

IITM Journal of Business Studies (JBS)

Annual Journal of Institute of Innovation in Technology & Management

Volume 3

Issue 1

January-December, 2016

CONTENTS

Research Papers & Articles

	Page No.
● Competency Based Management in an Organization: The Drive towards Success <i>- Anjana Singh, Dr. V. Pathak</i>	3-8
● Green Practices in Indian Healthcare Sector <i>- Namrata Jolly, Rhythm Gupta</i>	9-18
● The Role of Knowledge Management in Organizational Success: An Overview <i>- Neeti Chopra, Dr. V. Pathak</i>	19-22
● Analysis of Work Stress among Faculties and Coping Strategies at Private Institutions in Mathura District <i>- Parul Garg, Ankit Goel</i>	23-29
● Impact of Green Marketing on Consumers Buying Decision <i>- Hridhya. PK, Padma. R, Pawan Sharma</i>	30-38
● Mutual Funds Investors Behaviour in Delhi <i>- Dr. Preety Wadhwa, Sourabh Bansal, Ankit Gupta</i>	39-51
● A Case Analysis of Financial Performance of AOS System with the Help of Ratio Analysis <i>- Shrishti Verma</i>	52-59
● Passion in Perplexion <i>- Puja Jain</i>	60-70
● India's Population: Opportunities and Looming Threats <i>- Ramaa Arun Kumar</i>	71-78
● Book Review: Business Process Management 1: Introduction, Methods, and Information Systems (Second Edition) <i>- Dr. Archana Krishnan</i>	79-80

Competency Based Management in an Organization: The Drive towards Success

Anjana Singh*
Dr. V. Pathak**

Abstract

'Human Resource' is one of the very important assets for any organization and in this competitive and global environment it has actually become imperative for any organization to retain competent employee for survival of the business. Organization success depends not only on how it makes the most of human competences, but also how it stimulates commitment to an organization. Competency based management approach concentrates on increasing the potential of employee and to have the competitive edge over other organizations in today's time. Employee's commitment, in concert with a competent workforce is significant for the organization to be able to compete in quality and to go along with global changes. The framework is now being applied in the different practices of human resource management i.e. recruitment and selection, training and development, career development, compensation and benefits etc. Various Researchers and scholars have reported that competency based management has a positive outcome on the performance of organization as well as of the employees. The concept is now being used as a tool for the success of the organization. This paper is an attempt to through light on the concept as well as it reviews the available literature of competency based management and its importance from the perspective of the organization as well as of the employees.

Key Words: competency based management, organizational performance, Employee Performance

Introduction

Competency has its origins in the Latin word 'competentia' which means "is authorized to judge" as well as "has the right to speak" (Caupin et al., 2006). The competency based management is not a novel concept in human resource practices. The early Romans practiced a form of competency profiling in attempts to detail the attributes of a "good Roman

Anjana Singh*

Assistant Professor
Institute of Innovation in Technology and Management
(Guru Gobind Singh Indraprastha University)
D-27, 28, Janak Puri, New Delhi-110058

Dr. V. Pathak**

Associate Professor
L.N. Mishra College of Business Management
(Babasaheb Bhimrao Ambedkar Bihar University)
Muzaffarpur

soldier" (Draganidis and Mentzas, 2006). McClelland (1976) described "competency" as the characteristics underlying superior performance. The credit of introducing the idea of "competency" into the human resource literature goes to him; in his efforts to assist the United States Information Agency improve its selection. The framework of KSA is very popular in defining the concept of competency. A competency is defines as a set of skills, related knowledge and attributes that allow an individual to successfully perform a task or an activity within a specific function or job. (UNIDO, 2002)

Types of Competency

Managerial Competency (Soft Competency) - The competency relates to the ability to manage job and develop the interaction with other persons. For example: problem solving, communication, leadership, etc.

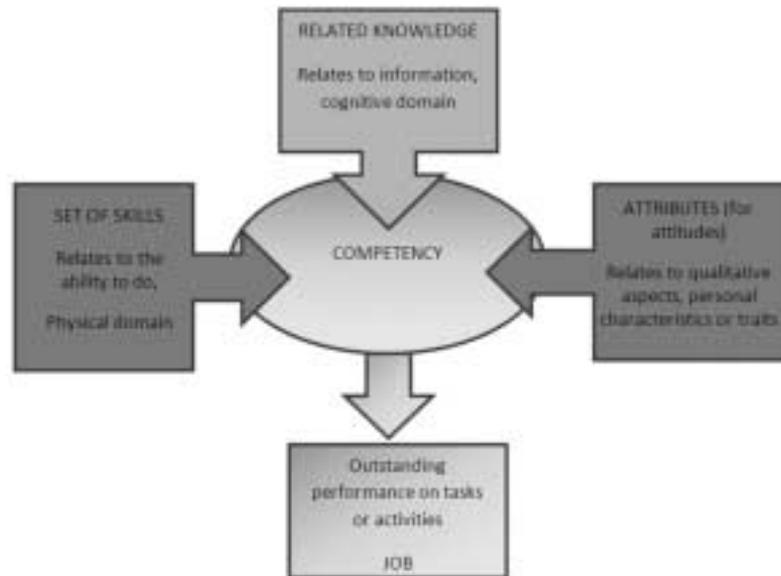


Fig. 1: Showing the concept of KSA framework of competency

Functional Competency (Hard Competency) - this type of capacity relates to the functional capacity of the work. It primarily deals with the technical aspect of the job. For example: market research, financial analysis, etc.

Core Competencies – it include the key competencies that all the employees in the organization must possess to accomplish its vision. These competencies are generally being described in terms of behaviour which is desirable by an individual.

Career Stream Competencies – the behavioural competencies that are common to all the jobs, and combined are with the organization wide (core) competencies, make up the suite of behavioural competencies necessary for the success.

Technical / Professional Competencies – the competencies which are specific to occupational areas, roles and / or jobs within the Career Stream, and include the specific skills and knowledge (know-how) to perform effectively within the jobs of the Stream (e.g. ability to use particular software; knowledge in particular professional areas such as finance, biochemistry; etc.). These competencies could be generic to the Career Stream as whole, or be specific to roles, levels or jobs within the group. The

combination of these three types of competencies will make up the competency model for each of the Career Streams.

Competency Based Management

The *Competency-Based Approach* is a research-supported approach based on the primary goal of defining the critical *behaviours* needed for effective performance of individuals as well as of the organization. It is an approach that recognizes the way of working in the industry. It aims at attaining an optimal performance in the long term with the help of developing the skills and competencies of the employees on a continuous basis. To some extent, if employers treat or consider their employees as valued contributors, they tend to remain in the organization. To this end, organizations train, offer competitive compensation plans and increase benefits to secure their employee loyalty. CBM supports the integration of human resource planning with business planning by allowing organizations to measure the current human resource capacity based on their competencies against the capacity needed to achieve the vision, mission and business objectives of the organization. Targeted human resource strategies, plans and programs to address gaps (e.g., hiring and staffing;



learning; career planning & development; succession management; etc.) are then designed, developed and implemented to close the gaps. Other practices which are crucial for competency based management system are defined as follow (Draganidis and Mentzas, 2006):

- **Competency identification.** The process of determining what competencies are necessary for effective and efficient performance.
- **Competency model.** A narrative description of the competencies for a targeted job category, occupational group, division, department or other unit of analysis.
- **Competency assessment.** The process of comparing an individual's competencies with competency model.
- **Competency-based management.** Application of a set of competencies for managing human resources so that performance contributes in achieving the organization's objective efficiently and effectively to organizational results.
- **Competency standard.** Identifies the essential skills and knowledge workers must have, and defines the performance levels they must achieve, to demonstrate competency in a specific work function.

- **Competency profile.** The Document that describes the set of competencies specific to a position/ job/ occupational group/functional community.

Advantages of Competency Based Management

Effective competency management requires the participation of employees, operational managers, the executive team and HR, and therefore all parties will get a benefit from utilization of a competency management approach:

For the employees, the importance of using a competency-based approach are that they are provided with:

- A clarity of the competencies they require to succeed in their job;
- A clear view of the gap of what competency and competency gaps they currently have;
- A learning and development plan that takes into account competencies for their role;
- A record of their learning and development achievements;
- Recognition of their competencies and opportunities to utilize them on other assignments.

Tactical Benefits

Through competency-based Talent Management, managers have access to:

- A clear picture of the competency requirements of their direct reports;
- An understanding of the strengths and weaknesses of their direct reports;
- An informed basis for career development planning discussions with their direct reports;
- The ability to develop prescriptive learning and development plans for their direct reports;
- A facility to identify subject matter experts for assignment-based work.

The HR function benefits through:

- Standardized skill-based job profiles;
- Effective staff deployment;
- Succession planning;
- Identification of 'real' learning requirements;
- Effective use of learning and development solutions.

Strategic Benefits

Executives need to know that their organization has the competencies to fulfil business strategy. A well-implemented competency-based Talent Management approach provides:

- A view of the capability of the organization;
- Proof that the organization is meeting regulatory requirements;
- Learning and development plans aligned with business strategy.

Driving Forces for Using Competency Based Management

It has been derived from the various researchers that the most frequently used reason for the introduction of using competencies for the management of human resource are to improve organizational performance, increase the ability to be competitive, support cultural change, enhance training and development effectiveness, improve processes associated with

recruitment and selection, reduce turnover, clarify managerial roles and specialist roles, increase emphasis on business objectives, aid in career and succession planning, analyze skills and able to identify the current and projected deficiencies in skills, improve workforce flexibility, support the integration of overall HR strategies and provide a basis for compensation and reward programs (Pickett,1998). The additional business needs can be addressed through the use of competency models: providing clarification for both job and work expectations, assisting in creating effective hiring practices, enhancing productivity, creating effective processes for 360-degree feedback, providing a tool that can assist in meeting today's needs as well as assist with changing needs, and aligning behaviors with strategies of the organization and its values. The few main reasons why competency-based approach has been undertaken by companies or business organizations: it provides identification of skills, knowledge, behaviors and capabilities needed to meet certain criterions which are aligned with the organizational strategies and priorities and also it focuses in eliminating competency gaps among individuals and groups in a project, job role or enterprise strategy been selected.

Application of Competency in HRM Functions

Competencies can be used in different parts of employee management applications, having an important role in each one of them. Competencies are important and can be applied in the following employee management applications:

Selection- competency based selection was first used by David McClelland for hiring purpose Competencies are used in order to compare the abilities of the candidate with the requirements of the position; once the best candidate is identified, competency gaps form the basis for an initial new-hire learning plan. The purpose/idea is to establish the "behaviours" needed in a particular job and the extent to which these are possessed by different candidates. Matching employee competencies and job requirements is claimed to improve employee and organizational performance, as well as lead to increased satisfaction.

Training and Development- Competency gap analysis can identify the required competencies; these competencies then can be linked with the equivalent learning matters. For example, Ford Financial uses a skill and competency based learning program that affords employee an opportunity to view information such as the skills and competencies needed for positions.

Performance Management – In this competitive environment performance is not only seen as “what” i.e. (objectives) an employee achieves but also viewed as “how” i.e. competencies (demonstrated); the job is carried out. Many organizations use competency-based models as a part of their employee development centers. The objective here is to assess individuals’ strengths and weaknesses so that future development is identified.

Compensation Management- Competency based compensation can help the organizations to determine compensation based on actual performance levels through the process measuring the actual competencies exhibited by the individuals while performing their respective jobs. Competency based management can also help in designing a fair system through an objective evaluation of competencies which contributes in an individual’s performance. American Compensation Association have identified competency based management as the least common application of competency model among all HRM practices (Ozcelik & Ferman, 2006).

Career Planning- the competency approach is an effective tool to be used as a criterion for career development. Competency-based career planning systems link competencies with the development activities, which help employees learn what they need for further development (Ozcelik & Ferman, 2006). They can review the needed competencies of all the positions and through comparison with the competencies they possess and identify potential positions and develop their career plans (Draganidis & Mentzas, 2006)

Competency Based Human Resource Management and its Outcomes

The use of competency based HR management produce significant benefits to organizations and their

employees. Sparrow (1995) has observed that the competency literature includes a huge range of claimed benefits specific to HR processes in organizations. In Brief, these are:

Better recruitment and selection practices through an emphasis on required competencies; improved individual, organizational and career development programs; improved performance management processes due to improved assessment; and finally improved/better communication on strategic and HR issues through a common language. Cooper, Lawrence, Kierstead, Lynch, and Luce (1998) through light on the positive outcomes produced by valid and reliable competency based HR management models. These include linking individual competencies directly to the organization’s strategies and goals; developing profiles for positions or roles and matching individuals to the task sets and responsibilities; affording the opportunity to continuously monitor and refine competency profiles; facilitating the selection and evaluation of employees as well as the training and development; assisting with the hiring of individuals with unique competencies that are costly and not easily developed; assisting organizations in the ranking of competencies for both compensation and performance management. Cook and Bernthal (1998) did a survey in HR Benchmark Group, Development Dimension International and the results suggested that improved organizational performance and improvements to the bottom line can occur when competencies support even a few HR systems.

It has been observed that the Indian companies have realized the importance of human assets and have started using competency approach towards the human resource management to improve the quality human resources, generating trust & learning, result oriented, empowering employees, analysing training & development needs, rating the employees, increased satisfaction, increased productivity and strengthening employee engagements has started among the employees and employers.

Conclusion

It is noticeable from the review of the literature that competency based management is emerging as a new

approach for making employees more capable in their work so that organizations can achieve the edge over their competitors and thrive in this competitive era. Competency based management have become an effective tool for HR to improve the performance of the organization as well of employees. Competency based approach is not something new as it is there in practice from past 30 years for managing the human capital of the organization effectively. However, this concept has not been explored much in the Indian Scenario. As environment of the business is changing frequently because of the various developments in the technical, social and economic

environment the role of organizations using competency framework for human resource management should be taken into consideration for retaining the employees and to increase the commitment of the employee towards the organization as having a competent pool of employees have turned out to be a crucial part of any organizations. Effect of implementing competency based management in the different organizations need to be further explored as it will help in improving and gaining insight of the concept which in turn will help the organization in enhancing their performance as well as that of employee.

References

1. Ashkezari M J D, Aeen M N. *Using Competency Models to Improve HRM*. Ideal Type of Management 2012; 1(1): 59-68
2. Antal, A., Friedman, V. 2008. "Learning to Negotiate Reality: a Strategy for Teaching Intercultural Competencies", *Journal of Management Education*, 32
3. Byham. *Developing Dimension/Competency-Based Human Resource Systems*. A Monograph, 2006.
4. Cook, Kevin, Bernthal, Paul. *Job/Role Competencies Survey report*.HR benchmark Group .Pittsburgh,PA: development Dimensions International 1998;4(1).
5. Gangani McLean, Braden A. *Competency-Based Human Resource Development Strategy*. Performance Improvement Quarterly 2006; 19 (1): 127-140.
6. Kumari A, Sita V. *Role of Human competencies in Human Resource Management: A study in Indian organizations*. OIDA International Journal Of Sustainable Development 2010; 2(3):29-34 Available at SSRN: <http://ssrn.com/abstract=171037>.
7. Ozcelik, Ferman. *Competency Approach to Human Resource Management Outcomes and Contributions in a Turkish Cultural Context*. Human Resource Development Review 2006; 5(1) :72-91
8. United Nations Industrial Development Organization. *UNIDO Competencies*. <http://www.unido.org> 2002.

Green Practices in Indian Healthcare Sector

Namrata Jolly*
Rhythm Gupta**

Abstract

With the emergence of industrial revolution, the concept of green practices has grown to become more than just a philosophy but a vital mission across the world. As the world has started moving towards ginormous environmental awareness, the anti - environmental policies practiced in pre-industrialization period and in the initial stages of Industrial Revolution are no longer a feasible option. It has become essential that environment and industrialization must work together to attain sustainable development. Therefore the companies are adopting policies that not only improve their bottom line but also help protect the environment.

The objective of this paper is to present the importance of green practices in healthcare and propose a model for 'dimensions of green hospitals' as well as highlight the efforts taken by Indian healthcare sector to become green and sustainable.

Key Words: green hospitals, Indian healthcare industry, green practices in hospitals, green purchasing, green building

Introduction

Any enterprise that has least negative impact on the global or local environment, community, society, or economy is a green business or a sustainable business. It is a business that strives to meet the triple bottom line. Green businesses are characterized by progressive environmental and human rights policies. In general, business is described as green if it meets the following four criteria:

1. It incorporates principles of sustainability into each of its business decisions.
2. It supplies environmentally friendly products or services that replace demand for non-green products and/or services.
3. It is greener than traditional competition.
4. It has made an enduring commitment to environmental principles in its business operations.

Namrata Jolly*

BBA 6th Sem

Institute of Information Technology & Management

Rhythm Gupta**

BBA 6th Sem

Institute of Information Technology & Management

A sustainable business is any organization that performs activities that are environment friendly so as to ensure that all its processes, products, and manufacturing activities address the current environmental issues while maintaining sufficient resources for the future use and making profits. In other words, it is a business that meets the needs of the present world without compromising the ability of the future generations to meet their own needs.

Green practices within a business can create value for all its stakeholders and the environment. A sustainable business must meet customer needs without compromising on the needs of the global or local Environment.

A major initiative of green businesses is to eliminate or decrease the harm caused to the environment by the production and consumption of their goods. Businesses take a wide range of green initiatives. One of the most common examples is the act of "going paperless" or sending electronic correspondence instead of paper when possible. On a higher level, examples of sustainable business practices include: *reconditioning used products* (e.g., tuning up lightly used electronics and electrical for resale); *amending production*

processes in order to reduce waste (e.g., minimizing the waiting time and idle time for machines to ensure energy efficiency); and choosing nontoxic raw materials and processes.

The companies have adopted green practices due to considerable pressure being put upon them from consumers, employees, government regulators and other stakeholders. Some businesses have resorted to green washing, i.e. instead of making meaningful changes in their processes or products they merely market their products in ways that suggest green practices.

Green businesses explicitly integrate strategically relevant environmental, social and ethical goals into the overall business practices so as to support environment sustainability.

