

# AN EMPIRICAL ANALYSIS OF KNOWLEDGE MANAGEMENT OF WHITE COLOR WORKERS IN PUBLIC SECTOR COMPANIES: A CASE STUDY OF BHILAI STEEL PLANT

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## ABSTRACT

The present research is an attempt to study the Knowledge Management of White Color Workers in Public Sector Companies in India with special reference to Bhilai Steel Plant. The ability to manage knowledge is crucial in today's knowledge economy. The creation and diffusion of knowledge have become increasingly important factors in competitiveness. More and more, knowledge is being thought of as a valuable commodity that is embedded in products especially high-technology products and embedded in the tacit knowledge of highly mobile employees. While knowledge is increasingly being viewed as a commodity or intellectual asset, there are some paradoxical characteristics of knowledge that are radically different from other valuable commodities.

**KEYWORDS:** Knowledge Management, Bhilai Steel Plant, Survey

## INTRODUCTION

An informal survey conducted by the author identified over a hundred published definitions of knowledge management and of these, at least seventy-two could be considered to be very good! Carla O'Dell has gathered over sixty definitions and has developed a preliminary classification scheme for the definitions on her KM blog and what this indicates is that KM is a multidisciplinary field of study that covers a lot of ground. This should not be surprising as applying knowledge to work is integral to most business activities. However, the field of KM does suffer from the 'Three Blind Men and an Elephant' syndrome. In fact, there are likely more than three distinct perspectives on KM, and each leads to a different extrapolation and a different definition. Knowledge management (KM) is generally defined as a set of new organizational practices with wide relevance in the knowledge economy. Knowledge management deals with any intentional set of practices and processes designed to optimize the use of knowledge, in other words, to increase allocative efficiency in the area of knowledge production, distribution and use.

Government organizations worldwide are facing challenges as legislative, executive, and judicial bodies continue to evolve into an electronic work environment pushed by paperwork and cost reduction mandates, requirements to handle increased workloads with fewer personnel, and the rapid addition of electronic communication channels for use by taxpayers and citizens. Governments are often at the forefront of needing to adopt new approaches to electronic information management.

Knowledge management tools have increasingly been recognized by most governments in the world as strategic resources within the public sector. Some of the common challenges that affect the public sectors worldwide include enhancing efficiencies across all public agencies, improving accountability, making informed decisions, enhancing

collaboration and strategic partnerships with stakeholders, capturing knowledge of an aging workforce as well as improving operational excellence. It is also noted that knowledge management plays an imperative role in providing strategies and techniques to manage e-government content to make knowledge more usable and accessible.

The term 'public sector' refers to the functioning agencies and units at all federal, state, country, municipal, and local levels of government. The sector includes all agencies, government corporations, the military, and departments that perform some form of public service. Some authors argue that there are characteristics that differ between the public and private sectors. For instance, there seems to be varying degrees of executive control among the employees of these two sectors. Other differences include organizing principles, structures, performance metrics, relationship with end users, nature of employees, supply chain, sources of knowledge, ownership, performance expectations, and incentives, among others. In private sector organizations, due to multiple levels of control, efficiency is paramount. While economic efficiency is essential to operations in the private sector, the same may not be true for the public sector.

Public-sector organizations focus on enactment of public policies, whereas profit, revenues, and growth are the organizing principles of the private sector. Even before the advent of knowledge economy, citizens were expecting the same level of service and standard from government agencies, similar to the private sector. Making the government 'customer friendly' is one of the many challenges facing public administrators. All too often, citizens complain that they wait too long in lines, get bounced around from office to office, and find government offices closed during the hours most convenient to the public. Improving government services and providing accurate information are the objectives of most governments. They are expected, rightly or wrongly, to be a model of efficiency, innovation and service quality.

Knowledge management provides the overall strategy to manage the content of e-government by providing knowledge organization tools and techniques, monitoring knowledge contents are updated accordingly, and availing all necessary information to citizens. Among the benefits of knowledge management are enhancement of governments' competence, raising governments' service quality, and promotion of healthy development of e-government. Decision making is an intrinsic aspect of public-sector activities. Ill-informed decisions can have far reaching consequences. Knowledge is raw material, work in process, and deliverable in any decision. Sound decisions and effective action rely on having the right knowledge in the right place at the right time. 'Right' knowledge may be different for every decision. Some decisions require only surface knowledge, some require more investigation and evidence-based, some use tacit expertise, and others, creative insight, intuition, and judgment. Knowledge management practices are well placed to improve decision making.

