues influencing the success of KM programs in global software firms. Firms with successful KM programs typically develop three specific capabilities to address these issues. These capabilities, namely, Articulating the KM Strategic Intent, Facilitating the Knowledge Flows to Enable Innovation, and Assessing KM Value, when developed simultaneously, help firms create KM-enabled value.

Patricia Milne in her research found out that reward and recognition programs can positively affect motivation, performance and interest within an organization. While a little more problematic, team-based incentives, if designed appropriately, can also encourage and support a range of positive outcomes. But research has yet to reveal whether programs of this type will influence employees to share their knowledge and learning.

Oya I. Tukel et al in their study found out that Computational results demonstrate that the learning and forgetting rates and level of project close-out effort impact project performance, in the form of reduction in duration, much more significantly compared to the impact of the length of dormant times between the project initiations. Furthermore, even in a slow learning environment, using close-out reports as a knowledge transfer tool, managers can achieve more than a 40 percent reduction in duration after several successive implementations.

Joseph M. Firestone et al in their analysis indicates that the use of tools and methods associated with KM does not imply that interventions using them are KM interventions, and most "KM projects" are probably interventions of other types. The analysis also illustrates a pattern of intervention that can serve as the basis of a long-term systematic strategy for implementing KM.

Sajjad M. Jasimuddin in his paper suggests that context and content – such as status of the knowledge contributor, personal preference of superior, intimacy with the

knowledge provider, trust between the actors, and criticalness of the technical query – have a great role to play when asking for technical help.

Ahmed Belaid Kridan et al in their study suggests that the benefit of KM knowledge management System (KMS) is an essential step in defining critical areas in implementing a KMS and determining strategy in this research. KMS could be of most significance for enhancing the organizations' performance and lead them to better position in today's competitive environment. These benefits are fundamental issues related to different encouragements in KMS implementation such as better decision-making, improving the customer relationship and management, create new value through new services (innovations), and creating additional businesses.

Robert Karaszewski in his research indicates that knowledge management does influence companies' international competitiveness. Functioning in the global economy without efficient management is the same as drifting in a boat with no compass on boundless oceans. However, according to the research outcome, not all knowledge resources are necessary for reaching the purpose. It appears that the key to success is not primarily skilful management of endless knowledge, but the ability of directing activity to those knowledge resources which are critical for the organization's economic operations.

2.2   Research Gap:

Research on knowledge and innovation features intra-company knowledge sharing as one of its key areas of interest. The theoretical framework that underlies much of the knowledge-related research in organizations has been referred to as the knowledge-based theory of the firm, and incorporates contributing and inter-related streams of research such as knowledge creation organizational learning, organizational capabilities and competences, and innovation research. The role of individuals in knowledge sharing has been specifically recognized by scholars investigating knowledge creation, but this

research has tended to examine knowledge-creation processes on a more abstract level, and the question of how knowledge sharing on the interpersonal level occurs in practice has received less empirical attention.

The study of the process of generation and regeneration of distinctive competences in the firm constitutes a relevant problem. Knowledge on organizational actions and decisions that allow for the development and renewal of the strategic assets portfolio in an organization still lacks a satisfactory structure. There is a gap in the knowledge about how knowledge is generated. The aim of this research is to analyze how the introduction of knowledge management systems allows for the generation of distinctive competences based on the knowledge assets, in order to create lasting abnormal results.

CHAPTER 3

METHODOLOGY

CHAPTER 3

METHODOLOGY

3.1 Type of Project

The type of project is Descriptive – Survey type as the method of primary and secondary data collection is Questionnaire and websites / magazines respectively

3.2 Target Respondents

The Target Respondents for this study are the 150 employees working in Cognizant Technology Solutions, Coimbatore. Employees at all levels like lower, middle and higher level and employees at all domains in the organization are considered for this study.

3.3 Assumptions, Constraints and Limitations

It is assumed that the employee responding to the Questionnaire has disclosed all the information honestly and that they possess adequate knowledge about the Knowledge Management practices in the organization and is familiar with knowledge sharing techniques and its framework.

There would be few limitations like time constraint and the study is confined to a specific project in the organization and so cannot be applied to the whole universe

3.4 Sampling Method

Non Probability Method - Convenient Sampling Method is used for this project as the study includes all the category of people in the organization.

3.5 Data Processing

Source of Data collection is Questionnaire and for this, five-point Likert type scale is used to set the opinions for the questions. The questionnaire was constructed based on various factors that support the study of the survey. The Pilot Study was also conducted

for a very small sample size to identify the feasibility of the survey at the large size. The data was collected and analyzed to check if they are sufficient and provide relevant data that would support the study.

3.6 Tools for Analysis

Processed data will be analyzed and interpreted using appropriate tools like Percentage Analysis, Chi square test etc.,

Percentage analysis shows the number of observations falling into each of several ranges of values. Frequency distributions are portrayed as frequency tables, histograms, or polygons. It can show either the actual number of observations falling in each range or the percentage of observations. In the latter instance, the distribution is called a relative frequency distribution.

Percentage Calculation = No of response/Sample size * 100

Chi-square test is any statistical hypothesis test in which the test statistic has a chi-square distribution when the null hypothesis is true, or any in which the probability distribution of the test statistic (assuming the null hypothesis is true) can be made to approximate a chi-square distribution as closely as desired by making the sample size large enough. It is calculated using the formula

$$\chi^2 = \sum_i \sum_j \frac{(O_{ij} - E_{ij})^2}{E_{ij}}$$

where, O_{ij} is the observed frequency and E_{ij} the expected frequency for the cell corresponding to the ith condition and the jth group and for calculating the Degree of freedom,

Degree of freedom = (R-1) * (C-1)

where R=Number of rows and C=Number of columns

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

4.1   Analysis and Interpretation:

All that have been presented in this chapter are analytical analysis. In this analysis, at the first step, there is condition of sample about their work experience, education, Gender, Age and also their position in the organization.

4.2   Calculations and Diagrammatic Representation

Table 4.2.1 –Distribution of Gender of sample members

	Male	Female	Total
The People	68	82	150
Percentage	45.33	54.67	100

Inference:

According to table 4.2.1, the most of considered people in the sample are Female which is about 54.67%.

Figure 4.2.1. Distribution of Gender of sample members
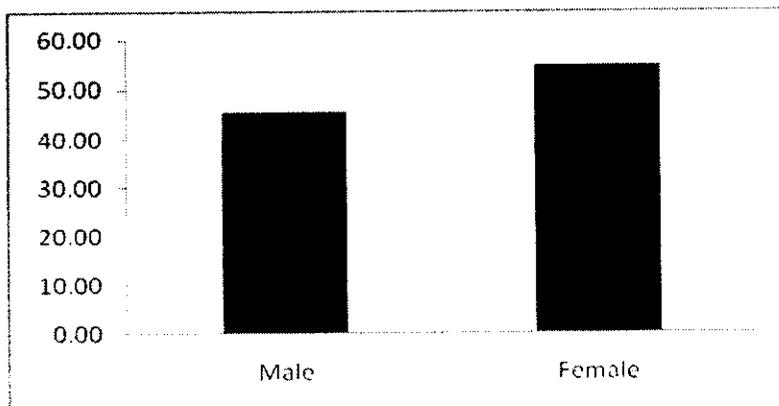
Table 4.2.2 –Distribution of education condition of sample members

	Frequency of Bachelor's degree	Frequency of Master's degree	Frequency of Other degree	Total
The People	89	58	3	**150**
Percentage	59.33	38.67	2.00	**100**

Inference:

According to table 4.2.1.2, the most of considered people in the sample are educated and most of them have bachelor's degree either in Science or in Engineering which is about 70.00 %.