Theoretical Framework

Green Business: Literature Review

Many researchers have worked to know about Green businesses. SajalKabiraj (2010) has interpreted green business as being a relatively new and not well defined concept, which can be interpreted in different ways by different people and organizations. What is considered as green by people/organization differs to others. Furthermore, the definition of green business is becoming undermined by a proliferation of green labeling and standards. These standards are leading some consumers to consider “green labels” to simplify a marketing tool with little significance behind it. The basic concept of a green business lies in business sustainability. This can be well understood by both consumers and organizations. But, there is a difference in its implementation to what extent it can be applied in practice. In particular, the business decisions should adopt green are based on good business sense.

Green Practices in healthcare: Literature Review

“Green Hospital”, as an approach to address environmental challenges and to meet communities need in health issues, has emerged recently as a try to improve the health, in line with its main mission. In this approach, all the environmental aspects of waste

management are important and to be addressed (Mohammad Azmal). (Janet Richardson) has contributed in the field of waste disposal. The disposal of clinical waste is costly to the National Health Service (NHS), with Hutchins and 33 White [1], finding that in 2005 its disposal cost £73m. Therefore during times of increasingly restricted 34 healthcare budgets, it is of growing concern that much of the clinical waste generated in the NHS is 35 potentially recyclable and could thus contribute to cost savings, but in reality little evidence of 36 effective recycling is found.

Corporate Sustainability Strategies

Corporate sustainability strategies aim to take advantage of sustainable revenue opportunities, while safeguarding the business against increasing energy costs, the costs of meeting regulatory requirements, changes in the way customers perceive brands and products, and the volatile price of resources.

Not all eco-strategies can be incorporated into a company’s policies and practices immediately. The widely practiced strategies include:

- **Innovation & Technology**
This introverted method of sustainable corporate practices focuses on a company’s ability to change its products and services towards less waste production and sustainable best practices.
- **Collaboration**
The formation of networks with similar or partner companies facilitates knowledge sharing and propels innovation.
- **Process Improvement**
Continuous process surveying and improvement is essential to reduction in waste. Employee awareness of company-wide sustainability plan further aids the integration of new and improved processes.
- **Sustainability Reporting**
Periodic reporting of company’s performance in relation to its goals comprises of Sustainability Reporting. These goals are often incorporated in to the corporate mission.

These are some of the strategies which are practiced by companies in order to achieve sustainability.

Benefits of Adopting Green Practices in Healthcare Sector

Several studies have indicated that long-term benefits can be obtained by hospitals by implementing environmental and social initiatives. In addition to cost benefits, there are also other benefits to choosing an environmentally sustainable strategy. These include:

- **Gaining competitive advantage**

Green practices help various organisations in gaining a competitive edge over others. Green hospitals will always be more preferred by the patients as the practices will be more sustainable and cost-effective than others. Hospitals will gain more trust and loyalty by the society which in turn will help them grow at a faster pace.

Patients and their visitors are increasingly sophisticated and “tuned” into current thinking in society and are far more likely to identify with a hospital whose principles and practices are aligned with their values.

- **Employee retention**

Employees are identified as one of the greatest benefits of going green. Environmental programs have proved to be an effective means of generating enthusiasm and motivating staff to work as a team to achieve a common purpose. Many hospitals use environmental programs as a staff incentive - the financial savings earned are translated into cash or other rewards such as in-house events or trips.

Employee turnover rate in the healthcare sector is relatively high therefore increasing the retention rate will also save the business money in training of new staff.

- **Awards and recognition**

Many awards such as LEED certification, ENERGY STAR etc. are given to organisations adopting green practices in their working. Such awards provide a superior recognition to the hospitals and also help in enhancing their reputation which in turn helps them to have a stronger customer loyalty and trust.

- **Regulatory compliance**

Hospitals must anticipate future regulatory changes and implement initiatives to mitigate the possible costly effects of emerging regulation. Most organisations are aware that regulations do not have to be a negative restraint on their daily operations - in fact, they can offer opportunities to gain an advantage over competitors. Some environmental regulations are good for economic competition as they stimulate innovation that can offset the cost of compliance. By implementing measures in the face of societal and regulatory pressures, unexpected, but substantial cost savings as well as potential new areas of profit may be found.

The healthcare industry worldwide is increasingly being regulated for:

- Waste
- Water
- Greenhouse gas emissions
- Energy use.

Being aware of pending rule changes will allow you to adopt measures in advance, and avoid potentially higher future costs which may be associated with compliance.

- **Risk management**

Risk minimization is now viewed as increasingly intertwined with good corporate social responsibility and governance. Managing risk is as much about minimizing the potential damage from decisions and actions taken from within a company as it is about managing external exposure.

Traditionally, a hospital's risk management strategy has been focused on health and safety concerns. In recent years however, environmental and social issues are emerging as a key risk issue for the healthcare sector.

Environmental risks include:

- Water and land contamination
- Air and noise pollution
- Supply chain environmental practices
- Waste management

Environmental risks also have an impact on the cost of capital for organisations of various types



Six Dimensions for a Green Hospital

and sizes, and may affect the value of a company over the long term. Companies that integrate the environment into their business decisions and reduce their environmental risk and potential liabilities are in a better position to secure investment and reduce their financial and reputational market exposure.

- **Increased brand value.**

Any organisation adopting green practices enhances its brand value and is more preferred by customers, suppliers, investors, employees and other stakeholders in all the spheres. A green hospital receives more loyalty from its patients, better support from the society and increased incentives from the government.

Indian Healthcare Sector

Healthcare has become one of India's largest sectors - both in terms of revenue and employment. Healthcare comprises hospitals, medical devices, clinical trials, outsourcing, telemedicine, medical tourism, health insurance and medical equipment. The Indian healthcare sector is growing at a brisk pace due to its strengthening coverage, services and increasing expenditure by public as well private players.

Indian healthcare delivery system is categorised into two major components - public and private. The

Government, i.e. public healthcare system comprises limited secondary and tertiary care institutions in key cities and focuses on providing basic healthcare facilities in the form of primary healthcare centers (PHCs) in rural areas. The private sector provides majority of secondary, tertiary and quaternary care institutions with a major concentration in metros, tier I and tier II cities.

Green Practices in Indian Healthcare Sector

Green practice has emerged as an opportunity for Indian healthcare sector to increase its revenue and ensure sustainable development. Various hospitals in India have now started adopting green practices in their working and have become green hospitals. Some of the hospitals that have taken up green initiatives are Kohinoor Hospital, AIIMS Hospital, Care Institute of Medical Sciences, Abbott India, etc. These hospitals have adopted green practices like use of renewable sources of energy, installing sewage treatment plants, use of LED and CFL, etc.

Conceptual Framework

A hospital would be considered green or sustainable if takes initiatives in the following six dimensions:

- Energy efficiency
- Water conservation

- Waste management
- Green purchasing
- Green building
- Cleaning and housekeeping

- **Energy Efficiency**

Energy initiatives provide multiple benefits to health care facilities. Cutting energy consumption reduces utility costs and helps the environment by reducing the amount of natural resources used. Creating alternative energy sources on site can reduce utility costs and mitigate power interruptions during disasters. Being recognized for energy savings through programs such as ENERGY STAR and the Leadership in Energy & Environmental Design, or LEED, program can showcase an organization's efforts to the public.

By reducing a hospital's energy consumption, it is possible to achieve the twin benefits of saving money and ensuring a less polluted environment for the local community.

- **Water Conservation**

Water conservation can help hospitals save operating costs and energy. Decreasing consumption also provides environmental benefits by decreasing the strain on municipal water supplies and reducing the energy needed to treat and deliver water. Hospitals using newer water technologies can also reap clinical benefits, such as better infection prevention that comes with faucets that reduce splashing in hand-washing stations. Hospitals rely on water quality and availability to protect patient health, and should prioritize these needs while reducing wasteful or unnecessary water consumption. As with other sustainability projects, health care leaders should ensure solutions will work in a hospital setting.

Many parts of the world are water stressed, and the ever-increasing population intensifies the problem. Prudent use of this invaluable natural resource is essential from a resource conservation perspective. Water use is driven by the number of inpatients and outpatients, equipment used, facility size, number and types of services, facility age and

maintenance requirements. Other contributors include steam sterilizers, autoclaves, medical processes, heating ventilation and air conditioning, sanitary, x-ray equipment, laundries and food services. It is recommended that all these areas be evaluated to identify activities to help reduce water consumption.

- **Waste Management**

The majority of the products procured by health care organizations ultimately become waste. About 80 percent of hospital waste is considered general, unregulated waste, while regulated medical waste and hazardous chemical waste make up a smaller portion of waste by volume. Waste management programs and changes in consumption trends can help a health care organization reduce the amount of waste it generates, saving on both handling and disposal costs and providing environmental benefits. Better waste management systems also can provide safety benefits to patients and staff. Other waste projects proven to be effective in hospitals and care systems include:

Developing or enhancing an organization's recycling program

Reducing regulated medical waste generation

Implementing a battery recycling program

Medical waste incineration is a leading source of dioxin, mercury and other dangerous pollutants that threaten human health and the environment. It is important to minimize the amount and toxicity of waste generated by the healthcare sector, to ensure the proper management and segregation of medical waste and to eliminate the dangerous practice of incineration by promoting and implementing alternatives, such as non-incineration treatment. Recycling and composting can also be a valuable solution for waste valorization.

- **Green Purchasing**

Healthcare facilities purchase thousands of different products requested by dozens of different departments. Hospitals may purchase items that are toxic to workers or patients, or have serious

environmental impacts. From eliminating unnecessary packaging, to seeking substitutes for products containing mercury or other toxic substances, purchasing decisions can have a major impact in providing environmentally friendly healthcare facilities. Purchased products must be considered in their totality (life cycle). Indeed, the different stages of the life of a product (manufacturing, marketing, use and disposal) all have an impact on the environment. The purchasing of green products helps to minimize these impacts.

An organization's supply chain can have a major effect on sustainability. Supply chain managers adopting a CQO (cost, quality, outcomes) approach to purchasing consider the purchase price as well as quality for patient care, facility operations and maintenance costs, disposal costs and other factors. This more holistic approach can save hospitals money while reducing the impact on the environment. Environmentally preferable purchasing can lower energy and water consumption, reduce packaging waste and minimize the amount of hazardous chemicals that enter the hospital. A sustainable purchasing policy can be used to enhance or complement other policies. In addition to cost savings and environmental benefits, promoting sustainability decisions for the supply chain can contribute to a positive public image.

- **Green Building**

Green building, also known as green construction or sustainable building, is the practice of making structures and implementing processes that are eco-friendly and resource-efficient throughout a building's life-cycle: from siting to design, construction, operation, maintenance, renovation, and demolition. This practice expands and complements the classical building design concerns of economy, utility, durability, and comfort.

Although new technologies are constantly being developed to complement current practices in creating greener structures, the common objective is that green buildings are designed to reduce the

overall impact of the built environment on human health and the natural environment by:

- Efficiently using energy, water, and other resources
- Protecting occupant health and improving employee productivity
- Reducing waste, pollution and environmental degradation

Green building practices aim to reduce the environmental impact of new buildings. Buildings account for a large amount of land use, energy and water consumption, and air and atmosphere alteration. Considering the statistics, reducing the amount of natural resources buildings consume and the amount of pollution given off is seen as crucial for future sustainability, according to EPA. The building sector alone accounts for 30-40 percent of global energy use. Over 80 percent of the environmentally harmful emissions from buildings are due to energy consumption during the times when the buildings are in use.

- **Cleaning and Housekeeping**

Cleaning in hospitals is an important issue. For example, many nosocomial infections occur in hospitals (hospital-acquired). Thus, hospital staff and administrators often react anxiously to suggested changes in cleaning practices. Nevertheless, cleaning products are a major contributor to indoor air quality issues in closed environments. Many contain high levels of volatile organic compounds (VOCs) which can give rise to respiratory irritation, headaches and other symptoms for workers and building occupants. All disinfectants are intentionally toxic to microorganisms, and none can be accurately qualified as "green".

General Areas for Improvement

- Regular monitoring of energy consumption by checking the electricity meters
- Installation of energy-efficient equipments
- Check the water supply system for leaks and turn off unnecessary flows

- Reading water meters regularly in order to identify leaks
- Recycling and reduction in water usage wherever possible, consistent with health requirements.
- Establishing a framework of policies and procedures with an overall goal of zero waste
- Recognising waste categories and segregation: domestic wastes (paper, glass, plastics, etc.); regulated medical waste (bio-hazardous waste, potentially infectious medical waste, biomedical waste, etc.); hazardous waste; low-level radioactive waste
- Implementation of non-incineration technologies: thermal, chemical process, irradiative or biological processes
- Promote recycling of wastes such as paper, plastics, glass, batteries, etc.
- Avoid buying unnecessary supplies and purchase only what is needed
- Purchase in bulk instead of individually packaged items
- Use of recycled contents like office paper, paper towels, etc.
- Consideration of water and energy consumption before making any purchase decision of a new equipment
- Limit the use of disinfectants

Green Initiatives can be taken in the Areas of:
Heating And Air-conditioning

- Use solar collectors for hot water
- Use night-time temperature lowering thermostats
- Install several small boilers instead of one large boiler for load dependent operation
- For air-conditioning, check specific room parameters (temperature, humidity, air exchange)
- Adjust boiler and cooling tower blow down rate to maintain total dissolved solids at levels recommended by manufacturers' specification
- Clean and change the air conditioner filters regularly

- Shut off water-cooled air conditioning units when not needed, or replace water-cooled equipment with air-cooled systems

Cafeteria & Food Services

- Invest in high-performance cooking units and refrigerators when replacing equipment
- Defrost refrigerators and clean the door seals regularly
- Wash only full loads in the dishwasher
- Reuse the rinse water from the dishwasher as flush water in garbage disposal units
- Turn off the continuous flow used to wash the drain trays of the coffee/milk/soda beverage
- Use fresh products with little or no preservatives and food-coloring and with as little packaging as possible
- Equip the kitchen with energy-efficient appliances

Lighting

- Reduce general lighting during daytime and make sure that exterior lighting is switched on only at night
- Use energy-saving bulbs, especially in high consumption areas
- Install timers and movement detectors to reduce lighting time

Laboratories & Patient Care

- Install automatic valves on film processing or X-ray equipment to stop water flow when equipment is not in use
- Reduce flow to surgical vacuum pumps to acceptable minimum level and maintain proper operation
- Overhaul faulty steam traps on sterilizers
- Promote recycling of paper, X-ray films and solutions, packing material, etc.
- Reprocess single-use devices such as arthroscopic shavers, blood pressure cuffs, soft tissue ablaters, scissors and staplers, etc.
- Check for alternative for products containing Latex, PVC/DHEP, mercury, flame retardants, etc.

Green Practices in Healthcare Sector in India

No.	Hospital	Green Healthcare Practices
1.	Siemens, Gujarat	<ul style="list-style-type: none"> ● Use of LED and CFL ● Installation of solar panels ● Use of recycled paper, X-ray films and solutions ● Shift from chemical based disinfectants to biocides
2.	Care Institute of Medical Sciences (CIMS), Ahmedabad	<ul style="list-style-type: none"> ● Green building (use of fly ash bricks in construction and more solar energy absorbing structure) ● Energy efficiency (solar panels for air conditioning and lighting) ● Waste management (recycle of biodegradable wastes) ● Water conservation (rain water harvesting, Sewage Treatment Plant) ● green purchasing (use of biodegradable material for flooring)
3.	Kohinoor hospital, Mumbai	<ul style="list-style-type: none"> ● Green building (a rooftop garden, structure to capture maximum sunlight) ● Energy efficiency (use of led and cfl, smart lighting, solar heaters, motion sensors) ● Water conservation (rainwater harvesting, sewage treatment plant) ● cleaning and housekeeping (less use of disinfectants, use of most modern cleaning equipments)
4.	AIIMS, Delhi	<ul style="list-style-type: none"> ● Waste management (3Rs, deal with nitrous oxide and other waste anaesthetic gases)
5.	Abbott India, Faridabad	<ul style="list-style-type: none"> ● cleaning and housekeeping (use of microfibers as dusters and biocides as disinfectants) ● waste management (scavenging system) ● green OT (Green House Gas surveyors)
6.	Kovai Medical Centre and Hospital, Coimbatore	<ul style="list-style-type: none"> ● energy efficiency (use of renewable energy resources) ● cleaning and housekeeping (technology upgradation)
7.	Jehangir Hospital, Pune	<p>They have specifically worked on area of reducing their energy consumption:</p> <ul style="list-style-type: none"> ● electrical energy consumption by 12.66%, ● water energy consumption by 53.9%, ● specific energy consumption for air conditioning by 17.9% and lighting by 5.99%.

- Check for less packaging and reusable tools

Laundry Services

- Avoid wasting energy from over-drying the laundry by fitting humidity sensors to dryers
- Investigate a treated rinse water system to reuse rinse water for other purposes or recycle it in the wash cycle
- Instruct cleaning crew to use water efficiently for mopping
- Equip the laundry room with machines in energy class A
- Avoid using detergents containing bleach (products of chlorine), phosphate, EDTA (ethylenediaminetetraacetic acid), NTA (sodium nitriloacetate), etc.
- Prefer low temperature detergents Cleaning & disinfection
- For each product in use, check if there is a “less-toxic” substitution

Cleaning and Disinfecting

- Use the appropriate product for target microorganisms
- Use the least toxic antimicrobials to disinfect or sanitize
- Use products at the appropriate concentration and for the proper residence time
- Identify the organisms you need to eliminate, such as those in blood and vomit or general pathogens
- Be sure to follow the instructions carefully, and comply with the recommended time it takes for the biocide to effectively eliminate the targeted organisms
- Determine where to use disinfectants by carefully dividing your facility into risk areas

References

1. Jian Ai Yeow, PohKiat Ng, KianSiongJee and PohChuanGoh, 2014. Reinforcing the Need for Green Practices Through a Green Knowledge Society. *Journal of Applied Sciences*, 14: 510-517.)
2. Health Research & Educational Trust (2014, May). Environmental sustainability in hospitals: The value of efficiency. Chicago, IL: Health Research & Educational Trust. Accessed at www.hpoe.org
3. <http://scholarspress.us/journals/IMR/pdf/IMR-2-2014/v10n2-art2.pdf> (Abhiruchi Singh Verma, Sustainable Supply Chain Management Practices: Selective Case Studies)

- Identify those areas that need the highest level of disinfecting and separate them from areas that can simply be thoroughly cleaned or that need to be sanitized (food service areas)

Purchasing

- Buy reusable ink and toner cartridges
- Purchase paper with at least 50% recycled fibers or non-whitened or chlorine-free bleached paper
- Prefer rechargeable batteries
- When purchasing new equipment, take their water and energy consumption into consideration

Concluding Remarks

The environmental awareness in the society has led to the adoption of green practices in every sphere. The healthcare sector has taken initiatives to become sustainable in order to reap the long-term benefits provided by the environment. The various interest groups of the society such as customers, employees, NGOs, government and others have become more concerned about the environment and therefore the healthcare institutions are answerable for all their practices. Hence it has now become essential to adopt green practices in their working.