## **KNOWLEDGE MANAGEMENT: HISTORICAL PERSPECTIVE**

Although the term knowledge management formally entered popular usage in the late 1980s (e.g., conferences in KM began appearing, books on KM were published, and the term began to be seen in business journals), philosophers, teachers, and writers have been making use of many of the same techniques for decades. Denning (2002) related "time immemorial, the elder, the traditional healer, and the midwife in the village have been the living repositories of distilled experience in the life of the community".

Some form of narrative repository has been around for a long time, and people have found a variety of ways to share knowledge in order to build on earlier experience, eliminate costly redundancies, and avoid making at least the same mistakes again. For example, knowledge sharing often took the form of town meetings, workshops, seminars, and

mentoring sessions. The primary vehicle for knowledge transfer was people themselves in fact, much of our cultural legacy stems from the migration of different peoples across continents.

Wells (1938), while never using the actual term knowledge management, described his vision of the World Brain that would allow the intellectual organization of the sum total of our collective knowledge. The World Brain would represent “a universal organization and clarification of knowledge and ideas”. Wells in fact anticipated the World Wide Web, albeit in an idealized manner, when he spoke of “this wide gap between at present unassembled and unexploited best thought and knowledge in the world, we live in a world of unused and misapplied knowledge and skill”. The World Brain encapsulates many of the desirable features of the intellectual capital approach to KM: selected, well-organized, and widely vetted content that is maintained, kept up to date, and, above all, put to use to generate value to users, the users’ community, and their organization.

The growing importance of organizational knowledge as a competitive asset was recognized by a number of people who saw the value in being able to measure intellectual assets. A cross-industry benchmarking study was led by APQC’s president Carla O’ Dell and completed in 1996.

## **KNOWLEDGE MANAGEMENT IN PUBLIC SECTOR COMPANIES**

Knowledge management (KM) is generally defined as a set of new organizational practices with wide relevance in the knowledge economy. Knowledge management deals with any intentional set of practices and processes designed to optimize the use of knowledge, in other words, to increase allocative efficiency in the area of knowledge production, distribution and use. Government organizations worldwide are facing challenges as legislative, executive, and judicial bodies continue to evolve into an electronic work environment pushed by paperwork and cost reduction mandates, requirements to handle increased workloads with fewer personnel, and the rapid addition of electronic communication channels for use by taxpayers and citizens. Governments are often at the forefront of needing to adopt new approaches to electronic information management.

Knowledge management tools have increasingly been recognized by most governments in the world as strategic resources within the public sector. Some of the common challenges that affect the public sectors worldwide include enhancing efficiencies across all public agencies, improving accountability, making informed decisions, enhancing collaboration and strategic partnerships with stakeholders, capturing knowledge of an aging workforce as well as improving operational excellence. It is also noted that knowledge management plays an imperative role in providing strategies and techniques to manage e-government content to make knowledge more usable and accessible.

Decision making is an intrinsic aspect of public-sector activities. Ill-informed decisions can have far reaching consequences. Knowledge is raw material, work in process, and deliverable in any decision. Sound decisions and effective action rely on having the right knowledge in the right place at the right time. ‘Right’ knowledge may be different for every decision. Some decisions require only surface knowledge, some require more investigation and evidence-based, some use tacit expertise, and others, creative insight, intuition, and judgment. Knowledge management practices are well placed to improve decision making.

## STATEMENT OF THE 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, 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.

## OBJECTIVES OF THE STUDY

- To evaluate the historical aspects of knowledge management in India.
- To identify the various aspect which affect the working efficiency of white color workers in India.
- To analyze the perception of employees on the Knowledge Management practices across gender and age.
- To analyze the perception of employees on the Knowledge Management practices across Experience and designation.

