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PACE

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PACE

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PACE in English Language carries a rich repository of meanings: (Noun): *A Single step taken when Walking or Running; (Verb): Walk at a steady and consistent speed, esp. back and forth and as an expression of one's anxiety or annoyance. (Preposition): With due respect to (someone or their opinion), used to express polite disagreement or contradiction. PACE seeks to reflect all these in Management & Information Technology Research, Problem Solving and Decision Making. PACE- A Journal of Research of Prestige Institute of Management Dewas is a Bi-Annual publication of Prestige Institute of Management Dewas. Its objective is to contribute in the area of Management & Information Technology Research which are relevant to practicing managers and meet the standard of academic rigour.*

PACE

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EDITORIAL

It gives me immense pleasure to present the Volume 6, Number 02 of PACE A Journal of Prestige Institute of Management Dewas. PACE is a professional Journal that encourages the analysis and portrayal of Management and Information Technology perspectives. It endeavor at fostering objective analysis based on scientific concepts including statistical analysis and encourages discussion on issues that radically contribute to the ongoing globalization progression and verifies the importance of understanding the concepts of management, business and technology from an International perspectives. The Journal is a scholastic platform to share ideas, nourish and endorse the culture of academic and industrial research. This biannual journal invites and attracts preeminent quality research papers from all parts of the globe and reaches to a wide array of readers and it reiterates the commitment to bridge the gap between academic world of educators and the world of practitioners.

Prestige Institute of Management Dewas focuses upon creating new avenues for Researchers in the area of Empirical Research by inculcating practical issues faced by the Industries today. The Journal has been well received by the international research and academic community.

This issue covers a wide range of topics in the form of research articles, book review and case studies.

Piyush Choudhary has reviewed the Book Concepts of Programming Languages by Robert W. Sebesta. The idea of this review was not to copy the content of the book but to explore knowledge, provides review on the positives and negatives of concepts of programming languages. Preeti Gupta presented the research paper on Domination in Digraphs along with Application. Shailendra Gangrade and Neha Jhamtani studied the factors affecting awareness about education loan facilities. Apurva Agrawal and Sonal Gupta researched that a comprehensive analysis and the study of workforce management, when done with the principles of scientific management may advocate a better subsequent to be in various organization, which are facing hitches in expanding the idea. Deepshikha Agrawal and Meenu Kumar analyzed the trends of sex ratio in Madhya Pradesh. It has been found that the sex ratio of total population in M.P. is continuously increasing since 1991. Kiran Gehani and Anukool M. Hyde presented a case study Changing or Quitting? Silky Janglani and coauthors presented a case titled Least Deviating Budget: A Successful Story. Sanjay Dubey and coauthors presented a case Right Talent in Right Environment: Strategies Ahead... developed at AARTEK Software Solutions. Vikas Sharma and coauthors developed a case on OPPO Success Story: Innovation with Technology and derived at a conclusion that the rise of smart phones has been fast, with technological innovation creating an incredibly sophisticated mobile ecosystem. Devendra Pawar and coauthors developed a case at ROSE Electronics and commended that after discussing the case, management students will be able to understand and explain the concepts of service quality, customer services and their importance in the present market scenario. Yogendra Singh Rajavat and coauthors developed a case to make the students conversant with the concept of Promotional strategies adopted by VIVO Smart Phones. Ashima Joshi and coauthors developed a case on peoples management and concluded that the employee Satisfaction is very important for the smooth working in the company. Abhishek Tripathi and coauthors, case study focused on how XYZ Engineering (I) Ltd Rejuvenated.

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CONCEPTS OF PROGRAMMING LANGUAGES BY ROBERT W. SEBESTA: A BOOK REVIEW

Piyush Choudhary*

"The first function of a book review should be, I believe, to give some idea of the contents and character of the book" –
Walter Kaufman

ABSTRACT

Book plays a vital role for the development of knowledge and it is always necessary to review a book as it provides positive and negative feedback of the book. This paper describes the book review for Sebesta's VIII edition for Pearson publication on "Concepts of Programming Languages". The idea of this review is not to copy the content of the book but to explore knowledge, provides review on the positives and negatives of concepts of programming languages.

BIBLIOGRAPHIC ENTRY

Name of the Book: Concepts of Programming Languages

Author: Robert W. Sebesta

Edition: Eight

Publisher: Pearson

ISBN No.: 978-81-317-2165-0

Price: 685/- (Six Eighty Five Only)

Total No. of Pages: 763

Total References Used: 232

ABOUT THE AUTHOR: Robert W. Sebesta is a Associate Professor Emeritus in the Computer Science Department at the University of Colorado - Colorado Springs. Professor Sebesta received a B.S. in applied mathematics from University of Colorado in Boulder and M.S and PhD degree in Computer Science from the Pennsylvania State University. He has taught Computer Science for more than 36 Years. His professional interests are the design and evaluation of programming languages, Compiler Design and Software testing methods and tools.

ABOUT THE BOOK

The book "Concepts of Programming Languages" describes the fundamental concepts of programming languages by discussing the design issues of the various language constructs, examining the design choices for these constructs in some of the most common languages, and critically comparing design alternatives. The principal goals are to introduce the main constructs of contemporary programming languages and to provide the reader with tools necessary for the critical evaluation of existing and future programming languages and also to provide in-depth knowledge of programming language constructs and compiler design study.

This Eighth addition of the book is evolved from the seventh edition through two basic changes. First, the older programming languages are replaced by newer one and second to improve clarity.

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INTENDED AUDIENCE

The book is very useful for students seeking career in the field of Computer Science and Engineering and also for professionals working in Computer related firms. Initially, book is used for junior level programming language course at the University of Colorado at Colorado Springs and now used world wide for the engineering graduates.

BOOK REVIEW

The book "Concepts of Programming Languages" describes the fundamental concepts of programming languages by discussing the design issues of the various language constructs. The book examines the design choices for the language constructs and compares design alternatives for most common languages. The formal methods of syntax and semantics of programming languages are described in the book in an interesting way.

Chapter 1 (pp. 20 to 56) starts with a rationale for studying programming languages and discusses the criteria used for evaluating programming languages and language constructs. This criterion includes readability, writability, reliability and cost. The primary influences on language design, language design tradeoffs and the basic approaches to implementation are also examined. Lastly, programming environment contains the tools used in the development of any software is given appropriately.

Chapter 2 (pp. 57-132) outlines the evolution of most of the important languages. Although, no language is described completely but the origin, purposes and contributions of each language is described respectively. The historical background is given which provides the understanding of practical and theoretical basis for contemporary language design. Author here investigated the development and the development environments of a number of more important programming languages. Author also motivates further study of language design and evolution. This chapter provides a good perspective on current issues in language design. The chapter provides an in-depth discussion and can be read as independent of other chapter.

Chapter 3 (pp. 133-184) covers the primarily formal method for describing the syntax and semantics of programming languages – Backus Naur Form and Context Free Grammar. This is followed by a description of attribute grammars, where syntax and static semantics of languages are described properly. The task of semantic description is then explored which is very difficult in nature and also an introductions to three most common method is included briefly. These methods are operational, axiomatic and denotational semantics.

Chapter 4 (pp. 185-218) introduces the analysis part of compiler and explains the lexical and syntax analysis. This chapter is a standalone entity and can be read as independent of other chapters.

Chapter 5 (pp. 219-264) introduces the fundamental semantics issues of variables. The nature of names, special words in programming languages, attributes of variables, its types, address and values are discussed. The issues of aliases is included in that discussion. The concept of binding and binding times are introduced along with possible binding times for variable attributes. Their descriptions are followed by thorough investigation of type checking, strong typing and type equivalence rules. The static and dynamic rules are then described along with concept of referencing environment of a statement. Finally, a detailed explanation of named constants and variable initialization are discussed.

Chapter 6 (pp. 265-328) covers the concept of data types and characteristics of common primitive data types. The designs of enumeration and subrange types are discussed along with the details of structured data types. Arrays, unions and records are investigated separately along with pointers and references. The design issues for data types and design choices for common languages are explained and evaluated along with implementation method of various data types.

Chapter 7 (pp. 329-360) explains the expressions and assignment statement. Expression consist of constants, variable, parenthesis, function calls and operators. Assignment statement include target variables, assignment operators and expressions.

Chapter 8 (pp. 361-400) describes the control statements, where control statements of imperative languages occur in several categories: Selection, Multiple Selection, Iterative and Unconditional Branching. The Switch statements and loop statements have been discussed appropriately.

Chapter 9 (pp. 401-456) deals with subprogram, which are fundamental building blocks of programs and are among the most important concepts in programming language design. The chapter also includes parameter passing methods, local referencing environments, overload subprograms, generic subprograms, aliasing and other topics included in design of subprogram. The side effect or problems associated with subprograms are discussed separately.

Chapter 10 (pp. 457-486) explores the implementation of subprograms and is a sequel of Chapter 9. Answer to the questions like how subprogram linkage works? Why Algol 60 was a challenge to early compilers? Can be found in this chapter. Chapter begins with nestable subprogram where actual code, static code, stack dynamic code and activation records are discussed eventually. Methods to access non local variables in static and dynamic scoped languages with static and dynamic chains are discussed finally.

Chapter 11 (pp. 487-525) examines data abstraction facilities, where programming language construct that support data abstraction are discussed separately. The chapter begins by discussing the general concepts of abstraction in programming where data abstraction is defined with example. The topic is followed by descriptions and implementation of the support for data abstraction in Ada, C++, Java, C# and Ruby. Encapsulation with associated name space issues are also discussed in this chapter.

Chapter 12 (pp. 525-572) provides an in depth discussion of languages features that supports object oriented programming. The chapter begins with brief introduction to object oriented programming and then followed by an extended discussion of primary design issues for inheritance and dynamic binding. The languages like Smalltalk, C++, Java, C#, Ada 95 and Ruby are discussed which are then followed by description of object model for Java Script. The chapter concludes with a short overview of the implementation of dynamic bindings of method calls to methods in object oriented languages.

Chapter 13 (pp. 573-618) discuss the concurrent program units which begins with various types of concurrency at the subprogram and unit level and the statement level. Then a common kinds of multiprocessor computer architecture is discussed which is followed by lengthy discussion on unit level concurrency. The last section of the chapter has a discussion of statement level concurrency including a note on parts of the language support provided for it in a high performance FORTRAN.

Chapter 14 (pp. 619-658) is about exception handling along with brief description of event handling. The chapter first discusses the fundamental concepts of exception handling and then the design issues for exception handling are introduced and discussed separately, which is followed by description and evaluation of the exception handling facilities of Ada, C++ and Java. In a later part an Introduction to basic concepts of event handling is discussed which is followed by brief discussion taking Java as a primary language.

Chapter 15 (pp 659-700) introduces the functional programming paradigm including languages that have been designed for this approach. The review of fundamental ideas for languages based on mathematical functions are described next and the idea of functional programming is introduced. An introduction to first functional programming language LISP along with its data structure and functional syntax is explained effectively. An brief description to scheme functions followed by introduction to COMMON LISP, ML and Haskel is discussed separately. Finally, a short comparison of functional and imperative languages is given.

The objective of **Chapter 16** (pp 701-736) is to introduce the concept of Logic Programming and languages that support logic programming. A brief description of subset of Prolog is discussed in this chapter where introduction to predicate calculus is initiated and followed by a discussion of how predicate calculus can be used for automatic theorem proving systems. An introduction to logic programming along with introduction to ProLog programming language are discussed briefly. The final two sections describe some of the problems of Prolog as a logic language and some of the final application areas in which Prolog has been used.

GENERAL OBSERVATIONS AND CRITICAL COMMENTS

The book entitled as "Concepts of Programming Languages" by Robert W. Sebesta VIII Edition Pearson Publication is very conceptual book for students and professionals and contains theoretical background of programming constructs. This book achieves the purpose mentioned and provides effective and clear writing style. All the technical concepts of programming languages are discussed qualitatively. The language used for communication is very easy, so that any one can understand the concept. Total 232 research articles are reviewed and added in bibliographic notes of the book. Proper headings and usage of grammars is seen in the book. Last but not the least, book is very good and can be highly recommended for students and professionals interested in design and evolution of programming languages.

"I never read a book I must review,
It prejudices you so" –
Oscar Wilde

DOMINATION IN DIGRAPHS ALONG WITH APPLICATION

Preeti Gupta*

ABSTRACT

Let D=(V, A) be a digraph. A subset S of V is called a dominating set of D if for every vertex v in V – S, there exists a vertex u in S such that (u, v)∈A. We use the notation γ(D) to represent the domination number of a digraph, i.e., the minimum cardinality of a set S⊆V(D) which is dominating. In this paper we present results concerning domination in digraphs along with application in game theory. In terms of applications, the questions of Facility Location, Assignment Problems etc. are very much related to the idea, of domination or independent domination on digraph.

Keywords: Digraphs, Facility Location, Assignment Problems.

INTRODUCTION

Domination and other related concepts in undirected graphs are well studied. The pioneering work in digraphs in this area can be ascribed to Berge, Harary, Konig, Grundy and Richardson, amongst others. This paper detailing the results on digraphs has been naturally influenced by the book *СмарЫ and JJypergraphs* by Berge. In this paper some results on domination in digraphs; the concept and results concerning solutions in a digraph and the application of some of these ideas to game theory. The significant works in these areas by Blidia, Duchet, Galeana-Sanchez, Kwasnik, Meyneil,Neumann-Lara,Roth, Smith, Topp and others are recorded in this endeavor. We begin this journey with definitions of the major concepts.

DEFINITIONS

Perhaps no other area of domination has as great a need to standardize definitions and notation as that of directed domination. Different terms are chosen for the same concept and the same term is occasionally chosen for different concepts. We have tried to clarify the situation by giving common alternate terms and pointing out differences in definitions. For this paper, unless otherwise mentioned, a graph D = (V, A) consists of a finite vertex set V and an arc set A⊆P, where P is the set of all ordered pairs of distinct vertices of V. That is, D has no multiple loops and no multiple arcs (but pairs of opposite arcs are allowed). For this paper we assume that the underlying graph of the digraph D is connected. In the terminology of Berge we are considering connected 1-graphs without loops. Let D = (V, A) be such a digraph. If A = P then the digraph is complete. Following Berge, a subset S⊆V is absorbant if for every vertex x ≠ S there is a vertex y ∈ S such that y is a successor of x. We define a set S ⊆ V of a digraph D to be a dominating.

DOMINATION IN DIGRAPHS

Although the concept of domination in graphs has received extensive attention as evidenced by this volume, the same concept has been somewhat sparsely studied for digraphs. Even bounds undirected graphs have not been considered and compared with their counterparts for digraphs. In terms of applications, the questions of Facility Location, Assignment

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Problems etc. are very much related to the idea, of domination or independent domination on digraph. There have been over the year's a few papers on the domination number of digraphs. These and other related concepts are presented below. We use the notation $\gamma(D)$ to represent the domination number of a digraph, i.e., the minimum cardinality of a set $S \subseteq V(D)$ which is dominating

NEW RESULTS

In this section we explore some domination related results on digraphs analogous to those of undirected graphs. First we look at some common bounds for $\gamma(D)$. One of the earliest bounds for the domination number for any undirected graph was proposed by Ore.

Theorem 4.1 (Ore [85]) For any graph G without isolates, $\gamma(G) \leq {}^{n}/_{2}$, where n is the number of vertices.

This result does not hold for directed graphs; a counter example is the digraph $K_{1,n,}$ $n \geq 2$, with its arcs directed from the end vertices towards the central vertex. The general bound which holds for digraphs is not very good for a majority of digraphs. We assume our digraphs to be those whose underlying graphs are connected.

Observation 4.2 For any digraph' with n vertices, $\gamma(D) \leq n - 1$.This bound is sharp because the domination number of the digraph K1,n for $n \geq 2$ with its arcs directed from the endvertices towards the central vertex is n. Since very few graphs agree with this bound we find other bounds which are tighter for a significant number of digraphs.

Theorem 4.3 For any digraph D on n vertices, ${}^{n}/_{(1+\Delta(D))} \leq \gamma(D) \leq n - \Delta(D)$, where $\Delta(D)$ denotes the maximum outdegree.

Proof. For the upper bound we form a dominating set of D by including the vertex υ of maximum out degree and all the other vertices in the digraph which are not dominated by v. This set is clearly a dominating set and has cardinality $n - \Delta(D)$.

Note that any vertex in D can dominate at most $1 + \Delta(D)$ vertices. In a minimum dominating set S of D there are $\gamma(D)$ vertices, so they can dominate at most $\gamma(D)(1 + \Delta(D))$ vertices. Since S is dominating this number has to be at least n. Thus we get the lower bound.

To get another bound we look for certain characteristics in a digraph.