Green initiatives in healthcare have already been adopted in other developed countries such as USA, Japan, Singapore, UK, etc but now Indian hospitals have also taken measures to adopt such practices which make them sustainable in the long run. The hospitals in India have incorporated practices such as green purchasing, water conservation, waste management, etc. in order to become green hospitals. The concept of green healthcare is now receiving undivided attention and the people are also now aware about the benefits of adopting such a concept.

4. <http://www.cims.me/green-hospital/>
5. <http://www.constructionbiz360.com/article/6/20100517201005171707129236b350247/%E2%80%98Green%E2%80%99-hospitals-Effective-solution-to-save-power.html>
6. http://articles.economictimes.indiatimes.com/2012-06-21/news/32352552_1_green-hospital-hot-water-platinum-certification
7. <http://www.thehindu.com/news/cities/Delhi/aiims-to-become-countrys-first-green-hospital/article6088571.ece>
8. <http://www.siemens.co.in/en/healthcare/hospitals/green-hospitals.htm> from Indian Hospitality Industry)
9. <https://practicegreenhealth.org/pubs/toolkit/reports/BusinessCaseForGreening.pdf> (the business case for green health care sector, report prepared by Institute for Innovations in Large Organizations)
10. <http://www.fhnw.ch/lifesciences/iec/forschungsfelder-und-projekte/download-projekte/projekte/best-environmental-practices-for-the-healthcare-sector> (Best Environmental Practices in the Healthcare Sector A Guide to Improve your Environmental Performance)

The Role of Knowledge Management in Organizational Success: An Overview

Neeti Chopra*
Dr. V. Pathak**

Abstract

Knowledge Management is a process which changes the knowledge of individuals in an organization into the organizational knowledge. This paper states that through assimilating and utilizing the knowledge the organization can achieve success. The importance and relevance is also mentioned in the paper. Knowledge is widely identified as an important organizational resource that boasts the competitive advantage. The significance of Librarians & Information professionals in managing the KM of organizations is described. The challenges and difficulties in KM is mentioned. The role of information technology (IT) in knowledge management (KM), is an indispensable for any organization wishing to use latest and upcoming technologies to manage their knowledge assets. The study shows that knowledge management practice has positive impact on organizational performance.

Key Words: organizational knowledge, information technology, organizational performance, knowledge assets, knowledge management.

Introduction

Now-a-days in organizations managers ask for more information to support the various decisions and for the growth. This led to the use of IT (Information Technology) to build support system, management information systems etc resulting in abundant information, which has not provided any value to the organizations because what organizations were really looking for was knowledge. "Explicit knowledge" is very significant but from the point of view of adding the value is "tacit knowledge" which is implanted in the minds of the people. The tacit knowledge is

intuitive, contextual, related to experiences and difficult to document and communicate. Though it constitutes between 70 and 80% of all knowledge in an organization but still it is important to give the well organized approach.

KM is the process through which organizations extract valuable knowledge through their assets based on knowledge and information. It is the practice of generating the intellectual gain to achieve efficiency to deal with competitions and commitment towards the customers. It is thus very important to share the knowledge with the employees and various departments. Technology itself is not Knowledge Management but KM has been made easier by IT. Knowledge management is a cross-disciplinary realm.

Managing this knowledge is a cumbersome procedure. Knowledge management (KM) deals with managing organization's knowledge by having a systematic and proper action for creation of knowledge and make it available for the benefit of the organization. KM techniques provide such a systematic approach to analyze the tacit knowledge document in knowledge

Neeti Chopra*

Assistant Professor
Institute of Innovation in Technology and Management
(Guru Gobind Singh Indraprastha University)
D-27, 28, Janak Puri, New Delhi-110058

Dr. V. Pathak**

Associate Professor
L.N. Mishra College of Business Management
(Babasaheb Bhimrao Ambedkar Bihar University)
Muzaffarpur

repositories and then sharing them throughout the teams in organization.

KM mainly emphasizes on one of the various possible type of knowledge that exists in an organization or institution. This is referred to the knowledge that employees or researchers or academician learn or gain from his experience through organization's or research's work, this is what is different from the knowledge exists in books. This may include like what an organization has learned about launching a new unit or good or service, reducing costs on some projects, innovating a product or service. Therefore, employees using the previous knowledge or experience to reduce the chances of risk and imply it further in a better way. This is not only applicable in organizations but also in research institutions. The learning helps to reduce the complicated situations or helps to cope up with the complicated or dilemmatic situations effectively and efficiently.

The Need for KM

There are many examples of the companies who have benefited from Knowledge Management and related activities. It has also been observed by km experts to find effective ways to broaden the spectrum of knowledge and experience based knowledge. The organizations should also work on a method to disseminate the information and knowledge to the group of people who can further deploy it and help the organization in various manner. The new projects or new learning brings the fresh experience which further adds into Knowledge Management as a future learning.

Every information is useful or valuable is not necessary. So, it depends on the companies on their as what information is intellectual and based on knowledge. In general, knowledge is of two types: explicit or tacit. Normally explicit knowledge takes into account anything that can be documented, archived and codified most of the times with the help of IT people. Tacit knowledge (as opposed to formal, codified or explicit knowledge) is the kind of knowledge which cannot be transferred to another person by means of writing it. Since identifying tacit knowledge is the most cumbersome task faced by most of the organizations

so managing the recognition, generation and sharing tacit knowledge becomes a challenge.

The accumulation of Knowledge can be through internal sources or external sources, it may be occasional sometimes. It can be gathered through materialization or personalization. Sharing of Knowledge can also be both formal and informal. In organizations, if knowledge accumulation has more effectiveness than it has more clear and conclusive impact on the knowledge management. If knowledge utilization is efficient it will again have positive impact. Lastly, the better the optimum accessibility and availability of knowledge in an organization, the greater and the better will be the positive impact on the knowledge Management practices.

Knowledge Creation

Knowledge creation involves those tasks which can result into around the activities that result in conversion of knowledge. This process of conversion includes the gathering and creation of tacit knowledge through moving towards tacit knowledge to explicit and again utilizing explicit knowledge to create a novel form of tacit knowledge with the help of sharing of information. This is because of the tendency of the individuals to repeat the mistake done in the past because of the lack of knowledge or due to the poor accessibility from the failure in the past. Projects get delayed to various reasons and events are often ignored after the successful completion of the project.

Organizations sometimes are not aware of what they already know. In the knowledge-based era, the success is totally dependent on the response to the various levels of challenges, primarily using the knowledge which is acquired through experience. Due to lack of sharing culture, best practices of a team or of a particular department can not get encapsulated into the organization's procedure. Very often, individuals who have valuable information are not tracked in the organization and this knowledge stays with them with no benefit to the organization.

Knowledge Sharing

Sharing of knowledge needs a different environment and atmosphere, a different collaboration of human

and information system to decrease the knowledge gap. Knowledge sharing requires different set of tools. Knowledge learning is by people. Different thought processes creates knowledge. Knowledge is dynamic. It moves through Organization and Communities in various ways. KM tools are designed particularly to support community.

IT for K.M.

Connecting people with each other by providing tools that are built on e-mail or intranet systems. Intranet systems introduce workflows, it would offer a path for the community to store and share their documents. It also helps to Connect people to information through knowledge Centres. These centers help in search place to enquire etc. A team of knowledge managers and subject experts, Cybrarians (internet and electronic library) can guide and help employees to access the useful information.

Utility to Organizations from KM

A few benefits of KM relates directly to the principle savings, while some are more difficult to quantify. In today's era where information driven economy prevails, firms explore the most opportunities and finally they obtain value from intellectual assets. To get the greater amount of value from intellectual assets, KM practitioners make sure that knowledge should be shared and should also serve as foundation. KM sometimes proves to be meaningless and harmful. As a result, an effective KM program help an organization to introduce the innovative activities with the help of free sharing of ideas and thoughts; Improve customer service , increase the revenues, to boost the employee retention rates. Unify the operations and decrease the costs by removing unnecessary activities.

Challenges of KM

1. **Employee involvement:** The major challenge in KM is due to the companies which ignore the cultural issues. The urge to sell the KM concept to employees shouldn't be undervalued at all, sometimes employees are being asked to abandon their knowledge and experience. Incentive programme are the best way to motivate the

employees However, then there's the danger that employees will participate only for incentives..

2. **Intervention of Technology:** KM is not based on technology. The companies that involve a database system, web portal or any other helping tool in the hope that they have a developed KM program are actually wasting their time in hoping so.
3. **Absence of business goal:** A KM programme should not be aloof from a business goal. Sharing the best practices is a good idea but there must be a valid business reason to do so.
4. **KM is dynamic:** Knowledge gets stale quickly , the contents in a KM should be periodically update amended, and omitted.knowledge also keeps on changing as the skills of the employees. So, KM programme has no limits.

Knowledge Management Initiatives in India

The KM program has initiated in different sectors. They may be categorized as follows:

1. Initiatives at the Corporate level:

Tata Consultancy Service has grown its knowledge management program from intranet. The company gradually developed all its processes and collected a lot of information. Due to operations at multiple places the company decided to combine the knowledge to make it available at all locations. This led to the generation of idea of developing a knowledge repository. TCS has built its knowledge management system using a Lotus Domino Server. Oil & Natural Gas Corporation (ONGC) has set up a task force to implement knowledge management in their organization. A project has been set up to explore and experiment to institutionalize KM. Synergy of data and information processing is more focused.

2. R&D level initiatives:

National Aerospace Laboratories (NAL) National Aerospace Laboratories developed the methods to create the basic infrastructure which is required for KM systems. IGCAR (Indira Gandhi Centre for Atomic Research) Indira Gandhi Centre for

Atomic Research, Kalpakam the IT department has large variety of computer facilities. KM covers hospital management, purchase management, material management, Library management etc.

3. Export-Import Bank of India

They have a established a KM system; which is of great use in many problems related to loans. Bank have a developed learning culture system. Expert system is already much more developed.

Initiatives at the NGO Level:

Observations

From the above discussion the following observations have been drawn:

- Tacit knowledge focuses on the emphasis of the organizations to improve and enhance the quality of their human resources by using their experience and turning it into a corporate asset.
- KM decision should revolve around the business objectives of the organization.
- KM for corporate is basically to excel in the competition with rival companies.

References

1. Chaudhury N.B, Achrya P.2003, Knowledge Management. Paper presented at the MANLIBNET 5th Annual National Convention, March 6 to 8, 2003 at Xavier Labour Research Institute, Jamshedpur.
2. Dash N K, Mohanty B. 2002, Gearing up Knowledge Management in Business & Management Libraries. Paper presented at the MANLIBNET 4th Annual National Convention, April 3 to 5,2002, at National Institute of Financial Management, Faridabad.
3. Jhaveri A.P.2001. Knowledge Management (KM)- Wealth from Information, *Computers Today*, 16-31 Aug 2001.70-73.
4. Kulkarni S, Jadhav M.N, Shyamala S. 2003. Knowledge Management: New Challenges for Academic Library Managers. Paper presented at the MANLIBNET 5th Annual National Convention, March 6 to 8, 2003 at Xavier Labour Research Institute, Jamshedpur.
5. Rane V. 2002. Knowledge Management: Initiatives at NMIMS. Paper presented at the MANLIBNET 4th Annual National Convention, April 3 to 5,2002, at National Institute of Financial Management, Faridabad.
6. Sachan D. 2002. Knowledge Management: Challenges for the Information Professionals/Librarians. Paper presented at the MANLIBNET 4th Annual National Convention, April 3 to 5,2002, at National Institute of Financial Management, Faridabad.
7. Shanmugam C.G. 2002, The Need for Knowledge Management in Special Libraries.pp.43-52. In S.Parthan, VKJ Jeevan(eds). Proceedings of the National Conference on Information Management in e-Libraries(ImeL). Kharagpur, 26-27 February 2002. New Delhi: Allied Publishers.650pp.

- KM in India is at a germination stage with very few organizations are taking it seriously.

Conclusion

The key element of knowledge management is learning. Learning is a not a static process. It involves the noble knowing and understanding .Knowledge management enables a learners to learn more effectively.

Knowledge management has significant role in an organization. Tacit knowledge being the most important area of knowledge management. Knowledge management involves every individual in the organization. The paper has tried to consider different aspects of Knowledge Management. KM for corporate is basically to get over the competition. In developed countries this is very much developed but in developing countries like in India it is a slow process. A KM initiative in different sectors of our country is also mentioned. Companies like TCS, ONGC, Infosys etc have developed and established knowledge management systems. Different types of KM initiatives such as external structure initiatives, internal structure initiatives and competence initiatives with examples find mention in the paper.

Analysis of Work Stress among Faculties and Coping Strategies at Private Institutions in Mathura District

Parul Garg*
Ankit Goel**

Abstract

In the current scenario of stiff competition, Stress is inevitable in all walks of human life. The phenomenon of work stress among faculties of private institutions has been receiving increased global attention and concern in recent years. Teaching has now become a very demanding occupation with a lot of stresses for a teacher who has a lot of deadlines to meet and a lot of responsibilities to shoulder besides teaching a child what are in a text book. There is a continuous change in social, cultural, economic, political, legal and technological environment. Stress at workplace can lead to problems for the individual, working relationships and the overall environment. This results in lowered self esteem and poor concentration skills for the employees. Managing stress in the workplace is therefore an essential part of both individual and it is institutional social responsibility also. This study investigated causes of stress and coping strategies adopted by faculties in some selected institutions.

Key Words: Work stress, Causes, Coping strategies

Introduction

In today's competitive and changing organizations, Stress is a part of every employee's life. Stress has become an important and influential factor due to dynamic social factor and changing needs of life styles. Stress is man's adaptive reaction to an outward situation which would lead to physical, mental and behavioural changes. Even though stress kills brain cells, not all stresses are destructive in nature. If controlled, stress is friend that strengthens for the next encounter. Stress is highly individualistic in nature. Some people have high tolerance for stress and thrive well in the face of several stressors in the environment. Appropriate amount of stress can actually trigger passion for work; energize them to put forth their best effort. However,

where stress is excessive, personal and organisational performance is at best damaged. At the worst, stress is a liability and a threat to the survival of an organisation. The study throws light on the wide spread silent problem by name Stress, which gave rise to acute dysfunctions and are called many diseases, increase divorce rates, and other harassments. The work stress is found in all professions. Teacher stress may be defined as an unpleasant feeling that teachers experience as a result of their work. Stress can make a person productive and constructive, when it is identified and well managed. Past research on work stress among lecturers has identified numerous sources and variables affecting stress levels. For example, researchers have consistently reported time pressure, high self expectations, and research and publication demands as significant sources of work stress. Empirical evidence has shown that teachers experiencing more stress were burned out. It was found that managing student misbehaviour, teachers' appraisal by students, workload and time constraints were predictors of burnout. Role conflict, work overload, classroom

Parul Garg*
Research Scholar
Mewar University, Chittorgarh

Ankit Goel**
Research Scholar
School of Commerce, Jiwaji University, Gwalior

Table 1: Response on Stress Related Factors

Factor	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Role overload					
I feel that I have been overloaded with too many works	12(28.6)	15(35.8)	3(7.1)	12(28.6)	0(0.0)
I do my work under considerable tension	14(33.3)	20(47.6)	1(2.4)	7(16.7)	0(0.0)
Physical working conditions are poor	13(31.0)	23(54.8)	1(2.4)	4(9.5)	1(2.4)
Intrinsic to job					
I feel harassment at work place	13(31.0)	7(16.7)	2(4.8)	15(35.7)	5(11.9)
I have been assigned too much responsibility	10(23.8)	14(33.3)	9(21.4)	9(21.4)	0(0.0)
I feel nervous when I fail to accomplishing my task in job	14(33.3)	19(45.2)	8(19.0)	1(2.4)	0(0.0)
My working hours are excessive	14(33.3)	18(42.9)	8(19.0)	1(2.4)	1(2.4)
Role ambiguity					
I feel over burdened in my role	13(31.0)	20(47.6)	1(2.4)	6(14.3)	2(4.8)
Several aspects of my role are vague and unclear	12(28.6)	18(42.9)	0(0.0)	3(7.1)	9(21.4)
Role relatedness					
HOD	6(14.3)	17(40.5)	14(33.3)	5(11.9)	0(0.0)
Colleague	10(23.8)	20(47.6)	7(16.7)	3(7.1)	2(4.8)
Students	10(23.8)	19(45.2)	8(19.0)	4(9.5)	1(2.4)
Role career					
I find difficulty in coping with the changes in the institutional policies	14(33.3)	15(35.7)	0(0.0)	10(23.8)	3(7.1)
There is less staff consultation when change is proposed	9(21.4)	17(40.4)	14(33.3)	0(0.0)	2(4.8)
I don't have any difficulties to handle the technological changes in the emerging private institutions	3(7.1)	11(26.2)	3(7.1)	25(59.5)	0(0.0)
I am informed when new developments occur related to the changing situation	6(14.3)	31(73.8)	2(4.8)	3(7.1)	0(0.0)
Role expectations					
I don't have good environment to interact with my colleagues	12(28.6)	28(66.7)	0(0.0)	0(0.0)	2(4.8)
I have no sufficient assistance to complete my assignment	11(26.2)	27(64.3)	2(4.8)	1(2.4)	1(2.4)
I feel that people around me simply expect too much from me	17(40.5)	15(35.7)	0(0.0)	9(21.4)	1(2.4)
Family role					
I don't have enough time to spend with family members	2(4.8)	9(21.4)	4(9.5)	26(61.9)	1(2.4)
My role tends to interface with my family life	8(19.0)	16(38.1)	9(21.4)	8(19.0)	1(2.4)

Source: Sample Survey

climate and decision making are all organizational factors that contributed to teacher stress and eventual burnout. Therefore, it was expected that job stress will predict burnout.

