A STUDY ON KNOWLEDGE MANAGEMENT OF WHITE COLLAR EMPLOYEES IN BHILAI STEEL PLANT

ABSTRACT OF THE THESIS

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SADAQAT ALI

Under the Supervision of

Dr. IRFAN AHMAD

(Assistant Professor)

DEPARTMENT OF COMMERCE
ALIGARH MUSLIM UNIVERSITY
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ABSTRACT

The present study entitled "A Study On Knowledge Management of White Collar Employees in Bhilai Steel Plant" is an attempt to examine the importance of knowledgeable employees in the Bhilai Steel Plant. Knowledge management as a conscious discipline would appear to be somewhere between five and fifteen years old. During that time, economic, social and technological changes were transforming the way that companies worked. Globalisation emerged and brought new opportunities and increased competition. Companies responded by downsizing, merging, acquiring, reengineering and outsourcing. Many streamlined their workforce and boosted their productivity and their profits by using advances in computer and network technology. However their successes in doing so came with a price. Many lost company knowledge as they grew smaller. And many lost company knowledge as they grew bigger – they no longer knew what they knew. Knowledge management is based on the idea that an organization’s most valuable resource is the knowledge of its people. This is not a new idea; organizations have been managing human resources for years. What is new is the best utilization of their knowledge because to cope-up with the accelerated rate of change in today’s organizations and in society as a whole. Knowledge management recognized that today nearly all jobs involve “knowledge work” and so the persons who utilized their knowledge is known “knowledge employees” to some degree or another – meaning that their job depends more on their knowledge than their manual skills. This means that creating, sharing and using knowledge are among the most important activities of nearly every person in every organization. Knowledge management is essential for facilitating the processes by which knowledge is created, shared and used in organizations. It is not about setting up a new department or getting in a new computer system. It is about making small changes to the way everyone in the organisation works. There are many ways of looking at knowledge management and different organisations will take different approaches.

Generally speaking, creating a knowledge environment usually requires changing organizational values and culture, changing people’s behaviours and work patterns, and providing people with easy access to each other and to relevant information resources. In terms of how that is done, the processes of knowledge management are
many and varied. As knowledge management is a relatively new concept, organizations are still finding their way and so there is no single agreed way forward or best practice. This is a time of much trial and error. Similarly, to simply copy the practices of another organisation would probably not work because each organisation faces a different set of knowledge management problems and challenges. Knowledge management is essentially about people – how they create, share and use knowledge, and so no knowledge management tool will work if it is not applied in a manner that is sensitive to the ways people think and behave.

White Collar employees are obviously non-manual employees and are usually employed by firms to carry out innovative activities. Knowledge Worker is a member of the organization who uses knowledge to be a more productive worker. These employees use all varieties of knowledge in the performance of their regular business activities. Everyone who uses any form of recorded knowledge could be considered a knowledge worker. A knowledge worker is anyone who works for a living at the tasks of developing or using knowledge. For example, a knowledge worker might be someone who works at any of the tasks of planning, acquiring, searching, analyzing, organising, storing, programming, distributing, marketing, or otherwise contributing to the transformation and commerce of information and those who work at using the knowledge so produced. A Knowledge Worker is anyone in the organization who uses their brain at some point during the day to accomplish their tasks. We specifically include shop floor employees whose tacit knowledge is often part of the backbone of the organization. Knowledge Worker is a person who has been schooled to use knowledge, theory, and concept, rather than physical force or manual skill. The man/woman who puts to work what he/she has between his/her ears rather than the drawn of his/her muscles or the skill of his/her hands. Knowledge employees use their intellect to convert their ideas into products, services, or processes. A Knowledge worker creates knowledge, knows how to tap and share it across an organisation, and then reuses this knowledge whenever necessary – and he/she usually works against a deadline like yesterday. Knowledge worker is a problem solver. He/she is a person who uses intellectual rather than manual skills to earn a living. He/she is an individual who requires a high level of autonomy. He/she is a manipulator of symbols; someone paid for quality of judgement rather than speed of work. He/she is a worker who uses unique processes.
He/She is someone who possesses un-codified knowledge which is difficult to duplicate. He/She is a worker who sources between his ears. He/She is someone who uses knowledge and information to add to deeper knowledge and information. Knowledge work is complex, and those who perform it require certain skills and abilities as well as familiarity with actual and theoretical knowledge. These persons must be able to find, access, recall, and apply information, interact well with others, and possess the ability and motivation to acquire and improve these skills.