Observation 4.4 For any digraph D on n vertices, which has a hamiltonian

circuit, $\gamma(D) \leq [{}^{n}/_{2}]$

Proof. Let D contain a hamiltonian circuit C. To dominate the vertices of D it suffices to dominate the cycle C. We know that the domination number of a circuit is bounded above by $[{}^{n}/_{2}]$ and so the same holds for the digraph D.

Theorem 4.5 For a strongly connected digraph D on n vertices, $\gamma(D) \leq [{}^{n}/_{2}]$

In addition to $\gamma(D)$ we introduce some domination related parameters in digraphs, in particular, the irredundance number, the upper irredundance number and the upper domination number, analogous to those for undirected graphs. Recall that a set $S \subseteq V(D)$ of a digraph D is a dominating set if for all

$v \notin S$, vis a successor of some vertex in S. A dominating set S is a minimal dominating set if for every $v \in S$, $O[v]-O[S-v] \neq 0$. If $u \in O[\upsilon] - O[S - \upsilon]$, then u will be called a private outneighbor (pon) of υ with respect to S. See [38] for another characterization of minimal dominating sets in digraphs.

Let $\Gamma(D)$, the upper domination пшпЬег, denote the maximum cardinality of a minimal dominating set. As in the undirected case, we define an irredundant set $S \subseteq V(D)$ to be a set such that every $\upsilon \in S$ has a private outneighbor. The irredundance number ir(D) and the иррет irredundance number IR(D) are, respectively, the minimum and maximum cardinalities of a maximal irredundant set.

The notion of a solution also yields parameters which are new to the field of digraphs. Let i(D) and $\beta(D)$ denote respectively the minimum and maximumcardinalities of an independent dominating set. It must be pointed out that not all digraphs have independent dominating sets. As these are special cases of solutions, these exist in digraphs which admit at least one solution. It must be mentioned here that due to the concepts defined above the following string of inequalities hold for any digraph D with a solution.

$ir(D) \leq \gamma(D) \leq i(D) \leq \beta(D) \leq \Gamma(D) \leq IR(D)$.

Researchers interested in domination theory for undirected graphs are quite

familiar with the corresponding inequality chain. This chain raises some interest-

ing questions about the structural properties of digraphs D (having a solution),

for which

1.$\gamma(D) = i(D)$,

2. $ir(D) = \gamma(D)$,

3.$\beta(D) = \Gamma(D) = IR(D)$, or

4. $i(D) \neq \beta(D)$.

The following theorem is an interesting result for transitive digraphs.

Theorem 4.6 For a transitive digraph D, we have $\gamma(D) = i(D) = \beta(D)= \Gamma(D) = IR(D)$.

Proof. Note that if D is a transitive digraph so is its reversal D^{-1}. It is then known that a solution exists in D. Moreover, from Berge's theorem, we see that in D, every minimal absorbant set is independent and the kernel is unique. This implies that $\gamma(D) = I(D) = \beta(D)= \Gamma(D)$.

To show $\beta(D) = IR(D)$, suppose that S is an irredundant set with $|S| = IR(D)$. We will call such a set an IR-set. Amongst all IR-sets let S contain the minimum number of arcs in it. If S has no arcs, then certainly S is independent and $\beta(D) \geq IR(D)$ implying $\beta(D) = IR(D)$. So suppose that $< S >$ contains an arc (x, y). Since S is irredundant y must have a private outneighbor $y1 \notin S$. But D is a transitive digraph, so (x ,y1) must be an arc, contradicting that y1 is a private neighbor of x. Hence S is independent and the result follows.

APPLICATIONS

Game Theory (Von Neumann, Morgenstern [107])

Suppose that *n* players, denoted by (1),(2),...,(n) can discuss together to select a point x from a set X (the "situations"). If player (i) prefers situation a to situation b, we shall write $a \geq b$. The individual preferences might not be compatible, and consequently it is necessary to introduce the concept of effective *preference.* The situation *a* is said to be *effectively preferred to* b, or $a > b$, if there is a set of players who prefer *a* to b and who are all together capable of enforcing their preference for *a*. However, effective preference is not transitive; i.e., $a > b$ and $b > c$ does not necessarily imply that $a > c$.

Consider the digraph $D = (V, A)$ where O(x) denotes the set of situations effectively preferred to x. Let S be a kernel of *D*. Von Neumann and Morgen-stern suggested that the selection be confined to the elements of S. Since S is independent, no situation in S is effectively preferred to any other situation in S. Since S is absorbant, for every situation $x \ni S$, there is a situation in S that is effectively preferred to x, so that x can be immediately discarded.

Problem in Logic (Berge, Rao [10])

Let us consider a set of properties P = {p1,p2} and a set of theorems of the type: "property p_i implies property p_j' . These theorems can be represented by a directed graph D = (V, A) with vertex set *P*, where (p_i, p_j) is an arc if and only if it follows from one or more of the existing theorems that p_i implies p_j Suppose we want to show that no arc of the complementary graph $\rightarrow_D$ is good to represent a true implication of that kind: more precisely, with each arc (p, q) with $p \neq q$ and $(p,q) \ni A$., we assign a student who has to find an example where p is fulfilled but not q (i.e., a counter-example to the statement that p implies q).

In [10] they determined the minimum number of students needed to show that all the possible (pairwise) implications are already represented in the di-graph D. It was found that this number corresponded to the cardinality of the unique kernel of the transitive digraph under study.

Facility Location

Let *D* = (V, A) be a digraph where the vertices represent “locations” and there is an arc from location *u* to location υ if location υ can be “reached’ from location *u*. Assume that each “location” has a weight associated with it which represents some parameter pertinent to the study.

Choose a subset of “locations” such that those outside the set have an arc incident from a member of the set, which means that all the “locations” can be “serviced’ by the members of the set S. Let w (S) denotes the sum of the weights of the members of S. The problem of finding such a set S such that w(S) is minimized. The relevant graph theoretic concept is that of directed domination.

CONCLUSIONS AND OPEN PROBLEMS

Domination and other related topics in undirected graphs are extensively studied, both theoretically and algorithmically. However, the corresponding topics on digraphs have not received much attention, even though digraphs come up *more* naturally in modelling real world problems. With this view in mind, we have made an attempt to survey some of the existing results on domination related concepts on digraphs. We have also introduced some parameters on digraphs analogous to domination parameters on undirected graphs. As a matter of fact, it seems that almost all domination related problems on undirected graphs, if they make sense in digraphs, may be investigated. Algorithmic aspects of these problems on digraphs will be another good area, of research.

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HIGHER EDUCATION LOAN FACILITIES AND UNDERGRADUATE STUDENTS: AN AWARENESS OF STUDY

Shailendra Gangrade*and Neha Jhamtani**

ABSTRACT

Education has been recognized as a unique investment in man. It is instrumental in accelerating the processes of socio economic and cultural development. Higher education, being at the apex of the educational system, is an essential input for meeting the manpower requirements of the highest calibre in crucial areas of national development. Due to lack of finance the Indian students are not able to get quality education. Therefore, there is a need for high grade of public and private sector participation in the field of education in terms of finance. The government is trying to providing many schemes and public banks are supporting students in terms of education loan but not up to that extent, because there is still lack of awareness in they related to education loan. Thus the purpose of the study and to know the factors affecting awareness about education loan facilities among undergraduate students and also to study and analyze different factors related to the awareness about education loan facilities among undergraduate students .The present investigation is exploratory in nature. Primary data is used in this project. In this study target population is undergraduate students .The sample size is 100 and the area covered is Indore city. The tools are Data collection- A self designed questionnaire and Data analysis – factor analysis.

Key Words: Loan, Education Loan, Higher Education, Undergraduate, Student.

INTRODUCTION: CONCEPTUAL FRAMEWORK

Education is the process of instruction aimed at the all round development of individuals, providing with necessary tools to participate in day to day activities of the world. It dispels ignorance and boosts moral values in the individuals. It forms the basis for lifelong learning and inspires confidence to face challenges; besides providing skills to become more self reliant and increases awareness. Education not only impacts the human development and economic growth, but is the fundamental requirement of democracy. Through education, people become more responsible and informed citizens, and can voice their concerns and issues in political system of their society. It is an essential element for democracy and eradicating poverty. One main reason for inadequate access to education in India is the high cost of education and lack of access to funding higher education.

EDUCATION LOAN IN INDIA

Education loan is a special kind of loan granted by banks under which some amount of money

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is granted to students at special rates. An Education Loan is just like a debt. The money that you borrow from the bank, you have to repay it with interest. The importance and the value of education are known to all of us. It is the actual wealth of the person. However at times we encounter the situation where there is willingness to study more and higher degrees, but due to our limited financial resources it gets bit difficult. It is under this situation education loan or student financing prove as a boon. Introduction of economic reforms has reduced government spending on higher education and allowed private sector participation. As a result educational loan is becoming an important way of financing education while meeting the objective of providing loan to students.

NEED AND SIGNIFICANCE OF EDUCATION LOAN

Education loans are justified on grounds of efficiency and equity. Education becomes more purposeful when the student has to complete his/her studies to acquire the capacity to repay the loan. Employability of the student after completing the course becomes important and therefore educational standards will have to go up. No one who has the academic ability and desire to pursue higher studies will be excluded for lack of ability to meet the cost of education since the loan mechanism can also be used to offer incentive to students to select certain type of studies. Because of the developments in the sphere of education, private cost of education has gone up and as and when the fee structure has revised, it will further go up. In a situation like this, many aspirants for higher education will have denied access to higher education unless educational loans come to their rescue. Apart from students, even educational institutions whose finances are affected by reduced UGC and Government grants need loan finance for infrastructure development and for building assets from which regular returns can be obtained for financing their activities in future.

BENEFITS OF EDUCATION LOANS:

1. Financial support for professional courses such as MBA, B.Tech and MBBS

2. Available for higher education in India and abroad

3. Easy repayment only after job placement

4. Affordable Interest Rates

5. Lesser burden on parents

6. Loan covers up to as much as 20 Lakhs available by various banks

7. Expenses such as tuition fees, travel expenses, hostel charges are included in education loan

HIGHER EDUCATION

Higher education can be broadly summarized as education beyond the school level and it starts after the higher secondary or 12th standard. Higher education imparts in-depth knowledge and understanding so as to advance the students to new frontiers of knowledge in different walk of life. It broadens the intellectual power of the individual within a narrow specialization, but also gives a wider perspective of the world around.

Hence, development of higher education becomes significant .Development of higher education depends on various factors, among which finance plays a major role. Financing higher education has attracted serious attention of policy makers and educational thinkers as higher education system is facing financial crunch in recent years. Alternative ways of financing higher education are being explored and implemented to overcome the problem of deficit finance and cost-recovery. Among them educational loan is increasingly seen as an important source of finance. Higher education develops qualities that are valued by employers, such as problem-solving and communication skills. Doing a higher education course could give you an edge in the job market.

Some of the common ways of funding higher education is through using family savings, borrowing from friends and relatives, selling assets like land, gold etc or taking an education loan. Earlier, it was believed that only people from the middle- income group choose to fund their education through student/education loans. With benefits of an education loan , many affluent families are also opting for an education loan and availing of exclusive benefits like:

- Income Tax benefits under section 80E of IT Act
- Opportunity for students to take their own financial responsibilities
- Preserving their family savings
- Building a good credit history

Usually, middle-income group people apply for education loans. However, because of:

- Rapidly rising costs of education
- Income tax benefit under 80E of IT act
- Students wanting to take their own financial responsibilities to preserve the parents savings
- Build positive credit history

Even affluent families are going for education loan.

Education has been recognized as a unique investment in man. It is instrumental in accelerating the process of socio economic and cultural development. Higher education, being at the apex of the educational system, is an essential input for meeting the manpower requirements of the highest caliber in crucial areas of national development. It is also an important contributory factor for ensuring social justice by providing vertical mobility to deprived sections of society by making higher levels of knowledge accessible to them and, in the process, improving the quality of life of the nation as a whole. The crucial role of higher education, as outlined above, underlines the importance of providing adequate resources for its maintenance and development..

DESCRIPTIVE DETAILS

A.ELIGIBILITY CRITERIA:

Student Eligibility:

- The student should be an Indian National
- Should have secured admission to a higher education course in recognized institutions in India or Abroad through Entrance Test/ Merit Based Selection process after completion of HSC(10 plus 2 or equivalent).

Courses Eligible: Studies in India- Approved courses leading to graduate/ post graduate degree and PG diploma conducted by recognized colleges/ universities recognize by UGC/ Govt./ AICTE/ AIBMS/ ICMR etc.

- Courses like ICWA, CA, CFA etc.
- Courses conducted by IIMs, IITs, , XLRI, NIFT , NID etc.
- Regular Degree/Diploma courses like Aeronautical, pilot training, shipping etc., approved by Director General of Civil Aviation/Shipping, if the course is pursued in India.
- Approved courses offered in India by reputed foreign universities.

Courses Eligible: Studies Abroad:-

- Graduation: For job oriented professional/ technical courses offered by reputed universities.
- Post graduation: MCA, MBA, MS, etc.
- Courses conducted by CIMA- London, CPA in USA etc.
- Degree/diploma courses like aeronautical, pilot training, shipping etc provided these are recognized by competent regulatory bodies in India/abroad for the purpose of employment in India/abroad.

Expenses considered for loan:

- Fee payable to college/ school/ hostel.
- Examination/ Library/ Laboratory fee.

- Travel expenses/ passage money for studies abroad.
- Insurance premium for student borrower, if applicable.
- Caution deposit, Building fund/refundable deposit supported by Institution bills/ receipts.
- Purchase of books/ equipments/ instruments/ uniforms

B. QUANTUM OF FINANCE:

- Studies in India - Maximum up to10 Lakhs.
- Studies Abroad – Maximum up to 20 Lakhs.

C. MARGIN:

- Up to 4 Lakhs- Nil
- Above 4 Lakhs- Studies in India 5% & Studies Abroad 15%

D. SECURITY:

- Up to 4 Lakhs Parents to be joint borrower(s). - No security
- Above 4 Lakhs and up to 7.5 Lakhs - Besides the parent(s) executing the documents as joint borrower(s) , collateral security in the form of suitable third party guarantee will be taken.
- Above 7.5 Lakhs - Parent(s) to be joint borrower(s)

Tangible collateral security of suitable value acceptable to bank, along with the assignment of future income of the student, for payment of instalments.

E. REPAYMENT:

Repayment holiday/Moratorium: - Course period + 1 year or 6 months after getting job, whichever is earlier.

REVIEW OF LITERATURE

Tilak and Varghese (1991) The study analyzed the present pattern of funding higher education in India and to discuss the desirability and feasibility of various alternative methods of funding the same .The study concluded the returns to various forms of higher education are different and suggested the formulation of meaningful policies , higher education need to subject to disaggregate examination by layers and types of education.

Puttaswamaiah (2010) The study finds that educational loan is increasing over the years. The study revealed that educational loan by public sector banks in India is increasing over the years, showing the increasing demand for loans of higher education.

Tiwari and Anjum (2013) The paper concludes with recommendations on enhancing the utility of the educational loans to improve access and employability of the students.

Dewan, Goel and Malhotra (2013) The research was conduction in Palwal and Faridabad District of Haryana on undergraduates and graduates students. The study concluded that respondents from the both districts said that they always prefer bank whenever they require loan for education purpose. Respondent shows that rare of interest highly attracted themselves.. There should be flexibility in mortgage. Eligibility criteria should be based on need as well as merit. Disbursement of loan should be start after completion of loan or after joining a job, whichever is earlier.

Bhanot (2014) The study concluded the Educational Loan Scheme is run purely on commercial basis. There is no provision for softer loans for the needy groups. The terms and conditions concerning collateral security are very stringent. Many people have misused Educational Loan Scheme as a vehicle to go abroad. It also concludes that presently, the scheme caters to only those who have the repayment capacity.

OBJECTIVE OF THE STUDY

- “To explore factors affecting awareness education loan facilities among undergraduate students”.

METHODOLOGY THE STUDY

The proposed study is based on area of Indore city of Madhya Pradesh .The present investigation is exploratory in nature. The study is done to know the awareness level of education loan among undergraduate students for pursuing higher education.

The Design:

An exploratory research focuses on the discovery of ideas and generally based on primary and secondary data. Primary data was collected with the help of structured questionnaire method. Secondary data is used for knowing the Loan schemes. The study population includes the undergraduate students and banks providing loans for higher education, it was chosen as a representative for the study.

The Sample:

In this study the target population is the undergraduate students of all streams. The size of the sample is 100 and the area of the study is Indore city

The Tools for Data Collection:

The tool for data collection is through a self designed questionnaire and then distributed to all the respondents.

The Tools for Data Analysis:

After designing the questionnaire with the help of Cronbach's alpha (of SPSS) will test reliability. Factor analysis will be used for finding out different factors of awareness in the area of education loan.