Figure 4.2.2. Distribution of education condition of sample members
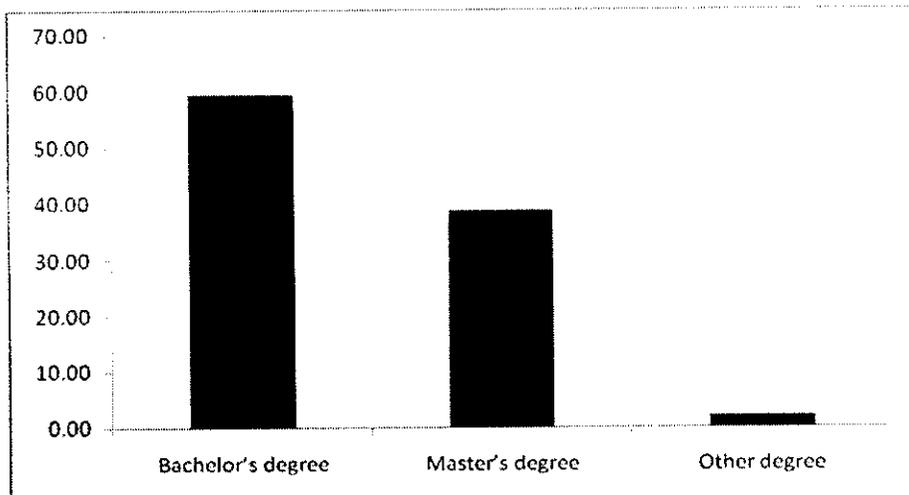
Table 4.2.3 – Distribution of Organizational position of sample members

	Programmer (P)	Programmer Analyst (PA)	Associate (A / SA)	Manager (APM / PM)	Total
The People	56	51	36	7	**150**
Percentage	37.33	34.00	24.00	4.67	**100**

Inference:

According to table 4.2.3, the most of considered people in the sample are either Programmer or Programmer Analyst which is about 37.33 % and 34.00 % respectively.

Figure 4.2.3. Distribution of Organizational position of sample members
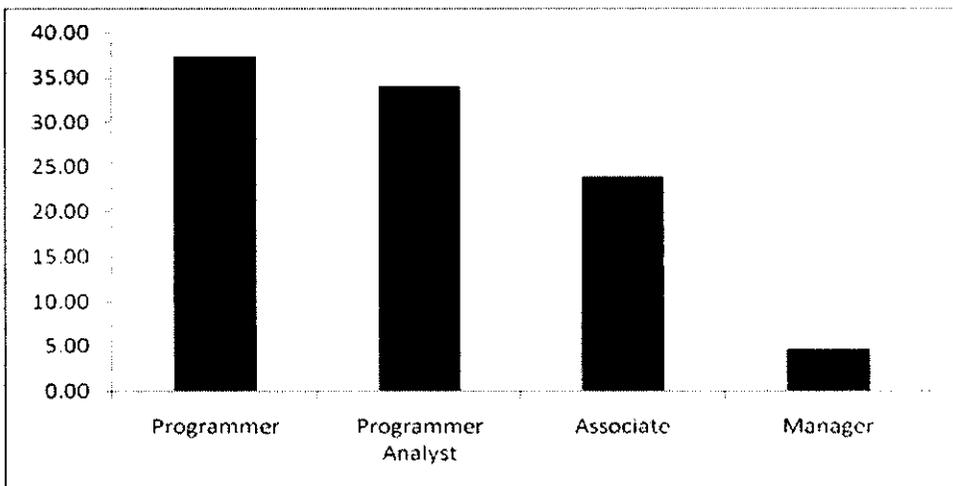
Table 4.2.4 – Distribution of Years of Experience of sample members

	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	> 5 years	Total
The People	39	44	33	18	16	**150**
Percentage	26.00	29.33	22.00	12.00	10.67	**100**

Inference:

According to table 4.2.4, the most of considered people in the sample are experienced in the organization for 2 to 3 years and about 36.00 % which can be mentioned as that the sample members are well experienced according to their assigned responsibilities.

Figure 4.2.4. Distribution of Years of Experience of sample members
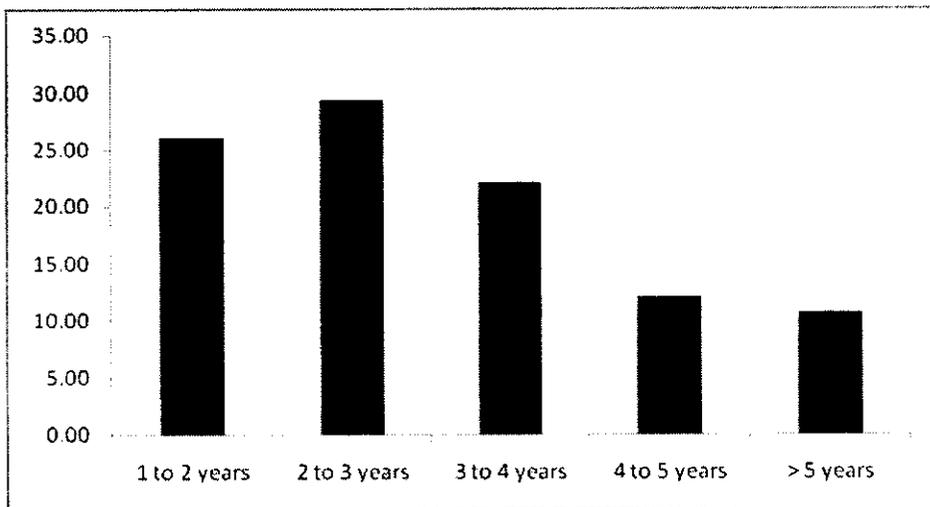
Table 4.2.5 – Distribution of Age of the sample members

	20 to 25 years	26 to 30 years	31 to 35 years	> 36 years	Total
The People	53	51	30	16	**150**
Percentage	35.33	34.00	20.00	10.67	**100**

Inference:

According to table 4.2.5, the most of considered people in the sample are experienced in the organization for 2 to 3 years and about 36.00 % which can be mentioned as that the sample members are well experienced according to their assigned responsibilities.

Figure 4.2.5. Distribution of Age of the sample members
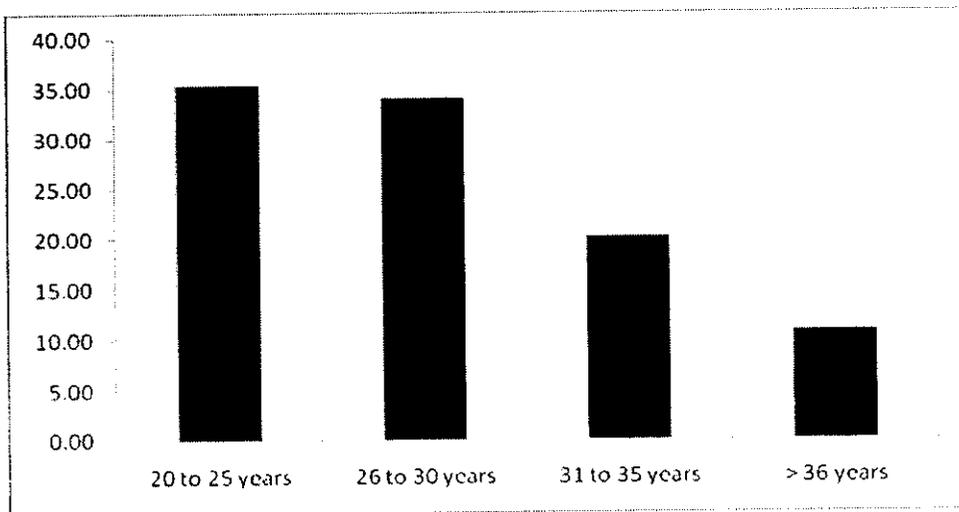
Q1: The KM system helps in fast and better decision making

Chi square test to find the relationship between Age and Decision making as a factor of Knowledge Management

Table 4.2.6 Relationship between Age and Decision making as a factor of KM

Decision Making Age	Agree	Neutral	Disagree	Total
20 - 25 yrs	33	8	12	53
26 - 30 yrs	29	10	12	51
31 - 35 yrs	17	6	7	30
> 36 yrs	6	5	5	16
Total	85	29	36	150

H_0: There is no significant relationship between Age and Decision making as a factor
H_1: There is significant relationship between Age and Decision making as a factor

Inference:

As the calculated value 2.051 after applying Yates' correction is less than the table value 12.59 at 5% level of significance and 6 degree of freedom, we accept the null hypothesis and infer that there is a significant relationship between Age and Decision making. Hence, it is understood that the Cognizant employees feel that better decision making is highly dependent on their age.