1. Research Problem

Knowledge Management has become one of the most important tools in the present day business world for ensuring continual success. Knowledge Management intensive companies like software and IT industries obviously realized this much earlier, but the same was not the case with heavy and labor intensive industries. Especially this is the case with steel industry. While the impact and effect of knowledge drain in small companies like software and IT industries are immediately and evidently noticeable this is not so with large and heavy industries, largely due to the inbuilt redundancy in manpower. The negative impact of knowledge drain is felt much later and by that time it would be too late to take any remedial steps. In spite of manpower redundancy, each person has a certain level of perception that is unique and limited to him. Unless that quality from the person is tapped, which is tacit in nature, there shall be certain loss to the company on account of losing the said person. This can be taken care of only by resourcing to implementation of Knowledge Management practices where upon tacit knowledge from the person can be suitably tapped and kept in repositories. Integrated steel plant like the one in study, that is, Bhailai Steel Plant (BSP), being in the category of heavy industry, it faces this problem and hence needs to be addressed suitably. For this reason, the concerned subject was chosen for study.

2. Research Gap

The literature review presented here provides a theoretical framework for this study and contributes new knowledge by providing a better, clearer, and more complete understanding of the topic. Each of these research strategies is a researchable topic because the same or similar variables can be explored in the related literature. This
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review completes the critical analysis of the literature on the relationship among knowledge management strategy, enablers, process capability, and performance. Knowledge management is a new concept and it is still evolving. It is still at an infancy stage in our country and knowledge management cannot be ignored and sooner or later a firm has to become aware of this concept and its implementation to sustain competitive advantage. In India penetration of knowledge management is limited to few organizations that too in some sectors only. The earlier research studies were oriented towards knowledge management practices in information technology, manufacturing and allied industries. Hardly any research has concentrated on knowledge management in public sector companies especially in white collar employees in India. Further no research has been envisaged about knowledge management in regard to employee perspective throughout the country. Hence this study is first of its kind. The knowledge climate in Bhilai steel plant has not been debated in previous research works. The same is focused in this study. Though knowledge sharing has been widely addressed in previous studies, no work has focused it in an public sector undertaking. Therefore this study focuses on the same.

3. Significance of the Study

The present study is conducted on “Knowledge management practice in public sector undertaking: A case study of Bhilai”. It takes into consideration the impact of Knowledge Management practice from employee’s point of view on their efficiency, organizational commitment and job satisfaction and from organizational point of view on the operational efficiency, financial performance and innovation skills of the organization. The study is highly significant from both employee and organizational point of view of public sector undertaking especially Bhilai. Knowledge management is a recent development in public sector undertaking with the changing economic scenario the public sector undertakings are now putting their consideration on managing knowledge because knowledge if not effectively handled can be a serious threat. The conclusion and suggestions of the study will be of great significance to the employers of Bhilai in particular and public sector undertakings in general to make their Knowledge Management practice more effective to enhance their employee’s efficiency and satisfaction. A satisfied employee is committed to
their goals and objectives towards organization which will ultimately enhance the
operational efficiency of the organization, the organization will be more innovative
in its practices which will result to improve the financial performance of the
organization which is the end result for any organization. Present study highlights
the significance of Knowledge Management as the most differentiating factor in
today's competitive world to make an organization better than other. It will of great
help to the policy makers of knowledge management practice to modify their
practices to best suit the employees and the organization both.

4. Objectives of the Study

1. To analyze the perception of employees on the Knowledge Management
   practices across gender, age, Experience and designation.
2. To assess the impact of Knowledge Management practices on Operational
   Efficiency of the Bhilai Steel Plant.
3. To assess the impact of Knowledge Management Practices on the Financial
   Performance of the Bhilai Steel Plant.
4. To assess the impact of knowledge Management practices on the Innovation
   Efficiency of the Bhilai Steel Plant.
5. To assess the impact of knowledge Management practices on the Employee
   Efficiency of the White Collar Employees.
6. To assess the impact of Knowledge Management Practices on the
   Communication Skill of White Collar Employees.
7. To assess the impact of Knowledge Management Practices on the Job
   Satisfaction of white collar employees in the Bhilai steel Plant.