RESULTS AND ANALYSIS

KMO AND BARTLETTS TEST:-

Test Adequacy of Samples

Normally, $0 < KMO < 1$ If $KMO > 0.5$, the sample is adequate. Here, KMO = 0.515 which indicates that the sample is adequate and we may proceed with the Factor Analysis.

Bartlett's Test of Sphericity

Taking a 95% level of Significance, $\alpha = 0.05$ The p-value (Sig.) of $.000 < 0.05$, therefore the Factor Analysis is valid.

The Kaiser-Meyer Olkin (KMO) and Bartlett's Test measure of sampling adequacy was used to examine the appropriateness of Factor Analysis. The approximate of Chi-square is 361.792 with 276 degrees of freedom, which is significant at 0.05 Level of significance. The KMO statistic of 0.515 is also large (greater than 0.50). Hence Factor Analysis is considered as an appropriate technique for further analysis of the data.

On the basis of **Varimax Rotation** with Kaiser Normalisation, 10 factors have been extracted. Each factor is constituted of all those variables that have factor loadings greater than 0.5. 24 variables were clubbed into 10 factors. These 10 extracted factors explained 65.13 % of the variability the Awareness about Education Loan Facilities amongst Undergraduate Students for Higher Education.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.515
Bartlett's Test of Sphericity	Approx. Chi-Square	361.792
	Df	276
	Sig.	.000

FACTORS ANALYSIS

Identification of Core Factors

The Rotated Factor Matrix represents the rotated factor loadings, which are the correlations between the variables and the factors. The factor column represents the rotated factors that have been extracted out of the total factor. These are the core factors, which have been used as the final factor after data reduction. According to the grouping of the factors, each group of factors is named which will represent the grouped factor and represent the factors.

The rotated component matrix gives the correlation of the variables with each of the extracted factors. Usually, each of the variables is highly loaded in one factor and less loaded towards the other factors. To identify the variables, included in each factor, the variable with the value maximum in each row is selected to be part of the respective factor.

S.NO.	FACTOR	ITEMS	ITEM LOAD	TOTAL FACTOR LOAD	% OF VARIANCE
1	TERMS AND CONDITIONS	• No age restrictions • Different rules and regulation in public, private and foreign banks • Security is there for availing Education loan for Foreign universities and not for Indian universities	.667 .616 .558	1.841	7.718
2	LOAN AVAILABILITY	• Private banks provide education loan for higher studies • Provided to pursue all types of academic courses in India and abroad.	.787 -.777	1.564	7.482
3	ADDITIONAL CHARGES	• Penalty for late payment for EMI • Every bank has a different scheme • The Institute does not charges the processing fee	.690 .677 .545	1.912	7.240
4	RISK	• Interest rate varies across public and private banks. • Public banks provide education loan for Higher studies • Guarantor is required.	.741 .575 .532	1.848	6.650

5	RULES OF LOAN FOR STUDY IN ABROAD	• There are different rules and regulation for education loan studies in India and abroad.	.884	0.884	6.586
6	INTEREST RATE AND COVERAGE	• Interest rate is high in private banks • Education loan covers only the tuition fee	.770 .687	1.457	6.485
7	LOAN PERIOD	• No penalty for prepayment of loan before pre decided period. • scheme to provide full interest subsidy during the period of moratorium on loans taken by Economically Weaker Sections	.788 .588	1.346	6.022
8	PRE REQUISITES	• The bank charges the processing fee • Applicants can get education loan only after admission into the course.	.802 .596	1.398	5.809

DISCUSSION

1. TERMS AND CONDITIONS:- This is the major factor related to awareness about terms and conditions among undergraduate student. The total % of variance came out to be 7.718. This factor covered the age restrictions, rules related to public private and foreign banks and security. This factor plays a major role in taking education loan. This means that this factor is considered to be the highest factor which is affecting awareness of undergraduate students while taking education loan. There are different tems and condition of each bank and financial institution such as age and security terms which affect in taking decision about taking education loan.

2**. LOAN AVAILABILTY:-** This is the second highest factor in awareness about the education loan facilities. The total % of variance came out to be 7.482. It covers availability of education loan by banks and various courses. This is the second highest factor which is affecting the awareness. This factor signifies the availability of education loan by banks .There are government bank, private bank and foreign bank. Loan is provided by all or not and whether education loan is provided for all types of courses or not. There are different types of courses which might be restricted by banks and institutions.

3. **ADDITIONAL CHARGES:-** This factor tell about the awareness level related to the charges and penalty for late payment and the processing fees. Total % of variance came out to be 7.240. This factor says the charges which should be paid if timely payment is not done of installments and the processing which is generally not levied by the educational institution .

4. **RISK:-** This factor tell about whether public bank provide loan for higher studies and variation in interest rate to private bank .The total % of variance came out to be 6.650. This factor signifies the difference in rates of public

and private banks. The interest rate may be high or low. The guarantee required is to be seen.

5. **RULES OF LOAN FOR STUDY IN ABROAD**:- This factor tells about the awareness about rules and regulation in India and abroad. The total % of variance came out to be. 6.586. if loan is taken for study in abroad then there are different rules which diifer from home country.

6. INTEREST RATE AND COVERAGE:- This factor tells about the awareness about rates and coverage .The total % of variance came out to be. 6.485. Generally interest rate charged is high by private banks. Also education loan coverage is there which says what all thing it covers such as tution fee , expenses related to study etc.

7. LOAN PERIOD:- This factor tells about the loan period of banks and financial institution for prepayment and scheme to provide full interest subsidy on loans taken by Economically Weaker Sections. The total % of variance came out to be 6.022. There is generally not penalty if repay the loan before the decided period .Generally there is time period after which the loan is to be repaid which is known as moratorium period which is Course period + 1 year or 6 months after getting job, whichever is earlier.

8. PRE REQUISITES:- This factor tells about the pre requisites which is being done before taking education loan. The total % of variance came out to be. 5.809. There are general pre requirements which have to be fulfilled before approval of education loan. Processing fee levied by banks is a pre-requirement. Admission into a institution where you want to study is compulsory for approval of edu cation loan.

Note: The Factors more than one variables and not taken for analysis.

Major and minor factor has been found:-

Major Factor is-TERMS AND CONDITIONS

This is the major factor affecting awareness about rules and regulations among undergraduate student. The total % of variance came out to be 7.718. This factor covered the age restrictions, rules related to public private and foreign banks and security.

Minor factor is- PRE REQUISITES

This factor tells about the pre requisites which are being done before taking education loan. The total % of variance came out to be. 5.809.

SUGGESTIONS

Students themselves need to be aware and increase their knowledge by reading newspapers, magazines, etc for updating. The results indicated that although being quite aware about the availability of the loan, respondents were not aware of the process and the pre-requisite for taking up a loan facility.

Thus banks should run more detailed campaign about the same and students should be encouraged to participate in them. Loan are mostly required for higher studies and studies abroad and one of the component that had lower variance was the knowledge of scope of the loan being provided so banks should be more careful with this.

Thus the research appeals not only to public but to banks and financial institutions as well to make loan and its supporting factors a well known and aware fact among students and common public as it encourages talent to seek for higher studies in institutions of higher learning.

CONCLUSION

Higher education creates and supplies knowledge, which is driving modern economic growth. Hence, development of quality higher education system becomes crucial, which could provide access to all those who want to pursue higher studies.

The study is done to study factors affecting awareness about education loan facilities. It was conducted successfully and the result of the study concluded in finding out the factors related to the awareness. Ten factors have been found which reveals about different facilities provided for education loan. Major and minor factor has been found which tells about the highest factor of awareness is about the terms and conditions of education loan and least factor of awareness is about the scope of education loan.

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APPENDIX

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.486	10.358	10.358	2.486	10.358	10.358	1.852	7.718	7.718
2	2.101	8.755	19.113	2.101	8.755	19.113	1.796	7.482	15.200
3	1.921	8.004	27.117	1.921	8.004	27.117	1.738	7.240	22.440
4	1.644	6.848	33.965	1.644	6.848	33.965	1.596	6.650	29.091
5	1.498	6.240	40.205	1.498	6.240	40.205	1.581	6.586	35.677
6	1.412	5.885	46.090	1.412	5.885	46.090	1.556	6.485	42.161
7	1.264	5.266	51.356	1.264	5.266	51.356	1.445	6.022	48.183
8	1.172	4.883	56.240	1.172	4.883	56.240	1.394	5.809	53.992
9	1.091	4.547	60.786	1.091	4.547	60.786	1.363	5.677	59.669
10	1.043	4.345	65.131	1.043	4.345	65.131	1.311	5.462	65.131
11	.952	3.968	69.100						
12	.914	3.807	72.907						
13	.793	3.305	76.211						
14	.783	3.262	79.473						
15	.706	2.943	82.416						
16	.671	2.796	85.211						
17	.599	2.498	87.709						
18	.548	2.282	89.991						
19	.493	2.055	92.046						
20	.475	1.979	94.025						
21	.431	1.794	95.819						
22	.390	1.627	97.446						
23	.338	1.408	98.854						
24	.275	1.146	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component									
	1	2	3	4	5	6	7	8	9	10
VAR00024	.667									
VAR00014	.616									
VAR00011	.558									
VAR00005		.787								
VAR00004		-.777								
VAR00021			.690							
VAR00006			.677							
VAR00016			.545							
VAR00018				.741						
VAR00003				.575						
VAR00023				.532						
VAR00015					.884					
VAR00008										
VAR00007						.770				
VAR00009						.687				
VAR00020							.788			
VAR00019							-.588			
VAR00012								.802		
VAR00013								-.596		
VAR00022									.882	
VAR00001										
VAR00017										
VAR00002										804
VAR00010										

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 10 iterations.

MANAGEMENT OF WORKFORCE AND SCIENTIFIC MANAGEMENT- A COMPARATIVE STUDY

Apurva Agrawal *and Sonal Gupta**

ABSTRACT

The authors of this research paper are of the view that a comprehensive analysis and the study of workforce management, when done with the principles of scientific management may advocate a better subsequent to be in various organization, which are facing hitches in expanding the idea to give a better explanation for the management of their organizational workforce and upper management which may provide for a investigated substitute solution towards providing for a better outcome.

Where on one hand scientific management discusses to the maximum output out of minimum input whether or not the subject matter and the conditions are suitable to the people at work. It also provides for the advancement of intentions with minimum resources; on the other hand workforce management emphases on management of the force working with the organization with all due influence on the unprejudiced achievement of the organization.

A proportional study of both enlightens upon the commonality and differentiation between both the scientific as well as the workforce management. Demonstrably looking upon the above matter a common factor to give/obtain the maximum/better output out of the wherewithal available; the other outlook sharpens the view that not only attainment of an objective plays a role model to attain the maximum output by using the workforce in any manner rather to concentrate a bit on their needs and regular working environment may submit a better result naturally with a instinct of success.

Key words: Researched Alternative Solution, Differentiation, Commonality, Resultant.

INTRODUCTION

Management is an activity of converting disorganized human and physical resources into organized, useful and effectively results oriented human resource. The success of an individual, group, or organization mostly depends on the effectiveness of management.

Despite its importance to everyone, management is one of the most nebulous and at the same time the most ubiquitous functions in all societies being found From an unrecognized position in 1900, management has risen today to be the central activity of our age and economy – a powerful and innovative force on which our society depends on material support and national well being.

Inevitably management becomes a group effort generating its own dynamic within the tasks of

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management such as differences of opinion, selective perception, struggle for power, and communication difficulties.

"Getting things done through people for the attainment of an objective" is management.

Maximizing efficiency, reducing costs and increasing profits are facts which will be always of high interest for companies. In the course of development of organizations different approaches have emerge to fulfil these interest.

The purpose of this article is to 'Compare' and 'contrast' the attitudes of scientific school of management thoughts with those of the workforce management with regards to people at work.

The basis of comparison will be 'the worker' and the views of these school of thoughts on handling and controlling the workforce and the different way in which they get things done through others.

The paper will start by explaining both schools of management. Differences and similarities will be discussed on the followings. With the help of these facts it can be shown how different these theories are and whether they achieve the same ends.

SCIENTIFIC MANAGEMENT

Scientific management theory was proposed by Frederick Winslow Taylor in the first decade of the 20th century, is the first coherent theory of administration. According to this theory the same principles of management can be applied to all social entities. The governing policies for our homes, farms, state, business, and church, have the same underlying principles. It emphasized on improvements in the lower level of the company rather than at top management. It aimed at studying the relationship between the physical nature of work and the physiological nature of the workmen. It stressed upon specialization, predictability, technical competence and rationality for improving the organizational efficiency and economy.

PRINCIPLES

Taylor gave the following four principles which according to him can be used universally:

- Construct a science for each element of a man's work.
- Scientifically select, train, teach and develop workmen.
- Management should fully cooperate with workers.
- The division of work and responsibility between management and the workers must be shared equally.

Scientific management, according to Taylor, involves a complete mental revolution on the part of workers towards their duties, work, fellow men and their employers; and on the part of managers, towards their employees and their problems.

The relationship between men and management suffered another change referring work sharing. This is the topic of the final principle. In the past the workers themselves were responsible for every part of their job without support of the management. Taylor has changed this proportion. Collecting the whole knowledge of the workers, creating rules and regulations and form a science for each process was no duty for the men *(Taylor, 1911, p.37)*.

In other words the management had to ensure that each worker on each day knew exactly what he had to do how he had to do it and in what period of time *(Taylor, 1911, p.39)*.

Accordingly, this combination of work sharing and the change of the attitude to work are the factors for success of scientific management.

WORKFORCE MANAGEMENT

Workforce management is an integrated set of processes that an institution uses to optimize the productivity of its employees on the individual, departmental, and entity-wide levels. In a corporation, organization, or government entity, Workforce management involves matching employee skills to specific tasks over time, quantifying the amount and types of labour needed to accomplish particular jobs on a day-to-day or hour-to-hour basis.

Overstaffing or understaffing at any level, even for short periods, should be avoided because such conditions can cut into an institution's profitability, reduce its overall productivity, frustrate its employees, and antagonize its clients and customers.

In many industries and society workforce management is all about assigning the right number of employees with the right skills to the right job at the right time. The term is differentiated from traditional staff scheduling because staff scheduling is rooted to time management and simply manages the administration of past and future working times.

This traditional approach has since evolved into the more integrated, demand-oriented workforce management, which includes changes in personnel requirements and objectives when optimising the scheduling of staff. Besides the two core aspects of demand-orientation and optimisation, workforce management may also incorporate:

- Forecasting of workload and required staff.
- Involvement of employees into the scheduling process.
- Management of working times and accounts.
- Analysis and monitoring of the entire process.

The market for workforce management is still quite active. In the eighties and nineties, entrepreneurs mainly focused on topics such as Supply Chain Management or production planning systems and, in recent years, on enterprise resource planning. As cost pressures have increased, managers have increasingly turned their attention to Human Resource issues. In all personnel-intensive industries, workforce management has become an important strategic element in corporate management.

REVIEW OF LITERATURE

WORKFORCE MANAGEMENT

Parker et al (1981) the most difficult exercise was to transfer this theory into practice because the management had to change their view basically. Now needs and interest of the workers were in a particular focal point. Managers had received trainings in human relations that enable them to change the predominant business environment. Accordingly, the HRT (Human Resource Team) has lead to the principle changes in management, working conditions and changes in the organization as a whole.

Morgan (1986) Studies by Elton Mayo at the Hawthorne plants of the Western Electric Company were the activator of HRT. With the help of these studies the enterprise was able to analyze the ways in which the output of employees can change due to diversifying the conditions of employment. Therefore, they established two focus groups which were exposed to different illumination levels. However, analysts noticed that the output in those test groups increased independently from lighting conditions.

Carli F. (2000) Workforce Management (WFM) is an integrated set of processes that an institution uses to optimize the productivity of its employees on the individual, departmental, and entity-wide levels. In a corporation, organization, or government entity, WFM involves matching employee skills to specific tasks over time, quantifying the amount and types of labor needed to accomplish particular jobs on a day-to-day or hour-to-hour basis.

Workforce Optimization is a strategy used in business with focus on maximum customer satisfaction and benefits with minimal operational costs and supported by integrated technologies, cross-functional processes and shared objectives.

Slattery (2003) The HRT concerns with the aims, wishes and interests of the employees. Moreover, it supported measures to improve team work, cooperation between management and the workforce, internal communication and social relationships. The idea was to create a social and healthy internal business environment to motivate the whole team. Furthermore the employees should get in contact with each other to achieve a feeling of harmony in the organization. Development and integration of the workforce instead of oppression were further key elements.