## HYPOTHESES OF THE STUDY

The hypotheses formulated for this research 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 three from organizational point of view and the other three are from employee's point of view. The hypotheses of the study are as follows:

- **H0<sub>1</sub>:** There is no significant difference in the perception of White Collar Employees on Knowledge Management Practices across age in the Bhilai Steel Plant.
- **H0<sub>2</sub>:** There is no significant difference in the perception of White Collar Employees on Knowledge Management Practices across gender in the Bhilai Steel Plant.
- **H0<sub>3</sub>:** There is no significant difference in the perception of White Collar Employees in across Experience in the Bhilai Steel Plant.
- **H0<sub>4</sub>:** There is no significant difference in the perception of White Collar Employees in across Designation in the Bhilai Steel Plant.

## RESEARCH METHODOLOGY

For responses to the questions, data Source has been the Bhilai Steel Plant personnel themselves. For secondary data, the archives of BSP, various libraries, books, journals, internet, colleges and other such avenues were approached where the data and information was available. Survey has been conducted on samples of white collar workers to collect Data using the self administered questionnaire to understand how the white collar workers at Bhilai Steel Pant collective perceives the knowledge management practices and its services to the organization, the value of KM and the extent of time needed to devote towards Knowledge Management and how Knowledge Management benefits employees and organization both. The framing of the questionnaire has been done suitably to cover all aspects of Knowledge Management under study.

Secondary data such as BSP performance figures, techno-economic parameters, man-power position and variations over a period, profit figures, installation and commissioning dates of important shops, achievement highlights and activities in KM area have been collected from the library and archives of BSP and various reports, documents and journals published by the company, past and present, which subsequently were used in arriving at certain conclusions.

In general terms in the present study all the white collar workers in Bhilai Steel Plant are considered as universe of the study. Bhilai Steel Plant being as an integrated steel plant, it has all the facilitating units for its core production units which consist of major units 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.

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 the people from the senior most non-executive cadre. For the analysis part, the sample was subdivided into three groups. Persons from Senior Manger 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 three categories works out to be about 5300 and hence a sample size of about 500 and above persons was 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 are 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.

## SAMPLING PROCEDURE

The sampling was based on Stratified Random Sampling. The sample chosen for the analysis of the data is shown in the table below. The table clearly depicts the total number of questionnaire distributed, total number of questionnaire completed, average response rate in percentage and method of questionnaire distribution. The sample for the present study has been collected from. A total of 600 questionnaire were distributed out of which 525 were received this yields a total of

87.5% response rate. Overall the response rate was encouraging. From the table given below we see that from the Top Level the response rate is and Middle level response rate is 89% which shows an excellent response.

**Table 1: Sample Size of the White Collar Workers from Bhilai Steel Plant**

S. No.	Bhilai Steel Plant	Distributed Questionnaire	Usable Returned and Completed Questionnaire	Response Rate	Methodology Adopted in Distributing Questionnaire
1.	Top Level	185	148	80%	Field Work
2.	Middle Level	415	377	90.8%	Field Work
<b>Total</b>		<b>600</b>	<b>525</b>	<b>87.5%</b>	

**Source:** Researchers Compilation.

### Tools Used in the Study

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

The primary data collected was quantitatively tabulated with any additional comments noted. All the necessary steps have been followed while transferring data to SPSS (Statistical Package for Social Science) from Microsoft Excel File. SPSS software has been used almost for all types of analysis in this research. Necessary statistical tools have been studied for the analysis of this research while using SPSS software. The mean, standard deviation, One Way Anova (Analysis of variance) and other statistical test for the outcome were computed.

- Independent Sample t-test
- One- Way Analysis of Variance (ANOVA)
- Correlation
- Simple Linier Regression
- Coefficient of Determination
- Data Analysis and Interpretation

### QUESTIONNAIRE

The present survey has been conducted with the help of a well designed questionnaire which is placed in Appendix to this study. The questionnaire was prepared taking into consideration the objectives of the study from the white collar workers point of view.

Questionnaire first consists to measure the personal information of the respondents which include their gender, age, designations, work experience in order to get the overall background of the workers for reaching the conclusion.

The questionnaire contains close ended questions which are concerned to elicit information about the perception of the white collar workers that have direct emphasis on the hypotheses of the study. The questionnaire contains total of 25 statements which measures the seven important variables taken under the study. While taking the advice of the experts of

the study the Questionnaire has been divided into two sections first is Section-A about knowledge management which is the independent variable of the study and consists of 7 statements. Then is Section- B which is divided from organizations point of view into three variables viz. Operational efficiency, Financial Performance and Innovation that are the dependent variables of the study and consist of 12 statements then from employees point of view which also consist of three variables viz. Employee Efficiency, Communication and Job Satisfaction that also consist of 12 statements. Each variable consist of statements relevant to that variable for specification purpose and to get the appropriate response from the employees in the Bhilai steel plant under study.