5. Hypothesis of the Study

The hypotheses formulated for the study have been summed on the basis of the
variables that have observed for undertaking the present work. The researcher has
selected seven variables out of which one is independent variable and the other six
are dependent variables. Out of which three variables are taken from organizational
point of view and the other three are from employee's point of view. The hypotheses
of the study are as follows:
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1. H01: There is no significant difference in the perception of White Collar Employees on Knowledge Management Practices across age.
2. H02: There is no significant difference in the perception of White Collar Employees on Knowledge Management Practices across gender.
3. H03: There is no significant difference in the perception of White Collar Employees in across experience.
4. H04: There is no significant difference in the perception of White Collar Employees in across designation.
5. H05: There is no significant impact of Knowledge Management practices on Operational Efficiency of the Bhilai Steel Plant.
6. H06: There is no significant impact of Knowledge Management Practices on the Financial Performance of the Bhilai Steel Plant.
7. H07: There is no significant impact of knowledge Management practices on the Innovation Efficiency of the Bhilai Steel Plant.
8. H08: There is no significant impact of knowledge Management practices on the Employee Efficiency of the White Collar Employees.
9. H09: There is no significant impact of Knowledge Management Practices on the Communication Skill of White Collar Employees.
10. H010: There is no significant impact of Knowledge Management Practices on the job satisfaction of white collar employees in the Bhilai steel Plant.

6. Research Methodology

The present study is based on both primary and secondary data. It has been is conducted in two phases. The first phase deal with developing an appropriate research framework with facts and theories accessed from literature survey on Knowledge Management, the library and archives of Bhilai Steel Plant, various journals and books and through internet access, keeping in view the differences in approach for a knowledge intensive firm and a heavy manufacturing industry like Bhilai Steel Plant. The behaviour pattern of the knowledge employees under the existing complexities in BSP, the diversity of work requirements depending upon the department or sub-unit for whom these people are working have also been taken into consideration. The aim is to develop the framework, which can be used to meet the research objectives.
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In the second phase of the study, people from various departments of Bhilai Steel Plant have been approached with framed questionnaire. The methodology adopted for carrying out the present study has been largely based on the primary data collected through well designed questionnaire served on a selected group of respondents to elicit the required information.

Questionnaire Design

The questionnaire was prepared on Likert's five point scale and the respondents have been asked to tick the relevant satisfaction/dissatisfaction agreement. It consists to measure the personal information of the respondents which include their age, gender, designations, work experience in order to get the overall background of the employees for reaching the conclusion. It also contains close ended questions which are concerned to elicit information about the perception of the employees that have direct emphasis on the hypotheses of the study. The questionnaire contains total of 31 statements which measure the seven important variables taken under study. While taking the advice of the experts of the study the questionnaire has been divided into three sections : A - It consists of 7 statements which measure Knowledge Management Practice which is the independent variable of the study and the other is Section-B from organization point of view it consist of 12 statements grouped into three variables that are the dependent variables of the study i.e. operational Efficiency, Financial Performance and Innovation and the last one is Section-C from employees point of view which consist of 12 statements grouped into three variables that are the dependent variables of the study i.e. Employee Efficiency, Organizational commitment and Job Satisfaction.

Each variable consist of statements relevant to get the appropriate response from the white collar employees of Bhilai Steel Plant.

Secondary data has also been used for referring the conceptual aspect and literature review collected from various sources like published annual reports of Bhilai Steel Plant, books, journals, magazines, periodicals, research reports, previous work done related to the subject and the Websites.
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Sampling Plan

In the present study all the white collar employees in Bhilai Steel Plant are considered as universe of the study. BSP being as an integrated steel plant it has all the facilitating major units for its core production like Coke Ovens, Sintering Plants, Blast Furnaces, Steel Melting shops, Continuous Casting Units, Various Rolling Mills like Rail & Structural Mill, Blooming & Billet Mill, Merchant Mill, Wire Rod Mill and Plate Mill. These units have support facilities like Maintenance Units, Research & Quality Control Laboratory, Auxiliary Units like Power Plants, Compressed air & Water Supply Departments, Stores and Purchase Department, Safety and Industrial Engineering Department, Design & Drawing Department, Transport & Diesel Department, Finance & Accounting, Personnel & Administration, Training & Development Department, Projects Department, Materials Management Department and so on.

As the collection of entire data from all the white collar employees in the universe is not possible so a sample of employees from the Bhilai Steel plant has been selected for data collection for the study.