Ghosh B. (2006)Overstaffing or understaffing at any level, even for short periods, should be avoided because such conditions can cut into an institution's profitability, put burden on financial availability, reduce its overall productivity, frustrate its employees, and antagonize its clients and customers. Aspects of a comprehensive WFM program, which operates within the broader framework of human resource management (HRM), include:

- Time and attendance tracking
- Employee scheduling
- Demand prediction
- Payroll administration
- Benefits administration
- Talent management
- Training programs and assignments
- Performance monitoring
- Vacation and leave planning
- Career planning
- Crisis preparedness

  Grey (2009) The human relations theory (HRT) has evolved in the 1920s and 1930s. Employees felt rather motivated by the particularlyindividual attention they received. They got the feeling of being something special and not just a factor of producing products. These efforts pay off. Productivity and staff satisfaction increased. In addition the employees get a deeper relationship with the enterprise through a humanitarian working atmosphere. As a result, the informal side of the company is at least as fundamental as the formal side.

  Thompson and McHugh (2009) In other words, only the actuality that workers were observed was the reason for this increased productivity. Furthermore, it demonstrates that the workforce can also be motivated by non economical factors. These non economical factors were the basic idea of the HRT.

Gorge C. (2016) As the recession rages on, companies are looking for ways to get more out of their number one, and most expensive, resource -- their people. In that light, many companies are taking another look at their workforce management software.

Companies aren't just using workforce management tools to track employee hours anymore. Tools like labor analytics are helping companies better meet strategic objectives and increase revenue.

In part one of this two-part podcast on workforce management software, Steve Goldman and Don Giffels, managing partners at Workforce Insight, discuss some of the trends and leading the cases they›re seeing. Workforce Insight is a strategic workforce management consulting and implementation firm, based in Denver, Colo.

It occurs more often and is more flexible and less formal than the traditional employee appraisal process, though both types are aimed at improving performance and monitoring personal and organizational goals.

Continuous performance management is a growing trend in human capital management (HCM) and can take place virtually any time, including daily or on a regular weekly or biweekly schedule. It can be facilitated by software or through phone calls and meetings.

Companies often use the continuous method as a supplement to the written annual review, which faces criticism because it is too labor intensive, dwells on the past and puts too much emphasis on categorizing and rating employees. In a high-profile move, General Electric ended ratings in 2016 for all 180,000 salaried employees and switched to continuous performance development and a smarter version of the annual review.

In addition to performance management software for annual reviews, vendors offer mobile and desktop applications to allow for frequent feedback and coaching. SAP Success Factors, for example, in early 2016 introduced a continuous performance management application that includes options such as allowing an employee to track goals and accomplishments or to ask a manager or another worker for rapid feedback.

SCIENTIFIC MANAGEMENT

The Principles of Taylor's Scientific Management Theory became widely practiced, and the resulting cooperation between workers and managers eventually developed into the teamwork we enjoy today. While Taylorism in a pure sense isn't practiced much today, scientific management did provide many significant contributions to the advancement of management practice. It introduced systematic selection and training procedures, it provided a way to study workplace efficiency, and it encouraged the idea of systematic organizational design.

The foundation and principles of scientific management theory are:

- Employees must be elected based on their skills and abilities related to their job performances.
- Incentives and wages provided to employees should be based on encouraging them for qualitative performance and enhancing their output.
- The leadership within the organization should be one that develops a standard method for doing certain job with the assistance of scientific management theory.
- There should be attention on eradicating interruptions while planning work.
- Rule of thumb work methods are replaced with other methods which are based on scientific study of tasks.

Taylor (1911) looked at the scientific side of establishments and developed four management principles. The first one is the principle of "developing a science for each element of work". Within this principle Taylor summarizes the whole accumulated knowledge of the workers and the company. Hence, he creates rules and norms for each process. Furthermore, he divided the processes in small parts and analyzed them concerning their lead time and course of movement. As a result Taylor could identify and eliminate interference factors.

After these processes the second principle follows referring to the workers. Before Taylor developed this principle there was no selection or training of the workforce. Employees worked on their own and improved their skills and routines as good as possible. Now, a scientific based selection took place. Furthermore, the staff was exactly informed what they had to do and in which kind of way they had to do it. Nevertheless, one problem was left and this was about motivation. Taylor named a number of different reasons, why the men worked very slowly and not as quickly as possible. This behaviour was called "soldering". One of Taylor's explanations is the assumption of those men that if they work faster and maximize their output that this would finally lead to a reduction of the workforce.

This principle has two aims. On the one hand Taylor wants to achieve that the whole workforce follows the defined processes. On the other hand management and workers should work together. It is essential that both parties realize that it is more profitable for the company and their selves when they work hand in hand. Furthermore this is a key determinant to translate scientific management from theory into practice.

The relationship between men and management suffered another change referring work sharing. This is the topic of the final principle. In the past the workers themselves were responsible for every part of their job without support of the management. Taylor has changed this proportion. Collecting the whole knowledge of the workers, creating rules and regulations and form a science for each process was no duty for the men. In other words the management had to ensure that each worker on each day knew exactly what he had to do how he had to do it and in what period of time. Accordingly, this combination of work sharing and the change of the attitude to work are the factors for success of scientific management.

Littler (1982) However, the opposite is the case. Working faster means that the equal number of people producemore goods. As a result unit costs decrease and the company can sell the merchandises to lower prices. Accordingly demand and also the profit rises and thereby the enterprise can pay higher wages to their employees. Resulting from this, Taylor implemented an incentive payment system to reward these workers who work more than others. Thus, he motivated the men in an economical way and reduced the might of the work-teams.

Costanza R. (1992)These are considered few advantages and disadvantages of scientific management theory. Hence it is suggested to make a complete research about the theory and review if it would be suitable for the organization and later adopt it. “The principles of scientific management” was published in 1911 by Frederick Winslow Taylor, where this theory was applied to the management of workers. This theory was adopted mainly by many organizations in order to improve productivity. In order to simplify jobs, tasks are optimized and the employees are trained to perform such tasks in the best way. Scientific management theory has worked in many concerns and made them beneficial, though it had minimal disadvantages. There are number of sources which best explains the good aspects of the theory. The experimentation was followed for a number of years and was concluded with its principles, advantages and disadvantages.

Thompson and McHugh (2009) Frederick Winslow Taylor was the founder of the scientific management (SM) also referred to as Taylorism. Optimize operational procedures and to implement the human recourse to be as effective as possible was the aim Taylor wanted to achieve. Therefore, it was necessary to change the existing proportion between management and workers regarding, who is responsible for the way the work has to be done. In the past the workers received their knowledge about working procedures from the previous generations or worked it out by themselves. However, there was no assurance if the way of doing the job was the most effective one. His third principle is about “cooperation between management and the workers to ensure that the work is done according to the science”.

Maximizing efficiency, reducing costs and increasing profits are facts which will be always of high interest for companies. In the course of development of organizations different approaches have emerge to fulfill these interest. The purpose of this essay is to compare scientific management and human relations theory. The paper will start by explaining both schools of management. Differences and similarities will be discussed on the followings. With the help of these facts it can be shown how different these theories are and whether they achieve the same ends.

STATEMENT OF PROBLEM

The concept of F.W. Taylor by introducing the theory of scientific management in its long term impact has resultant into many of the problems in organizational behaviour and its employees with a resultantly lesser output which was focused upon by the then thinker and father of scientific management whereby on the other hand the contemporary theories or trends generating the system of work force management i.e. human resource team is a successful handover to the replacement of above set problem . the researchers in this present study are targeting to focus upon a comparative study of both the management and to establish certain neo roles for the upliftment of recent work system to optimise the employee management as well as a substantive change in the organizational behaviour of the present organizations.

RESEARCH METHODOLOGY

For the purpose of current research work the researchers are focusing on using the comparative research analysis and analytical research methods to get the title oriented results which may further help in verifying the hypothesis framed by the researchers in the thesis.

Comparative research methods are used to draw a plot of both qualitative as well as quantitative materials and figures as and when are required for the research works.

The goal in adopting this method is to develop a sense of comparison between either of the following categories:

1) Time material comparison

2) Process material comparison

3) Cultural comparison

4) Change of taste comparison

5) Result oriented comparison

The researchers through this method are significantly trying not to develop 'the' answer, but 'an' answer that is people, place, process and time specific.[1]

Analytical method in support will be used to support the degree of comparison between both the statements of problem as declared with in the title. analytical method will also help to analyse various classifications regarding organizations nature and there operations thus summarizing the collected materials from various reviews and submitting some new facts figures and detection of errors and omissions within the material as collected by the researchers.

Hence, trying to give a proper endurance to the material collected and used for the purpose of submitting ideas, which may result into generation of innovative themes for the present scenes, among the different organization covered by the researchers.

RESEARCH ANALYSIS

Titling the paper of a research, finding out the problems to be focused in the research, explaining the problems wide the statement of problem, planning for the use of various research methods in the research, and framing of hypothesis is the way to design the structure of a good research which has been done as above.

Using all the structural framework and the qualitative weapons among the verification of material, propounding of the materials, generating some innovative ideas from the material, significantly analysing and comparing them within the proposed title with the material available and finally generating new ideas to verify/justify the propounded hypothesis is what we mean to do in a research analysis.

Being the main body of a research, it is compulsory to pay a significant/ vital attention on the whole analysis of research so as to reach/ arrive on a particular innovative conclusion, which may benefit most of the recent as well as future organizations and building up their cultural heritage so as to get the best out of the least available.

Analysis of a research must be so confine done that it may be able to answer each and every prospect of the question arising out of the statement of problem, research questions, the derivatives in the mind of researchers, the focal retina of the title.

Research analysis also helps in declaring the verbatim of what a researcher is trying to generate out of writing this research paper/ thesis to give his or her entitlement to a new rule/ principle/ theorem.

Global vibrant business seems to be optimistically differentially consequential

[1] *Gupta, S. LEGAL EDUCATION AND RESERCH METHODOLOGY, POOJA LAW HOUSE EDITION 2012 Pp.60/62.*

regarding the empirical concerns of the mangers. Preoccupation of the business environment and the shortcomings of the scientific approach are inherently volatile to clarify the systems of unstable business world. Initiative and incentives are more involved in the system but are taken as negative constraints by the Taylor which was a big and inheritably significant mistake carried on by the theory of scientific management The paradigm of scientific management was to focus on some of the specific techniques to introduce the matrix of better output out of the self managed workgroups but indirectly some of the inadequacies where found left by the Taylor as a vital inefficiency. Rapid changes put managers in complex situation of performing task effectively and efficiently, on which 'Senge', states that people are concerned only with their part of duty/ job and not to be the part of whole system which seems to be the main parameter of output. Today's manager acts as a researcher who runs organization on their own design for effective learning and the quality result.[2]

Scientific Management was considered to be as the one dimensional and automatous in nature by various people, vide its design tactic and style. One of the major reasons given for it was the lopsidedness, which was found in the Taylor's approach regarding the nature of Homo sapiens. He hadn't considered the nature of workers and managers as to be the different, where by on one hand he considered the managers to be good in nature, on the other hand he considered the workers to be not so much organized and well behaved.[3]

Perchance the leading economist of the twentieth century, John Maynard Keynes, once remarked that ideas "are more powerful than is commonly thought. Indeed the world is ruled by little else." Respectively, if the scientific management philosophy were to be strong enough in the recent arena than it has to be focused upon 'decentralization'.[4]

Scientific Management considerably failed in observing the antidotes to handle the 'soldiering' of managers. It seems to be the one sided approach while dealing in with the organizations.[5]

F.W. Taylor focuses on efficiency as the need of industries, which further on was possible by the success of sciences-experiment, dimension and optimism. Some of the detractors, on the other hand states that construction and employing will be hindered on efficiencies due to untidiness, unwarranted surpluses together with halting, and the management failure will not also escape from this arraignment, in spite of their work docile might also be burdened by being irreconcilable, ravenous and cumbersomeness.[6]

Taylor experimented with the shape, size and weight of shovels in order to determine the impact on productivity. On finding that no 'one shovel' was best of all materials, he tripled the

2 David, H. Freedman (1992). Is management Still a Science? Retrieved on the 29th day of December 2016 at 18:30 hrs.IST from: https://hbr.org/1992/11/is-management-still-a-science

3 Wagner, Sigmund (2008).Scientific Management revisited: Did Taylorism fail because of a too positive image of human nature? Retrieved on the 31st day of December 2016 at 1230 Hrs. IST from: https://www.researchgate.net/publication/243461815_Scientific_Management_revisited_Did_Taylorism_fail_because_of_a_too_positive_image_of_human_nature

4 Nelson, Roberts (1995). The Failure of Scientific Management.Retrieved on the 31st day of December 2016 at 1245 Hrs. IST from: http://www.ti.org/Nelson.html

5 Wagner, Sigmund (2010). Scientific Management Revisited: Did Taylorism Fail Because of a Too Positive Image of Human Nature? Retrieved on the 31st day of December 2016 at 1300 Hrs. IST from: https://lra.le.ac.uk/bitstream/2381/27675/6/JMH%20Taylor%20paper%2010-04-2008.pdf

6 Wordpress (2012).Scientific Management – Key Advantages and Disadvantages.Retrieved on the 31st day of December 2016 at 1316 Hrs. IST from: https://businessanalysis10.wordpress.com/2012/06/12/key-advantages-and-disadvantages-of-scientific-management/

load of materials on each worker, and found that it resulted into the boosting of morale among all the workers, and the reason beyond was increased income due to increased production. But whether such kind of experiments lead to all time success OR may be it needs to be transformed with some better ways of workforce management techniques.[7]

Scientific management focuses upon the process of increasing efficiency of workers scientifically. Organization need to concentrate on the training of work with worker, job with their performance, practice with production and quality with effective control. Managers follow certain set of rules and guideline with diversifies position of device and techniques for effective implementation of management practices. For the practice of improved work culture, managers need to work upon more on Systematic management rather scientific management.[8]

Today is the world of digital technologies, where it is possible to envisage and effectually accomplish the workforce. Rather than smearing the workforce strategy like peanut butter across the organization, implanting workforce cost information and its matrix creates a workforce analytic competence and focus that allows user to more commendably identify the thoughtful risk management.[9]

Workforce Management seems to be an effective tool in the present global activities of organizations as it is genuinely targeting to - Describe the functions associated with workforce planning; Identify job responsibilities of workforce professionals; Describe various approaches for organizing workforce teams; Identify tasks to be completed outside of the team; Develop short-term and long-term personnel budget; Develop performance measures for each role on the WFM team; Develop ongoing development plans for the department and individuals in it; Develop interdepartmental relationships that will position the contact center as a proactive unit that serves the needs of its internal customers.[10]

Well-off miscellany is built out of the often trivial, everyday actions taken by people at all levels of an organization. Paul Freeman argues on what actually are the habits of compliance that we seek to change it towards the habits naturally coming from the heart.[11]

Bringing upon some changes in the policies and processes of the organization must do the change in how the people act. These changes may bring some changes in the hearts and minds of the employees.[12]

Workforce management study suggests that most organizations have gigantic opportunity to improve business performance through effective workforce utilization.

The impending of inclusive workforce utilization helps organization plan more effectively depending on conditions demand. Study concluded that firms on an average can utilize systematic personnel scheduling to increase the

[7] Pantula, Jyotsana (2009). Scintific Management – One for all. A presentation on F.W. Taylor's contribution to management.Retrieved on the 31st day of December 2016 at 1330 Hrs. IST from: http://www.slideshare.net/Soujanya/taylorism

[8] Retrieved on 31st of December 2016 at 1326 Hrs. IST from: https://www.chapman.edu/business/_files/journals-and-essays/jbm-editions/jmb-vol-17-01.pdf

[9] Managing an Organizations Largest Cost: The Workforce. Retrieved on the 31st day of December 2016 at 1354 Hrs. IST from: https://www.saba.com/media/18560/wp_managing_organization_largest_cost_web.pdf

[10] A Study on Call Center Work Force Management Competency (2005). Retrieved on the 31st day of December 2016 at 1410 Hrs. IST from: http://www.swpp.org/certification-pdf/wfmcompetencydefinitionoutline7-05.pdf

[11] Makower, J. (1995). Managing diversity in the workplace. Business and Society Review, Pp. 92, 48-54.

[12] Aronson, D. (2002). Managing the diversity revolution: Best practices for 21st century business. Civil Rights Journal, Pp. 6, 46-66.

workforce efficiency with optimum customer satisfaction. [13]

Workforce management leads to the development of high grade of feasibility for the accuracy of quality records and on high variability of control after an occurrence also inevitability for critical error occurs in the structure.[14]

Comparison

The theory of scientific management inferred by F.W.Taylor says that people are concerned only about their individual part of job and not about the whole system of the organization.