**DEMOGRAPHIC PROFILE**

Before proceeding further it is necessary to describe the sample in terms of demographics the profile of which is given in the following tables.

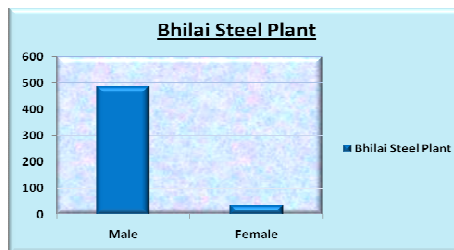
**Gender Profile of the Respondents**

When a profile of respondents was generated based on gender, it was observed that the respondents were predominantly male in all the groups. This was expected as male typically outnumber females in almost all professions in the world. Bhilai Steel Plant has a total numbers of 525 employees out of which 38 are female and 487 are male.

**Table 2: Classification Based on the Gender of the Respondents in the Bhilai Steel Plant**

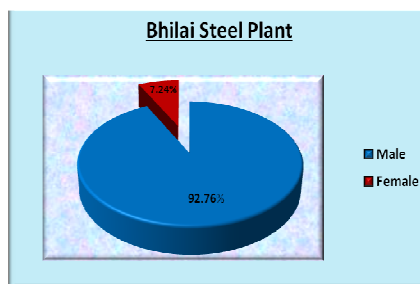
Gender	Bhilai Steel Plant	
	Number	%
Male	487	92.76%
Female	38	7.23%
<b>Total</b>	<b>525</b>	<b>100</b>

Bar diagram below shows the Male v/s Female sample size of the employees in the Bhilai steel plant.



**Graph 1: Bar Diagram Showing the Gender of the Respondents**

The pie chart below shows the percentage of Male and Female respondents in Bhilai Steel Plant.



**Chart 2: Pie Chart Showing the Gender of the Respondents in BHILAI STEEL PLANT**

From the above pie chart it is inferred that 92.76% of respondents are male and 7.24% are female in the Bhilai Steel plant.

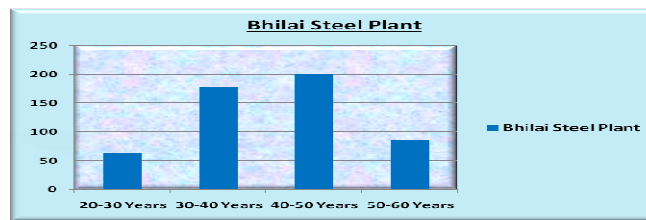
### Age Profile of the Respondents

Age of the employees is one of their important profile variable. It shows their level of experience and maturity. In the present study 525 employees are taken from Bhilai Steel Plant out of which 62 employees are from the age group 20-30 years, 178 are between 30-40 years 200 are between 40-50 years and 85 are above 50-60 years.

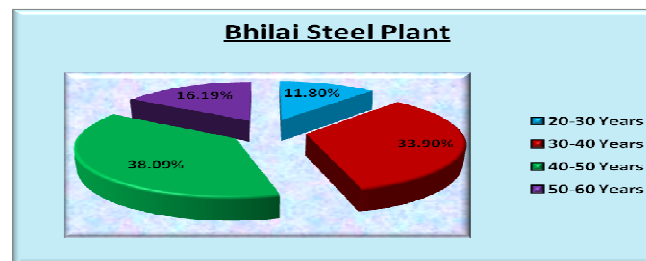
**Table 3: Classification Based on the Age of the Respondents in the Bhilai steel Plant**

Age	Bhilai Steel Plant	
	No.	%
20-30	62	11.80
30-40	178	33.90
40-50	200	38.09
50-60	85	16.19
<b>Total</b>	<b>525</b>	<b>100</b>

Bar diagram below shows the Age of the employees taken from Bhilai Steel Plant.



**Graph 3: Bar Diagram Showing Age of the Respondents**



**Graph 4: Pie Chart Showing the Age of the Respondents in BHILAI STEEL PLANT**

From the above pie chart it is inferred that 11.80% of respondents are between 20-30 years, 33.90% are between 30-40 years, 38.09% are in the age of 40-50 years and 16.19% are between 50-60 years in Bhilai Steel Plant.