Q2: KM helps in enhanced productivity or service quality

Chi square test to find the relationship between Years of Experience and Productivity as a factor of Knowledge Management

Table 4.2.7 Relationship between Years of Experience and Productivity as a factor of KM

Productivity Yrs of Exp	Agree	Neutral	Disagree	Total
1 - 2 yrs	26	6	7	39
2 - 3 yrs	27	8	9	44
3 - 4 yrs	17	9	7	33
4 - 5 yrs	6	6	6	18
> 5 yrs	6	6	4	16
Total	82	35	33	150

H_0: There is no significant relationship between Years of Experience and Productivity as a factor

H_1: There is significant relationship between Years of Experience and Productivity as a factor

Inference:

As the calculated value 5.91 after applying Yates' correction is less than the table value 15.51 at 5% level of significance and 8 degree of freedom, we accept the null hypothesis and infer that there is a significant relationship between Years of Experience and Productivity. Hence, it is inferred that the Cognizant employees feel that for an enhanced productivity, years of experience is very much important.

Q3: Implementing KM results in sharing best practices

Percentage Analysis to find the frequency of responses for Best Practices as a factor of Knowledge Management

Table 4.2.8 Frequency of responses for Best Practices as a factor of KM

Q3	Frequency	Percent
Strongly Agree	56	37.33
Agree	47	31.34
Neutral	33	22.00
Disagree	9	6.00
Strongly Disagree	5	3.33
Total	150	100.00

Inference:

According to table 4.2.8, it shows that about 37.33 % of Cognizant employees strongly agree that Implementing KM results in sharing best practices which shows that they share best practices in the organization.

Figure 4.2.6 Distribution of Best Practices as a factor of KM
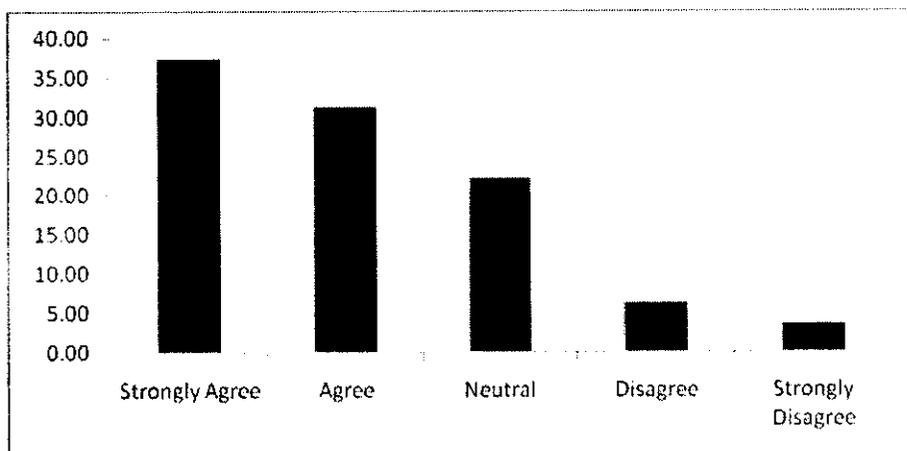
Q4: KM helps in increased innovation by the employees

Chi square test to find the relationship between Age and Innovation as a factor of Knowledge Management

Table **4.2.9** Relationship between Age and Innovation as a factor of KM

Innovation / Age	Agree	Neutral	Disagree	Total
20 - 25 yrs	24	14	15	53
26 - 30 yrs	24	11	16	51
31 - 35 yrs	14	7	9	30
> 36 yrs	6	5	5	16
Total	68	37	45	150

H_0: There is no significant relationship between Age and Innovation as a factor

H_1: There is significant relationship between Age and Innovation as a factor

Inference:

As the calculated value 0.339 after applying Yates' correction is less than the table value 12.59 at 5% level of significance and 6 degree of freedom, we accept the null hypothesis and infer that there is a significant relationship between Age and Innovation. Hence, it is inferred that the Cognizant employees feel that there is an increased innovation in the organization with respect to the age factor.

Q5: KM increases the learning/adaptation capability of employees

Chi square test to find the relationship between Designation and learning/adaptation capability as a factor of Knowledge Management

Table 4.2.10 Relationship between Designation and learning capability as a factor of KM

Learning capability / Designation	Agree	Neutral	Disagree	Total
Programmer	31	10	15	56
Programmer Analyst	29	9	13	51
Associate	22	6	8	36
Manager	5	1	1	7
Total	87	26	37	150

H_0: There is no significant relationship between Designation and learning/adaptation capability as a factor

H_1: There is significant relationship between Designation and learning/adaptation capability as a factor

Inference:

As the calculated value 0.273 after applying Yates' correction is less than the table value 12.59 at 5% level of significance and 6 degree of freedom, we accept the null hypothesis and infer that there is a significant relationship between Designation and learning/adaptation capability. Hence, it is inferred that the Cognizant employees feel that there learning/adaptation capability of employees varies with respect to their designation.

Q6: It takes only few minutes for the employees to get the relevant knowledge

Percentage Analysis to find the frequency of responses for Relevant Knowledge in the organization as a factor of Knowledge Management

Table 4.2.11 Frequency of responses for Relevant Knowledge as a factor of KM

Q6	Frequency	Percent
Strongly Agree	32	21.33
Agree	42	28.00
Neutral	39	26.00
Disagree	25	16.67
Strongly Disagree	12	8.00
Total	150	100.00

Inference:

According to table 4.2.11, it shows that about 28.00 % of Cognizant employees agree that it takes only few minutes for them to get the relevant knowledge in KM system. Also, 26.00 % of the employees neither agree nor disagree with the statement that 'It takes only few minutes for the employees to get the relevant knowledge.'

Figure 4.2.7 Distribution of Relevant Knowledge as a factor of KM
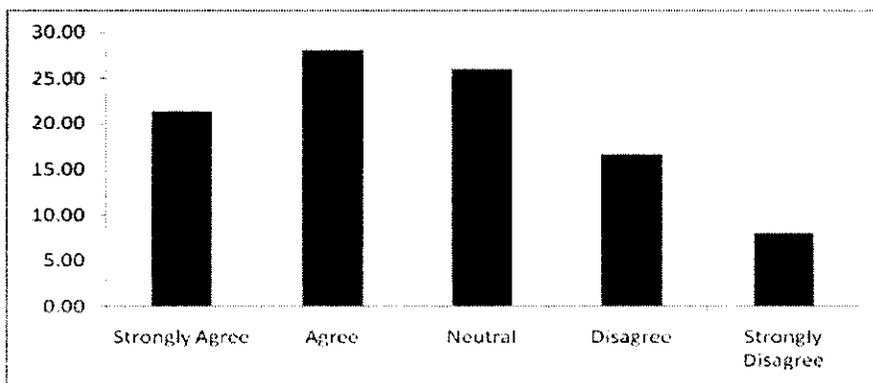
Q7: KM helps in better staff attraction/retention

Chi square test to find the relationship between Age and staff attraction/retention as a factor of Knowledge Management

Table 4.2.12 Relationship between Age and staff retention as a factor of KM

Staff Retention / Age	Agree	Neutral	Disagree	Total
20 - 25 yrs	19	20	14	53
26 - 30 yrs	25	14	12	51
31 - 35 yrs	15	6	9	30
> 36 yrs	6	5	5	16
Total	65	45	40	150

H_0: There is no significant relationship between Age and staff attraction/retention as a factor

H_1: There is significant relationship between Age and staff attraction/retention as a factor

Inference:

As the calculated value 2.697 after applying Yates' correction is less than the table value 12.59 at 5% level of significance and 6 degree of freedom, we accept the null hypothesis and infer that there is a significant relationship between Age and staff attraction/retention. Hence, it is inferred that the Cognizant employees feel that there attraction or retention of employees depends on the age and the Knowledge Management in the organization.