Sample Size

The sample size has been selected to cover most of the departments and people, giving a fairly closer representation of the entire universe. Based on the pilot observations, the sample constituted people from executive category and from the senior most non-executive cadre. For the analysis part, the sample has been subdivided into groups. Persons from Senior Manager to General Manager were taken as senior executive cadres (Top Level), persons from Junior Manager to Manager Cadres were taken as executive category (Middle Level) the total strength of these categories works out to be about 3722 and hence a sample size of about 500 and above persons has been considered a good representation. Executive Directors and Managing Director have not been taken as they are the highest authorities and are responsible for framing of policies, rules and ensure implementation through others who have been covered under this study. The final valid responses in each category worked out to be as follows: Top Level is 148 and Middle Level is 377 and the total sample is 525.
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The sampling is based on Stratified Random Sampling. The total number of questionnaires distributed, total number of questionnaire completed, average response rate in percentage and method of distribution of questionnaires. The sample for the present study has been collected from the universe. A total of 600 questionnaires were distributed out of which 525 were received, this yields a total of 87.5% response rate. The overall response rate was encouraging. From the table given below we see that from the Top Level response rate is 80% and Middle level response rate is 90.8% which shows an excellent response.

Statistical Tools Applied

Cronbach Alpha Test of Reliability is used to test the reliability of data collected. Further Independent Sample t-test, One-Way ANOVA and Simple Linear Regression Test has been applied to test the hypotheses framed under study and the findings and observations have been analysed and evaluated to derive pragmatic recommendations in the form of suitable suggestions.

Mostly independent t-tests and one way analysis of Variance (Anova) has been used for the analysis of data. Hypotheses were tested with the help of these two statistical tools. Independent samples t-test is used to compare the values of the Means from two samples and test whether it is likely that the samples are from populations having different Mean values. The independent t-test also called the two sample t-test or students t-test is an inferential statistical test that determines whether there is a statistically significant difference between the Means in two groups. When two samples are taken from the same population, it is very unlikely that the Mean of the two samples will be identical. When two samples are taken from two populations with very different Mean values, it is likely that the means of the two samples will differ. For the present study comparing two Mean values of male and female population, independent samples t-test, it is necessary to include the t-statistic value, the degree of freedom (df) and significance value of the test (p-value). The format of the test result is: \( t \ (df) = t\text{-statistic}, \ p = \text{significant value} \).

For the independent samples t-test, it is assumed that both samples come from normally distributed populations with equal standard deviation (or variances) although some statistical packages like SPSS and others allow relating to the
assumption of equal population variances and performing a t-test that does not follow this assumption. Statistical tests are available to assess whether the two samples variances are significantly different, but a simple rule of thumb is to check whether one standard deviation is more than twice the size of the other. If it is, then there are “unequal variances”.

All statistical tests produce a ‘p-value’ and this is equal to the probability of obtaining the observed difference, or one more extreme, if the null hypothesis is true to put it another way. If the null hypothesis is true, the p-value is the probability of obtaining a difference at least as large as that observed due to sampling variation.

Consequently, if the p-value is small then the data support the alternative hypothesis. If the p-value is large then the data support the null hypothesis. Conventionally a p-value of 0.05 (5%) is generally regarded as sufficient small to repeat the null hypothesis. If the p-value is larger than 0.05 then the null hypothesis is not rejected. It should be noted that as in the case of Social Science Research, unless otherwise specified, the significance value considered for aforesaid statistical test is 0.. The 5% value is called the significance level of the test, but significance levels like 1% and 0.1% are also commonly used in research depending upon the type of research and subject of study.

The t-test is limited to situations in which there are only two levels of the independent variables (e.g. Male and Female). It is common to use the data in which there are three, four or five levels of the independent variable and in these cases the t-test is inappropriate instead a technique called analysis of variance (ANOVA) is used. T-test can also be used when only one independent variable has been measured. However, ANOVA has the advantage that it can be used to analyze situations in which there are several independent variables in these situations, ANOVA explains how these independent variables interact with each other and what these interactions have on the dependent variable.

One way analysis of variance (ANOVA) is used to determine whether there are only significant differences between the means of three or more independent (unrelated) groups. So it is used where there are more than two groups. ANOVA calculates whether two or more means are the same, so it tests the hypothesis that all groups
are equal. An ANOVA produces and t-statistic or t-ratio which is similar to the t-statistic is that it compares that amount of systematic variances in the data to the amount of unsystematic variance.