Therefore the researcher attempts to identify the factors that cause high stress among employees and discuss the coping strategies adopted by them to reduce stress.

Objectives

1. To study the level of work stress among the faculties working at private institutions.
2. To identify the causes for work stress.
3. To determine the effect of stress on the faculties well being and their quality of work.
4. To suggest strategies for manage of work stress among faculties.

Research Methodology

The faculties in the private institutions of management department are classified into three categories viz Lecturers, Sr. Lecturers and Assistant Professors. Forty two employees are conveniently selected. The data is

collected with the help of well structured questionnaire. Both primary and secondary data have been used for the present study. The job stress factors such as role overload, intrinsic to the job, role ambiguity, role relatedness, role career, role expectations and family role are identified (Table 1). The response of employees is obtained on a series of statements under a five point continuum scale. The scores of 5, 4, 3, 2 and 1 are assigned to a positive statement i.e. strongly agree, agree, neutral, disagree and strongly disagree respectively. The score is reversed in the case of negative statement. The total score of each respondent is computed. On the basis of average score of each factor, overall mean score is determined. Taking into consideration the total score, respondents are classified into the three categories like high job stress (60.00 to 68.00); medium/optimum job stress (48.00 to 59.00); and low job stress (30.00 to 47.00) (Singh, 1975).

In order to find out whether or not the faculties working in the institutions under study differed in their job stress, Krushkal Wallis Test (H-test) is used:

$$H = \frac{12}{N(N+1)} \sum_{k=1}^K \frac{R_k^2 - 3(N+1)}{nk}$$

Where:

N = total number of faculties in all the three categories (in the present study N= 42)

K = number of samples or groups (in the present case K= 3)

n = number of cases or frequencies in the k_i sample

Table 2: Factors Affecting Job Stress among Faculties

Factor	Mean score	Rank
Role overload	3.16	4
Intrinsic to job	3.37	2
Role ambiguity	2.84	6
Role relatedness	3.21	3
Role career	3.16	4
Role expectations	3.10	5
Family role	3.64	1

Source: Table 1

Table 3.1: Designation Wise Level of Job Stress among Faculties

Stress level	Designation				Chi-square
	Asst. Professors	Sr. Lecturers	Lecturers	Total	
High stress	3 (16.7)	10 (47.6)	0 (.0)	13 (31.0)	$\chi^2 = 12.86$; ($p = 0.012$)* df= 4; TV = 9.49
Medium stress	13 (72.2)	5 (23.8)	1 (33.3)	19 (45.2)	
Low stress	2 (11.1)	6 (28.6)	2 (66.7)	10 (23.8)	
Total	18 (100)	21 (100)	3 (100)	42 (100)	

Source: sample survey

R_k = the sum of all ranks in k_i samples/groups
i = ranges from 1 to k (individual group)

(3.16), role expectations (3.10) and role ambiguity (2.84) (see Table 2).

Data Analysis & Interpretation

Stress Related Factors

It can be observed from the Table 1 the response of faculties to statements. These are categorised into different job stress factors.

Of the stress factors, family role is prominent (3.64) followed by intrinsic to job (3.37).

Role relatedness (3.21), role overload, role career

Designation Wise Job Stress

A cursory look at the Table 3.1 reveals that a little over 45 per cent of faculties have medium level of job stress followed high level of stress (31 per cent) and rest 23.8 per cent have low level of stress.

There is a significant difference in job stress among the categories of faculties since calculated value of χ^2 is greater than the table value.

Table 3.2: Variation in Job Stress Scores among Select Faculties

Status of employee	Number of respondents	Sum of ranks	'H' value
Asst. Professors	(n1 = 18)	R1 = 26.03	6.57
Sr. Lecturers	(n2 = 21)	R2 = 19.52	df = 2
Lecturers	(n3 = 03)	R3 = 8.17	Sig p= 0.037

Source: sample survey

Table 4: Impact of Stress on the Quality of Work of Sample Faculties

Response	Frequency	Percentage
Yes	27	64.28
No	15	35.71
Total	42	100

Table 5.1: Adoption of Stress Relieving Techniques at Private Institutions

Response	Frequency	Percentage
Yes	29	69.1
No	13	30.9
Total	42	100

Source: sample survey

Table 5.2: Satisfaction on Stress Relieving Techniques

Frequency	Response	Percentage
Satisfied	23	82.14
Not Satisfied	5	17.85
Total	28	100

Source: Table 5

Table 6: Stress Relieving Techniques Adopted By Faculties

Response	Frequency	Percentage
Yes	35	83.33
No	7	16.67
Total	42	100

Source: sample survey

Variation in Job Stress

In order to know whether the faculties working in the institutions differ in their job stress or not, Krushkal Wallis Test was used.

The results show that there is a significant difference in job stress among the categories of faculties as the calculated value (6.57) is higher than the table value (5.27).

Impact of Stress on Work Quality

It is evident from the Table 4 that two thirds of respondents have perceived that the stress has undoubtedly affected the quality of their work whereas the remaining opined conversely.

It implies that a lion's share of faculties perceived that stress has adversely affected their quality of work.

Table 7: Stress Relieving Techniques Employed Sample by Faculties

Technique used	Frequency	Percentage
Yoga	28	66.67
Exercise	15	35.71
Relaxation in peaceful place	6	14.29
Mediation	10	23.81
Short break	4	9.52
Positive thinking	7	16.67

Note: Multiple answers

Stress Relieving Techniques

Nearly 67 per cent of respondents have opined that the institutions had adopted stress relieving techniques and the rest negative. On probing whether or not employees were satisfied with the job stress relieving techniques adopted by the colleges, 75 per cent have satisfied while the rest did not.

It may be said that there is a need to know the causes for dissatisfaction so as to initiate corrective action. Otherwise it may cause adverse affect on their job performance.

A perusal of the Table 6 shows that 83.33 per cent of respondents have adopted stress relieving techniques in one way or the other by themselves. While, the rest did not.

Table 8: Suggestions for Creating Stress Free Working Environment

Suggestion	Frequency	Percentage
Cooperation among faculties	31	73.81
Efforts to develop an effective and supportive relationship	15	35.71
Fixation of realistic deadline to accomplish the assigned task	3	7.14
Provision for relaxation during working hours	25	59.52
Short training camps	18	42.86
Provision of increment/promotion for the honest,sincere and hardworking faculties	32	76.19
Job security	28	66.67

Source: sample survey data

Among the techniques adopted by respondents to relieve from stress, the highest 66.67 per cent have adopted yoga followed by exercise (35.71%), meditation (23.81%), positive thinking (16.67%), relaxation in peaceful place (14.29 %) and short breaks from busy routine schedule (9.52%).

Suggestions

The respondents were asked to suggest measures to create conducive environment to free from any kind of stress.

A perusal of the Table 8 shows that the highest 76.19 percent have suggested rewards/incentives to relieve stress, 73.81 per cent cooperation among faculties, 66.67 per cent job security, 59.52 per cent provision for relaxation

during working hours, 42.86 per cent short training camps, 35.71 per cent effective and supportive relationship and 7.14 percent fixation of realistic deadline to accomplish the tasks assigned to them.

Conclusion

Family role, intrinsic to job, role overload, role career, role expectation and role ambiguity cause job stress. A majority of the faculties had medium/optimum level of job stress. There is a significant difference in job stress among the three levels of faculties. There is a need to educate and motivate those faculties who have not adopted any stress relieving technique by them. Yoga is the popular technique used by respondents for relief from job stress at personal level.

References

1. Anitha,A., & Sriharan, R.(2013). A Study on Faculties Perception of Stress and Coping Strategies. *International Journal of Research in Commerce and Management* 4(8).
2. Ivancevich, J.M., & Matteson, M.T. (1980). *Stress and work, a managerial perspective*. Glen view. IL, Scott, Foresman and Company.

3. Newton, T.J., & Keenan, A. (1987). Role Stress Re examined: An Investigation of Role Stress Predictors, Organizational Behaviour and Human Decision Processes, 40 (3), 346-348.
4. Schuler, R.S. (1980). Definition and Conceptualization of Stress in an Organization. *Organizational Behaviour and Human Performance*, 25, 184-21
5. Santhi M., & Niranjana P. (2015). Job stress among the employees of Tirupati Co-operative Bank, Chittoor District, Andhra Pradesh. *International Journal of Research in Commerce and Management* 6(11).
6. Singh, R. (1975). On Optimum Stratification for Proportional Allocation. *Sankhya, Series C*, Part I. 37, 109-115.

Impact of Green Marketing on Consumers Buying Decision

Hridhya. PK*

Padma. R**

Pawan Sharma***

Abstract

India stands at the 33rd position in the list of most polluted country in the world.¹ According to article published by "The Hindu" in the year 2015 India has overtaken China's air pollution levels in 2015 and the average particulate matter exposure was higher for the first time in the 21st century² and 80% of India's surface water may be polluted, report by international body.³

And today the world is filled with various kinds of product. With the growing population the demands for the products have also increase. This has led to the growth of industries across the globe. And with the phase at which industrialization and urbanization has increased the environmental issues have also been increased. Today we live in the world where from the water we drink to the air we breathe is polluted. This has led to the outbreak of various disease.

Therefore it becomes the responsibility the organizations as well as the consumers to contribute towards the betterment of the environment. Has an imitative many company have started to follow the concept of "Green Marketing", where the organizations have started to manufacture product that are environment friendly products. But the question arise that whether consumers are ready to accept these product and if there are aware of the green marketing

Hence in this paper "Impact of green marketing on consumer buying decision" aims at answering the questions; Does green marketing have any influence on the consumer buying decision? Do consumers are aware of the companies that are following green marketing strategies?

Key Words: Green Marketing, Green Product, Eco-friendly Products, Consumer purchase decision.

Introduction

The rapid growth in industrialization has changed the world we live in and the life style of that we follow. As the saying goes "there are two sides to every coin" industrialization is also a boon and curse to the modern

Hridhya. PK*

Faculty at Christ University, Department of Professional Studies, M.Phil, Bangalore

Padma. R**

Faculty Associate, Avagmah, M.Phil, Bangalore

Pawan Sharma***

Project Manager, Institute of Product Leadership, M.Phil, Bangalore

world. The increasing phase of industrialization has also contributed to the various environmental issues that we are facing today. One of the environmental issues is pollution. It can be rightly said that we are living in a contaminated world. Where everything around is contaminated. From the air we breathe to the food we eat. According to article published by "The Hindu" in the year 2015 India has overtaken China's air pollution levels in 2015 and the average particulate matter exposure was higher for the first time in the 21st century⁴ and 80% of India's surface water may be polluted, report by international body.⁵ This has taken a toll on the world already.

Apart from pollution we are depleting many resources like underground water, oil, minerals, and an alarming global warming. Therefore environment has become a huge concern not only to the government body or individuals but also to the companies. The companies felt the need for protecting the environment in which they function and this gave rise to the concept of "Green Marketing." But the question arises whether the concept of Green marketing as effect on consumers decision process because at the end of the day it's the consumers bring the revenue to the company by purchasing the company's products.

The Concept of Green Marketing

The concept of green marketing focuses on protecting the ecology of the environment. It is also known as eco-marketing or environmental marketing. According to the American Marketing Association, green marketing is the marketing of products that are presumed to be environmentally safe. Thus green marketing incorporates a broad range of activities, including product modification, changes to the production process, packaging changes, as well as modifying advertising.

Some of the Reasons for Green Marketing are corporate social responsibility on the part of companies, government regulations, Competition with other responsible companies, Goodwill of the company, environment conscious consumers and most importantly for conserving scarce natural resources.

Advantages of Green Marketing:

Companies that develop new and improved products, and services with environment inputs in mind give themselves access to new markets, increase their profit sustainability and enjoy a competitive advantage over the companies that are not concerned for the environment.

Some of the advantages of green marketing are as follows:

1. It ensures sustained long-term growth along with profitability.
2. It saves money in the long run, although initial cost is more.

3. It helps the companies to market their products and services keeping the environment aspects in mind. It helps in accessing the new markets and enjoying competitive advantage.
4. Most of the employees also feel proud and responsible to be working for an environmentally responsible company.
5. It promotes corporate social responsibility.

The marketing strategies for green marketing include marketing audit (including internal and external situation analysis). Develop a marketing plan outlining strategies with regard to the four P's of marketing, Implementation of the marketing strategies and Proper review of results.

Challenges of Green Marketing:

1. Green products require renewable and recyclable material, which is costly.
2. Problems of deceptive advertising and false claims.
3. Requires a technology, which requires huge investments in research and development.
4. Majority of the people are not aware of green products and their uses.
5. Majority of the consumers are not willing to pay a premium for green products.
6. Educating customers about the advantages of green marketing.

Companies such as Tata Motors, Maruti Suzuki, Canon, Toyota, Philips, NTPC and McDonald's follow green marketing. Green marketing should not neglect the economic aspect of marketing. Marketers need to understand the implications of green marketing.

Meaning of Green Product:⁶

Green products are...

- Energy efficient, durable and often have low maintenance requirements.
- Free of Ozone depleting chemicals, toxic compounds and don't produce toxic by-products.

- Often made of recycled materials or content or from renewable and sustainable sources.
- Obtained from local manufacturers or resources.
- Biodegradable or easily reused either in part or as a whole.

Green Products in India:⁷

- Wipro Info tech (Green IT) was India's first company to launch environment friendly computer peripherals.
- Samsung, was the first to launch eco friendly mobile handsets (made of renewable materials) – W510 and F268- in India.
- Oil and Natural Gas Corporation Ltd. (ONGC), India's largest oil company, has introduced energy efficient Mokshada Green Crematorium, which saves 60% to 70% of wood and a fourth of the burning time per
- Reva, India's very-own Bangalore based company was the first in the world to commercially release an electric car
- Honda India introduced its Civic Hybrid car.
- ITC has introduced Paper Kraft, a premium range of eco-friendly business paper.
- Indusland Bank installed the country's first solar-powered ATM and thus brought about an eco-savvy change in the Indian banking sector.

Meaning of Consumer Behavior:

Consumer is the study "of the processes involved when individuals or groups select, purchase, use, or dispose of products, services, ideas, or experiences to satisfy needs and desires" (Solomon 1995, 7).

Consumer behavior can be understood as: "The decision process and physical activity individuals engage in when evaluating, acquiring, using, or disposing of goods and services." (Loudon and Della Bitta, 1980).

Factors that Influence Consumer buying decision:

Voss and Parasuraman (2003) suggests that the purchase preference is primarily determined by price

than quality during pre-purchase evaluation. Given explicit quality information, price had no effect on pre-purchase or post consumption quality perceptions. Instead, post consumption quality evaluations had a favorable impact on price evaluations.

The cultural factors also affect the consumer decision. The buying decision of a consumer is influenced by his / her family, friends, the cultural environment one lives in.

To an extent the buying decision is also based on the occupation an individual. For example a female lecturer in a college will be buying sarees which is standard dress code in most colleges and business women in executive level in a MNC firm would buy a suits or formal trousers.

Addition to occupations the economic status also influences the buy decision. A person with high income and saving would not be bothered with price of the product but a person with low income and saving would be very conscious with the price of the products.

And to some lifestyle plays a vital role in their buying decision. These are the people who would buy product depending on the interest, activities.

Apart from all these factors there are many factors that influence the buyer such as personality, the perception of the individual on certain products or brands etc.

Conclusion

Green marketing should not be considered as one more approach to marketing. It has to be pursued with much greater vigor as it has environmental and social impact. With global warming looking largely, it is important that green marketing becomes the norm rather an exception, or just a fad.

Review of Literature

(Maheshwari, 2014) identifies that consumers are not exposed enough to green product marketing communication and suggests the greater use of marketing and brands to promote and sell products that are environmentally friendly and function effectively. And suggested that the Indian market for greener products could be exploited more within consumer groups that have pro environmental values.

Green product features, green promotion activities and green price affect green purchasing behaviors of the consumers in positive way. Demographic characteristics have moderate effect on model. (Boztepe, 2012)

According to the study conducted by (Laddha and Malviya, 2015) Green Marketing is a tool for protecting the environment though it is not easy to adopt it in short run but in the long run it will have a positive impact on the firm. Green marketing is in its initial stage, a lot of effort is required to gain its full acceptance. It protects our planet from looming global warming crisis, ozone depletion, and deforestation.

The study conducted in East Azerbaijan on Green Marketing and Its Impacts on Consumer Behavior in Sports Shops (Bagheri, 2014) Results shows that a significant relationship between green products features, green promotion, green pricing and green distributing with consumer green behavior; and education, income, and age, but not marital status, gender had a moderating effect on consumer green sports behavior.

Stavros p kalafatis, Michael pollard ,Robert East and Mark H T (1999) so gas in their paper Green marketing and Ajzen's theory of planned behavior : a cross market examination examines the determinants that influence consumer intension to buy environmentally friendly product , finding offer considerable support for the robustness of the TPB in explaining intension of both samples . the theory is more appropriate in well-established market that are characterized formulated behavior pattern .

Ken Peattie and Andrew Crane (2005) in their paper green marketing legend, myth and frace or prophesy? Has found that green marketing has been underpinned by neither a marketing nor an environmental philosophy . five types of misconceived green marketing are identified and analyzed they are green spinning, green selling, green harvesting, enviropreneur marketing and compliance marketing

Research Methodology

The objective of the study

- To find the impact of green marketing on consumer buying decision.

- To understand the awareness on green products that are available.
- To find if people would prefer to shift from normal products to green products.

Sample design

From the purpose of the study the data is collected from 120 respondents in Bangalore through structured online questionnaire. The sample techniques used is a convenient sampling. Statistical tool used to collect the data correlation, chi-square and graphical representation.

Limitation of the study

- The research is confined only to 120 respondent in Bangalore
- The study focuses only from the perceptive of consumer and not the companies' point of view.
- The study doesn't consider demographic factor and income factor.

Data Interpretation and Results of the study

From the data that were collected from 120 respondents it reveals that out 120, 24 respondents all between the age group of 18- 25yrs, 76 respondents between the age group of 25-35yrs, 4 and16 respondents between the age group 35-45 and 45 and above respectively.

The data also reveals that out of 120 respondents, 80 respondents are aware of the concepts Green marketing in Bangalore. And 40 respondents are not aware of the concept, out of these 40 respondents 34 would like to know about the green marketing, It is also noticed that price is the most important criteria that is considered while purchasing a product (40 respondents), followed by brand (30 respondents).