Q8: KM results in enhanced collaboration within the organization

Chi square test to find the relationship between Years of Experience and collaboration within the organization as a factor of Knowledge Management

Table 4.2.13 Relationship between Years of Experience and collaboration as a factor of KM

Collaboration / Yrs of Exp	Agree	Neutral	Disagree	Total
1 - 2 yrs	26	5	8	39
2 - 3 yrs	27	7	10	44
3 - 4 yrs	19	6	8	33
4 - 5 yrs	8	5	5	18
> 5 yrs	6	5	5	16
Total	90	27	33	150

H_0: There is no significant relationship between Years of Experience and collaboration within the organization as a factor

H_1: There is significant relationship between Years of Experience and collaboration within the organization as a factor

Inference:

As the calculated value 2.048 after applying Yates' correction is less than the table value 15.51 at 5% level of significance and 8 degree of freedom, we accept the null hypothesis and infer that there is a significant relationship between Years of Experience and collaboration within the organization. Hence, it is understood that the Cognizant employees feel that Knowledge Management helps in enhanced collaboration within the organization and that it is dependent on the experience factor.

Q9: KM helps to address the communication gap in the organization

Chi square test to find the relationship between Years of Experience and communication gap as a factor of Knowledge Management

Table 4.2.14 Relationship between Years of Experience and communication gap as a factor of KM

Comm. Gap / Yrs of Exp	Agree	Neutral	Disagree	Total
20 - 25 yrs	15	20	18	53
26 - 30 yrs	16	15	20	51
31 - 35 yrs	12	6	12	30
> 36 yrs	4	5	7	16
Total	47	46	57	150

H_0: There is no significant relationship between Years of Experience and communication gap as a factor

H_1: There is significant relationship between Years of Experience and communication gap as a factor

Inference:

As the calculated value 5.045 after applying Yates' correction is less than the table value 15.51 at 5% level of significance and 8 degree of freedom, we accept the null hypothesis and infer that there is a significant relationship between Years of Experience and communication gap in the organization. Hence, it is inferred that the Cognizant employees feel that Knowledge Management helps to address the communication gap in the organization and that it is dependent on the work experience factor.

Q10: KM helps in constant and continuous transformation of individual learning to organizational Learning and vice versa

Percentage Analysis to find the frequency of responses for continuous transformation of learning as a factor of Knowledge Management

Table 4.2.15 Frequency of responses for continuous transformation as a factor of KM

Q10	Frequency	Percent
Strongly Agree	39	26.00
Agree	52	34.67
Neutral	27	18.00
Disagree	20	13.33
Strongly Disagree	12	8.00
Total	150	100.00

Inference:

According to table 4.2.15, it shows that about 34.67 % of Cognizant employees agree that KM helps in constant and continuous transformation of individual learning to organizational Learning and vice versa.

Figure 4.2.8 Distribution of continuous transformation as a factor of KM
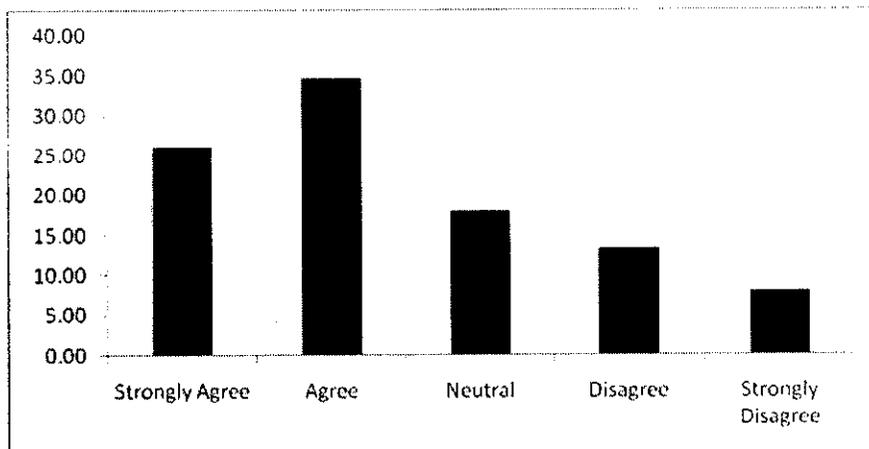
Q11: Useful knowledge can be easily shared and acted upon

Chi square test to find the relationship between Designation and Knowledge sharing as a factor of Knowledge Management

Table 4.2.16 Relationship between Designation and Knowledge sharing as a factor of KM

Knowledge sharing / Designation	Agree	Neutral	Disagree	Total
Programmer	35	9	12	56
Programmer Analyst	30	10	11	51
Associate	26	5	5	36
Manager	5	1	1	7
Total	97	25	28	150

H_0: There is no significant relationship between Designation and Knowledge sharing as a factor

H_1: There is significant relationship between Designation and Knowledge sharing as a factor

Inference:

As the calculated value 1.804 after applying Yates' correction is less than the table value 12.59 at 5% level of significance and 6 degree of freedom, we accept the null hypothesis and infer that there is a significant relationship between Designation and Knowledge sharing in the organization. Hence, it is inferred that the Cognizant employees feel that Useful knowledge in the organization is easily shared and acted upon and that it is dependent on their Designation.

Q12: Stored knowledge in the organization is quite important, relevant and latest

Percentage Analysis to find the frequency of responses for Stored knowledge as a factor of Knowledge Management

Table 4.2.17 Frequency of responses for Stored knowledge as a factor of KM

Q12	Frequency	Percent
Strongly Agree	61	40.67
Agree	48	32.00
Neutral	21	14.00
Disagree	14	9.33
Strongly Disagree	6	4.00
Total	150	100.00

Inference:

According to table 4.2.17, it shows that about 40.67 % of Cognizant employees strongly agree that stored knowledge in the organization is important, relevant and latest. It means that the KM system in the organization is updated regularly and it is in par with the current situation.

Figure 4.2.9 Distribution of Stored knowledge as a factor of KM
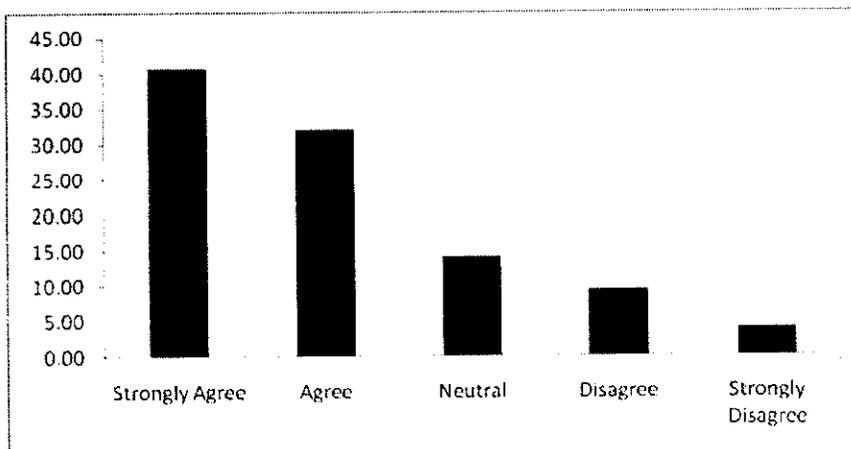
Q13: KM in the organization is seen as very important and is provided full support

Percentage Analysis to find the frequency of responses for importance of KM in the organization as a factor of Knowledge Management

Table 4.2.18 Frequency of responses for importance of KM as a factor of KM

Q13	Frequency	Percent
Strongly Agree	54	36.00
Agree	45	30.00
Neutral	28	18.67
Disagree	15	10.00
Strongly Disagree	8	5.33
Total	150	100.00

Inference:

According to table 4.2.18, it shows that about 36.00 % of Cognizant employees strongly agree that KM in the organization is seen as very important and is provided full support.