### Experience Profile of the Respondents

Experience of the employees is one of their important profile variable. It shows their span of time spend on the job and their level of experience and maturity. In the present study 525 employees are taken from Bhilai Steel Plant out of which 75 employees are below 10 years, 110 are between 10-20 years and 25 are above 20 years.



**Table 4: Classification based on the Experience of the Respondents in the Bhilai Steel Plant**

Experience	Bhilai Steel Plant	
	No.	%
0-4 Years	98	18.66
4-8 Years	179	34.09
8 years	248	47.24
<b>Total</b>	<b>525</b>	<b>100</b>



**Graph 5: Bar Diagram Showing the Experience of the Respondents**

**Table 5: Classification based on the Designation of the Respondents in the Bhilai steel plant Under Study**

Designation	Bhilai Steel Plant	
	No.	%
Top Level	148	28.19
Middle Level	377	71.80
<b>Total</b>	<b>525</b>	<b>100</b>



**Chart 7: Bar Diagram Showing the Designation of the Respondents**

**Table 6: Knowledge Management**

Q.NO	Statements	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
1	The overall environment of the organization facilitates knowledge creation	-	-	-	-	86	16.4	332	63.2	107	20.4
2	The overall environment of the organization facilitates knowledge storage/retrieval	-	-	-	-	73	13.9	342	65.1	110	21.0
3	The overall environment of the organization facilitates knowledge transfer	-	-	-	-	78	14.9	350	66.7	97	18.5
4	The knowledge management of organization enables to accomplish task more quickly	-	-	-	-	82	15.6	352	67.0	91	17.3
5	The knowledge management of organization improves job performance	-	-	-	-	73	13.9	329	62.7	123	23.4
6	The knowledge management enables the organization to react more quickly to change in market place	-	-	-	-	104	19.8	319	60.8	102	19.4

Table 6: Contd.,

7	The knowledge management speeds the decision making process of the organization	-	-	-	-	75	14.3	342	65.1	108	20.6
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From the above table we saw that percentage of respondents who agree are in majority, so an inference is drawn on the basis of the above data that majority of respondents have positive perception about the Knowledge Management practices of the Bhilai Steel Plant.

Table 7: Descriptive Statistics

Q. No	Descriptive	Mean	Std. Deviation
<b>Section-A Knowledge Management</b>			
1	The overall environment of the organization facilitates knowledge creation	4.04	.606
2	The overall environment of the organization facilitates knowledge storage/retrieval	4.07	.587
3	The overall environment of the organization facilitates knowledge transfer	4.04	.574
4	The knowledge management of organization enables to accomplish task more quickly	4.02	.574
5	The knowledge management of organization improves job performance	4.10	.604
6	The knowledge management enables the organization to react more quickly to change in market place	4.00	.627
7	The knowledge management speeds the decision making process of the organization	4.06	.588

From the above table it is clear that in Section-A all the statements in the variable first have mean values more than 3 which show that the responses of the respondents have positive attitude regarding the knowledge management Practices of the Bhilai steel plant.

Then in the section B from organization point of view from the table it has been seen that all the statements in the variable first have mean value more than 3 which shows that the responses of the respondents have positive attitude regarding the operational efficiency of the Bhilai steel plant. Similarly for the variable second the table shows that all the statements have mean value more than 3 which shows that the responses of the of the respondents have positive attitude regarding the financial performance of the Bhilai steel plant. Further for the variable third the table shows that all the statements have mean value less than 3 which shows that the responses of the respondents have negative attitude regarding the innovation practices of the Bhilai Steel Plant.

Further in Section-B from employees point of view all the statements in variable first have mean value more than 3 which shows that the responses of the respondents have positive attitude regarding Employee Efficiency of the white collar workers of the Bhilai steel plant

Then for the variable second all the statements have mean value more than 3 which shows that the responses of the respondents have positive attitude regarding the communication skill in the Bhilai Steel Plant.

Finally all the statements in the variable third have mean value more than 3 which again shows that the responses of the respondents have positive attitude regarding Job Satisfaction of white collar workers in the Bhilai steel plant.