It is found from the data that 56 respondents out of 58 who are aware of the green marketing and green products in market are willing to purchase green products over other products.

30 respondents out of 40 respondents who consider price as an important criteria while purchasing are willing to pay more for the product due to green feature

**Table 1: Shows the Cross table between Awareness of Green marketing and Willing to Pay for Green feature
Aware of green marketing * pay more Cross tabulation**

			Pay more for green feature		Total
			Willing to pay	Not willing to pay	
Awareness of green marketing	Aware of green marketing	Count	62	18	80
		Expected Count	57.3	22.7	80.0
	Not aware of green marketing	Count	24	16	40
		Expected Count	28.7	11.3	40.0
Total	Count	86	34	120	
	Expected Count	86.0	34.0	120.0	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.022 ^a	1	.045		
Continuity Correction ^b	3.206	1	.073		
Likelihood Ratio	3.911	1	.048		
Fisher's Exact Test				.055	.038
Linear-by-Linear Association	3.988	1	.046		
N of Valid Cases ^b	120				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 11.33.

b. Computed only for a 2x2 table

**Table 2: Shows the Chi Square test
Symmetric Measures**

		Value	Approx. Sig.
Nominal by Nominal	Phi	.183	.045
	Cramer's V	.183	.045
N of Valid Cases		120	

while 10 respondents are not willing to pay more and 16 respondents out of 30 who consider Brand as an important criteria while purchasing are willing to pay more for the product due to green feature while 14 respondents say they are not willing to pay more.

From the Chi-square test used to analysis the H0 that awareness of green marketing had no association with the respondents willing to pay for the product due to

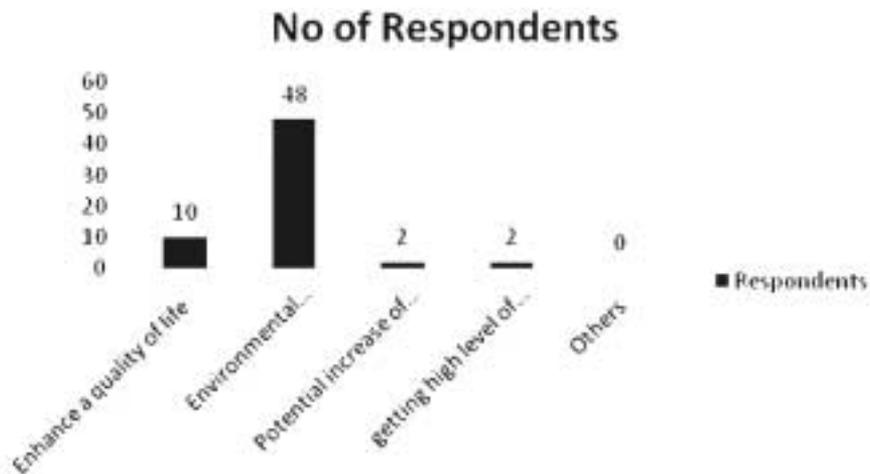
green feature reveals that the chi square value is 4.200 which more than the alpha value at 1 degree of freedom is 3.841. Therefore we reject the H0. Hence the results show that there is a significance association between awareness of Green marketing on willing to pay more for green feature. But the significance is moderate.

From the above table we find that there is a moderate relationship between awareness between green

Table 3: Shows the correlation results between Awareness between green marketing and Awareness of green product in market Correlations

		Aware of green marketing	Aware of Green Product
Aware of green marketing	Pearson Correlation	1	.543**
	Sig. (2-tailed)		.000
	N	120	120
Aware of Green Product	Pearson Correlation	.543**	1
	Sig. (2-tailed)	.000	
	N	120	120

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



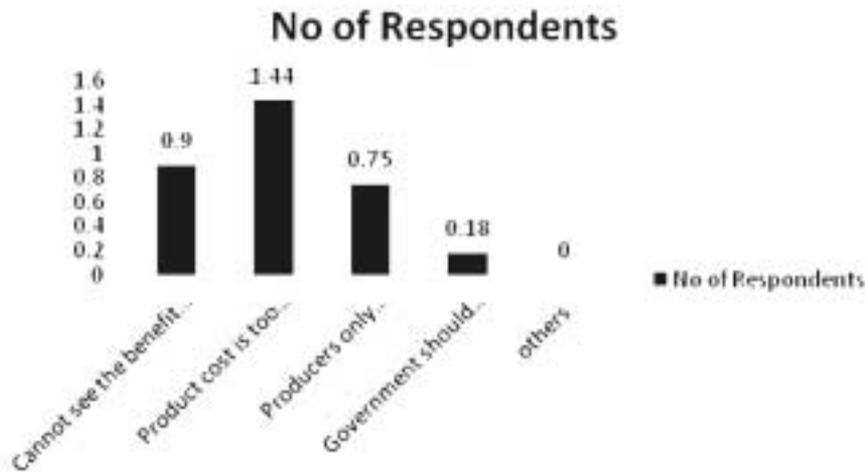
Graph 1: Shows the reason why respondents who are aware of green marketing and who are willing to pay more for green feature are willing to pay more for green product

marketing and Awareness of green product in market (.543). This shows that some people are aware of the green marketing but are not aware of the green products that are available.

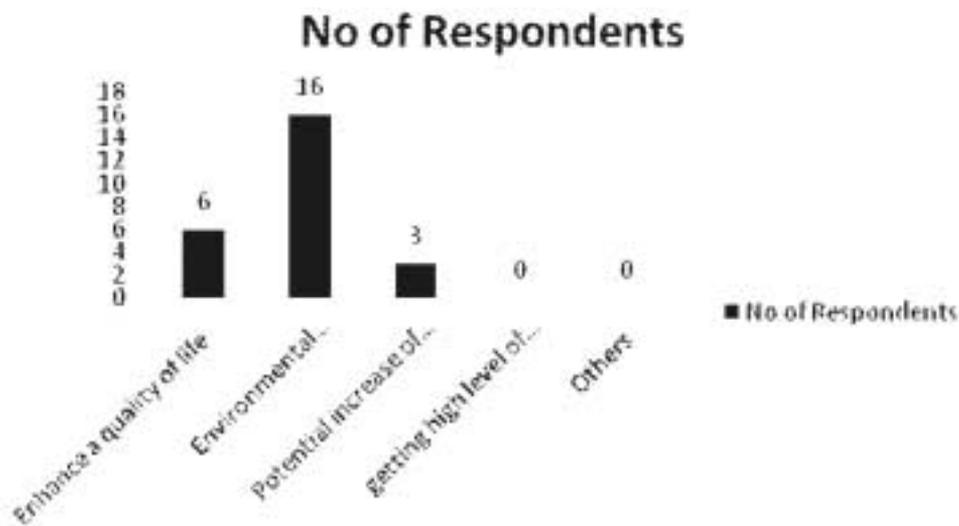
There are 62 respondents who are aware of the concept of green marketing and are willing to pay more prices for green feature. Out of these 62 respondents 48 respondents are willing to pay more because there are concerned about the environment. They feel responsible towards it. Followed by the 10 respondents who feel that green product will enhance the quality of the life.

There are 17 respondents who are aware of the concept of green marketing but are not willing to pay more prices for green feature. 8 out of 17 respondents are not willing to pay more because they feel that the costs of these products are too high.

For the purpose of the above graph we have considered the respondents who consider price as important factor while purchasing the products, among these respondents we have selected the respondents who are aware of green products in market (25 respondents) and are willing to pay more for green products. Out of these 25 respondents have 16 said they are willing



Graph 2: Shows the reason why respondents who are aware of green marketing and are not willing to pay more for green feature are not willing to pay more for green product



Graph 3: Shows the reason why respondents who are aware of green product in market and consider price as an important criteria for purchase are willing to pay more for green product

to pay more because there are concerned about the environment. While 6 respondents who feel that green product will enhance the quality of the life.

Conclusion

The world today is filled with various kinds of product. With the growing population the demands for the products have also increase. This has led to the growth of industries across the globe. And with the phase at which industrialization and urbanization has increased

the environmental issues have also been increased. Today we live in the world where from the water we drink to the air we breathe is polluted. This has led to the outbreak of various disease. Therefore it becomes the responsibility the organizations as well as the consumers to contribute towards the betterment of the environment. Has an imitative many company have started to follow the concept of “Green Marketing”, where the organizations have started to manufacture product that are environment friendly

products. But the question arise that whether consumers are ready to accept these product and if there are aware of the green marketing.

The aim of this paper was to find out the awareness of the concept green marketing, green product and its impact on consumer decision in Bangalore. And to determine the reasons if consumers would pay or not pay extra for the green products

The result of the paper shows that most people are aware of green marketing and green products. And majority of people who are not aware of the concepts are willing to know about it. It is also seen that price is an important factor in consumer buying decision. When price is taken into criteria to see the impact on green marketing, it shows that people don't mind paying more on green products. The study further

reveals that people who are aware of green marketing are willing to shift from normal products to green products.

As shown in the results main reasons for paying more is that feel responsible towards environment by purchasing the eco-friendly product while some don't prefer to pay more because there are costly.

Thus is can be concluded that green marketing is popular among the consumer yet there are many who are not aware of the concepts as well as the products that are available in the market. The study shows that the consumers are ready to accept and buy green products. Therefore companies should try to manufacture eco- friendly product but make sure that they don't price them high because price is an important factor for consumers

Reference

1. Boztepe A. Green marketing and its impact on consumer buying behavior. *European Journal of Economic and Political Studies*. 2012;5(1):5-21.
2. Babita Saini (2010), Green marketing and its impact on consumer buying behavior, *International Journal of Engineering Science Invention*, Volume 2 Issue 12, PP.61-64
3. Ken Peattie, Andrew Crane, (2005) "Green marketing: legend, myth, farce or prophesy?", *Qualitative Market Research: An International Journal*, Vol. 8 Iss: 4, pp.357 - 370
4. Dr. Seema Laddha Prof. Mayur Malviya "Green Marketing and its Impact on Consumer Buying Behavior" *NBR E-JOURNAL*, Volume 1, Issue 1 (Jan-Dec 2015) ISSN 2455-0264
5. Dr. Shruti P Maheshwari (2014), *AIMA Journal of Management & Research*, February 2014, Volume 8 Issue 1/4, ISSN 0974 – 497
6. Saxena RP, Khandelwal PK. Greening of industries for sustainable growth: An exploratory study on durable, non-durable and services industries. *International Journal of Social Economics*. 2012;39(8):551-86.
7. Solomon, M.R. (1995), *Consumer Behaviour*, 3rd Ed., Prentice Hall Stayman, D.M. and Deshpande, R. (1989), "Situational Ethnicity and Consumer Behaviour", *Journal of Consumer Research*, 16, December, pp. 361-371.
8. Surendra Verru, *International Journal of Advanced Trends in Computer Science and Engineering*, Vol.2 , No.1, Pages : 569 – 575 (2013) Special Issue of ICACSE 2013 - Held on 7-8 January, 2013 in Lords Institute of Engineering and Technology, Hyderabad
9. Stavros P. Kalafatis Michael Pollard Robert East Markos H. Tsogas, (1999), "Green marketing and Ajzen's theory of planned behaviour: a cross-market examination", *Journal of Consumer Marketing*, Vol. 16 Iss 5 pp. 441 – 460

Website

<http://www.marketing-schools.org/types-of-marketing/green-marketing.html>

<http://www.thehindu.com/news/national/pollution-in-india-higher-than-china-greenpeace/article8267769.ece>

<http://timesofindia.indiatimes.com/home/environment/pollution/80-of-Indias-surface-water-may-be-polluted-report-by-international-body-says/articleshow/47848532.cms>⁸

https://en.wikipedia.org/wiki/List_of_most_polluted_cities_in_the_world_by_particulate_matter_concentration

<http://www.thehindu.com/news/national/pollution-in-india-higher-than-china-greenpeace/article8267769.ece>

<http://timesofindia.indiatimes.com/home/environment/pollution/80-of-Indias-surface-water-may-be-polluted-report-by-international-body-says/articleshow/47848532.cms>

Footnotes

¹https://en.wikipedia.org/wiki/List_of_most_polluted_cities_in_the_world_by_particulate_matter_concentration

³<http://timesofindia.indiatimes.com/home/environment/pollution/80-of-Indias-surface-water-may-be-polluted-report-by-international-body-says/articleshow/47848532.cms>

⁴<http://www.thehindu.com/news/national/pollution-in-india-higher-than-china-greenpeace/article8267769.ece>

⁵<http://timesofindia.indiatimes.com/home/environment/pollution/80-of-Indias-surface-water-may-be-polluted-report-by-international-body-says/articleshow/47848532.cms>

⁶<http://www.isustainableearth.com/green-products/what-is-a-green-product>

⁷<http://iosrjournals.org/iosr-jbm/papers/ncvbm/volume-1/6.pdf>

Mutual Funds Investors Behaviour in Delhi

Dr. Preety Wadhwa*

Sourabh Bansal**

Ankit Gupta***

Introduction

Investing is a very fascinating activity that captivates people from any field whether they are from business background or have low or high status in society and whatever be the level of knowledge they possess. A person with more money will have more consumption and thus he will invest in share or securities or will deposit in his bank account to get high returns to fulfill its current needs. The companies with the extra money invest in their business to expand or start with the new venture. All these activities contribute towards “investment”. Mutual Fund is one of these investment opportunities that most of the people invest in. It is one of the most preferred financial instruments that give higher returns to the investor. The Mutual Fund came into existence back in year 1964 when Unit Trust of India was assimilate as Statutory Corporation. When UTI is incorporated, it enjoyed monopoly powers in year 1963 as it was established by the Central bank i.e., Reserve Bank Of India(RBI).The first scheme launched by Unit Trust of India(UTI) in 1964 is by the name of “Unit scheme”, which had attracted many potential investors in single investment scheme. The first bank that introduces the concept of mutual fund was State Bank of India (SBI) which was recognized by the name “SBI Mutual Fund” in July, 1987. The

Dr. Preety Wadhwa*

Associate Professor BVIMR

Sourabh Bansal**

MBA

Ankit Gupta***

MBA

government also gave the permission to the insurance companies to join mutual fund.

Thus, Money is said to be a delicate matter for most people because there are many investment options available out there that an investor has to choose from. The most important question that an investor has to choose is where to invest his savings i.e. whether to invest in national savings, banks, post office, fixed deposits, shares, non-banking finance companies or at last in Mutual Funds. A Mutual Fund is a fund or we can say a trust that pools the savings of investors who have a common financial goal. This pool of fund is then invested in capital market instruments such as debentures, shares and other securities. These capital investments earn capital appreciation and income which is shared among unit holders in proportion to the number of units owned by them. The growth in mutual fund is slow and its market segment contributes \$1.48 trillion in the U.S. against a corpus of \$100 million in India. In mutual fund, there is a complete consent between the unit holders and they bear same percentage as the contribution to make up the single ownership. Mutual funds are monitored by SEBI which takes care of the interest of the investors. Securities and Exchange Board of India (SEBI) is the governing body of all the financial intermediaries.

The money market of India is controlled by Securities and Exchange Board of India (SEBI) which is established under the act Securities and Exchange board of India,1992. The number of stock exchanges operated under the approved government laws, policies and programmers are 23 stock exchanges. These stock

exchanges together build up the organized segment for securities issued by the public and private companies, central government and the state government. The growth of Mutual Funds is seen to be very slow and to evolve it into modern day Mutual Funds, it took long years. Mutual Funds emerged in Netherlands in 18th century and then and then got to Scotland, Switzerland, and United States in the 19th century. Mutual Fund's main motive is to provide diversified investment opportunity and deliver it to its investors. The idea of Mutual Funds developed over the years and the investors have received more choices of diversified investment portfolio through it. In today's world of immense competition and globalization, the success of a company is determined by the market price of its stock. The investors like to invest in those company's stocks that can give them maximum return or benefits. In early years, when the mutual fund concept was growing, the investors had only a few investment opportunities where they could invest their money. But now the investors have many alternative investment opportunities to invest their savings through different investment channels. One such investment channel is to invest through mutual funds. With the help of both the brokerage houses and the fund managers, who educate the investors and make them aware of mutual fund schemes, mutual funds has seen a tremendous growth.

Mutual Funds are seen by investors as financial intermediaries who identify investment opportunity, process financial information, formulate investment strategies, invest funds and monitor progress for the investors at very less cost. These combined efforts of fund managers and mutual fund brokers have led to the success of Mutual Funds. A Fund manager should understand investor's needs and expectations and their behavior so as to improve his performance to meet the investor's requirements. Mutual fund companies should understand the behavior of investors on fund selection/switching and to design the fund in accordance with the dynamic needs of consumers otherwise survival of funds will be very difficult in future. The exciting area of study and research of Behavioral finance has been gaining importance in recent years because of the interest of marketing worlds

and financial economies. Mutual Funds (MFs) now have emerged to be an important investment avenue for retail investors because of reforms in Indian financial sector and developments in Indian financial markets. The investment habits of investors in India have undergone a drastic of change. With increasing number of Mutual Fund companies of private as well as public sectors entering into the market with new and innovative schemes, has catered to the increasing requirements of the investors in India and abroad. For particularly small investors, mutual fund provides a better alternative for investments, and obtains benefits of expertise based equity investments. So in current scenario, in which our market is flooded with hundreds of investment schemes, it is important for the companies to analyze the needs of consumers and find out the necessary factors that affect these needs.

Therefore, the study is important to know whether the investors are willing to invest in shares or in mutual funds and also there is an urgent need to study the investor's behavior in the market due to growing competition between large players that has different financial strengths and strategies.