Figure 4.2.10 Distribution of importance of KM as a factor of KM
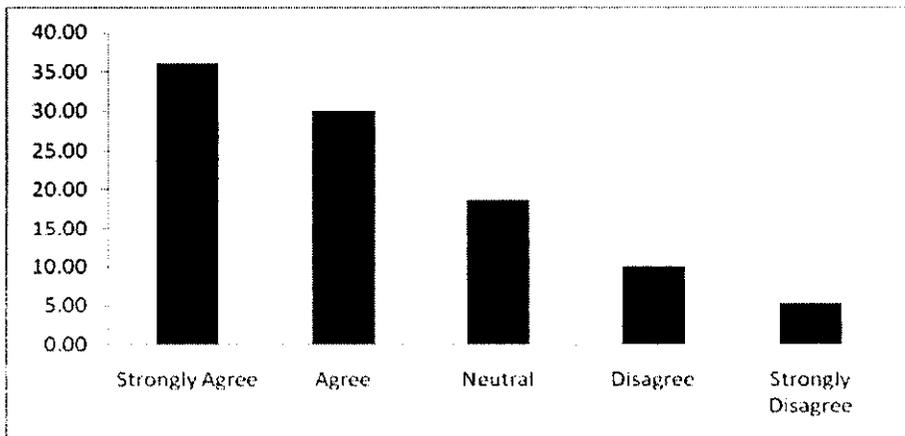
Q14: 'Lack of participation/ Lack of training' are the biggest barriers of KM in the organization

Chi square test to find the relationship between Age and barrier - Lack of participation as a factor of Knowledge Management

Table 4.2.19 Relationship between Age and barrier - Lack of participation as a factor of KM

Barrier Age	Agree	Neutral	Disagree	Total
20 - 25 yrs	39	8	6	53
26 - 30 yrs	35	9	7	51
31 - 35 yrs	21	5	4	30
> 36 yrs	6	5	5	16
Total	106	26	18	150

H_0: There is no significant relationship between Age and barrier - Lack of participation as a factor

H_1: There is significant relationship between Age and barrier - Lack of participation as a factor

Inference:

As the calculated value 1.443 after applying Yates' correction is less than the table value 12.59 at 5% level of significance and 6 degree of freedom, we accept the null hypothesis and infer that there is a significant relationship between Age and barrier - Lack of participation. Hence, it is inferred that the Cognizant employees feel that Lack of participation and Lack of training are the biggest barriers of KM in the organization and it is dependent on their age.

Q15: The reuse rate of frequently accessed/reused knowledge in my organization is high

Percentage Analysis to find the frequency of responses for reuse rate as a factor of Knowledge Management

Table 4.2.20 Frequency of responses for reuse rate as a factor of KM

Q15	Frequency	Percent
Strongly Agree	38	25.33
Agree	46	30.67
Neutral	57	38.00
Disagree	7	4.67
Strongly Disagree	2	1.33
Total	150	100.00

Inference:

According to table 4.2.20, it shows that about 38.00 % of Cognizant employees neither agree nor disagree that the reuse rate of frequently accessed or reused knowledge in their organization is high.

Figure 4.2.11 Distribution of reuse rate as a factor of KM

Q16: Promotion and Rewards are based on the ability to share one's knowledge with others

Percentage Analysis to find the frequency of responses for Promotion and Rewards based on Knowledge sharing as a factor of Knowledge Management

Table 4.2.21 Frequency of responses for Rewards as a factor of KM

Q16	Frequency	Percent
Strongly Agree	24	16.00
Agree	30	20.00
Neutral	28	18.67
Disagree	49	32.66
Strongly Disagree	19	12.67
Total	150	100.00

Inference:

According to table 4.2.21, it shows that about 32.67 % of Cognizant employees disagree with the statement on Promotion and Rewards in the organization. It shows that the employees are not rewarded if they have the ability to share their knowledge with others.

Figure 4.2.12 Distribution of Rewards as a factor of KM
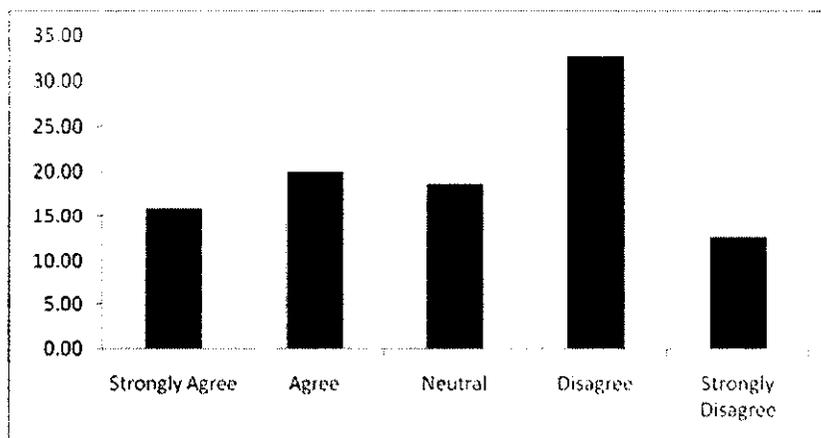
Q17: There is poor sharing of knowledge in the organization

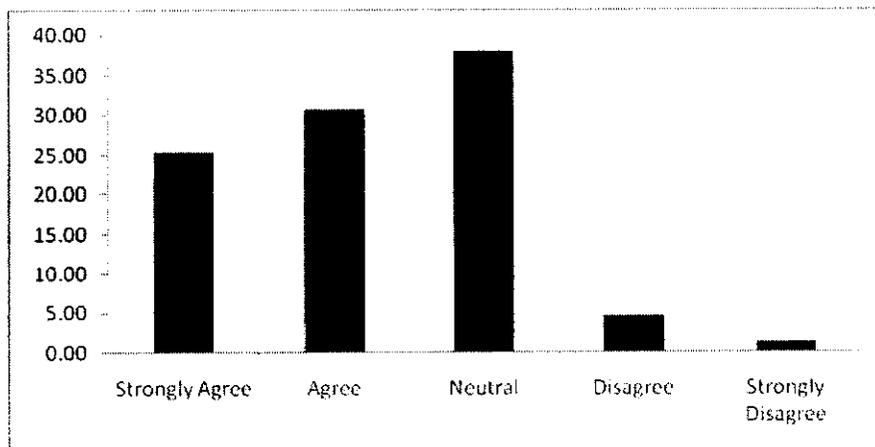Percentage Analysis to find the frequency of responses for sharing of knowledge as a factor of Knowledge Management

Table 4.2.22 Frequency of responses for sharing of knowledge as a factor of KM

Q17	Frequency	Percent
Strongly Agree	8	5.33
Agree	16	10.67
Neutral	30	20.00
Disagree	45	30.00
Strongly Disagree	51	34.00
Total	150	100.00

Inference:

According to table 4.2.22, it shows that about 34.00 % of Cognizant employees strongly disagree that there is poor sharing of knowledge in the organization. It means that the employees share their latest knowledge with others.

Figure 4.2.13 Distribution of sharing of knowledge as a factor of KM
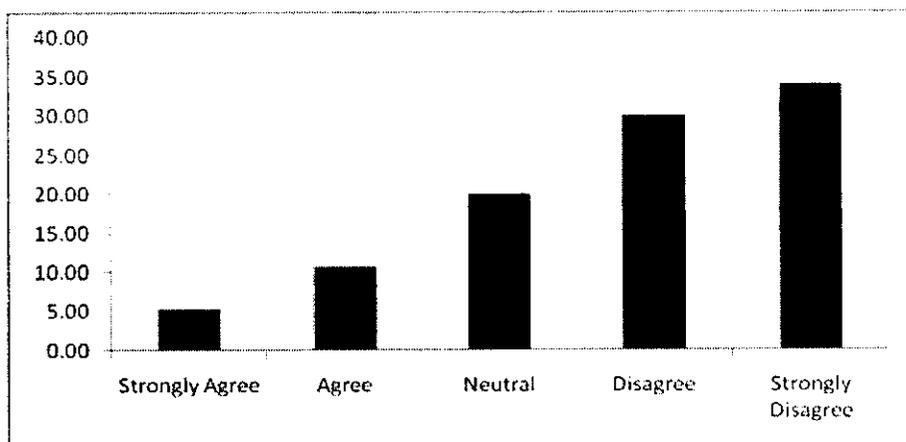
Q18: Rate of loss of critical knowledge due to a key employee leaving the organization is high

Chi square test to find the relationship between Years of Experience and Rate of loss of critical knowledge as a factor of Knowledge Management

Table 4.2.23 Relationship between Years of Experience and Rate of loss of knowledge as a factor of KM

Rate of Loss / Yrs of Exp	Agree	Neutral	Disagree	Total
1 - 2 yrs	13	9	17	39
2 - 3 yrs	13	7	24	44
3 - 4 yrs	10	8	15	33
4 - 5 yrs	5	6	7	18
> 5 yrs	5	5	6	16
Total	45	35	70	150

H_0: There is no significant relationship between Years of Experience and Rate of loss of critical knowledge as a factor

H_1: There is significant relationship between Years of Experience and Rate of loss of critical knowledge as a factor

Inference:

As the calculated value 2.157 after applying Yates' correction is less than the table value 15.51 at 5% level of significance and 8 degree of freedom, we accept the null hypothesis and infer that there is a significant relationship between Years of Experience and Rate of loss of critical knowledge. Hence, it is inferred that the Cognizant employees feel that Rate of loss of critical knowledge due to a key employee leaving the organization and it is dependent on their work experience.