Scientific management is not sufficient to help managers in handling the dynamic and difficult situation. Philosophy of scientific management is not so strong to help the managers focus on decentralization at the time of its execution. Scientific management is concerned only on one side of the management system. It is not so supportive for managers in doing experiments in management system. It focuses only on the following of specific principles of scientific management and not suitable for innovation or creativity in organization structure.

Workforce management is effective for managers to come out of risky situation in management. Workforce management is proactive step helps in edifice well-built interpersonal relation and brawny team work in the organization. Single change in the policies brings additional and enormous productive change in the work style of workers in an organization. It increases business opportunities by prolific performance. Workforce management improves not only the internal working of an organization but also satisfy the customers as whole. It improves the working condition and reduces the error occurred.

CONCLUSION

Researchers through this research work are of the view that with time and its changing sphere, many of the theories are propounded by various thinkers but the constraint of time never let them be so stable as to work for the whole long way. For the same the upcoming thinkers do the research works and develop some or other concepts of burning the ideas to mind map the add-ons to them, and hence propounding some new ideas through the scheme of innovation called as research.

In the recent research, the researchers are of the view that in the modern times while comparing both the concepts of Scientific management and Work Force Management, the WFM plays more significant role to display the better output on the charts of the organisational productivity and health. Hence replacing the scientific management with WFM in righteous ways may be the beautiful way of representation for a successful organisational policy.

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THE STUDY OF SOCIO-CULTURAL AND ECONOMIC FACTORS CONTRIBUTING TO THE DECLINING SEX RATIO

Deepshikha Agrawal and Meenu Kumar***

ABSTRACT

India is a country where females were treated as goddess and people were advised to worship (to pay respect) them. But since last few decades, our country is facing the problem of imbalanced male female sex ratio. This study analyzes the trends of sex ratio in M.P. and the various socio-cultural, economic and other factors contributing to the declining sex ratio. The main focus of the study is to establish the relationship between Sex Ratio and Literacy Rate. For determine the relationship this study uses the data of 50 districts of M.P. for the period 2011. By using Karl Pearson's Coefficient of Correlation we found that there is a negative correlation between Sex Ratio and Literacy Rate. These findings confirm that sex ratio has nothing to do with literacy or being educated to imbalance the sex ratio at birth.

INTRODUCTION

India is a country where females were treated as goddess and people were advised to worship (to pay respect) them. But since last few decades, our country is facing the problem of imbalanced male female sex ratio. The declines in overall sex ratio in general and child sex ratio in particular are drawing the attention of policymakers and researchers to rethink, review and take some formidable steps for solving the problem.

India is a country of striking demographic diversity. It exhibits a relatively high but declining fertility and uneven economic development with marked regional disparities by social group, age group and levels of prosperity (Agnihotri,[1] 1995; Dyson & Moore[2], 1983).

The Northern and southern states have vast disparity not only in terms of natural resources available but also in many demographical variables. While the north has lower levels of literacy and relatively higher level of agricultural development, the south generally exhibits higher literacy levels and better health facilities. The same is true with sex ratio also.

Although, India could manage to improve the overall sex ratio from 930 females per 1000 males in 1971 to 940 females per 1000 males in 2011(the highest figure since independence) which is commendable the regional disparities also appeared to have increased- northern states exhibit a worsening trends as compared to southern states.

At the same time the child sex ratio continued to decline from 976 females per 1000 males in 1961 to 914 females per 1000 males in 2011 which needs paramount attention. The sharpest decline for the age group 0-6 years is observed in the northern states, particularly in Haryana (820/1000) and in Punjab (793/1000).

India's standing as a country among other countries is well below the global average and far below the OECD countries. The situation

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in immediate neighborhood of India reveals a mixed picture; Pakistan and China show male domination in the sex-ratio, whereas Bangladesh, Sri Lanka, Cambodia and Burma have more females in their populations.

Table No 1

Total Sex ratio among Selected Countries

Countries	**Total Sex Ratio (number of male per female)**
Australia	1
Belgium	0.96
Canada	0.98
Germany	0.97
United States	0.97
Sweden	0.98
Netherlands	0.98
India	1.08
India's ranking among its neighboring Countries	
Myanmar	1,048
Sri Lanka	1,032
Nepal	1,014
Bangladesh	978
Pakistan	942
India	940
Afganistan	931
Bhutan	897

Source: World Factbook 2011

The Table No 1 reveals that among the neighbour countries, Pakistan and China are male domination countries whereas Bangladesh, Sri Lanka and Burma have more females than males in their population.

As per Census 2011, top five states/Union territories which have the highest sex ratio are Kerela (1,084) followed by Puducherry (1,038), Tamil Nadu (995), Andhra Pradesh (992) and Chhattisgarh (991).

Five states which have the lowest sex ratio are Daman & Diu (618), Dadra & Nagar Haveli (775), Chandigarh (818), NCT of Delhi (866) and Andaman & Nicobar Islands (878).

Table No. 2

Top five States/UTs by sex ratio – 2011

S.No.	**States/UTs**	**Sex ratio (females per 1000 males)**
1	Kerela	1,084
2	Puducherry	1,038
3	Tamil Nadu	995
4	Andhra Pradesh	992
5	Chhattisgarh	991

Table No. 3

Bottom Five States/UTs by sex ratio – 2011

S.No.	States/Uts	Sex ratio (females per 1000 males)
1	Daman & Diu	618
2	Dadra & Nagar Haveli	775
3	Chandigarh	818
4	NCT of Delhi	866
5	A & N Islands	878

REVIEW OF LITERATURE

A number of studies are being conducted focusing on factors responsible for declining male female ratio and their historical trends in India (Agnihotri [26]1995,2000: bhat[27,] 2002 : Clarke[28] ,2000: Dandekar[29] 1975 and visaria 1971). Some studies also relate this declining trend to the widely prevalent preference of son in indian family.(Arnold et al[30].1998 and Das [31] 1987)

Singariya [32] (2012) in his study examines the determinants of declining g sex ratio in Rajasthan. The result in pooled OLS indicates that one percentage point increase in male literacy has reducing effect on the juvenile sex ratio by an average 0.4 percent in districts of Rajasthan during 1991-2011.

Another study reported conditional sex ratio for second order births when the first born was girl fell from 906 to 836 and the decline was greater in mother with 10 or more years of education than in mothers with no education. It was more common in wealthier families. The study concluded that selective abortion of girls is common in all states of India and has increased substantially especially for pregnancies after a first born girl.(Jha et al 2011)

Parental sex determination followed by selective abortion of female fetus has also been reported as the most plausible explanation for the low sex ratio at birth in India. The women having one or more girl child are more prone to adopt this practice. (Jha et al, 2006)

Chakravarty and Sinha [33] (2008) used fixed effects model four decennial census data from 1971 to 2001 to examine the determinants of declining sex ration across 15 states of India. The result revealed that the child sex ratio is inversely related to spatial socio-economic characteristics, in particularly female literacy rate, female economic activity rate with relatively higher elasticity coefficients for urban India.

Similar study conducted in Himachal Pradesh concluded that even after a lot of development in the field of education, health, female literacy and female work participation, the child sex ratio is not improved. The districts with high literacy have lower Child Sex Ratio than the districts with lowest literacy. Lowest female literacy in rural areas shows better Child Sex Ratio than higher literacy in urban areas. Increase in family income and female work participation shows a bias towards the girl child, even before birth. **(**Piar Chand Ryhal And Shashi Punam[34], 2009)

Sex differentials in child mortality was reported much higher in North India than in South India and researchers related this differences to variations between the North and south in kinship systems and female autonomy.(Dyson and Moore, 1983)

The study conducted by Singh, Sandeep and Singh Ran [35], (2013) revealed that there is negative co relation between literacy and sex ratio in India and they concluded that the literacy failed to change thinking of people in various states and union Territories.

Monu kumar [36] (2013) analyzed the correlation between child sex ratio and female literacy in Haryana and found a negative moderate correlation. It was concluded that child sex ratio and female literacy move opposite direction.

The objectives of the paper are as follows:

- To analyze the trends of sex ratio in India and MP.
- To analyze the various socio-cultural, economic and other factors contributing to the declining sex ratio.
- To establish the relationship between sex ratio and literacy rate.

RESEARCH METHODOLOGY

i. **Area of Study:** Area for the study is Madhya Pradesh, a state of India. Madhya Pradesh, with an area of 3, 08, 000 sq.km. is the second largest state in India after Rajasthan. The population of Madhya Pradesh is over 7 crore. More than 75% of the population resides in villages whose main occupation is agriculture, while the rest of the population lives in towns. It occupies 9.38% of the country›s area, is also the second richest state in terms of its mineral resources. Primarily, it has an agricultural and pastoral economy. Industrial development is primarily concentrated in the more advance districts like Indore, Bhopal, Gwalior and Jabalpur.

ii. **Methodology:** This study is based on the secondary and published data. This paper analyzes trends of sex ratio in Madhya Pradesh on the basis of the available data. The data are extracted from censusindia.gov. This paper compares the trends of total population sex ratio and child sex ratio (0-6 years) in MP and tries to find out the causes to the declining sex ratio. This study has also established the relationship between sex ratio and literacy rate. The following hypotheses have been tested in the study:

iii. **Hypotheses:**

<u>Hypothesis 1</u>

H_0 = Literacy Rate has positive impact on the Adult Sex Ratio in Madhya Pradesh.

H_a = Literacy Rate has negative impact on the Adult Sex Ratio in Madhya Pradesh.

<u>Hypothesis 2</u>

H_o = Literacy Rate has positive impact on the Child Sex Ratio in Madhya Pradesh.

H_a = Literacy Rate has negative impact on the Child Sex Ratio in Madhya Pradesh.

iv. **Statistical Tools:** Karl Pearson's Coefficient of Correlation has been used to test the hypotheses.

DATA ANALYSIS

Trends of Sex ratio in MP:

As per the provisional results of census 2011 total population of India is 1,21,01,93,422 which comprises of 62, 37, 24,248 males and 58, 64, 69, 174 females with the sex ratio of 940 females per 1000 males. MP has a total population of 7,25,97,565 with 376,12,920 males and 3,49,84,645 females with the sex ratio of 930.

Comparison of Adult Sex Ratio of India and Madhya Pradesh

Sex ratio of India and MP during last decades is presented in Table No.4. It is observed that sex ratio declined continuously until 1971 and thereafter a slightly increasing trend is reflected in subsequent censuses. It is improved marginally to 934 of India and 921 of MP in 1981 but fell down again in 1991. During the period of 1901 to 2011, Sex ratio of the MP is lower than the average sex ratio of India (except year 1901, 1911, and 1941).

Table No. 4

Comparison of Sex Ratio of India and Madhya Pradesh

Year	1901	1911	1921	1931	1941	1951	1961	1971	1981	1991	2001	2011
India	972	964	955	950	945	946	941	930	934	934	933	940
MP	972	967	949	947	946	945	932	920	921	912	919	930

Source: census of India

The table shows that sex ratio of MP state which was 972 in 1901 declined continuously and reached 920 in 1971. It improved marginally to 921 in 1981 but fell down again to 912 in 1991. However, sex ratio increased to 919 in 2001 and further improved to 930 in census 2011.

Table No. 5

Sex Ratio of MP Districts

No.	Districts	Sex Ratio in 2001	Sex Ratio in 2011
1	Balaghat	1022	1021
2	Alirajpur	995	1009
3	Mandla	996	1005
4	Dindori	991	1004
5	Jhabua	980	989
6	Seoni	981	984
7	Barwani	971	981
8	Anuppur	961	975
9	Ratlam	958	973
10	Betul	965	970
11	Shahdol	954	968
12	Mandsaur	956	966
13	Chhindwara	952	966
14	Khargone	949	963
15	Dhar	955	961
16	Neemuch	950	959
17	Rajgarh	932	955
18	Ujjain	938	954
19	Umaria	946	953
20	Sidhi	942	952
21	Burhanpur	944	951
22	Katni	941	948
23	Khandwa	931	944
24	Dewas	930	941
25	Shajapur	927	939
26	Harda	919	932
27	Rewa	941	930

28	Satna	925	927
29	Jabalpur	908	925
30	Indore	912	924
31	Sehore	909	918
32	Narsimhapur	909	917
33	Singrauli	922	916
34	Damoh	901	913
35	Hoshangabad	896	912
36	Bhopal	895	911
37	Guna	890	910
38	Panna	901	907
39	Sheopur	895	902
40	Tikamgarh	886	901
41	Ashoknagar	879	900
42	Raisen	881	899
43	Vidisha	875	897
44	Sagar	884	896
45	Chhatarpur	869	884
46	Shivpuri	859	877
47	Datia	856	875
48	Gwaliar	848	862
49	Morena	822	839
50	Bhind	829	838

Source: Census of India

Table No 5 compares sex ratio of MP district in 2001 and 2011. It is observed from the table that out of 50 districts in the state, sex ratio in 47 districts has increased in 2011 compared to census 2001 and has decreased in only 3 districts i. e. Balaghat, Rewa and Singrauli. Sex ratio in Rewa has declined from 941 in 2001 to 930 in 2011, from 1022 to 1021 in Balaghat and from 932 to 916 in Singrauli district.

Looking at the trend of sex ratio at the district level, we find that only 4 districts have reported sex ratio more than 1000 in 2011 i. e. Balaghat, Alirajpur, Mandla and Dindori. It shows that sex ratio is highest in Balaghat (1021) followed by Alirajpur (1009), Mandla (1005), Dindori (1004) and Jhabua (989). The lowest sex ratio has been reported in Bhind (838). The bottom five districts are Bhind (838), Morena (839), Gwalior (862), Datia (875) and Shivpuri (877) that recorded low sex ratios.

District wise analysis of sex ratio in MP shows that there are 26 districts reporting sex ratio more than the state average and 23 districts reporting sex ratio less than the state average. Sex ratio of Rewa district is equal to the state average.

Comparison of child Sex Ratio of India and Madhya Pradesh

Table No. 6

Child Sex Ratio (0-6 years) of India and MP

Year	India	Madhya Pradesh
1991	945	941
2001	927	932
2011	914	912

Source: Census of India

Table No 6 presents the child sex ratio (0-6 years) of India and MP for the period 1991 to 2011. It is observed from the data that child sex ratio in the country as well as in MP has shown declining trend since 1991. Child sex ratio at Country level was 945 in 1991, 927 in 2001 and has declined to 914 in 2011. In case of MP, it was 941 in 1991, 932 in 2001 and stand at 912 in 2011. Child sex ratio at Country level has declined by 13 points during the period 2001-2011.

Table No. 7

Child Sex Ratio (0-6 years) of MP

No.	Districts	2001	2011
1	Balaghat	968	961
2	Alirajpur	982	971
3	Mandla	981	965
4	Dindori	990	970
5	Jhabua	967	934
6	Seoni	977	954
7	Barwani	970	940
8	Anuppur	977	943
9	Ratlam	957	931
10	Betul	969	949
11	Shahdol	969	946
12	Mandsaur	946	921
13	Chhindwara	938	950
14	Khargone	962	931
15	Dhar	943	913
16	Neemuch	931	918
17	Rajgarh	938	916
18	Ujjain	938	919
19	Umaria	959	946
20	Sidhi	952	910
21	Burhanpur	934	921
22	Katni	952	934
23	Khandwa	946	931
24	Dewas	930	907
25	Shajapur	936	913
26	Harda	925	921
27	Rewa	926	883
28	Satna	931	907
29	Jabalpur	931	916
30	Indore	908	892
31	Sehore	927	906
32	Narsimhapur	917	900

33	Singrauli	955	921
34	Damoh	935	931
35	Hoshangabad	927	911
36	Bhopal	925	916
37	Guna	930	901
38	Panna	932	910
39	Sheopur	932	912
40	Tikamgarh	916	886
41	Ashoknagar	932	914
42	Raisen	936	927
43	Vidisha	943	922
44	Sagar	931	925
45	Chhatarpur	917	894
46	Shivpuri	907	889
47	Datia	853	832
48	Gwaliar	832	835
49	Morena	929	888
50	Bhind	837	825

Source: Census of India

Table No 7 presents the child sex ratio in MP for the period 2001 - 2011. While comparing the child sex ratio among the districts, the highest child sex ratio in the district Alirajpur (971) followed by Dindori (970), Mandla(965), Balaghat (961) and Seoni (954).

Districts with the lower child sex ratio are Morena(825), Gwaliar (832), Bhind (835), Datia (852) and Rewa (883). Highest decline in child sex ratio is in Rewa district, where it came down to 883in 2011 from 926 in 2001.

Above trend analysis indicates that the child sex ratio in MP is continuously declining over the last three decades. This was 941 in 1991, 932 in 2001 and now it is 912 in census 2011. As against this the sex ratio of total population is continuously increasing since 1991. Sex ratio of total population was 912 in 1991, 919 in 2001 and is now recorded as 930 in census 2011.