Review of Literature

Reviewing of all the literature on the area of research is a preliminary step before starting to plan the study. There are many studies conducted in connection with the investment tools. It is important to have a glance of all the relevant material connected with the research. This study is based on the Mutual Fund investor's behavior in Delhi-NCR. A person can invest in any of the schemes namely; Mutual Funds, Bonds and Shares, Equities, Real Estate, Post Office, Gold, PPF, Fixed Deposits and many more. The investors want to have their money in safer hands and want to get regular profit (interest) from it. So, many of them invest their money in Mutual funds as Mutual Funds provide greater return at high risk (Madhusudan V. Jambodekar, 1996). Shanmgham (2000) research on individual investors to study the information source does investors depends, founded 3 factors economical, sociological and psychological that control investors decisions. Madhusudhan (1996) survey to find out what all factors to be undertaken that influence the

behaviour of investors in mutual funds. The study result in open mind scheme were more preferred over the closed ended and growth scheme. Newspaper and advertisement are widely spread sources of information about mutual fund. Shivanighalot (1998) found that load fee and expense ratio is one of the major cause in mutual fund scheme for inefficient and inactive of investors hence companies must reduce it to make better investment scheme. Syama sunder (1998) conducted a survey resulting in lack of awareness in small cities, town and also prime factors are brand image and high return for investment. Singh and chander (2004) found some causes for not investing in mutual fund like poor regulation and control, inefficient management and lack of performance. Desigan et al. (2006) concluded that women investors are not very much interested in mutual funds. Murthi (1997) proposed problem related with measuring performance as identifying the appropriate benchmark, not focusing on accounting for the transaction cost. In India, chander (2000) found the outperform while singh and single (2000) found the funds underperform their benchmark. Sujitsikidar&Amrit Pal Singh (1996) proposed a survey of north eastern region measuring the behavioural pattern of equity and mutual fund investment. The survey founded that mutual fund are preferred by salaried and self-employed individual due to the tax benefits. Syama sunder (1998) conducted a research with identifying the indepth view into the operation of private sector mutual fund with special reference to Kothari Pioneer. The survey found that in Visakhapatnam like small cities, the knowledge about mutual fund is not satisfactory, but somewho open ended mutual fund are more preferable than any other schemes and agents can help to create mutual fund culture, asset management companies brand is core to be considered to invest in mutual fund. Harsh Rungta (2000) concerned with ascertaining the brand competence of asset management companies. Shankar (1996) discussed the work & steer of consumer product distribution model which penetrate mutual fund culture in society asset management. Raja Rajan (1997) found that increasing popularity of mutual fund are underlined segment of investors of mutual fund. Markowitz (1952) & Tobin (1958) conducted

a survey resulting in the 'risk' is the one of the important factor of variability of returns. Treynon (1965), Sharpe (1966) & Jenson (1968) compared professionally portfolio returns with some standard benchmark. Rahul Malik (1997) underlined that there is a need for awareness of mutual fund amongs the general public as liquidity is perceived as high & tax benefits & procedural understanding are low for investment purpose. Investment in Mutual Funds is in great demand now days. Many research papers have been published on mutual funds. A study carried out by Shankar (1996) revealed that consumer distribution model helps in bringing Indian Investors to invest in Mutual funds on a large scale. According to Jambodekar (1996), people invest more in income scheme and open ended schemes. They prefer them over closed ended and growth schemes as they give more return and one can invest in these schemes any time. People of North east India invest more in Mutual Funds because of only one advantage i.e; tax saving. They only see tax saving benefit any nothing else. Sikidar& Singh (1996) A study conducted by Raja (1998) results that the investment in Mutual Funds is based on age, gander, income and other demographic factors. On the other hand, many investors invest in Mutual Funds because of short term benefits. They only see performance of Mutual funds for short period and use information about Mutual Funds for selection of decisions. Lu Zheng (1999). According to the survey conducted by Shanmugham (2000), the psychological and sociological factors are the main factors that influence people to invest in Mutual Funds. Raghav (2001) conducted a study in South India and he found that people invest in Mutual Funds because Mutual Funds provide regular returns and saves taxes. According to Keli (2005); past performance and fund investment are the two main factors that helps the investors to select the right scheme for them so that they can invest their valuable money in the best scheme. Women are the one who never invest in Mutual Funds. This is because of the lack of awareness about Mutual Funds, long procedures, complex structures etc. This was revealed by Desigan et al. (2006) in his study over women investors in India. K. Lashmanarao (2011) found that SEBI, AMFI, and

IRDA should take necessary measures to make the investment process easier and should provide more benefits to the investors so that more and more people can get aware about Mutual funds and they can easily invest in Mutual funds. Anand&Murugalah (2004) further added to k. Lashmanarao by saying that financial companies should also take some steps to aware people about Mutual funds. They should make their procedure of doing the work easier by introducing some innovative idea in it. This would help in bringing more and more investors to invest in Mutual Funds. A study on Investors buying behaviour for financial assets, specially focus on Mutual Funds, conducted by DhimenJani (2012) revealed that investment in Mutual funds will increase if commissions and other benefits will be given more to the financial companies. Also, he further found that the demographic factors are the main reasons behind the Mutual Fund investment. Rathnamani (2002) conducted a survey in Kerala. He found that investors invest in Mutual Funds because of high return in future and it saves tax. Singh & Singh (2000) found out that investors invest in only those schemes which give high return and a regular return. They invest in these schemes through brokers. A study conducted by Kumar (1996) revealed that investors prefer to invest in real estate and gold more over Mutual funds as they are less risky. Saini& Raj (1998) found that many investors shows positive reactions towards investment in Mutual funds. Capon &Fitzmann (1997) found that only those people invest their money in Mutual Funds who have full knowledge about mutual funds and who can handle the risks, are investing their money in Mutual Funds. Capon &Fitzmann (1998) found that only higher income people invest their money in mutual funds. The people with lower income and in middle income prefer to invest in gold than in mutual funds. Singh &Chander (1996) found that many people don't invest in Mutual Funds. This is because of the strict rules and regulations made by regulating authorities like SEBI. Also, they were unable to control the market. Lusardi, Annamaria, Mitchell and Olivia S. (2007) revealed that there are many households who are unfamiliar with the basic knowledge of investment and economic concepts needed to make saving

decisions. Such financial illiteracy is widespread: the young and older people in the United States and other countries appear woefully under-informed about basic financial concepts, with serious implications for saving, retirement planning, mortgages, and other decisions. In response, governments and several nonprofit organizations have undertaken initiatives to enhance financial literacy. Ms. PoojaChaturvedi Sharma & Dr. Anoop Pandey (March 2014) underlined the big part of investors behavior having a vague perception about mutual funds investment plans are confused to invest in mutual funds or other type of securities, not able to make a attitude towards this particular form of investment due to the lack awareness about various functions of mutual funds. Gender, income, age, and level of education have also a significant affect influencing the investor's behavior towards mutual funds. Therefore, they suggested that for achieving heights in the financial sector in small cities, the mutual fund companies should adopt some relevant strategies in such a way that helps in fulfilling the investors' expectations. The main task to perform before the mutual fund industry is to convert potential investors into reality investors as people in metro cities have considerably high levels of awareness but the challenge lies in small cities. G.J. Alexander et al. (1998) the typical mutual fund investor surveyed is older, wealthier, and better educated than the average American investor Awareness of the expenses and risks associated with mutual funds can be improved. Although the average fund shareholder has invested in funds for several years, most fund shareholders do not appear to appreciate the relationship between fund expenses and performance. The survey results also suggest that more can be done to make mutual fund prospectuses more useful to investors, especially since over 40% of those surveyed stated that they never used the prospectus. Moreover, the survey respondents considered the prospectus only the fifth best source of information about the funds that they purchased. Two rules that were recently adopted by the SEC are significant and timely steps in this direction. The first rule requires the use of "plain English" that avoids legalese in disclosure documents such as prospectuses. The second rule allows shortened but more focused

prospectuses, known as profile prospectuses, to be sent to potential mutual fund purchasers. Simran Saini, Bimal Anjum and Ramandeep Saini (May 2011) objective is to study the factors like Qualification, occupation and annual income that can win back the investor's confidence to invest in mutual funds are the minimum assured returns (32.14%) followed by transparency (28.58%) and consistency (22.44%), though they found that, the most important feature is considered by the investors is the past performance and stability of mutual funds that attract the investors while choosing a mutual fund, followed by the past dividend records, the portfolio of the scheme, entry/exit load and the fund managers name. Their study also reveals that for majority of the respondents newspapers (23.97%) are the main source of information followed by brokers (22.96%), internet (22.96%), and tax consultants (17.86%) and friends/relatives (10.74%). Therefore they conclude that the main objective of the respondents behind investing in mutual funds is the tax benefits offered by it followed by high return and safety of the schemes.

Research Objectives

1. To analyze the factors that influence the behavior of investors to be considered while investing in mutual funds including the factors that stops the investors to invest in mutual funds.
2. To determine the effect of demographic elements

dealing with mutual fund.

Hypothesis

1. H_{01} – There is no significant relationship between attributes of the investors with the factors considered while investing in mutual funds.
2. H_{02} – There is no significant relationship between high management cost with the behavior of investors investing in mutual funds.
3. H_{03} – There is no significant relationship between Middle class income investors with the behavior effecting to the mutual funds.

Sample and data collection

This research is conducted in Delhi. This research is Descriptive type of research study. Cross sectional study is adopted under descriptive research. It is related to the analysis of Investor's behaviour towards investment in mutual funds of Delhi. 140 Respondents of different age groups and different income structure were surveyed with the help of structured questionnaire. Primary data is collected through structured questionnaire (The questions are circulated in hard copy as well as in soft copy through Survey Monkey). Secondary data is collected through Magazines and Internet was used to study the existing literatures. The technique used is Non Probability Judgmental Sampling Technique to develop a sense of reliability and accuracy for the research. For reliability Cronbach's Alpha value was checked which came out to be 0.805.

Table 1: Reliability Statistics

Cronbach's Alpha	N of Items
.805	35

Instrument Used

SPSS 19 (Statistical Package for Social Sciences) is statistical software used for the analysis of data obtained. It was first introduced in 1968 and till now 23rd version is available, also known as IBM-SPSS. The scale of the questionnaire was developed by Sweta Goel (June, 2013). The original scale was modified in the number of statements according to the best suitability of the paper. Changes in the questionnaire were made under the guidance of experts. Five point Likert scale

which is most commonly used and preferable scale (5= 'strongly agree' and 1= 'strongly disagree') was used for the study. The tools used are Factor Analysis Test (Factor Analysis Test is conducted to get the factor(s) that influence the others), Chi-square Test (to find out the association between variable(s) with the help of contingency table).

Data Analysis

1. H_{01} – **There is no significant relationship**

Table 2.1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.931
Bartlett's Test of Sphericity	Approx. Chi-Square	2028.225
	Df	28
	Sig.	.000

between attributes of the investors with the factors considered while investing in mutual funds.

- A study of Kaiser-Meyer-Olkin's Measure of Sampling Adequacy (MSA) found high correlation for all the variables with score of 0.931 ie; the data is highly correlated which indicate that the sample size is adequate for sampling. (KMO & Bartlett's Table 2.1)
- Barlett test of sphericity is used to highlight the overall significance of correlation matrices here the data is significant with $.000 < .05^*$ and it also provided support for the validity of the factor analysis.

*The sig. value must be less than .05 as paper is working with 95% confidence level.

Now when it is accomplished that the data is suitable for factor analysis, will go for the Total Variable Explained box which suggests that it extract only one factor which records for 91.175% of the variance of

the relationship between variables. (Total Variance Explained Table 2.2).

There is only one factor, having Eigen value exceeding 1. The % of variance in Rotation Sums of Squared Loadings represent as an index to determine how well the total factor solution accounts for what the variables together represent. Here it accounts for 91.175% of the total variations, that is striking extraction as it can be economize on the number of factors (from 8 it has reduced to 1 factor) while we have lost 8.825% information content for factors.

Further, will have a look to the Component Matrix Box as factors are rotated for better interpretation. The goal of rotation is to attain an optimal simple structure which attempts to have each variable load on as few factors as possible, but maximizes the number of high loadings on each variable (Rummel, 1970). Ultimately, the simple structure attempts to have each factor define a distinct cluster of interrelated variables so that interpretation is easier (Cattell, 1973). This paper works with .50 as absolute value in coefficient display

Table 2.2: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.294	91.175	91.175	7.294	91.175	91.175
2	.170	2.121	93.296			
3	.155	1.938	95.235			
4	.121	1.513	96.748			
5	.091	1.141	97.889			
6	.080	1.005	98.894			
7	.055	.681	99.576			
8	.034	.424	100.000			

Table 2.3: Component Matrix^a

	Component 1
Investment in Mutual Funds through SIP helps in regular savings.	.963
Investment in Mutual Funds helps to save tax.	.962
Mutual Fund investment are diversified.	.958
Mutual Funds provide higher return.	.955
Investment in Mutual Fund is more liquid than investment in Fixed Deposits.	.954
Investment in Mutual Funds through SIP reduces Risk/Uncertainty.	.954
Investment in Mutual Funds provide regular income.	.946
Investment in Mutual Funds provide more safety than other investment opportunities.	.945

format while testing the factor analysis. The matrix extracts the 1 factor which is highly considered by the investors with .963 as a load value. The factor is named as **Investment through SIP**. Therefore, the NULL hypothesis is rejected as there is a significant relationship between the attributes of the investors with the factors considered while investing in mutual funds.

2. **H₀ - There is no significant relationship between high management cost with the behavior of investors investing in mutual funds.**

- A study of Kaiser-Meyer-Olkin's Measure of Sampling Adequacy (MSA) found high correlation for all the variables with score of 0.921 ie; the data is highly correlated which indicate that the sample size is adequate for sampling. (KMO & Bartlett's Table 2.1)
- Bartlett test of sphericity is used to highlight the overall significance of correlation matrices here the data is significant with $.000 < .05^*$ and it also provided support for the validity of the factor

analysis.

*The sig. value must be less than .05 as paper is working with 95% confidence level.

It is accomplished that the data is suitable for factor analysis, now we will go for the Total Variable Explained box which suggests that it extract only one factor which records for 89.090% of the variance of the relationship between variables. (Total Variance Explained Table 3.2).

There is only one factor, having Eigen value exceeding 1. The % of variance in Rotation Sums of Squared Loadings represent as an index to determine how well the total factor solution accounts for what the variables together represent. Here it accounts for 89.090% of the total variations, that is outstanding extraction as it can be economize on the number of factors (from 6 it has reduced to 1 factor) while we have lost 10.91% information content for factors.

Further, will have a look to the Component Matrix Box as factors are rotated for better interpretation. This

Table 3.1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.921
Bartlett's Test of Sphericity	Approx. Chi-Square	1199.356
	Df	15
	Sig.	.000

Table 3.2: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.345	89.090	89.090	5.345	89.090	89.090
2	.206	3.433	92.523			
3	.148	2.468	94.991			
4	.134	2.237	97.228			
5	.092	1.537	98.765			
6	.074	1.235	100.000			

paper works with .50 as absolute value in coefficient display format while testing the factor analysis. The matrix extracts the 1 factor which is highly considered by the investors with .956 as a load value. The factor

is named as **High Management Cost**. Therefore, the NULL hypothesis is rejected as there is a significant relationship between the attributes of the investors with the factors considered while investing in mutual funds.

Table 3.4: Component Matrix

	Component
	1
High management cost is involved in Mutual Funds.	.956
Comparing with stock market, Mutual Funds provide less return to investors.	.948
Lack of procedural clarity is also a factor of dissatisfaction.	.947
Mutual Funds involve 'High Risk' factor due to continuous fluctuation in the capital market.	.946
Switching off from Mutual Funds is due to lack of awareness.	.937
Investors in Mutual Funds have no control over portfolio.	.930

3. **H₀₂- There is no significant relationship between Middle class income investors with the behavior effecting to the mutual funds.**

Considering the behaviour of investors in row and Annual Income category in column, the Cross Tabulation Table determines the total number of people invested and concluded that middle income investors invested more than the other category (taking the middle income from 3-9 lakhs per annum). Out of the 61 investors, 13 comes under lower income category investors, 30 as middle income category investors and rest comes under high income category investors ie. 18. Though the majority of the investors

belongs to middle class income category which defines that people with the limited income are more attracted towards the mutual funds as they seems the mutual fund as a mode of saving and high return. Whereas the higher class income category investors prefer to invest more in securities like Debenture, Gold Reserves and Real Estates etc. This result is abstracted from the output of the chi-square test. Therefore, the NULL HYPOTHESIS got rejected. So there is a significant relationship between middle class income investors with the behavior effecting to the mutual funds.

Findings and Conclusion

The objective of this paper is to find out the factors

Table 3: Have you invested money in any Mutual Fund? * Annual Income: Crosstabulation

			Annual Income:					Total
			Less than 3 Lakhs	3-5 Lakhs	6-9 Lakhs	10-14 Lakhs	15 Lakhs and above	
Have you invested money in any Mutual Fund?	Yes	Count	13	15	15	14	4	61
		% within Have you invested money in any Mutual Fund?	21.3%	24.6%	24.6%	23.0%	6.6%	100.0%
		% within Annual Income:	32.5%	51.7%	44.1%	43.8%	80.0%	43.6%
		% of Total	9.3%	10.7%	10.7%	10.0%	2.9%	43.6%
	No	Count	27	14	19	18	1	79
		% within Have you invested money in any Mutual Fund?	34.2%	17.7%	24.1%	22.8%	1.3%	100.0%
		% within Annual Income:	67.5%	48.3%	55.9%	56.3%	20.0%	56.4%
		% of Total	19.3%	10.0%	13.6%	12.9%	0.7%	56.4%
Total	Count	40	29	34	32	5	140	
	% within Have you invested money in any Mutual Fund?	28.6%	20.7%	24.3%	22.9%	3.6%	100.0%	
	% within Annual Income:	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
	% of Total	28.6%	20.7%	24.3%	22.9%	3.6%	100.0%	

effecting the behavior and perception of the investors towards the mutual funds. This research is conducted on 140 Respondents, residents of Delhi consisting the factors which attracts them and also stops them to invest in mutual funds. The hypothesis based on the behavior of the people investing in mutual funds. Based on this research here we found that the tax saving, regular income, higher return and more liquidity are the important factor considered by the investors in Delhi as it helps the people to make their disposable income more efficient in terms of investment in the securities and earn a healthy return. So therefore considering all the factors together we named as

Investment through SIP as one factor is that which motivate more and more investors. From the total population of Delhi, here we have concluded that the middle class income people prefer mutual fund as a prior source of investment as by investing they get the marginal income provided by diversification and long term investment benefits. Another hypothesis depicts that the people who do not invested in mutual funds considered the factor high management cost involved in maintaining the mutual fund followed by lack of awareness.