Q19: Stored knowledge in the organization is relevant but not updated regularly

Percentage Analysis to find the frequency of responses for Relevancy of stored knowledge as a factor of Knowledge Management

Table 4.2.24 Frequency of responses for Relevant knowledge as a factor of KM

Q19	Frequency	Percent
Strongly Agree	16	10.67
Agree	34	22.67
Neutral	59	39.33
Disagree	31	20.66
Strongly Disagree	10	6.67
Total	150	100.00

Inference:

According to table 4.2.24, it shows that about 39.33 % of Cognizant employees neither agree nor disagree that the stored knowledge in the organization is relevant and that it is not updated regularly. It means few of the employees get the relevant and latest details from the KM system and the other few does not.

Figure 4.2.14 Distribution of Relevant knowledge as a factor of KM
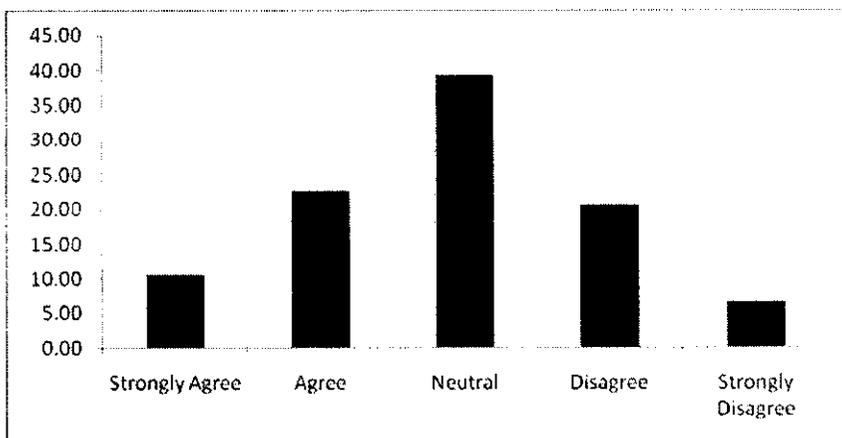
Q20: Senior management in the organization sees KM as very important but hardly supports it

Percentage Analysis to find the frequency of responses for Support of Senior management as a factor of Knowledge Management

Table 4.2.25 Frequency of responses for support of management as a factor of KM

Q20	Frequency	Percent
Strongly Agree	31	20.67
Agree	43	28.66
Neutral	33	22.00
Disagree	28	18.67
Strongly Disagree	15	10.00
Total	150	100.00

<u>Inference:</u>

According to table 4.2.25, it shows that about 28.67 % of Cognizant employees agree that the senior management in the organization hardly supports the KM system and its sharing.

Figure 4.2.15 Distribution of support of management as a factor of KM
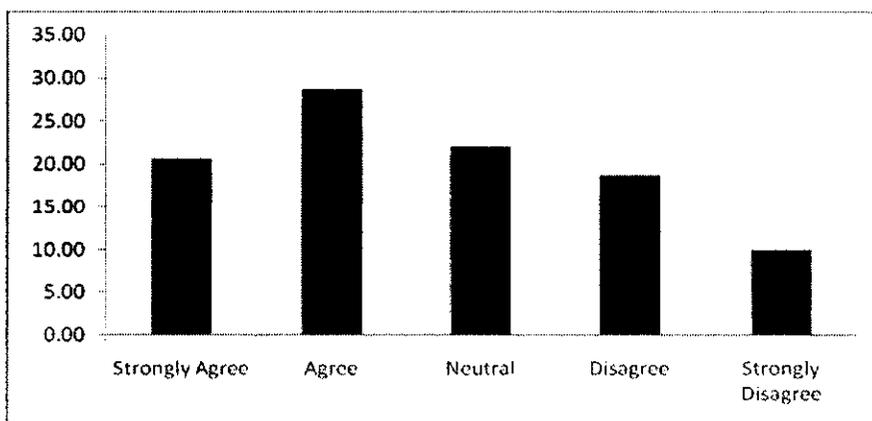
Q21: KM system in the organization is too much complicated.

Percentage Analysis to find the frequency of responses for KM system as a factor of Knowledge Management

Table 4.2.26 Frequency of responses for KM system as a factor of KM

Q21	Frequency	Percent
Strongly Agree	26	17.33
Agree	38	25.33
Neutral	47	31.34
Disagree	32	21.33
Strongly Disagree	7	4.67
Total	150	100.00

Inference:

According to table 4.2.26, it shows that about 31.33 % of Cognizant employees neither agree nor disagree that the KM system in the organization is too much complicated. So it means that the KM system training is not given to all employees.

Figure 4.2.16 Distribution of KM system as a factor of KM
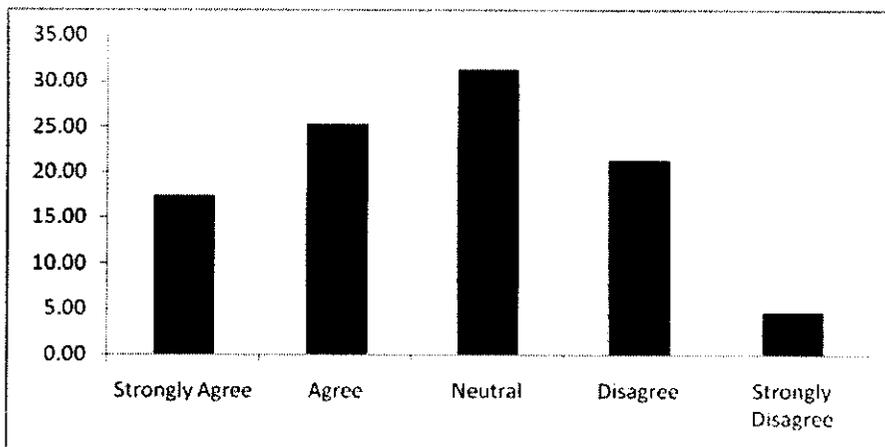
Q22: A formal, self organizing group of people in the organization who share expertise and solve problems together are created and supported in the organization

Percentage Analysis to find the frequency of responses for self organizing group as a factor of Knowledge Management

Table 4.2.27 Frequency of responses for self organizing group as a factor of KM

Q22	Frequency	Percent
Strongly Agree	41	27.33
Agree	57	38.00
Neutral	26	17.33
Disagree	22	14.67
Strongly Disagree	4	2.67
Total	150	100.00

Inference:

According to table 4.2.27, it shows that about 38.00 % of Cognizant employees agree that a self organizing group of people is formed in the organization that share their knowledge and solve problems.

Figure 4.2.17 Distribution of self organizing group as a factor of KM

Q23: Lack of understanding of KM and its benefits is one of the hurdles in effective implementation of KM in the organization

Percentage Analysis to find the frequency of responses for Lack of understanding of KM as a factor of Knowledge Management

Table 4.2.28 Frequency of responses for Lack of understanding as a factor of KM

Q23	Frequency	Percent
Strongly Agree	59	39.33
Agree	46	30.67
Neutral	15	10.00
Disagree	24	16.00
Strongly Disagree	6	4.00
Total	150	100.00

Inference:

According to table 4.2.28, it shows that about 39.33 % of Cognizant employees strongly agree that lack of understanding of KM and its benefits are the hurdles in the effective usage of the KM system in the organization.