1. Relationship between Sex ratio and Literacy:

Literacy and education is universally recognized as a major component of human development. Literacy affectson various attributes of the population such as fertility, mortality, migration and also sex ratio. The knowledge of sex ratio is essential for the understanding the condition of the women in society. A decline or low number of female population in the total population is strongly suggestive of the neglect of girl child, sex selective abortions and traditional attitudes of the society. Thus the analysis of literacy and sex ratio is immense significant.

Table No 8 presents the adult sex ratio, child sex ratio (0-6 years age group), Average literacy, male literacy and female literacy of Madhya Pradesh.

The data reveal that there are wide disparities in the literacy and sex ratio of M.P. in 2011. The highest literacy rate was found in Jabalpur district and lowest in Alirajpur district. Whereas the highest sex ratio was found in Balaghat district and lowest in Bhind district. The child sex ratio in MP has fallen 912 in 2011 from 932 in 2001. The districts namely Indore, Gwalior, Datia, Rewa, Morena, and Bhind are more literate districts of the state and have less than

900 girls in the age group of 0-6 years in 2011. It may be because of people of these districts have both access and money to misuse technology.

Table No 8

Sex Ratio, Child Sex Ratio (0-6 years age group), and Literacy in M.P. for 2011

Districts	Adult sex ratio	Child sex ratio	Average Literacy	Literacy (male)	Literacy (female)
Balaghat	1021	961	76.6	86.8	69.7
Alirajpur	1009	971	37.2	43.6	31
Mandla	1005	965	68.3	79.5	57.2
Dindori	1004	970	65.5	77.6	53.5
Jhabua	989	934	44.5	54.7	34.3
Seoni	984	954	73	81.8	64.1
Barwani	981	940	50.2	57.3	43.1
Anuppur	975	943	69.1	80.1	57.9
Ratlam	973	931	69.1	79.4	56.8
Betul	970	949	70.1	78.4	61.6
Shahdol	968	946	68.4	78.3	61.6
Mandsaur	966	921	72.7	86.8	80.1
Chhindwara	966	950	72.2	80.8	63.4
Khargone	963	931	64	74	53.7
Dhar	961	913	60.6	71.1	49.7
Neemuch	959	918	71.8	85.9	57.3
Rajgarh	955	916	62.7	75.1	49.8
Ujjain	954	919	73.6	85.2	61.4
Umaria	953	946	67.3	78.1	56.1
Sidhi	952	910	66.1	76.5	55.2
Burhanpur	951	921	65.3	73.1	57.1
Katni	948	934	73.6	84.2	62.5
Khandwa	944	931	67.5	77.9	56.5
Dewas	941	907	70.5	82.1	58.3
Shajapur	939	913	70.2	83.2	56.4
Harda	932	921	74	83.1	64.3

Rewa	930	883	73.4	83.7	62.5
Satna	927	907	73.8	83.4	63.4
Jabalpur	925	916	82.5	89.1	75.3
Indore	924	892	82.3	89.2	74.9
Sehore	918	906	71.1	82.4	58.9
Narsimhapur	917	900	76.8	73.8	67.6
Singrauli	916	921	62.4	73.8	49.9
Damoh	913	931	70.9	81	59.9
Hoshangabad	912	911	76.5	85.2	67
Bhopal	911	916	82.3	89.1	76.6
Guna	910	901	65.1	76.6	52.5
Panna	907	910	66.1	75.6	55.6
Sheopur	902	888	58.6	70.3	44.5
Tikamgarh	901	886	62.6	73.1	50.7
Ashoknagar	900	914	62.6	80.2	54.2
Raisen	899	927	74.3	82.5	65.1
Vidisha	897	922	72.1	81.4	61.7
Sagar	896	925	77.5	86.3	67.7
Chhatarpur	884	894	64.9	74.2	54.3
Shivpuri	877	889	63.7	76.2	49.5
Datia	875	852	73.5	85.2	60.2
Gwalior	862	832	77.9	86.3	68.3
Morena	839	825	72.1	84.2	57.6
Bhind	838	835	76.6	87.2	64

Table No 9 presents the correlation between adult sex ratio and literacy rate. It is observed that there is rather moderate and negative correlation between adult sex ratio and literacy rate in MP. The correlation coefficient between adult sex ratio and literacy rate is significant at one percent level where the value of r is (-.465). Hence the null hypothesis H_a of Hypothesis 1 is rejected; it is indicating an inverse relationship between adult sex ratio and literacy, means more literate the people are, and low is sex ratio.

Table No. 9

Correlation between Adult Sex Ratio and Literacy

		Adult sex ratio	Literacy
Adult sex ratio	Pearson Correlation	1	-.465(**)
	Sig. (2-tailed)		.001
	N	50	50
Literacy	Pearson Correlation	-.465(**)	1
	Sig. (2-tailed)	.001	
	N	50	50

** Correlation is significant at the 0.01 level (2-tailed).

Table No 10 presents the correlation between child sex ratio and literacy rate. It is observed that there is rather moderate and negative correlation between child sex ratio and literacy rate in MP. The correlation coefficient between child sex ratio and literacy rate is significant at one percent level where the value of r is (-.425). Hence the null hypothesis (H- 02) is rejected; it is indicating clearly an inverse relationship between literacy rate and child sex ratio.

Table No. 10

Correlation between Child Sex Ratio (0-6 years age group) and Literacy

		Child sex ratio	Literacy
Child sex ratio	Pearson Correlation	1	-.425(**)
	Sig. (2-tailed)		.002
	N	50	50
literacy	Pearson Correlation	-.425(**)	1
	Sig. (2-tailed)	.002	
	N	50	50

** Correlation is significant at the 0.01 level (2-tailed).

The districts namely Indore, Gwalior, Datia, Rewa, Morena, and Bhind are more literate districts of the state and have less than 900 girls in the age group of 0-6 years. Literacy rate in these districts are much higher than the rest of the districts in the state. These findings show that most probably sex ratio has nothing to do with literacy or being educated to imbalance the sex ratio at birth.

2. Factors Contributing to the Declining Sex Ratio

Different dimensions of female deficits in India and persisting regional variations have been investigated and studied.(Sen 31990; Agnihotri4 2000; Dasgupta and Bhat 5 1995; Miller6-7 1981 and 1989), since the numerical imbalances between the male and female sexes were pointed out in the seventies (Visaria 8 1971; Natarajan9 1972). Following major causes can be attributed for this abnormal outcome:

i. **Preference for son:** The research substantiates the age old norms that sons are pivotal to family welfare, as they are the ones who earn money, continue family lineage, and provide a form of old age security for parents. It is also a common believe that sons can provide old age support. In India, the majority of the old live with married children who to an overwhelming degree are sons. In the Indian context, characterized by high levels of uncertainty, where no institutional alternative to the family as a source of social insurance has emerged, parental decisions are likely to be powerfully motivated by their concerns about their own security in old age. (Kabeer[10], 2000). Croll [11], 2000, Kabeer [12], 1996, Greenhalgh [13], 1985, Collard [14], 2000 called an understanding and commitment between parents and children as inter-generational contract which is very prevalent in our society and will remain unchanged through the overall social and economic changes. Sons are also important because they alone may perform the funeral rituals of the parents. (Mutharayappa et al [15], 1997).

ii. **Female Child as a Burden:** Another factor leading to strong disincentives and discrimination against daughters is the existence of the dowry system, which, together with marriage costs is a major drain on household resources. (Menski [16], 1998) Girls are supposed to be financial burden on family which is also one of the reasons for the presence of fewer girls in the northwestern Indian homes. They are considered as double loss as along with the expenses on growing up, the wealth out flow on the occasion of a girl's marriage which is called as dowry. Despite the Anti Dowry Act, the practice is very prevalent all over the country. The menace of the dowry deaths has increased many fold in Punjab (1744 per cent), and in the neighbouring states of Haryana (78 per cent) and Rajasthan.(162 per cent) in 2002 over 1991 (Crime in India, 1991 and 2002). This costs and benefits trade off leads to killing the girl in the womb than to be burdened with debts or to part with land and house (Grant [17] 1998; Radhakrishnan [18], 1999).

iii. **Sex Selective Abortion:** Sex related abortions have increased even though such acts are considered illegal in India. Among the educated and wealthy, sex selective abortions have increased significantly, especially when the first born child is a daughter (Jha et.a[19]., 2011). According to the *Times of India* [20] (2010), affluent couples in India fly to neighboring Thailand in order to take a Pre Implantation Genetic Diagnosis test which ensures that only male embryos are placed in the womb with a success rate of 100%. In a study in the medical journal *Lancet*, Jha et al. (2011) found that systematic prenatal sex determination and abortion of girls is occurring in India, especially for second order births where the first born is a girl. This is prevalent among all states and perhaps accounts for the 7 million fewer girls born as shown in Census of India, 2011. The medical professionals engaged in sex determination put forth the argument "if family planning is desirable, why not sex planning?". Even there are many who consider the sex selective abortion is a way out for many women living under a dominant patriarchal set up with cultural sanctions. The economic logic behind this argument is "sex selection at conception will reduce the supply of women, they will become more valuable, and female children will be better cared for and will live longer. We have here a good instrument for balancing the supply of and demand for women, and for equating their price all over India (since caste, regional, religious, and other barriers prevent the movement of women). So in course of time one should expect dowries to fall in the North… "(Kumar [21]983).

iv. **Negligence of female infants and girl child in India:** One of the reasons behind the declining child sex ratio can be attributed to higher female infant deaths in India. Globally, more males are born than females, but biologically female infants have higher survival rates than male infants (Hammoud [22], 1977, United Nations, 2011). However, the opposite trend is observed in India (Das Gupta [23], 1987) pointing to the possibility of girl devaluation and discrimination, neglect of infants through inadequate nutrition and health care (Pande and Astone[24], 2003), infanticide, and sex specific abortions. Miller[25] (1979) in her study remarks "the scarity of girls in relative to boys is direct result of the intra household biases in vital resources such as food and medical care that favour the boys in detriment to girls".

CONCLUSION

The paper analyzes the trends of sex ratio in Madhya Pradesh. It has been found that the sex ratio of total population in M.P. is continuously increasing since 1991. Sex ratio of total population was 912 in 1991, 919 in 2001 and is now recorded as 930 in census 2011. As against this the child sex ratio in MP is continuously declining over the last three decades. This was 941 in 1991, 932 in 2001 and now it is 912 in census 2011.

This study has established the relationship of Literacy Rate with Adult Sex Ratio and Child Sex Ratio (0-6 years age group) by using Karl Pearson's Coefficient of Correlation. It has been found that the correlations between these variables are negative. The value of Pearson's Coefficient of Correlation is -0.465 for Adult Sex Ratio and Literacy Rate and -0.425 for Child Sex Ratio (0-6 year's age group) and Literacy Rate. These findings confirm that higher the level of literacy lower will be the child sex ratio. The main culprits of declining child sex ratio are female foeticide, son preference and gender inequality which to suppress male dominant social structure.

The study has shown consistency with the results of earlier studies. A pronounced preference for male child has been found to be pervasive in Indian society, affecting both attitudes and behavior with respect to children. If we look at the scenario in MP, we would find that increase in education of women has resulted in biased attitude towards females, even before birth the sharply declining child sex ratio is most realistic indicator of the trend in sex selective abortion and continuing discrimination against the girl child.

The districts namely Indore, Gwalior, Datia, Rewa, Morena, and Bhind are more literate districts of the state and have less than 900 girls in the age group of 0-6 years. This shows that most probably sex ratio has nothing to do with literacy or being educated to imbalance the sex ratio at birth. The reason behind is that as females are becoming more and more aware about the use of technology and hence is involved in more sex selection activities. Another reason is that working woman are wishing only one child and hence they wish to have baby boy only because of sociocultural factors.

This suggests that only literacy will not help in solving out the problems of lowering sex ratio, rather some other factors like socio economic condition should also be improved to change the scenario.

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CHANGING OR QUITTING?

Kiran Gehani* and Anukool M. Hyde**

BEIL,the Indian business arm of UK based steel conversion and distribution business house, the Euro 1bn group was located in Pithampur (Indore), commercial capital of Madhya Pradesh. Through its multiple strategic business entities, the group offers end-to-end solutions in the Design, Development and Manufacture of automotive systems, assemblies, advanced composites, modules and components for Automotive original equipment manufacturer (OEM) and Engineering majors. BEIL leverages its capabilities in Metal Stamping, Fastening, Tubing, Forging, Fabrication and Aluminium Foundry businesses, coupled with its state-of-the-art Tool Room and R&D Centre, to service top-notch clients such as GM, Ford, Maruti Suzuki, Honda, Tata Motors, Renault-Nissan, TAFE, Piaggio and JCB.

BEIL's entry into the Indian automotive components market began in 1994 with a joint venture with India's one of the largest passenger car manufacturer, and since then had expanded to all automotive hubs in the country. The company's ability to offer complete lifecycle solutions backed by a global support system, technological superiority and customer orientation, made it a force to reckon with in its areas of expertise. The employee strength since then was counted in thousands for different units at different locations across India and BEIL India had reached to an employee count of 4000 direct and indirect employees across 30 world-class functional and upcoming facilities.BEIL was a major supplier of automotive OEMs and other Tier 1's as well as the aerospace and material handling industries globally. Its product range was extensive and diverse. Company gained top position in the current market, as it was certified with globally-recognized quality accreditations such as TS16949, ISO 14001, OHSAS 18001 and AS 9100.

A few of the Company's Philosophy and Value states:-"It's a story of people, of values and of human effort". "There is no such thing as bad business; only bad management"."Find excitement in industry…..and in your own job in it". The Philosophy of the company seem to create a positive HR purview in the organization alongwith motivated staff but the internal structure of one of the plants located at Pithampur (Indore) got into real picture ,when a HR Manager who was ruling his post last 10 years left the company and another HR manager joined in. The new HR Manager expected a well-defined organization structure and job design as BEIL was the brand name competing at International Level, but to his knowledge company's organization structure was not well defined and the hierarchy of positions was also not clear.

The new HR Manager, Kishan Tiwari was innovative and had great ideas to implement to develop a great work culture in the organization but the current work environment and the staff was habitual to old traditional methods of work and resisted to implement any new ways at work place.Thus Change Management seems to be difficult to be implemented.

As, Kishan was new to the organization and was not much aware about the prevalent practices at BEIL, Assistant Manager HR helped him to get well acquainted with work place and practices. Despite employee's effort of resisting change, kishan was firm to analyze and improve the organization environment.To his surprise Kishan observed that none of the employees were aware about their contribution to the achievement of goals of the organization. There was no proper Job design and hence employees

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did not realize significance of their jobs and did it as a routine work, as a result of which overall productivity was affected. Moreover employees were dissatisfied at work and could not find any innovative practice to enhance their skills and thus lacked sense of belongingness and felt that their worth in organization is missing and they were not valued. Although the company had well developed training budget and training charts of employees prepared in advance but the training programs were not that frequently conducted as it should have been and so the employees lacked in particular competencies that were the need of time .Even if the training program was conducted, the probability of trainings per year was 1:10.

Mr. Kishan also noticed that the operational work force did not had any union as the workers were outsourced from agent with third party pay system for their wages. The Company's Infrastructure seemed to be modish but when a new comer or guest comes to visit BEIL, there was no one sitting in Reception Area to guide the new entrant. Also their prevailed Open cabin system for staff except manager and there were no name plates outside the cabin to identify the designation of the employee whether he is a Sr. Manager or Business Head. Frequent chit-chatting followed whole day because of open cabin system and everyone's work affected due to this.

Being a part of Compensation structure an employee and employer both spent Rs.400 p.m. for Mess facility and despite spending Rs.4.5lac/month as food expenses, employees were not satisfied with the food and its quality.HR Manager after analyzing all the facts thoroughly, tried his level best to bring about the measures to streamline all the processes and reduce employee dissatisfaction and bring the best out for all but his plans did not work because of increasing resistance and lack of faith from employee's side. To no doubt and after all his efforts put down, Kishan finally resigned within two months of his joining.

Kishan had a dream but it had gone with the wind. He only wished that BEIL could do better in coming future so that fruits can be seen. Kishan said "I can find a better place for myself but what will happen to BEIL?"

1. What are the problems in the case?

2. Do SWOT of the case.

3. What will be the implications of change management in the organisation?

4. What should be the change management strategy to be implemented in organization?

"DOING IT… THE LEADER'S WAY…"

BACKGROUND:

Ceramic Tiles today have become an integral part of home improvement. It can make a huge difference to the way your interiors and outdoors look and express. Apart from their decorative looks, Ceramic Tiles are primarily hygiene products and that is how the consumers view the product. This is fairly evident from its varied usage from bathrooms and kitchens in average Indian households to medical centers, labs, milk booths, schools, public conveniences, shopping malls and numerous other centers; which dot our day to day life.