Analysis of variance is so called because it compares the variance (variability in scores) between the different groups (believed to be due to chance). An ‘F’ ratio is calculated which represents the variance between the groups, divided by the variance within two groups. A large ‘F’ ratio indicates that there is more variability between the groups (caused by independent variable) than there is within each group (referred to as the error term) a significant ‘F’) test indicates that the null hypothesis is rejected, which states that the population means are equal. It does not, however, explain which of the groups differ for the post-hoc test is calculated.

7. Limitations of the Study

Limitations are always there in any study. This research also has some limitations which have been mentioned as follows:

- The study is purely based on primary data obtained from the questionnaire, annual financial reports of the company, websites and various published sources. Therefore, findings of the study are subject to accuracy of such data collected from these sources.
- Performance analysis does not depict those facts which cannot be expressed in terms of money, for example, efficiency of employees, reputation and prestige of the management.
- The data taken for analysis covers only a period of 5 years i.e., from 2008-09 to 2012-13. Hence, findings are limited to this period only.

The researcher is an external evaluator of Bhilai Steel Plant hence the inside view of Bhilai Steel Plant is beyond the purview of Researcher.

8. Summary of the Chapters

The first chapter deals with the introduction of the study. It explains how valuable the knowledge management is to an organization. It also briefly defines the
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relationship of knowledge management to white collar employees. Further the chapter covers the statement of the problem and reviews briefly the literature available on the present study. From the review of literature research gap has been found on the basis of which objectives have been set and hypotheses have been framed to achieve these objectives. The Scope, significance of the study and limitations faced during the study has also been discussed. The research methodology adopted for the present study has also been explained to provide the organization of the study.

The second chapter discusses the concept of Knowledge management in relation to white collar employees in Bhilai Steel Plant. It further covers the components of knowledge management and the knowledge management process of white collar employees. It also explains the significance of knowledge management in relation to white collar employees.

Third chapter is devoted to the profile of Bhilai Steel Plant clearly stating its structure, no of employees. It provides a clear picture of the Bhilai Steel Plant in brief.

Fourth Chapter provides in detail the questionnaire responses. It explores the necessary personal profile information about the respondents taken from the white collar employees of the Bhilai Steel Plant which include their gender, age, designation and working experience in the Bhilai Steel Plant. It further explains the reliability of the data and the hypotheses tested by the application of the various statistical tools. The results of the hypotheses test have been interpreted and reasons have been provided for accepting and rejecting the hypotheses set for the study.

Fifth chapter discusses the findings of the study on the basis of the results of the data analyzed. On the basis of these findings specific suggestions to the employer of the Bhilai Steel Plant and general suggestions for all the Public Sector Undertakings have been given. These suggestions will be helpful to the policy makers to reframe their knowledge management practices to benefit the employees and organization both. A conclusion has been drawn on the basis of the findings. The directions for the future research have also been given.
9. **Findings of the Study**

The present study is primarily based on knowledge management of white collar employees in public sector companies with special reference to Bhilai Steel Plant. After the analysis and interpretation, the findings of the study are as follows:

- After analyzing the demographic profile of the respondents it has been found that 92% are male and whereas 7.23% respondents are female.
- Demographic profile of the respondents reveals that 11.80% respondents are in the age group of 20-30 years, 33.90% respondents are between the age group of 30-40 years, further 38.09% are between the age group of 40-50 whereas 16.19% respondents are between 50-60 age group.
- From the analysis of the demographic profile it has also been found that the experience of 18.66% respondents are between 0-4 years, whereas 34.09% respondents are between 4-8 years experience and finally 47.24% respondents are in 8 years of experience.
- Demographic profile also reveals that 28.195 respondents are in top level and 71.80% are in the middle level.
- The white collar employees of the company in the age group of 50-60 years have the highest mean value followed by respondents in 40-50 age groups then come respondents in 30-40 age groups and after that comes 20-30 age group respondents. So, it clearly shows than respondents in all the age groups have mean value more that which shows the positive attitude of respondents regarding KM Practices across age. The result reveals that there is a significant difference in the perception of white collar employees across age in Bhilai Steel Plant.
- From the analysis, it has been found that male respondents have the highest mean value followed by female respondents. So, it clearly shows that both male and female respondents have mean value more. So, it shows the positive attitude of respondents regarding KM Practices across gender.
- The respondents having experience of 8 years and above have the highest mean value followed by employee respondents having experience of 4-8 years then comes respondents having experience so it clearly shows that respondents in all the Experience groups have mean value more which shows
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the positive response of respondents regarding KM Practices across experience.