Figure 4.2.18 Distribution of Lack of understanding as a factor of KM

Q24: Employee's performance has increased to a very great extent due to the KM in the organization.

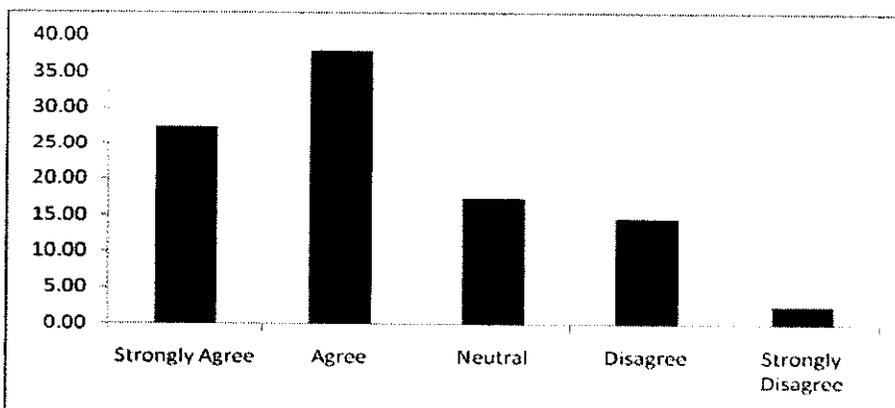Percentage Analysis to find the frequency of responses for Employee's performance as a factor of Knowledge Management

Table 4.2.29 Frequency of responses for Employee's performance as a factor of KM

Q24	Frequency	Percent
Strongly Agree	42	28.00
Agree	56	37.33
Neutral	28	18.67
Disagree	14	9.33
Strongly Disagree	10	6.67
Total	150	100.00

Inference:

According to table 4.2.29, it shows that about 37.33 % of Cognizant employees agree that employee's performance has increased to a very great extent due to the KM in the organization. It shows that knowledge sharing is done in the organization in an effective way.

Figure 4.2.19 Distribution of Employee's performance as a factor of KM
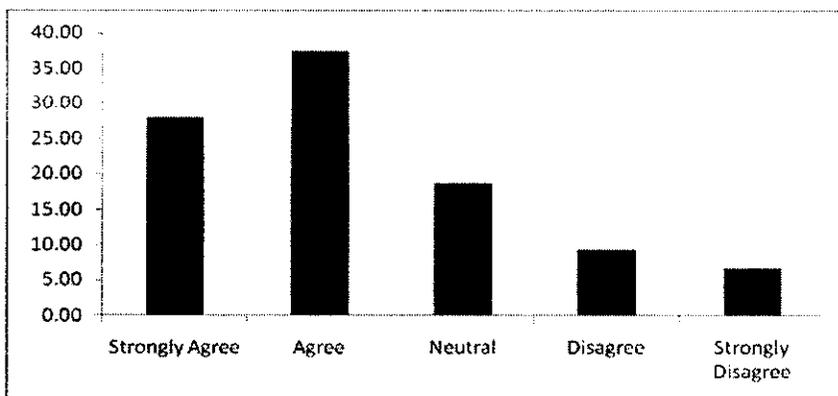
Q25: KM is a worthwhile investment for my organization

Percentage Analysis to find the frequency of responses for KM investment as a factor of Knowledge Management

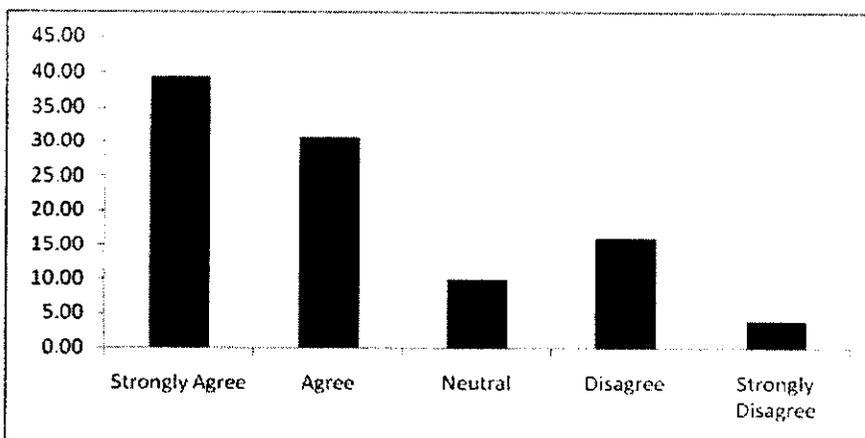**Table 4.2.30** Frequency of responses for KM investment as a factor of KM

Q25	Frequency	Percent
Strongly Agree	63	42.00
Agree	56	37.33
Neutral	18	12.00
Disagree	11	7.33
Strongly Disagree	2	1.34
Total	150	100.00

Inference:

According to table 4.2.30, it shows that about 42.00 % of Cognizant employees strongly agree that every organization should invest some amount on KM system.

Figure 4.2.20 Distribution of KM investment as a factor of KM
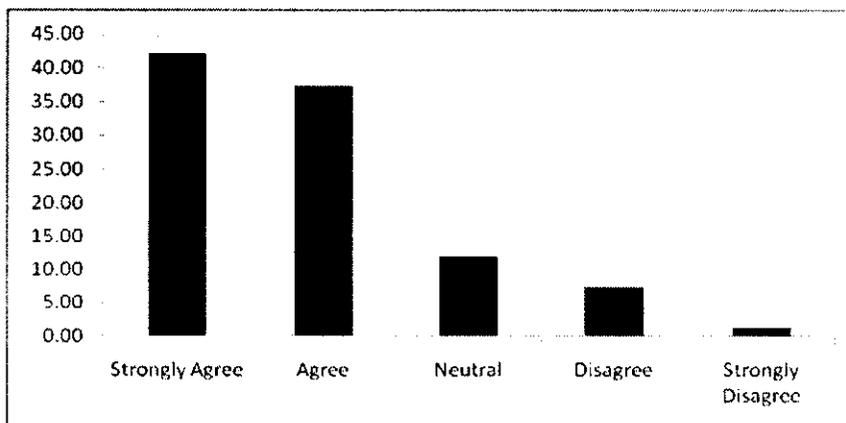
CHAPTER 5

CONCLUSIONS

CHAPTER 5

CONCLUSIONS

5.1 Summary of Findings

The results of distributing the questionnaires among the Cognizant Technology Solutions employees are listed below

- ➢ It is found that most of the respondents belong to the age group of 20 - 30 years. This shows most of the respondents are middle- aged.

- ➢ Most of the respondents have a Bachelor's degree which means that they are educated and that they have some knowledge on analyzing and decision making.

- ➢ Majority of the respondents are either Programmer or Programmer Analysts which shows that they are little experienced in the organization and would be able to tell us about the KM system they know.

- ➢ Almost, all the respondents fall into the work experience category of 1 – 4 years because they would be better people to suggest the hurdles they face in knowledge sharing.

- ➢ From the responses, it is understood that most of the employees are not told about the importance of KM in the organization

- ➢ Most of the respondents feel that there is lack of participation is the biggest hurdle in the organization.

➢ Majority of the respondents feel that the organization gives high priority to this KM system and knowledge sharing.

➢ Majority of the respondents feel that rewards and promotion are not based on the ability of one's knowledge sharing

➢ Majority of the respondents feel that there is no significant relationship between Years of Experience and Training

➢ Majority of the respondents feel that there is no significant relationship between Age and Decision making

➢ Most of the respondents feel that there is no significant relationship between Years of Experience and Productivity.

➢ Majority of the respondents feel that there is no significant relationship between Age and Innovation

➢ Majority of the respondents feel that there is no significant relationship between Designation and learning/adaptation capability.