The conclusion of this paper is the behavior of the investors influenced by many factors and also

demographic elements comprises of age, gender, income etc. affect the mindset of the investors. The aim of investors is to earn high return and safeguard the interest of investing with less risk. The most important factors considered by the people of Delhi is Investment Through SIP which attracts the people and lack of awareness and high management cost are the factors that stop the people not to invest in mutual funds comparing with other type of securities like stock market, real estates, bonds and debentures etc. Therefore this paper provides a concept of behavior and perception influenced by many factors of the mutual funds investors that upgrade the knowledge of the investors of Delhi.

Managerial Usefulness

The mutual fund companies can take advantage of our research for judging the behavior of investors of

Delhi. The other researchers can have a glance over the behavior and perception pattern of the mutual funds investors by this paper in more reliable and authentic manner. As this paper has focused on quality work that is supported by facts and figures. According to the paper, they can make relevant changes in their mutual funds and in their organization so that they can attract the investors. Also the mutual funds co. can change their marketing strategies accordingly. Our study reveals that middle class income investors invest more in mutual funds as it provides them tax free investment and they can make the easy and regular returns. This paper identified many factors that can bring the changes in the behavior of the investors resulting to which companies can grab the opportunity to make best out of it and also to have preventive measures for safe the companies objectives from outside available threats.

References

1. Agudo L. F. and Magallon M. V., "Empirical evidence of performance persistence in a relatively unexplored market: The case of Spanish Investment Funds", *Applied Financial Economics Letters*, vol. 1, pp. 85-88, 2005.
2. Allen D.E. and Tan M.L., "A test of the persistence in the performance of U.K. Managed Funds", *The Journal of Business Finance & Accounting*, vol. 26, no. 5, pp. 559-593, 1999.
3. Anderson R. I., Brockman C. M., Giannikos C. and McLeod R. W., "A Non-Parametric Examination of Real Estate Mutual Fund Efficiency", *International Journal of Business and Economics*, vol. 3, no. 3, pp. 225-238, 2004.
4. Apap A. and Griffith J. M., "The Impact of Expenses on Equity Mutual Fund Performance", *Journal of Financial Planning*, vol. 11, no. 1, pp. 76-81, 1998.
5. Babalos V., Kostakis A. and Philippas N., "Managing Mutual Funds or Managing Expense Ratios? Evidence From Greek Fund Industry", 2009, <http://ssrn.com/abstract=1016779>, accessed on Sep 20, 2012.
6. Barinov A., "Measuring Performance of Russian Equity Funds", <http://www.nes.ru/~agoriaev/Papers/Barinov%20Measuring%20performance%20of%20Russian%20equity%20funds%20MThesis03.pdf>, 2003, Accessed on March 1, 2006.
7. Basso A. and Funari S., "A Data Envelopment Analysis Approach to Measure The Mutual Fund Performance", *European Journal of Operational Research*, vol. 135, no. 3, pp. 477-492, Dec 2001.
8. Bauer R., Otten R., and Rad A. T., "New Zealand mutual funds: Measuring performance and persistence in performance", *Accounting and Finance*, vol. 46, pp. 347-363, 2006.
9. Belgacem S. B. and Hellara S., "Predicting Tunisian Mutual Fund Performance Using Dynamic Panel Data Model", *The Journal of Risk Finance*, vol. 12, no. 3, pp. 208-225, 2011.
10. Blake C. R., Elton E. J. and Gruber M. J., "The Performance of Bond Mutual Funds", *The Journal of Business*, vol. 66, pp. 371-403, 1993..

11. Bogle J. C., "Selecting Equity Mutual Funds", *Journal of Portfolio Management* vol. 18, no. 2, pp. 94-100, 1992.
12. Boles J., Donthu N. and Lohtia R., "Salesperson Evaluation Using Relative Performance Efficiency: The Application of Data envelopment Analysis", *Journal of Personal Selling & Sales Management*, vol. 15, no. 3, pp. 31-49, 1995.
13. Cai J., Chan, K. C. and Yamada T., "The Performance of Japanese Mutual Funds", *The Review of Financial studies*, vol. 10, no. 2, pp. 237-273, 1997.
14. Carhart M.M., "On persistence in mutual fund performance", *Journal of Finance*, vol. 52, pp. 57-82, 1997.
15. Casarin R., Pelizzon L. and Piva A., "Performances and performance persistence of Italian equity funds", Working Paper no. 00.06, <http://www.greta.it/italiano/pagine/PdfFile/00.06.PDF>, 2000, accessed on October 23, 2005.
16. Chan L. H., Chen and Lakonishok J., "On Mutual Fund Investment Styles", *Review of Financial Studies*, vol. 15, pp. 1407-1437, 2002.
17. Chander R., "Performance Appraisal of Mutual Funds in India", Unpublished doctoral dissertation, Kurukshetra University, Kurukshetra, 1999.
18. Chander R., "Performance Appraisal of Mutual Funds in India", *Finance India*, vol. 14, no. 4, 1256-1261, 2000.
19. Chander R., "Investment performance of managers' stock selection abilities: Empirical evidence from the Indian capital market", *Decision*, vol. 32, no. 1, pp. 65-90, 2005.
20. Chander S. and Singh J., "Performance of Mutual Funds in India: An Empirical Evidence", the ICAFI *Journal of Applied Finance*, vol. 10, no. 6, pp. 45-62, 2004.
21. Chang K. P., "Evaluating Mutual Fund Performance: An Application of Minimum Convex Input Requirement Set Approach", *Computers and Operations Research*, vol. 31, pp. 929-940, 2004.
22. Warren Bailey Alok Kumar David Ng *Journal of Financial Economics* July 2010
23. sainiSimran; anjumbimal and sainiramandeep "Investors' awareness and perception about mutual funds" *International Journal of Multidisciplinary Research* Vol.1 Issue 1, May 2011
24. P tripathynalini "Mutual Fund In India: A Financial Service In Capital Market" *FINANCE INDIA* Vol. X, No. 1, March 1996, Pages— 85-91
25. Agudo L. F. and Magallon M. V., "Empirical evidence of performance persistence in a relatively unexplored market: The case of Spanish Investment Funds", *Applied Financial Economics Letters*, vol. 1, pp. 85-88, 2005.
26. Abeysekera SP, Rosenbloom ES. A Simulation Model Between Lump Sum and Dollar Cost Averaging. *Journal of Financial Planning* 2000; 13(6): 86-92.
27. Atra RJ, Mann TL. Dollar-cost Averaging and Seasonality: Some International Evidence. *Journal of Financial Planning* 2001; 14(7): 98.
28. Dubil R. Lifetime Dollar-Cost Averaging: Forget Cost Savings, Think Risk Reduction. *Journal of Financial Planning* 2005; 18(10): 86-90.
29. Edleson ME. Value Averaging: A New Approach to Accumulation. *American Association of Individual Investors Journal* 1988; 10(7): 11-14.
30. Israelsen CL. Lump Sums Take Their Lumps. *Financial Planning* 1999; 1: 51-56.

31. Marshall PS, Baldwin EJ. A Statistical Comparison of Dollar Cost Averaging and Purely Random Investment Techniques. *Journal of Financial and Strategic Decision Making* 1994; 7(2): 66–71.
32. Available online at <https://www.indianembassy.org/financial-system-in-india.php>
33. Available online at <http://www.amfiindia.com/showhtml.aspx?page=mfconcept>
34. Padmaja R; A study of Consumer Behavior towards Mutual Funds with special reference to ICICI Prudential Mutual Funds, Vijayawada. *International Journal of Management Research and Business Strategy*, 2013; 2 (2):1-14.
35. Rathnamani V; Investor s Preferences towards Mutual Fund Industry in Trichy. *Journal of Business and Management*, 2013; 6(6): 48-55.
36. Kumar M; A Study of Customers Preference towards Investment in Equity Shares and Mutual Funds. *International Journal of Education and Psychological Research*, 2013; 2(2):95-100.
37. Mishra KS, Kumar M; How Mutual Fund Investors Objective & Subjective knowledge Impacts their Information Search and Processing Behavior. *Journal of Financial Services Marketing*, 2011;16(1): 27-41.
38. Mishra KS, Kumar M; The impact of perceived purchase risk on investment behaviour of mutual fund investors *Decision*, 2012;39 (2):3-20.
39. Sharma M, Kaur H, Jain P; A Study on Factor Influencing Satisfaction of Investors Towards Mutual Funds Industry Using Servqual Model: An Empirical Study. *International Journal of Management & Business Studies*, 2012; 2(4):52-56.
40. Das SK; Semi Urban Investors Attitude and Preferences in Mutual Fund Investment: A case study of Nagaon Districts of Assam. *International Journal of Marketing, Financial Services & Management Research*, 2012;1(9):70-91.
41. Awan HM, Arshad S; Factors valued by Investors while investing in Mutual Funds- A behavioural context. *Interdisciplinary Journal of Contemporary Research Business*, 2012; 4(1): 503-514.
42. Thyagarajan G; Performance Evaluation of Indian Mutual Fund Industry from 2002-2007 with Special Reference to Franklin Templeton, HDFC and ICICI Prudential Mutual Funds. *Ninth AIMS International Conference on Management*, 2012; 336-347.
43. Saini S, Anjum B, Saini R; Investors awareness and perception about Mutual Funds. *Zenith- International Journal of Multidisciplinary Research*, 2011;1(1):14-29.
44. Gupta M, Chander S; Consideration of Sources of Information as Selection Criteria in Mutual Fund Purchase: A Comparative Study of Retail and Non- Retail Investors. *The IUP Journal of Applied Finance*, 2011; 17 (1):27-42.
45. Walia N, Kiran R; An Analysis of Investor s Risk Perception towards Mutual Funds Services. *International Journal of Business and Management*, 2009;4(5):106-120.
46. Parihar BB, Sharma R, Parihar DS; Analyzing Investors' Attitude Towards Mutual Funds as an Investment Option. *The IUP Journal of Management Research*, 2009; 8 (7): 56-64.
47. Anand S. and Murugaiah V (2004), "Marketing of financial services: strategic issues", *SCMC journal of Indian Management*, July-sept.
48. Bogle J C (1992), "Selecting Equity Mutual Fund", *The Journal of Portfolio Management*, Vol. 18 No.2, PP. 94-100.
49. D.W Harless, S.P. Peterson, Investor behaviour and the persistence of poorly-performing mutual funds, *Journal of Economic Behaviour & Organization*, 37, (1998), 257-276.

50. DesiganGnana, Kalaselvi S and Ansuya L (2006),” Women Consumers Perception Towards Investment: An empirical Study,” Indian Journal of Marketing, April
51. Ippolito R A (1992),”Consumer Reaction to Measure of Poor Quality: evidence from the mutual fund industry,” Journal of Law and Economics, Vol. 35, pp. 45-70
52. Jambodekar, M.V (1996). Marketing strategies of mutual fund – Current Practices and Future Directions Working Paper, UTI IIM, Centre for capital market education and Research,Banglore
53. Dr. K. Lakshmana Rao (2011),”Analysis of Consumers perception towards mutual fund schemes”, Zenith International Journal of Multidisciplinary Research, Vol. 1 Issue 8, December 2011, ISSN 22315780
54. Kulshrestha, C.M. (1994). Mastering Mutual Fund. New Delhi: Vision Books
55. Ketii, P (2005) A theory of cognitive Dissonance, Stanford; Stanford University Press.
56. Lu Zheng (1999), “Is Money Smart? A study of mutual fund investor’s fund selection ability”, The Journal of Finance, Vol. LIV , No.3

A Case Analysis of Financial Performance of AOS System with the help of Ratio Analysis

Shrishti Verma*

Abstract

The research paper is on the analysis of the financial performance of the AOS system with the help of ratio analysis. The practice of ratio analysis has been used by financial market participants and managers of firms for almost a century. Ratio analysis become very essential for all the organisation to survive in the market for a longer period. The research is expected to help understanding the overall financial performance of the AOS systems. We have analyzed the accounting information of the company through ratios and construed in such a way that can be easily understood by all.

Key Words: Comparative analysis, ratio analysis, accounting analysis.

Introduction

The two primary objectives of every business are profitability and solvency. Profitability is the ability of a business to make profit, while solvency is the ability of a business to pay debts as they come due. To take the right decision at the right time executives should know the financial position of the organization. Without which it is not easy to take any type of action for the expansion and augmentation of the organization. Through financial information an executive can take imperative decision as and when they are required. For studying the financial health and having accurate financial information of a business, ratio analysis is being considered as the major tool at present. Correct financial information at the appropriate time is of paramount importance for any organization for efficient usage of resources. According to Igben (1999:423), "Accounting or financial ratio is a proportion or fraction or percentage expressing the relationship between one item in a set financial statements and another item in the financial statements. Accounting ratios are the most powerful of all tools used in analyzed and interpreting financial

Shrishti Verma*

BBA Programme

Institute of Innovation in Technology and Management, New Delhi, India

statements". Therefore, ratio analysis involves taking stats of number (or items) out of financial statements and forming ratios with them, to enhance informed judgments and decisions.

AOS Systems

At AOS SYSTEMS, we strive to understand changing customer needs, and enrich their quality of life by simply making technology readily usable for them. Our innovative, value-added products improve the quality of life of people in India and help them enjoy longer, hygienic, healthier, and more productive lives. We are an ISO certified company, manufacturing, selling and providing after sales service of new generation sensor products for bathrooms. We have a reputation for speed, accuracy and freedom from bias. Our powerful combination of skills and resources provides a platform for delivering convenience and pleasure in today's rapidly changing sensor bath products environment. Amidst this, our diverse, highly skilled, dedicated and committed work force stands tall. As a company and as individuals, we continue to take great pride in a commitment to community partnerships, social responsibility and environmental excellence.

Constellation of Products, at Vantage Points

A constellation of products adorn AOS SYSTEMS' portfolio. These comprise elegantly crafted Robo Auto

Flush Systems for urinals and western closets and Doppler Automatic Water Taps. From our inception, we have an objective of providing best-in-the-class sensor products. We are totally committed to ensure highest quality standards and to understand changing customer needs. The products are installed at various luxury hotels, embassies, airports and MNCs.

Touching Tomorrow, with Vision

Headquarteres at New Delhi, AOS SYSTEMS' wide and national footprint enables it to reach clients, India wide. Our network of seven branches at AHMEDABAD, BANGALORE, CHENNAI, HUBLI, MUMBAI, PUNE and SECUNDERABAD amply justify it all. Our superior understanding of preferences enables us to provide products customized to distinctive preferences. Plus, our track record of developing creative and innovative products helps us expand and retain our client. Future vision includes exploring opportunities to become leaders in new and emerging technologies in sensor bath products and related industries at an appropriate time, either directly or through strategic partnerships or inorganic initiatives.

Ratio Analysis

The term "Ratio" refers to the numerical and quantitative relationship between two items or variables. This relationship can be exposed as

- Percentages
- Fractions
- Proportion of numbers

Ratio analysis is defined as the systematic use of the ratio to interpret the financial statements. So that the strengths and weaknesses of a firm, as well as its historical performance and current financial condition can be determined. Ratio reflects a quantitative relationship helps to form a quantitative judgment.

Steps in Ratio Analysis

- The first task of the financial analysis is to select the information relevant to the decision under consideration from the statements and calculates appropriate ratios.

- To compare the calculated ratios with the ratios of the same firm relating to the past or with the industry ratios. It facilitates in assessing success or failure of the firm.
- Third step is to interpretation, drawing of inferences and report writing conclusions are drawn after comparison in the shape of report or recommended courses of action.

Importance of Ratio Analysis

- Aid to measure general efficiency
- Aid to measure financial solvency
- Aid in forecasting and planning
- Facilitate decision making
- Aid in corrective action
- Aid in intra-firm comparison
- Act as a good communication
- Evaluation of efficiency
- Effective tool

Limitations of Ratio Analysis

- Differences in definitions
- Limitations of accounting records
- Lack of proper standards
- No allowances for price level changes
- Changes in accounting procedures
- Quantitative factors are ignored
- Limited use of single ratio
- Background is over looked
- Limited use
- Personal bias

Objectives

The major objectives of the resent study are to know about financial strengths and weakness of AOS SYSTEMS through FINANCIAL RATIO ANALYSIS.

The main objectives of resent study aimed as:

1. To evaluate the performance of the company by using ratios as a yardstick to measure the efficiency of the company.

2. To understand the liquidity, profitability and efficiency positions of the company during the study period.
3. To evaluate and analyze various facts of the financial performance of the company.
4. To make comparisons between the ratios during different periods
5. To study the present financial system at AOS SYSTEMS.
6. To determine the Profitability, Liquidity Ratios.
7. To analyze the capital structure of the company with the help of Leverage ratio.
8. To offer appropriate suggestions for the better performance of the organization.

Methodology

Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying

how research is done scientifically. So, the research methodology not only talks about the research methods but also considers the logic behind the method used in the context of the research study.

Methodology used for data collection

The information is collected through secondary sources during the project. That information was utilized for calculating performance evaluation and based on that, interpretations were made.

Sources of secondary data:

1. Most of the calculations are made on the financial statements of the company provided statements.
2. Referring standard texts and referred books collected some of the information regarding theoretical aspects.
3. Method- to assess the performance of the company method of observation of the work in finance department in followed.

Analysis and Findings

Liquidity Ratio

1. Current Ratio

(Amount in Rs.)

Current Ratio			
Year	Current Assets	Current Liabilities	Ratio
2012	58,574,151	7,903,952	7.41
2013	69,765,346	31,884,616	2.19
2014	72,021,081	16,065,621	4.48
2015	91,328,208	47,117,199	1.94
2016 Till July	115,642,068	30,266,661	3.82

Table No. (1)

Interpretation

As a rule, the current ratio with 2:1 (or) more is considered as satisfactory position of the firm.

When compared with 2015, there is an increase in the provision for tax, because the debtors are raised and for that the provision is created. The current

liabilities majorly included AOS SYSTEMS for consultancy additional services.

The sundry debtors have increased due to the increase to corporate taxes.

In the year 2015, the cash and bank balance is reduced because that is used for payment of

dividends. In the year 2016, the loans and advances include majorly the advances to employees and deposits to government. The loans and advances reduced because the employees set off their claims. The other current assets include the interest attained from the deposits. The deposits reduced due to the

declaration of dividends. So the other current assets decreased.

The huge increase in sundry debtors resulted an increase in the ratio, which is above the benchmark level of 2:1 which shows the comfortable position of the firm.