- It is noticed that Top level respondents have the highest mean value followed by Middle level respondents. So it clearly shows that both Top and Middle level respondents have mean value more than three which shows the positive attitude of respondents regarding KM Practices across Designations.

- From the analysis of the data it has been found that there is a strong and positive relationship between operational efficiency and knowledge management 47.1% variation in operational efficiency is due to KM the regression shows that unstandardized Beta is .690 and significance value is .000 which is less than .05 which shows that there is a positive and significance impact of KM on operational efficiency of white collar employees in Bhilai Steel Plant.

- The result also shows that financial performance and KM also had a strong and positive relationship. It has been found that 53.7% variation in financial performance in because of good KM practices being followed. The regression model shows that unstandardise beta co-efficient are .0831 and significance value is .000 which is less than .05 that there is a positive and significant impact of KM on financial performance of white collar employees in Bhilai Steel Plant.

- Further the result reveals that there is a weak and negative relationship between KM and innovation efficiency and there is a no variation in innovation skills because of KM practices the unstandardise beta is .057 and significance value is 0.522 which is more than .05 which shows that there is no significant impact of KM on innovation efficiency of Bhilai Steel Plant.

- After analyzing the data it has also been found that there is strong positive relationship between employee efficiency and KM practices. 32.9% variation in employee efficiency has been found because of KM the regression model shows that unstandardise beta is .714 and significance value is .000 which is less than .05 which shows that there is strong and positive impact of KM on employee efficiency in Bhilai Steel Plant.

- From the analysis of the data the result shows a strong and positive relationship between KM and communication skills of white collar
employees in Bhilai Steel Plant. From the regression model it has been found that 40.8% variation in communication skills is because of KM. the unstandarise beta was .716 and significance value was .000 which is less than .05 which shows that there is positive and significant impact of KM on communication skills of white collar employees in Bhilai Steel Plant.

- The result also reveals a strong and positive relationship between KM and job satisfaction of white collar employees in Bhilai Steel Plant. The regression model shows a 50.5% variation in communication skills of white collar employees because of KM practices being followed. The unstandarized beta was found to be .822 and significance value was .000 which is less than .05 which shows that there is positive and significant impact of KM on job satisfaction of white collar employees in Bhilai Steel Plant.

Table 1: Summary of Hypotheses Testing

<table>
<thead>
<tr>
<th>S. No</th>
<th>Null Hypotheses</th>
<th>t/f value</th>
<th>Significance value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ho1</td>
<td>There is no significant difference in the perception of White Collar employees on KM Practices across age group.</td>
<td>15.571</td>
<td>0.000</td>
<td>Rejected</td>
</tr>
<tr>
<td>Ho2</td>
<td>There is no significant difference in the perception of White Collar employees on KM Practices between male &amp; female.</td>
<td>-0.230</td>
<td>0.818</td>
<td>Accepted</td>
</tr>
<tr>
<td>Ho3</td>
<td>There is no significant difference in the perception of White Collar employees in across Experience.</td>
<td>21.317</td>
<td>0.000</td>
<td>Rejected</td>
</tr>
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<td>Ho4</td>
<td>There is no significant difference in the perception of White Collar employees in across between top and middle level.</td>
<td>3.101</td>
<td>0.002</td>
<td>Rejected</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Ho5</th>
<th>There is no significant impact of KM practices on Operational Efficiency of white collar employees of the Bhilai Steel Plant.</th>
<th>465.277</th>
<th>0.000</th>
<th>Rejected</th>
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</table>

<table>
<thead>
<tr>
<th>Null Hypotheses</th>
<th>Coefficient</th>
<th>Significance Value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ho6</td>
<td>There is no significant impact of KM Practices on the Financial Performance of white collar employees of the Bhilai Steel Plant.</td>
<td>0.831</td>
<td>0.000</td>
</tr>
<tr>
<td>Ho7</td>
<td>There is no significant impact of KM practices on the Innovation Efficiency of white collar employees of the Bhilai Steel Plant.</td>
<td>0.057</td>
<td>0.522</td>
</tr>
<tr>
<td>Ho8</td>
<td>There is no significant impact of KM practices on the Efficiency of White Collar employees at Bhilai Steel Plant.</td>
<td>0.714</td>
<td>0.000</td>
</tr>
<tr>
<td>Ho9</td>
<td>There is no significant impact of KM Practices on the Communication Skill of White Collar employees of the Bhilai Steel Plant.</td>
<td>0.716</td>
<td>0.000</td>
</tr>
<tr>
<td>Ho10</td>
<td>There is no significant impact of KM Practices on the Job Satisfaction of white collar employees of the Bhilai Steel Plant.</td>
<td>0.822</td>
<td>0.000</td>
</tr>
</tbody>
</table>