➢ Majority of the respondents feel that there is no significant relationship between Age and staff attraction/retention

➢ Most of the respondents feel that there is no significant relationship between Years of Experience and collaboration within the organization

➢ Majority of the respondents feel that there is no significant relationship between Designation and Knowledge sharing in the organization

➢ Majority of the respondents feel that there is no significant relationship between Age and barrier - Lack of participation

➤ Majority of the respondents feel that there is no significant relationship between Years of Experience and Rate of loss of critical knowledge

➤ Most of the respondents feel that enhanced innovations are brought in the by the employees due to knowledge sharing

➤ Most of the respondents feel that knowledge sharing in the organization is best maintained and that it is useful.

5.2   Suggestions & Recommendations

1. This research should be done every other year to evaluate all affecting factors on knowledge sharing and finally on Knowledge Management

2. Promoting / rewarding system for enhanced knowledge sharing culture

3. Creating a convenience infrastructure for the employees for knowledge sharing

4. Caring about those employees in the organization who are innovative and always are ready for giving new ideas

5. Making centers of excellence or self organizing group that people can qualify themselves to be a member of it

6. There should be coordination among employees that they think they are working for the same goals and objectives

7. There should be full commitment of top leadership to sharing organizational knowledge

8. Training section should care more about e-training and creating online communities in which people can get expertise in an online way

9. Training section which is responsible for training of staff should send appropriate lessons to the appropriate persons in the appropriate time in online way

10. Management should create trusting culture by providing secure community for all

5.3   Conclusions

The result of distributing the questionnaire among the Cognizant Technology Solutions employees shows that most of the employees are satisfied with KM system in the organization. It means that most of the people in the sample agree that there is an effective implementation of KM system and it's sharing in the organization. About 25 questions have been investigated and each question shows important factors for creating a situation for knowledge sharing in the organization. For each question according to received responses from 150 questionnaires, all related graphs and tables are designed which shows frequency of different options in the Likert scale.

At the first step, Cognizant Technology Solutions should check all the possible obstacles that may exist to knowledge sharing by examining the output from questionnaire. The company should give training to all its employees on the existing Knowledge Management practices. Its benefits and importance should also be made aware to the employees working in its organization. Also, the employees should be rewarded and recognized when they have the ability to share their knowledge. The senior management should first show its interest on the KM system and tell its employees to contribute some of their time towards the KM system. New employees should be given proper training on how to use the KM system in the organization.

5.4 Directions for Future Research

Research can be done on

1. The parameters which have been identified can be utilized in certain other organizations and the outcome may be studied.

2. The findings of the study may be used as a learning process in comparison between different sectors.

3. Specific parameters having an impact on Knowledge Management may be identified and its impact on job satisfaction and other HR factors can be analyzed.

A STUDY ON KNOWLEDGE MANAGEMENT PRACTICES AND ITS IMPACT AMONG THE EMPLOYEES WITH SPECIAL REFERENCE TO COGNIZANT TECHNOLOGY SOLUTIONS, COIMBATORE.

QUESTIONNAIRE

Name : _____

Gender : Male / Female

Designation : P / PA / A / SA / APM / PM

Vertical : _____

Yrs of Exp : 1 – 2yrs / 2 – 3yrs / 3 – 4yrs / 4 – 5yrs / 5 yrs and above

Qualification : B.Sc / M.Sc / BE / MCA / MBA / Others _____

Age : 20 – 25yrs / 26 – 30yrs / 31 – 35yrs/ 36yrs and above

Key Directory for the below statements:

KM – Knowledge Management

Following are the statements that reflect the effects of Knowledge Management system in the organization. According to your opinion, please put ☑ **symbol** in appropriate box.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. The KM system helps in fast and better decision making					
2. KM helps in enhanced productivity or service quality					
3. Implementing KM results in sharing best practices					
4. KM helps in increased innovation by the employees					
5. KM increases the learning/adaptation capability of employees					
6. It takes only few minutes for					

the employees to get the relevant knowledge						
7. KM helps in better staff attraction/retention						
8. KM results in enhanced collaboration within the organization						
9. KM helps to address the communication gap in the organization						
10. KM helps in constant and continuous transformation of individual learning to organizational Learning and vice versa						
11. Useful knowledge can be easily shared and acted upon						
12. Stored knowledge in the organization is quite important, relevant and latest						
13. KM in the organization is seen as very important and is provided full support						
14. 'Lack of participation/ Lack of training' are the biggest barriers of KM in the organization						
15. The reuse rate of frequently accessed/reused knowledge in my organization is high						
16. Promotion and Rewards are based on the ability to share one's knowledge with others						
17. There is poor sharing of knowledge in the organization						
18. Rate of loss of critical knowledge due to a key employee leaving the organization is high						
19. Stored knowledge in the organization is relevant but not updated regularly						
20. Senior management in the organization sees KM as very						

important but hardly supports it					
21. KM system in the organization is too much complicated.					
22. A formal, self organizing group of people in the organization who share expertise and solve problems together are created and supported in the organization.					
23. Lack of understanding of KM and its benefits is one of the hurdles in effective implementation of KM in the organization.					
24. Employee's performance has increased to a very great extent due to the KM in the organization.					
25. KM is a worthwhile investment for my organization.					

Any suggestions on how an employee in the organization can be motivated to introduce or reuse the existing Knowledge Management practices

_____

_____

_____

_____

Thank You for your time and thoughtful responses

REFERENCES

JOURNALS AND BOOKS

1. Fei Gao, Meng Li and Steve Clark, *"Knowledge, Management and Knowledge Management in business operations"*, Vol: 12, February 2008, pp: 3-17

2. Ganesh D.Bhatt, *"Knowledge Management in Organizations: examining the interaction between technologies, techniques and people, Journal of Knowledge Management"*, Vol: 5, 2001, pp: 68-75

3. Li-An Ho, *"What Affects Organizational Performance?: The linking of learning and knowledge management, Industrial Management and Data Systems"*, Vol:108, 2008, pp:1234-1254

4. Han-Kuk Hong, Jae-Sik Kim, Taehum Kim, Byung-Hak Leem *"The effect of knowledge on system integration project performance, Industrial Management and Data Systems"*, Vol:108, 2008, pp:385-404

5. Thomas H. Davenport, David W. De Long, Michael C. Beers, *"Successful Knowledge Management Projects, Sloan Management Review"*, Vol: 37, Winter1998, pp: 43-57

6. Volker Mahnke, Torben Pedersen and Markus Verzin, *"The Impact of Knowledge Management on MNC subsidiary performance: the role of absorptive capacity"*, Vol: 12, December 2003, pp: 87-101

7. Le Chen, Sherif Mohamed, *"Impact of the internal business environment on knowledge management within construction organizations"*, Vol: 8, 2008, pp: 61-81

8. Nikhil Mehta, *"Successful knowledge management implementation in global software companies"*, Vol: 12, 2008, pp: 42-56

9. Patricia Milne, *"Motivation, incentives and organizational culture, Journal of Knowledge Management"*, Vol: 11, 2007, pp: 28-38

10. Oya I. Tukel, Walter O. Rom, Tibor Kremic, *"Knowledge transfer among projects using a learn-forget model, The Learning Organization"*, Vol: 15, 2008, pp: 179 – 194

11. Joseph M. Firestone, Mark W. McElroy, "Doing knowledge management". Vol: 12, 2005, pp: 189 - 212

12. Sajjad M. Jasimuddin, *"Learn how to grab others' knowledge to do your job properly"*, Vol: 8, 2007, pp: 435 - 439

13. Ahmed Belaid Kridan, Jack Steven Goulding, *"A case study on knowledge management implementation in the banking sector"*, Vol: 36, 2006, pp: 211 - 222

14. Robert Karaszewski, *"The influence of KM on global corporations' competitiveness"*, Vol: 12, 2008, pp: 63 – 70

15. Ranjit Kumar (1999), *Research Methodology*, New Delhi, Sage Publication London.

16. Donald R. Cooper (2000), *Business Research Methods*, New Delhi, Tata McGraw Hill Publishing Company Limited

WEBSITES

1. https://ch1blogs.cognizant.com

2. http://www.cognizant.com

3. http://cworld.cognizant.com

4. http://krrepositorycsaa.cognizant.com

5. http://channelone.cognizan.com