A ceramic tile is basically a "utility product" made from a mixture of sand, clay, and other natural products. They are manufactured by molding the raw materials into the required shape and design, followed by heating at high temperature in a kiln. Their aesthetics make them suitable for floor coverings and other decorative uses. Popular housing projects are increasingly switching over to Ceramic Tiles moving away from the traditional use mosaic and even granite or marble, owing to several factors viz. ease in laying ability, versatility, low price and hygiene.

Nevertheless, this decorative aspect of a Ceramic Tiles has forever been in the forefront. Heavy churning out of bolder and colorful designs by the industry are testament to the fact that most households regard a ceramic tile as an "adornment" for an otherwise "drab look" of their age-old floorings or an unfurnished wall.

INDUSTRY AT A GLANCE:

India ranks in the top 3 list of countries in terms of tile production in the world. While the global tiles production grew at an annualized rate of 6.3% for the period 2006-2013, tiles production in India grew almost double at 12.0% during the same period. Ceramic tiles that accounts for close to 60% of the total tiles demand in India is expected to grow at a CAGR of 8.7% for the period 2014-2019.

The Indian tile industry is divided into organized and unorganized sector. The organized sector comprises of approximately 14 players. The major players are J&C Samson, Kajaria, Nitco, Somany and Asian Granito accounting for majority of the sales. The unorganized sector accounts for nearly 60% of the total industry bearing testimony of the growth potential of this sector.

J&C SAMSON (INDIA) LTD. "THE FRONT RUNNER"

Established in 1958, J&C Samson (India) is the market leader in the field of ceramic tiles in India. It has consistently maintained its leadership position in the field of tiles over the past five decades. Today, the company is the largest manufacturer and marketer of vitrified tiles in India. With being the top brand in tiles, J&C ventured into the business of sanitaryware and modular kitchen. This is why it enjoys the reputation of being the only company in India to offer end-to-end home lifestyle solutions.

Manufacturing Facilities

J&C (India) at present is having its manufacturing facilities in Gujarat, Madhya Pradesh, Andhra Pradesh, Maharashtra, Karnataka, Tamil Nadu, Jammu & Kashmir, Himachal Pradesh and West Bengal. Company's tile manufacturing units in these states functions independently and on joint ventures, while it is having bathroom fittings

This case was developed by Amitabh Joshi (Director, Prestige Institute of Management Dewas),Amit Chauhan (Faculty, Prestige Institute of Management Dewas), Surbhi Dubey (Assistant Professor, Govt. S.K.P. P.G. College Dewas M.P.),Palak Agarawal, Harsha Karlekar, Saloni Jain (Students, MBA Program, Prestige Institute of Management Dewas), during the Tenth National Case Writing Workshop at Prestige Institute of Management Dewas on November 25-26, 2016.

and accessories manufacturing unit at Baddi in Himachal Pradesh and Samba in Jammu & Kashmir.

Product Segments & Markets Served

J&C's key offerings are spread across three key brands. Samson is its flagship brand offering glazed wall and floor tiles, sanitaryware, bath products, kitchens, laminates, engineered wooden floorings and engineered marble & quartz. Company's Carbonite brand offers a complete range of vitrified tiles. It is a brand that has managed to earn itself a reputation that is distinct and independent of company's flagship. The third brand offered by company is Tandura. It is the only specialized brand in India offering outdoor and industrial tiles. **The offerings include unique solutions for high traffic areas, industrial premises, swimming pools, malls and discotheques to name a few.**

The Competitive Edge

Ever since its inception J&C advocates on offering best quality products to challenge its market rivals. The company has a strong & dedicated R&D team to observe the discrepancies pertaining the market size, customer expectations, product designs & specifications, after sales service & so on. Moreover J&C is a socially responsible company and has introduced a number of measures to reduce energy consumption with the aim to preserve natural resource. Its manufacturing operations are increasingly using greenery fuels like biomass and wind energy. These & a lot of such activities provide J&C with a competitive edge over its market rival.

J&C's Shifting Focus

J&C has consistently pioneered new innovations to keep its stronghold on the market for over 50 years. With changing market scenario the company is eying to scale-up its bath-fittings & sanitaryware business and rebranded it as Samson Bathrooms. This strategic initiative clearly reflects **a definitive shift of J&C from product marketing to solutions marketing** with emphasis on product innovation & after-sales service, a key deliverable towards achieving customer delight. J&C is doing it all via making investments in capacity building, enhancing market reach, designing & introducing new innovative products & so on. As part of this process, it has set-up a pan-India solutions marketing service team.

THE ROAD AHEAD:

Booming real estate sector along with availability of housing loans on low interest rates has provided the much awaited thrust to Indian tiles market. The industry has a positive outlook on the sidelines of governmental reforms in order to attract more foreign investment in real estate and retail section.

Today J&C enjoys the reputation of being the only company in India to offer end-to-end home lifestyle solutions. It took years of sincere, concerted & proactive efforts by the company to earn this reputation. J&C has been offering specialized application-based tiling solutions. Along the way, it has been busy creating a niche for ourselves in other allied categories including wooden laminates flooring, engineered wooden flooring, sanitary ware, bathroom fittings, modular kitchens as well as tile adhesives & grouts business. Their brand is the popular most brands and is trusted as the best in industry. However J&C's Management firmly believes that ***"Milestones achieved, are not the end but a new beginning to the next Journey"***

QUESTIONS

Q.1. Perform SWOT Analysis of J&C India Ltd.

Q.2. Suggest strategies for J&C India to maintain its market leadership.

TEACHING NOTE

This case is developed for management students & deals with strategic decision making, business policies & practices and their impact on the efficiency & effectiveness of organization.

BROAD GUIDELINES

The case to be read by individual first, time taken may be around 15-20 min.

This case should be discussed among a group of four members. The total time required to analyze the case will be around 30 Mins-1 Hr.

LEAST DEVIATING BUDGET: A SUCCESSFUL STORY

INTRODUCTION

H & R Johnson is established in 1958, a division of prism and cement Ltd. Is the pioneer of ceramic tiles in India. Over the past five decades, it has added various product categories to offer complete solutions to its customers. Today H & R Johnson enjoys the reputation to being the only entity in India to offer end-to-end life style solutions covering Tiles.

For tiles Johnson has four sub-brands i.e. Johnson Tiles, Johnson Porselano, Johnson Marbonite and Johnson Endura that offers end to end tiling solutions for every space and applications.

During the fiscal year ended 31st March 2015, H& R Johnson net revenues were Rs.2210 crores. In ceramic/vetrified tiles, H & R Johnson along with its Joint Ventures and Subsidiaries has a capacity of over 58 million mtrs per annum spread across 10 manufacturing plants across the country. H & R Johnson also has its own plants for bathroom CP fitting products at Himachal Pradesh and J&k. It has the largest pan-India distribution network of 1000 dealers, 10000 sub-dealers, 49 branches and depot network as well as a country wide chain of 28 'House of Johnson' showrooms. The Johnson brand name is globally associated with high quality design-led products. Industrial Products & Natural Resources division of H & R Johnson has scientists & researchers working continuously to develop technologically advanced innovative products that help us maintain our technological edge.

BUDGETING

H & R Johnson strictly follows laws and rules mentioned in their provisions. In their budget they include both fixed and variable cost. In fixed cost they include all the assets including the wear & tear, lease rents, Interests, and variable cost includes labour, bonuses to labour, increments, PF, Insurance, mediclaim (as per the Grades), stock, power machine fuel etc. They have a look over all 24 departments for analyzing and preparing the budget. They also maintain provisions in case if any accident occurs in the factory. They also have to consider the cost of license as the company needs to par heavy cost in renewing the license.

The company also lessen the transportation cost by buying the raw materials from the local areas and not from their sister concern as they locate far away. They also have a production budget prepared daily so that they do not have to bear extra cost on maintenance of the finished goods. The budget also includes the provision on taxes, excise duty etc. the capital requirement is also assessed every year by all departments is been processed centrally.

DEVIATIONS & CORRECTIONS

The company has record of least deviating budget from last 20 years. The budget of the company only deviates to 2%. No budget is ideal. H & R Johnson follow the below mentioned ways to correct the deviations:

- Reducing manpower
- Control on use of raw materials
- Rebudgeting through reducing transportation cost
- Control on use of Energy, Fuel & Power.

The rebudgeting is done to control the cost in order to maximize profits. Cost cutting is also done in between the year as to maintain the budget to optimum level.

This case was developed by Silky Janglani (Assistant Professor, Prestige Institute of Management Dewas, Ujjwala Babar (Assistant Professor, Girls Degree College, Dewas (M.P.) Vidhya Maheshvari (Assistant Professor, Govt. S.K.P. P.G. College Dewas(M.P.), Jagrati Mankar ,Sana Gori (Students, MBA Program, Prestige Institute of Management Dewas), during the Tenth National Case Writing Workshop at Prestige Institute of Management Dewas on November 25-26, 2016.

CONCLUSION

H & R Johnson is the market leader with the best quality product. With the financial view it also shows the least deviating budget. They are all prepared with the provisions in the budget even if the rebudgeting is done or deviations occur.

QUESTIONS

Is cost cutting the best solution for rebudgeting?

RIGHT TALENT IN RIGHT ENVIRONMENT: STRATEGIES AHEAD...

ONE CAN achieve everything he/she wants to in this life-time. But one MUST decide to BELIEVE in oneself first!

AARTEK Software Solutions is a leading information technology consulting and services provider, providing end-to-end solutions for diversified clients from varied industry. The company which is a member of NASSCOM, having aim to provide cost effective web based back office solutions to various industries. Company's solutions are reckoned the best in understanding the customer requirement. Company always take Software projects as the challenge and opportunity to prove its calibre in streamlined and optimized process flow. Company not only delivers excellent, creative and innovative services but company is passionate about it. Company started its operations in the year 2013 and after that they are moving in a positive direction by fighting with all the odds. Company is working under guidance of two leaders Mr. Neeraj Paliwal and Ms. Babli Rathor. Company size is about 50 and all the members are well qualified and trained in their area of functioning.

The expertise of design team and the span of technical resources, places AARTEK at the cutting edge of new avenues. Company is providing services in the areas of Digital-Marketing, Web Designing and Development, Android/ iOS Development, E-Commerce Solutions and Java Application,

Company believes in the simple principles of customer satisfaction first. The core values have helped them to continuously remain preferred partners to large organizations and some fortune 500 companies for years together. By Putting Passion and Commitment to Work Aartek is now going beyond the expectations of the competitors. Just as an organization requires the right talent to drive its business objectives, people require the right environment to accomplish their career goals. At AARTEK, one would be welcomed with a feeling of being at the right place.

As an organisation working in competitive environment there are many problems one has to face. When AARTEK started the operations in year 2013 it was difficult to pretend the upcoming hurdles. AARTEK also faced the problems like employee absenteeism, employee retention, and Competitors negative publicity, legal and social issues. Every time leaders discussed the matter and come with positive move by overcoming the problems. Five day week working, good salaries, positive approach towards competitors market, by understanding & accessing the legal framework of the market and motivating employee by providing psychological support made AARTEK as a strong organisation. Issues related to customer dissatisfaction at some of the time also disturbed them but talents believe in solutions to the problem and leaders of AARTEK did it.

AARTEK Software Solution has designed the strategies to be a leader in providing software solutions to its customers. AARTEK's strategy is to make Customer delight and employee satisfied will help them to move ahead. Learning while earning is the reverse method they are adopting for updating domain knowledge of the employee. To capture the international market for their products is another benchmark for them.

This case was developed by Sanjay Dubey(Assistant Professor, Prestige Institute of Management Dewas), Charusheela Bhosle, (Professor, Govt. Girls College Dewas(M.P.)Honey Mehta, Aniruddha Sharma, Virendra Songara, Nidhi Gupta and Nitin Vyas(Students,Prestige Institute of Management Dewas),during Tenth National Case Writing Workshop organized by Prestige Institute of Management Dewas on 25-26 November 2016.

Questions

Q.1 Critically analyse the case?

Q,2 How the work culture of AARTEK will help them to achieve their goals?

Q.3 Suggest some strategic moves to leaders for obtaining their goals?

OPPO SUCCESS STORY: INNOVATION WITH TECHNOLOGY

INTRODUCTION

The cell phone industry is highly strong. The competitive background has changed significantly during the last five years. Every Year new companies have emerged as top players. The cell phone industry is one of the fastest-moving industries in the world. The market is growing rapidly with ever-emerging technologies and innovation. Developing Countries like India register a significant growth in mobile industry. As Increase in population and raizing urbanization in developing regions are keys for mobile industry development.

THE BACKGROUND

Founded in 2004 and based in Guangdong (China) OPPO is an electronics manufacturer that delivers mobile devices in more than 20 countries. Its major product lines include portable media players, LCD TVs, DVD/ Blu-ray disc players, feature phones and, most recently, smart phones and tablets. Having successfully entered China's mobile phone market in 2008, OPPO began exploring international expansion in 2010.By mid-2014, OPPO had established a presence in the India, US, China, Australia and other countries in Europe, Asia, the Middle East and Africa.

Now the concrete and creative qualities of OPPO's design make it robust smart phone which is developed by customer's requirement.

User experience and feedback make it largest selling phone worldwide GFK ranked 4 in sales volume in Aug 2016 in India.

PRODUCTS

OPPO entered the mobile phone market in 2008. The OPPO Find 7 is a phablet with a total of 3GB of RAM and a 2.5 GHz Quad-Core Processor. In 2013, OPPO announced the N1. A successor, the OPPO N3, is priced at $449 as of early 2016. The OPPO R5, which was launched in 2014, was at the time the world's thinnest Smartphone. It is 4.85mm in thickness except for a Slight bulge where the camera lens is located. The R5 has a 2,000 mAh battery which can be charged up to 75% in 30 minutes using OPPO's own VOOC Flash Charging technology. The R5 uses a Snapdragon 615 octa-core processor, running at 2.1 GHz.One of OPPO's older phones, the Finder, previously held the record for the world's thinnest Smartphone. In the month of June 2016, OPPO became No.1 Smartphone maker in China. Other smartphones OPPO produced are the U705T Ulike 2, U701 Ulike, R610, R811 Real, R817 Real, R819 R819T and the T29.

CONTEXT /CHALLENGES

The rise of smart phones has been fast, with technological innovation creating an incredibly sophisticated mobile ecosystem. It means to survive in telecom Industry need to involve in technology changes.

- Driving preference by communicating the uniqueness of the new smart phones.
- Encouraging product trials at the newly opened OPPO Concept Store at City Mall.

SOLUTION

- Increased brand awareness.
- Association with the most watched Play league.
- Brand integration within top-rating show on TV hosted by celebrities.

This case was developed Vikas Sharma (Assistant Professor, Prestige Institute of Management Dewas), Sameera Nayeem (Professor,G.D.C Dewas), Ashish Yadav (TPO, Prestige Institute of Management Dewas), Aksnksha Bhadoriya, Mukta Sharma, Rajeshvari Parihar, Sushmita Singh (Students, Prestige Institute of Management Dewas)during tenth National case writing workshop organised by Prestige Institute of Management Dewas on 25-26 November 2016 Increasing brand awareness among consumers mostly likely to purchase smart phones.

- Content marketing and online re-targeting to highlight product features, driving preference across online and mobile platforms.
- “Live” social media coverage and a video of the OPPO launch event on Facebook and YouTube.

USP (UNIQUE SELLING PROPOSITION) OF OPPO

- They believe in uniqueness.
- Selfie cameras are with higher megapixel
- VOOC worlds faster charging technology
- 5 finger application sensor
- Make in India
- Available offline so better after sales service
- More Human resources employed by organization

FUTURE PLANS

- Better Product Quality
- More Research and Development
- Better After Sales Services
- One point Sale and Repair
- Best Camera Quality

TEACHING NOTES

- This case was developed by a team of faculty members & Students of management who visited OPPO Electronics.
- The issues involved in the case are dynamics of business environment arising due to high growth and competitive industry.
- With the help of this case student will be able to analyze the situation and their views with respect to growth of the company can be observed.

QUESTIONS

- Perform SWOT Analysis of case?
- Explain how to manage product quality.
- How make better customer feedback system.

THE REAL SUCCESS MANTRA: A CASE STUDY OF ROSE ELECTRONICS

ROSE - IN FULL BLOSSOM

With its humble beginning on 5th April, 2000, ROSE started its first Showroom at Sneh Nagar Main Road, Indore followed by inauguration of another branch at Old Palasia, in the same year. The third showroom was added to the chain in 2005 at A B Road. The year 2009 saw ROSE blooming in the cities of Bhopal, Ujjain and Raipur with ultra-modern showrooms. Then they entered Bilaspur in March 2015. ROSE, after holding a remarkable place in Madhya Pradesh & Chhattisgarh, established its first showroom in Nagpur, Maharashtra in September 2015 and within a year in August 2016 opened its 2nd Mega Showroom in Nagpur again.