### 10. Suggestions

Liberalization and globalization helps in upgrading the steel sector of India. This sector has proved its hallmark at the global market. Although, it is performing well in all spheres of its operations, still there is a wide scope for improvement in
knowledge management and performance appraisal of Bhilai Steel Plant. Further improvement can be achieved with the help of successful implementation of the following suggestions:

- This has been found from the analysis that the knowledge management practices followed at Bhilai Steel Plant are designed irrespective of the age of the employee. Therefore, the company i.e Bhilai Steel Plant should follow the KM practices keeping in view the different age groups of the employees. However gender does not play an important role as far as KM practices are concerned.

- The experience of the employee plays an important role in the KM practices. Therefore, it is required that practices of knowledge management should be designed keeping in view the experience of employee.

- KM practices should also keep consideration of the designation of the employee. This is in consideration with the changing nature of role and the employee at each designation.

- KM practices have a significant influence on operational efficiency of the Bhilai Steel Plant. That is why, due consideration must be given to the knowledge of operational efficiency at the time of finalizing the KM practices.

- The KM practices play an important role in enhancing innovation, employee efficiency and communication skills. All these findings given an idea to the Bhilai Steel Plant for developing conducive work culture.

- Bhilai Steel Plant should develop strong KM practices which will not only improve the performance of Bhilai Steel Plant but the satisfaction of the employees as well. This is possible when the KM practices are pre-tested and properly communicated to the employees.

- Proper training programs, workshops, seminars an online knowledge management portals are the need of the time. These are required to be properly and timely organized for better KM practices.

- The company should design its strategies to reduce the human resource cost which will enhance the performance in substantial manner either through cost cutting or through revenue enhancement.

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- The company should follow the policy of upgradation of the white collar employees to increase the stake of private players so as to enhance its managerial potential efficiency and consequently its area of operation may widen.
- The company must try to develop a culture of knowledge sharing or dissemination in the organization. In this direction the development of knowledge portals and framing knowledge employees group will be beneficial indicator.
- Cross functional teams representing the employee from different departments or areas act as catalyst in knowledge management practices.
- Company must develop a proper appraisal mechanism to keep a track of knowledge upgradation of the employees.
- Use of information technology must be leveraged to get the actual benefit of knowledge management practices.
- Knowledge upgradation must be linked to the employee growth and development for example incentives and pay hike is based on the upgradation of employees.

11. Directions for Further Research

The present study is devoted to Knowledge Management of White Collar Employees at Bhilai Steel Plant. The Researcher feels that there is always a scope for further researches. For the purpose of study, Bhilai Steel Plant one of the largest steel companies of India was selected. This study is limited only for one government steel company of India but there is still scope for further research in the knowledge management of Bhilai Steel Plant in comparison to public and private players of the same industry and a comparative analysis would be of great value for academicians and policy makers. The study may also be undertaken for productivity performance evaluation in the area of marketing, human resource, managerial efficiency etc. A fully fledged research programme may also be ventured in different aspects of knowledge management which are currently supposed backbone of Indian Steel Sector. The researcher has covered key financial aspects of this corporation. However, there is a wide scope for further studies as well;
Abstract

- There are a number of public sector companies engaged in steel sector. The researcher has taken up only one corporation for the study. So, the future researchers may evaluate the performance appraisal of similar corporations.
- Since only knowledge management aspect of this corporation has been analyzed, many other aspects such as human resource management, marketing strategies, costing method, managerial decision, inventory management etc can be a subject matter of future studies.
- This study is limited up to the period of five years from 2008-09 to 2012-13, yet performance appraisal can be evaluated in further periods of time.
- The study will help to other interested parties and stockholders as better management of knowledge among white collar employees which leads to improvement in performance and profitability of the company.
- The study can also be helpful to other similar organizations and enterprises as a whole as well for analyzing their financial statements and its interpretation through accounting and financial techniques.