**Table 8: Showing Mean and Standard Deviation of all the Variables**

S. No.	Variable Name	Mean	Std. Deviation
1	Knowledge Management	4.05	.410
2	Operation Efficiency	4.01	.412
3	Financial Performance	4.04	.464
4	Innovation	2.16	.828
5	Employee Efficiency	4.03	.510
6	Organization Commitment	4.08	.460
7	Job Satisfaction	4.06	.474

The following table shows that the highest mean score is of Organizational Commitment i.e. 4.08 and there is a small variation in the mean score of Knowledge Management 4.05, Financial Performance i.e. 4.04, Employee Efficiency i.e. 4.03, Operational Efficiency i.e. 4.01, further comes the mean score of job satisfaction i.e. 4.06 and the lowest mean score is of innovation i.e. 2.16.

### RELIABILITY TEST

Reliability is the consistency of the measurement or the degree to which an instrument measure the same way each time it is used under the same condition with the same subject in the present study Cronbach’s alpha is used to measure the reliability of data. Cronbach (1951) gave a measure to that which is loosely equivalent to splitting data in two in every possible way and computing the correlation coefficient for each split. the average of these values is equivalent to Cronbach’s alpha which is the most common measure of scale reliability. (Klin, 1999) 0.8 is an acceptable value for Cronbach’s alpha .values substantially lower indicate an unreliable scale.

**Hypothesis 1:** There is no significant difference in the perception of White Collar Employees on Knowledge Management Practices across age.

Whereas the alternative hypothesis says that is a significant difference in the perception of White Collar Employees on Knowledge Management Practices across age.

**Table 9: Descriptive Statistics on the Basis of Age**

Age Groups	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
20-30	62	3.92	.299	.038	3.84	3.99
30-40	178	3.94	.443	.033	3.87	4.00
40-50	200	4.08	.415	.029	4.02	4.14
50-60	85	4.26	.270	.029	4.20	4.32
<b>Total</b>	<b>525</b>	<b>4.04</b>	<b>.409</b>	<b>.017</b>	<b>4.01</b>	<b>4.08</b>

This has been found from the above table that the respondents in the age group of 50-60 have the highest mean value of 4.26 and Std. Deviation .270 followed by respondents in 40-50 age group i.e. 4.08 and Std. Deviation .415 then comes respondents in 30-40 age group i.e. 3.94 and Std. deviation .443 and after that comes 20-30 age group respondents i.e. 3.92 and Std. Deviation .299. So it clearly shows that respondents in all the age group have mean value more that 3 which shows the positive attitude of respondents regarding Knowledge Management Practices across age.

**Table 10: ANOVA**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.234	3	2.411	15.571	.000
Within Groups	80.682	521	.155		
<b>Total</b>	<b>87.916</b>	<b>524</b>			

From the above table it has been found that the F value is 15.571 and Sig. Value is .000 which is less than 0.05 (95% confidence interval) which indicates that the null hypothesis has been rejected at the 0.05 significance level and means that there is a significant difference in the perception of white collar employees across age in Bhilai steel plant.

**Hypothesis 2:** There is no significant difference in the perception of White Collar Employees on Knowledge Management Practices across gender.

Whereas, the alternative hypothesis says that there is a significant difference in the perception of White Collar Employees on Knowledge Management Practices across gender.

**Table 11: Group Statistics**

Gender of Respondent	N	Mean	Std. Deviation	Std. Error Mean
Male	487	4.044	.4134	.0187
Female	38	4.060	.3617	.058

This has been found from the above table that male respondents have the highest mean value of 4.26 and Std. Deviation .270 followed by female respondents whose mean value is 4.08 and Std. Deviation .415. So it clearly shows that both male and female respondents have mean value more than 3 so it shows the positive attitude of respondents regarding Knowledge Management Practices across gender.

**Table 12: Independent Samples Test**

	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal Variance Assumed	.707	.401	-.230	523	.818	-.016	.069
Equal Variance not Assumed			-.257	44.890	.798	-.016	.062

From the above table it has been found that the t value is -.230 and Sig. Value is .818 which is more than 0.05 (95% confidence interval) which indicates that the null hypothesis has been accepted at the 0.05 significance level and means that there is no significant difference in the perception of white collar employees across gender in Bhilai steel plant.