Today, ROSE operates out of 12 ultra-modern showrooms – 4 in Indore, 3 in Bhopal, 1 in Raipur, 1 in Ujjain, 1 in Bilaspur & 2 in Nagpur with many more to come in the near future. 1 Mother Warehouses, 4-SisterWarehouses, 11 ITC Sales Collaborations.

ROSE, holds the USP of being the one-stop-destination for quality electronic products in Central India. It offers a wide range of Home Entertainment products, Phones, Cameras, Computers, Home Appliances, Kitchen Appliances, Personal Care and Gaming Solutions with an array of world-renowned brands like Apple, Sony, Samsung, LG, Philips, Videocon , Dell, Lenovo, Panasonic, HP, Nikon, Canon, Whirlpool, Hitachi etc. all under one roof.

Adding a Feather to the Cap (Online shopping - Great Brands, Great Value)

Apart from 12 mega showrooms in MP, CG & MH, ROSE now boasts of a strong presence in the virtual world too. Its website **www.roseelectronics.com** and mobile application available on Google Play Store (https://goo.gl/kkxrxb) facilitates safe & convenient online shopping for the customers.

There are many wonderful things that customers can do on this website:

Get acquainted with the vast number of brands available for each product.

Get in-depth information about products & select the product of choice.

Information about special customer schemes and offers.

The buying process- in very easy & convenient steps.

Every online purchase also comes with an assurance of timely delivery, anywhere in India. The happiness does not fade away even after the purchase. The prompt after-sales service keeps the product and customers smile intact - year after year.

Rishta Behtar Zindagi Se: A way of life

A bond with a better life, this is the philosophy that ROSE live by and it is reflected in each and every endeavour of the company.

The real success mantra behind success of ROSE is Sound Customer Centric Approach, Supply Chain Management, and Automation.

Customer Centric Approach:

ROSE works on three types of services –

Pre Sales Services: ROSE offers wide range of services like telephonic enquiries by the customer before store visit, the parking facility etc.

During the Sales Services: Facilities like counsellors over the counters to meet out the

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This case was developed by Devendra Pawar, Khyati Bane (Assistant Professor, Prestige Institute of Management Dewas), Akanksha Bhatnagar, Asha Manral, Baby Jhanjhar Chouhan (Students, Prestige Institute of Management Dewas) during the Tenth National Case Writing Workshop organised by Prestige Institute of Management Dewas on 25-26 November 2016.

customer requirements; the availability of on spot comparison of various products/brands is the major attraction, product demonstrations, finance services (more than 4 renowned companies), drinking water facility, washrooms etc.

Post Sales Services: Instant Billing- As soon as the call is closed it is ensured that customers' ticket is processed with minimum time so that the customer don't have to wait. If the purchaser has previously purchased any product from ROSE he/she has to provide only the mobile number from bill processing In-bound call centre is also working from morning 09:00 am to evening 07:00 pm to address any sort of query or complaint by the customer. Happy Call is being made to enquire the delight of customer after purchase of any product from the showroom.

Two Categories of Products:

First category is of the products that can be delivered instantly as these are handy and can be carried by the customers. The second category is of the product like refrigerator, Television, washing machine etc. That has to be delivered by ROSE. For second category of products ROSE has developed automated logistics management system. A special instant message for each and every logistic activity is being sent to the customer so as to make them aware of delivery schedule, installation and demonstration.

The Complaint are addressed via two modes and therefore customer care numbers of ROSE and the concern company of the product purchased is printed on the bill so as to facilitate the customers.

In-Store Management

Proper arrangements of products according to their categories, so that customer can have a proper comparison of quality, colours, features and prices etc. between the same categories of products of different brands according their requirements. Also unnecessary movements have been avoided to save time and energy of both the customers and the employees.

Providing Quality Services is the Name of the Game:

Tangibles- Appearance of physical facilities, equipment, personnel, and communication materials.

Reliability- Ability to perform the promised service dependably and accurately.

Responsiveness- Willingness to help customers and provide prompt service.

Assurance- The Knowledge and courtesy of employees towards the customers and their ability to convey trust and confidence in them.

Empathy- Caring, individualized attention the firm provides to its customers.

Maintaining the quality standards is the first and the last thing ROSE Management is focusing on. They are striving hard to achieve excellence in customer services that is making them survive and flourish in this competitive market scenario.

"Quality in a service or product is not what you put into it. It is what the client or customer gets out of it." ~Peter Drucker

QUESTIONS

1. Critically analyse the case with reference to customer centric approach of ROSE Electronics.

2. In the era of fierce competition what has made ROSE successful in multi brand electronic retailing.

3. Describe the real success mantra of ROSE. Critically evaluate the case and discuss the importance of Customer Services in relation to the present market conditions.

Teaching Notes: After discussing the case, management students will be able to understand and explain the concepts of service quality, customer services and their importance in the present market scenario.

VIVO SMART PHONES:
"JOURNEY TOWARDS EXCELLENCE"

INTRODUCTION

In this 21ST century smart phone became a very essential part of human life. All the age group and different sex uses smart phones in their daily life, 'Mobile phones became' an important part of human life. Now days we can see a drastic change in mobile industry. Mobile phones started with many new features, and now it reaches the era of Smartphone's. Smartphone's bring a new revolution in human life which makes life more efficient and effective. Therefore now a day the Smartphone market is booming. There are many mobile Phone companies establishing themselves globally as a result competition is more in market. Companies give more emphasis on High quality and technology with affordable price. A new company which enters into the market and grab the attention quickly through its unique feature and new technology. The company is vivo smart phone.

HISTORY

Vivo smart phone company is started by BBK which is a Music Phone company. Vivo is a China based smart phone company which founded in 2009 by Shen wei. The headquarter is Situated at Dongguan, Guangdong, China. The parent company of vivo is BBK electronics. It is a 50-50 joint venture between Petugal telecom and Telephonica Mobiles. It is a premium brand in China. It has 40% of market share in china. Indian history of vivo it enters into India in 2014 December with the name of world slimmest phone X5 MAX. Its head office is in Delhi. Vivo launch its product in Indore in 12th of March 2015.With in three months it achieve 21% of the market share in Bhubaneswar and it is targeting acquire 6 to 7 % of Indian market with in the year of 2017 .

PRODUCTS

vivo have eight products Among them four are' Y' series and four are 'X' series .The products are Y11, Y15, Y22, Y28, X3S,X shot,X5max,x5max pro .Now vivo introduce its new phone V1 and V5 under V series.

FEATURES OF THE PRODUCT:-

- Slim Body
- Hi-Fi Player
- Smart Wake
- Super Screen Shot
- Beautiful Sounds in Hi-Fi 2.0
- Professional camera

PRICE

Vivo offer its product under different price range. As it's a premium brand in china so it gives its Product in premium rate as well as offer premium quality. So vivo product range starts from Rs.7990 and end with Rs.30990.

PROMOTION

Vivo has uses various promotional assets to promote their product in a smart and, innovative way. These promotional assets like ARC gate ,movable mascot, fixed mascot ,canopy, standee, dummy phones, posters, Danglers, GSBs (Glow Sign Board), Tents, umbrella, Leaflets in shop and out shop branding .

KEY CHALLANGES

- Generating leads for the sales force or retail network.

This case was developed by Yogendra Singh Rajavat (Assistant Professor, Prestige Institute of Management Dewas), Dr. G.D. Soni(Professor G.D.C Dewas), Rubina Pathan (Assistant Professor Prestige Institute of Management Dewas), Pallavi Pandya, Insha Shaikh, Smita Thakur, Paridhi Gupta, Shivani Dubey, Narendra Mandloi, (Students Prestige Institute of Management Dewas) during tenth National case writing workshop organised by Prestige Institute of Management Dewas on 25-26 November 2016 .

- Improving the effectiveness of other forms of customer communication.
- Raising awareness of a company, product, or service among clearly identified customers and prospects.
- Maintaining effective contact and building relationships with customers and prospects

QUESTIONS

- Do the SWOT Analysis?
- Being Manager Design new promotion policies for VIVO Mobile.
- Give some suggestion for increasing sales?

TEACHING NOTE

This case study is developed to make the students conversant with the concept of Promotional strategies adopted by VIVO Smart Phones.

WHEN THE “WHY IS CLEAR...
...THE HOW IS EASY!!

“Caparo is more than a successful business enterprise - it is a story of people, of values and of human effort. Above all it is a story of faith and family”

ABC AT A GLANCE

ABC Group is a British company involved mainly in the steel industry, primarily in the design, manufacturing and marketing of steel and niche engineering products. The company makes such products as structural steel, steel Engineering, electrical conduit, and industrial wire. The company was founded by Indian immigrant Mr. Lord who wae the first person to start business in UK.

ABC Engineering India manufactures and sells high precision electric resistance welded and cold drawn welded Engineering in India. The company also provides structural hollow

This case was developed by Ashima Joshi,(Assistant Professor,Prestige Institute of Management Dewas),Parul Dubey, Shubham Mishra and Mohammad Alish Siddiqui (Students, Prestige Institute of Management Dewas) during Tenth National Case Writing Workshop organised at Prestige Institute of Management Dewas, on 25-26 November, 2016.

sections and conduit tubing. It serves customers in the automotive, general engineering, and power generation industries. After acquiring STI its name was changed to ABC Engineering India Dewas in 2006.

CASE STUDY SYNOPSIS

ABC Engineering India has acquired the Steel Tube of India (STI) in the leadership of Lt. Angad Paul who was the chief executive of ABC group. Among the 22 plants in India, ABC Engineering India is the plant which is used for the making of precision Engineering through steel. Here in the case study we are going to discuss about the ways, how the human resource was handled by the leaders of ABC group after the acquisition of STI by the group.

ABC Engineering Dewas takes pride not only in bringing world-class technology to its customers; but also in discharging its responsibility of creating an environment of inclusive growth in the country by keeping their employees first Says Mr. S. Vishwanathan , Business Head. At ABC Group, Corporate Social Responsibility and concern for their employees , environment, health and safety are the intrinsic elements of the company's long term strategy. commitment is a manifestation of its determination to improve the quality of life of not only its employees, but the society at large

PRIMARY OBJECTIVES

After the acquisition the primary objective for ABC Engineering Dewas was to understand how to handle the employees and above all their stress .

Challenges

Acquisition have become common in recent times. This effect significantly, if the reorganised business is not handled correctly. It may be difficult for the employees to accept the new working culture, new style of working, new policies and new people. The change in the organization may lead into stress and fear in the employees. Mergers are at present the most common way for a corporation to achieve growth. However at best, only half of all mergers and acquisitions meet the initial strategic and financial expectations. Employees are the biggest asset for every organisation. Their performance and attitude can result in the success or failure of your business. The most difficult part of any manager's job is people management.

Common phenomena on an individual level that follows after an announcement of a M&A, is shock, disbelief, grief and a high degree of uncertainty. As employees have no control over the situation and expect upcoming changes within its organization, they often feel anxious and stressed about the future. This stress factor is further often augmented by time constraints, as it usually is a propensity to require a high degree of speed in acquisitions. If an acquirer has a desire to complete the acquisition process quickly, this will subsequently not only affect employees but also lower the chances for a successful outcome as integration issues will be disregarded or managed with hasty solutions. Another common phenomenon on an individual level is the loss of identity. The identity refers to the cognitive and affective bond an individual has to its organization. Employees thus run the risk of losing their identity if they no longer can relate to their corporation after an acquisition .

Coping the Challenges

ABC believes in moving ethically so they can lead, motivate, , train, propel, inspire and encourage people through peoples management says Mr. Vishwanathan

The main focus of the HR department of ABC was to help the employees overcome the stress and fear which was roused out because of the takeover.

- The transparency – The people of the company have been communicated by the department about the policies as well as the procedures which helped them to work smoothly.
- This helped in maintaining the trustworthiness of employees for the company

- 6 sigma training was provided to employees.
- They motivated their employees to have positive attitude towards the work.
- To retain the employees , good salary packages were given to them (A wage agreement is signed in which workers have benefit of Rs 9600 given)
- KRA technique is used which is filled by the workers through which they can understand where they are lacking and what are their strengths.
- Regular Health checkups camps are been organised which was a lead towards improving the working conditions and towards health and hygiene.
- Focus on concrete operational results.
- The policies of the company are based on the legal framework provided by the government of India which helped company to reduced down the Industrial disputes (there were no industrial dispute taken place after the year 2012).

CONCLUSION

This case shows that internal challenges a ABC might encounterd after an acquisition primarily was related to the management of people. These challenges are relevant Furthermore, knowing how to manage People. This real case supports reasoning about a potential need of an added phase to the acquisition process and suggests extending the process and further adding that a new dimension of peoples management might consequently lower the number of failed acquisitions .

QUESTIONS

Q.1 How the HR department of the company handled the Employees at the time of acquisition?

Q.2 What internal challenges a corporation might face after an acquisition has been completed?

TEACHING NOTES

This case identifies all those internal challenges which ABC faced after acquiring STI .Through this case study we can conclude that the employee Satisfaction is very important for the smooth working in the company. ABC Engineering used many tools to satisfy their employees which helped them to grab an upper position in the industry of steel Engineering. This is a case of Peoples Management.

XYZ ENGINEERING (I) Ltd: REJUVENATING THE ORGANIZATION

Tubes of India is an engineering firm, manufacturing high quality precision tubes and other steel tubes for furniture and other allied products in India. It was started in the year 1976 at an industrial town in central India. However it started deteriorating largely due to increased competition from the local players, who started growing due to increased demand in non-quality-conscious areas. The production started to decrease drastically until the year 2005 where the production was reduced to merely job-work for other big players of industry. Gradually the job work also got discontinued. Since the Unit was not performing well so it was declared a sick unit in 2006.

A U.K. based Magnet group with its global presence in more than 20 countries, 126 plants across the globe, out of which 22 are in India, took-over Tubes of India in 2006 by the name of XYZ Engineering (I) Ltd. After the take-over the with the name of XYZ Engineering (I) Ltd now had 26 units in India, in Haryana, U.P, Uttarakhand, Chennai, Gujrat, and Pune. It also had many Joint ventures with the Indian and multinational firms. Along with manufacturing for other customers it started doing specialized exclusive manufacturing, for those firms who were operating on Just-in-time (JIT) approach.

But the competition was increasing in the country in precision tubes category. Every small city was having at least one or two units of precession tubes which were also increasing the capacity but there were no significant increase in customers. In this situation Magnet Engineering India ltd started to make heavy losses. A continuous capital infusion was needed from the management to run the unit.

To overcome the situation there were several measures taken by the management. They specifically worked on themes related to People management where cultural transformation and positive attitude was developed among the employees. They also made them realize about the need for survival. The production Process was modified and focused on products that needed more value-addition products. For better Manpower rationalization, to reduce the employees they offered voluntary retirement with amicable settlements.

Management focused on Strong and better rate negotiations with Vendors of - Raw materials, consumables and Transporters to make it a Win -Win Situation for both the parties. Planning activity was given top preference and strong HR governance was highlighted from steps like Quality Manpower hiring to developing Key Result Areas (KRA). Performance Appraisals and actions including Reward system were included.

Externally as far as market is concern Customers were bucketed into 3-4 segments like

a. Large Big Customers –

b. Customers making Prompt and timely payments

c. Specific customers taking finished goods with high Margin for company were developed thereby reducing Inventory carrying cost

   This led to a better working capital cycle as now the raw material was bought on credit and the finished goods were sold on cash.

This case was developed by Abhishek Tripathi (Assistant Professor, Prestige Institute of Management Dewas, Ambika Rathi(Associate Professor, New Delhi Institute of Management New Delhi) , Anshu Singh(Assistant Professor,ABES Engineering College Gaziabad),Rajnish Jha & Sunita Amliyar(Students Prestige Institute of Management Dewas) during Tenth National case writing workshop organized by Prestige Institute of Management Dewas on 25-26 November 2016.

Management worked on proper Product-mix that is offered changes in kinds / number of products produced with more focus on Value-added-products. Marketing team was targeting right customers who intended and cared for qualitative products. The bankers & transporters were taken in confidence and bargained heavily on terms-of-payments. Diversification was also worked upon. New market areas were identified like trying to target OEMs like Indian Railways for their Bio Toilets project in form of diversification for Company. The characteristics like Honesty, dedication, Intelligence and sincerity was adopted as the Management Mantra.

QUESTIONS

1. Analyze the case using SWOT Analysis.
2. Do you agree with the steps taken by XYZ Engineering (I) Ltd's Management to overcome the issues? Justify your answers.
3. If you were in position of company's management, what steps you would have taken to rejuvenate the organization.

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