**Hypothesis 3:** There is no significant difference in the perception of White Collar Employees in across Experience.

Whereas the alternative hypothesis says that there is a significant difference in the perception of White Collar Employees across Experience.

**Table 13: Independent Samples Test**

Experience Groups	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
0-4 Years	98	3.932	.368	.037	3.856	4.003
4-8 Years	179	3.944	.434	.032	3.880	4.008
8 Years & Above	248	4.164	.373	.023	4.117	4.210
<b>Total</b>	<b>525</b>	<b>4.045</b>	<b>.409</b>	<b>.017</b>	<b>4.010</b>	<b>4.080</b>

This has been found from the above table that the respondents having experience of 8 year and above have the highest mean value of 4.16 and Std. Deviation .373 followed by employee respondents having experience of 4-8 years i.e. 3.94 and Std. Deviation .434 then comes respondents having experience i.e. 3.93 and Std. deviation .368 so it clearly shows that respondents in all the Experience groups have mean value more that 3 which shows the positive response of respondents regarding Knowledge Management Practices across experience.

**Table 14: ANOVA**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.638	2	3.319	21.317	.000
Within Groups	81.277	522	.156		
<b>Total</b>	<b>87.916</b>	<b>524</b>			

From the above table it has been found that the F value is 21.317 and Sig. Value is .000 which is less that 0.05 (95% confidence interval) which indicates that the null hypothesis has been rejected at the 0.05 significance level and means that there is a significant difference in the perception of white collar employees across Experience in Bhilai steel plant.

**Hypothesis 4** there is no significant difference in the perception of White Collar Employees in across Designation.

Whereas the alternative hypothesis says that there is a significant difference in the perception of White Collar Employees across Designation.

**Table 15: Descriptive Statistics**

Designation of the Respondents	N	Mean	Std. Deviation	Std. Error Mean
Top Level	148	4.133	.408	.033
Middle Level	377	4.010	.405	.020

This has been found from the above table that Top level respondents have the highest mean value of 4.13 and Std. Deviation .408 followed by Middle level respondents whose mean value is 4.01 and Std. Deviation .405. So it clearly shows that both Top and Middle level respondents have mean value more that 3 which shows the positive attitude of respondents regarding Knowledge Management Practices across Designations.

**Table 16: Independent Samples Test**

	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal Variance Assumed	.002	.967	3.101	523	.002	.122	.039

**Table 16: Contd.,**

Equal Variance not Assumed			3.091	267.136	.002	.122	.040
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From the above table it has been found that the t value is 3.101 and Sig. Value is .002 which is less than 0.05 (95% confidence interval) which indicates that the null hypothesis has been rejected at the 0.05 significance level and means that there is a significant difference in the perception of white collar employees across Designations in Bhilai steel plant. From the above table the unstandardized Beta Co-efficient gives a measure of the contribution of each variable in the model. The result shows that the value of the unstandardized Beta is .831 which is an indication of positive impact of Knowledge Management on Financial Performance. This impact is strong and statistically significant as the Sig. value is .000 which is less than 0.05 (95% confidence interval) therefore the null hypothesis is rejected at 0.05 significance level and means that there is a significant impact of Knowledge Management on Financial Performance of the Bhilai Steel plant.

## CONCLUSIONS

The present study is primarily focused on knowledge management of white color workers in Bhilai Steel Plant. The main purpose behind this study is to evaluate the historical aspects of knowledge management in India and identify the various aspects which affect the working efficiency of white color workers in India. It is also analyze the perception of employees on the Knowledge Management practices across gender and age. The perception of employees on the Knowledge Management practices across Experience and designation. From the above analysis it is clear that all the statements in the variable first have mean values more than 3 which show that the responses of the respondents have positive attitude regarding the knowledge management Practices of the Bhilai steel plant. Then, in the section from organization point of view from the table it has been seen that all the statements in the variable first have mean value more than 3 which shows that the responses of the respondents have positive attitude regarding the operational efficiency of the Bhilai steel plant. Similarly for the variable second the table shows that all the statements have mean value more than 3 which shows that the responses of the of the respondents have positive attitude regarding the financial performance of the Bhilai steel plant. Further for the variable third the table shows that all the statements have mean value less than 3 which shows that the responses of the respondents have negative attitude regarding the innovation practices of the Bhilai Steel Plant.

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