2. Quick Ratio

(Amount in Rs.)

Quick Ratio			
Year	Quick Assets	Current Liabilities	Ratio
2012	58,574,151	7,903,952	7.41
2013	52,470,336	31,884,616	1.65
2014	69,883,268	16,065,620	4.35
2015	89,433,596	47,117,199	1.9
2016 Till July	115,431,868	30,266,661	3.81

Table No. (2)

Interpretation

Quick assets are those assets which can be converted into cash with in a short period of time, say to six months. So, here the sundry debtors which are with the long period does not include in the quick assets.

Compare with 2016, the Quick ratio is increased because the sundry debtors are increased due to the increase in the corporate tax and for that the provision created is also increased. So, the ratio is also increased with the 2016.

3. Absolute Liquidity Ratio

(Amount in Rs.)

Absolute Cash Ratio			
Year	Absolute Liquid Assets	Current Liabilities	Ratio
2012	31,004,027	7,903,952	3.92
2013	10,859,778	31,884,616	0.34
2014	39,466,542	16,065,620	2.46
2015	53,850,852	47,117,199	1.14
2016 Till July	35,649,070	30,266,661	1.18

Table No. (3)

Interpretation

The current assets which are ready in the form of cash are considered as absolute liquid assets. Here, the cash

and bank balance and the interest on fixed assets are absolute liquid assets.

In the year 2015, the cash and bank balance is

Leverage Ratios

4. Proprietary Ratio

(Amount in Rs.)

Proprietary Ratio			
Year	Share Holders Funds	Total Assets	Ratio
2012	67,679,219	78,572,171	0.86
2013	53,301,834	88,438,107	0.6
2014	70,231,061	89,158,391	0.79
2015	56,473,652	106,385,201	0.53
2016 Till July	97,060,013	129,805,102	0.75

Table No. (4)

decreased due to decrease in the deposits and the current liabilities are also reduced because of the payment of dividend. That causes a slight increase in the current year's ratio.

Interpretation

The proprietary ratio establishes the relationship between shareholders funds to total assets. It determines the long-term solvency of the firm. This ratio indicates the extent to which the assets of the company can be lost without affecting the interest of the company.

There is no increase in the capital from the year 2013. The share holder's funds include capital and reserves and surplus. The reserves and surplus is increased due to the increase in balance in profit and loss account, which is caused by the increase of income from services.

Total assets, includes fixed and current assets. The fixed assets are reduced because of the depreciation and there are no major increments in the fixed assets. The current assets are increased compared with the year 2015. Total assets are also increased than previous year, which resulted an increase in the current ratio than older.

Activity Ratios

5. Working Capital Turnover Ratio

(Amount in Rs.)

Working Capital Turnover Ratio			
Year	Income From Services	Working Capital	Ratio
2012	36,309,834	50,670,199	0.72
2013	53,899,084	37,880,730	1.42
2014	72,728,759	55,355,460	1.31
2015	55,550,649	44,211,009	1.26
2016 Till July	96,654,902	85,375,407	1.13

Table No. (5)

Interpretation

Income from services is greatly increased due to the extra invoice for Operations & Maintenance fee and the working capital is also increased greater due to the increase in from services

because the huge increase in current assets.

The income from services is raised and the current assets are also raised together resulted in the decrease of the ratio of 2016 compared with 2015.

6. Fixed Assets Turnover Ratio

(Amount in Rs.)

Fixed Assets Turnover Ratio			
Year	Income From Services	Net Fixed Assets	Ratio
2003	36,309,834	28,834,317	1.26
2004	53,899,084	29,568,279	1.82
2005	72,728,759	17,137,310	4.24
2006	55,550,649	15,056,993	3.69
2007	96,654,902	14,163,034	6.82

Table No. (6)

Interpretation

Fixed assets are used in the business for producing the goods to be sold. This ratio shows the firm's ability in generating sales from all financial resources committed to total assets. The ratio indicates the account of one rupee investment in fixed assets.

The income from services is greatly increased in the current year due to the increase in the Operations & Maintenance fee due to the increase in extra invoice and the net fixed assets are reduced because of the increased charge of depreciation. Finally, that effected a huge increase in the ratio compared with the previous year's ratio.

7. Capital Turnover Ratio

(Amount in Rs.)

Capital Turnover Ratio			
Year	Income From Services	Capital Employed	Ratio
2012	36,309,834	37,175,892	0.98
2013	53,899,084	53,301,834	1.01
2014	72,728,759	70,231,061	1.04
2015	55,550,649	56,473,652	0.98
2016 Till July	96,654,902	97,060,013	1.00

Table No. (7)

Interpretation

This is another ratio to judge the efficiency and effectiveness of the company like profitability ratio. The income from services is greatly increased compared with the previous year and the total capital employed

includes capital and reserves & surplus. Due to huge increase in the net profit the capital employed is also increased along with income from services. Both are effected in the increment of the ratio of current year.

8. Current Assets to Fixed Assets Ratio**(Amount in Rs.)**

Current Assets to Fixed Assets Ratio			
Year	Current Assets	Fixed Assets	Ratio
2012	58,524,151	19,998,020	2.93
2013	69,765,346	18,672,761	3.74
2014	72,021,081	17,137,310	4.20
2015	91,328,208	15,056,993	6.07
2016 Till July	115,642,068	14,163,034	8.17

Table No. (8)**Interpretation**

Current assets are increased due to the increase in the sundry debtors and the net fixed assets of the firm are decreased due to the charge of depreciation and there

is no major increment in the fixed assets.

The increment in current assets and the decrease in fixed assets resulted an increase in the ratio compared with the previous year.

9. Net Profit Ratio**(Amount in Rs.)**

Net Profit Ratio			
Year	Net Profit After Tax	Income from Services	Ratio
2012	21,123,474	36,039,834	0.59
2013	16,125,942	53,899,084	0.30
2014	16,929,227	72,728,759	0.23
2015	18,259,580	55,550,649	0.33
2016 Till July	40,586,359	96,654,902	0.42

Table No. (9)**Interpretation**

The net profit ratio is the overall measure of the firm's ability to turn each rupee of income from services in net profit. If the net margin is inadequate the firm

will fail to achieve return on shareholder's funds. High net profit ratio will help the firm service in the fall of income from services, rise in cost of production or declining demand.

The net profit is increased because the income from services is increased. The increment resulted a slight increase in 2016 ratio compared with the year 2015.

Summary

- 1) After the analysis of Financial Statements, the company status is better, because the Net working capital of the company is doubled from the last year's position.
- 2) The company profits are huge in the current year; it is better to declare the dividend to shareholders.

References

1. Igben, Robert O. (1999). Financial Accounting made simple. Lagos: Rol publishers.

- 3) The company is utilising the fixed assets, which majorly help to the growth of the organisation. The company should maintain that perfectly.
- 4) The company fixed deposits are raised from the inception, it gives the other income i.e., Interest on fixed deposits.

Conclusion

The company's overall position is at a good position. Particularly the current year's position is well due to raise in the profit level from the last year position. It is better for the organization to diversify the funds to different sectors in the present market scenario.

Passion in Perplexion

Puja Jain*

The whole day had passed but Prof. Sneha, former Director, PUJA College, finds her *passion* to become an administrator in *perplexion*. After she had received a phone call from Mr. Navraj, Secretary, Managing Committee, PUJA College at 10a.m., she's finding her head spinning and splitting. Mr. Navraj had called her to offer once again the post of Director but this time with a higher salary package and other perquisites that she wanted. She's wondering as to why he's offering her so much now and not at that time when she used to request about all this couple of months ago. She has also not forgotten the rough tides that she had to face during her stint in PUJA college. She's in dilemma as to whether she should re-join the college or not.

Prof. Sneha, 47 years old, was an ambitious lady who had a Passion of becoming an administrator of an educational institution. She wanted to rise in her career and head an office and hence, she had created her credibility over these years with her determined and diligent approach. She had worked hard to earn points necessary for the promotion as per government rules. She had an unblemished record of teaching at Aashray College for the past 20 years. She had been the incharge of various activities and committees in the college. 'Prof. Sneha' was an acclaimed name in the area.

It was April, 2015 when her colleague, Ms. Aarti, told her about the job opening at PUJA College since she knew Prof. Sneha's ambition to become an administrator and hence, intimated her about the fact. Prof. Sneha immediately without much ado took NOC from Aashray college to apply in PUJA College. She was called for an interview somewhere in mid-June. She performed excellently. The panel was impressed by her credentials, clarity and confidence. She was, in no uncertain terms, told that if selected she would get the lumpsum salary with no other

facility. The salary was less as compared to other colleges in the area but Sneha gave her consent for this. On a day in the latter half of June, she got a call from secretary, PUJA College, congratulating her for she was selected as the Director.

Next day when she entered the staff room, Aarti embraced her and said, "Congratulations dear on your DRY PROMOTION". Everyone in the staff room laughed. Another professor said, "Very bad Ms. Aarti. Dare not mess with THE DIRECTOR SNEHA. Prof. Sneha is *very wise*. But sometimes you know..." and he giggled. "Prof. Sneha, I am sure you would get a 'chauffeur driven car' at least before your retirement! Please do call me for a ride." "If you don't get a personal peon, please let me know. I shall certainly arrange one." Baffled with the reactions and satires Prof. Sneha just walked out. She felt like a fish out of water.

From the college to her home, the sarcastic laughter and comments kept echoing in her ears. But, she took a deep sigh and decided to ponder over the decision calmly.

She stood in front of a mirror and questioned to herself "What had happened to my colleagues? Were they right in what they said? Should I not join a college which is not providing me all that the post deserves and demands? But then what was my ambition? What did I long for these years?"

Inner voice, on the other side, replied "Your Passion had been to become an administrator, to get respect in the society, to have a prestigious status."

Prof. Sneha: But the post is coming at lesser emoluments than prescribed by government norms. Had I negotiated with them perhaps I would have got it.

Inner Voice: It's not too late Prof. Sneha! You know that management was impressed by you. You are the best. Have confidence in yourself. You join for the time being and gradually build up good relations with

Ms. Puja Jain*

Assistant Professor

Sri Aurobindo College of Commerce and Management
Ludhiana, Punjab, India

the management and get what you want.

Prof. Sneha: Yeah! Great! Thanks! Certainly through my cordial liaison I shall be able to win them over.

After receiving a formal letter from the college and giving due notice to Aashray College, Prof. Sneha joined PUJA college Mr. Arvind, Chairman of PUJA college and an established rich businessman, welcomed her with the other members of committee and faculty. Mr. Arvind, while having a cup of tea in his office, without any apprehension shared with Prof. Sneha that university positions of the college were due to the dedication of teachers.

The first day went very well.

Prof. Sneha started series of meetings with Mr. Navraj to understand his perspective and personality. During the discussions, she would try to judge his likes and dislikes about the college.

On one Monday morning Mr. Navraj, while looking at the college gate through the window of his office, started grumbling. "Do you know Prof. Sneha why the former Director was chucked out?" Raising his voice in rage, he continued "Oh! for the simple reason that she was too employee friendly. She believed in impression management. Come what may she would never spoil her amiable image among her subordinates' eyes. Disgusting, eh!" "She would never, despite my instructions, take any strict action against teachers who would come late to the college." "Discipline means discipline – at any cost." "We belong to teacher fraternity and if we ourselves are not disciplined what we can teach our students." "Every Monday I would see Ms. Lata and Ms. Promila coming late and that too by 10 to 15 minutes –How ridiculous!" Prof. Sneha got the idea of her first move to impress him. She thought she had understood Mr. Navraj by now to an extent and that she would hopefully impress him by taking any action that would bring in the teachers a strict sense of punctuality.

She prepared a proposal for the installation of a biometric machine for the attendance. She took the proposal to Mr. Navraj and along with it a note carrying details of actions proposed to be taken in case

of late coming by teachers. With beaming eyes, she said "Sir, I feel this shall curb the menace of late coming." Mr. Navraj appreciated her for the effort and kept the proposal and note in his drawer.

Next day, before lunch, a faculty meeting was convened by Mr. Navraj, where he acquainted faculty about the new attendance mechanism. He also told them, "This idea of biometric attendance system had been brought in by Prof. Sneha and I appreciate her for this. I am glad that she has started taking interest in the college. Though it was very difficult for me to convince the Chairman but the note containing benefits prepared by her was so impressive that he eventually gave his assent." "I hope teachers will accept this positive stride." Prof. Sneha also nodded her head in consonance. While walking out of the meeting room, she felt victorious and that too on her first move! She thought it was the right moment to begin the drive towards increase in her emoluments. "I think I deserve an incentive for this, isn't it sir?" They both laughed and proceeded towards dining area.

The week ended with all smooth workings. Days passed by and with each passing day desires and efforts of Prof. Sneha towards accomplishment of her individual interests got more and more resilient. She would not leave any stone unturned by which she could prove her mettle. She initiated new systems in the college and would submit a note on the same for the prior approval to Mr. Navraj. Time and again she would request the secretary for hike in emoluments and every time Mr. Navraj would smile and nod his head.

Two months later, one Monday brought a clumsy morning for Prof. Sneha. Ms. Lata and Ms. Promila were late again! They knew the new system and hence, to condone the punishment they went inside Prof. Sneha's room. Ms. Lata and Ms. Promila were the senior most teachers of the college, and elder in age too. Obsessed with her desire to impress Mr. Navraj and making the attendance system a success, Prof. Sneha, at first ignored them by pretending to be on a phone call. "Oh my God! These ladies would not go until I speak to them", she murmured to herself. "Yes madams, now tell me why you are here. If you are

expecting any kind of favour, forget it. I have a long experience of working in a college where I had seen a number of teachers like you who never bothered about the systems of the institution. They are so much slaves of their bad habits that they can't change for the better." Ms. Lata tried to speak something but Prof. Sneha snubbed her since she had made up her mind to set the example. On Ms. Promila's repeated effort to justify herself for the delay, Prof. Sneha raised her voice and shouted at them "Leave my room and office clerk would come to you get your signatures on the office memo to be prepared in this case. You people needed such intervention."

The senior duo felt so embarrassed that they could not even move from there. They had never experienced such an insult. Voice of Prof. Sneha was so loud that teachers sitting in the adjoining staff – room could hear and understand the scene. They all got up and marched towards the Director's office. "Excuse us Sneha madam", one teacher started, "We heard what all you said but we feel that the way you've behaved with these elderly teachers is not right. Nobody had ever spoken to them in such a rude manner."

Prof. Sneha (in a furious tone): Now will you teach me what to do? Should I learn from you the way to behave?

Teacher: Of course madam. Everything was going so smooth until you joined. We had worked together, we had laughed together and that too without compromising with the quality of our work as a team. We had produced remarkable results. We had worked as a family. History and records are a testimony to it.

Prof. Sneha: So you feel whatever you have achieved is the end. That's the issue with many institutions; once they reach a height they become complacent.

Teacher 1: I have never said that. We all have always marched forward but by keeping human limitations and capacities in consideration. We have introduced and accepted changes over the years. But have always tried to strike a balance between work and needs of people.

Prof. Sneha: Former Director spoiled you all. You all are like that. If I excuse anybody today, others will

make it a habit of barging into my office every morning requesting me the same every.....

Teacher 2 (interrupted in between): Sorry to say madam, our former Director was very participative and cooperative. I don't know what charisma she possessed but we always offered our services willingly. We had worked under her stewardship even beyond our usual working hours whenever needed. She also would accommodate us in our hour of need. The changes that she introduced had our participation but the decisions you took had considered none of ours' perspective. We have to implement those changes but you never bothered about the practical hassles involved in implementation. Many systems seem good on papers but their real benefits certainly may not outweigh the efforts and cost involved. A number of times we tried to come to your office so that we could discuss and share our problems but everytime we would find you either having a meeting with Navraj sir writing notes highlighting the benefits of new systems or busy figuring out something with the office clerk. We approached clerk so that he could take an appointment from you but he mockingly said: "Madam is still confused as to what is going to be her package. Every now and then she asks me about government norms, salary and perks being given to Directors in other colleges of the city etc... You know *big boss has big problem*. Why will she bother about you and me..."

Teacher 3: This new attendance system was also your idea, isn't it? Navraj sir told this in the meeting.

Teacher 2: Madam, do you know anything about Lata madam and Promila madam? What kind of persons are they?

Prof. Sneha: Yes of course, they are chronic habitual late comers.

Teacher 3: That's all you needed to know about them? Madam, these two veteran teachers commute daily from a nearby town and look at their age. They had spent all their effective years of life serving the college. Director and management could easily count on them. We have seen them not even bothering about their family and health for the college or colleagues. We all

look forward to them in case of any problem – official or personal. They are sorted humans we have. You should have inquired about them before making a bitter opinion. By the way, who told you that they are chronic late comers?

Prof. Sneha: I had learnt this from Navraj sir and he was upset about their habit.

Teachers looked at one another and their gestures reflected as if they have unanimously agreed upon an opinion.

“Oh now we understand. Madam, either you are a poor judge of human beings or you never made an effort to look on the other side of coin.” “Just think why didn’t Navraj sir introduce this attendance system himself? Didn’t he have the knowledge of such systems?”

The conversation got interrupted when Mr. Navraj opened the door and without sensing as to what was going on, he called Prof. Sneha to his office.

Disciplinary action was taken against Ms. Lata and Ms. Promila. And college life continued chasing the new routine and systems. Three months passed by. Resentment from teachers, especially Ms. Lata and Ms. Promila, aggravated over these months. Neither Prof. Sneha’s relation with staff improved nor her salary. Frustrated with the outcomes of these months or actually no outcome, Prof. Sneha, one day, presented her resignation.

She went back to her former college. She tried to talk to people there wanting them to listen to her story but in vain. While crossing the corridor one day, she overheard a few teachers chatting in the staffroom. “How can Prof. Sneha be such a big fool? Or may be really an innocent one? She made all her earnest efforts in bringing new systems. But she could not read Mr. Navraj’s personality. I have a friend working in PUJA college and she had told me a number of times about how much Mr. Navraj believes in impression management. Prof. Sneha would scratch her head to bring something new and Mr. Navraj would present this to chairman WITH HIS NAME. He was not bothered about staff but was focused for his ‘job’. Poor

Prof. Sneha never realized that Mr. Navraj was making fool out of her. He had clearly understood that Prof. Sneha would never go to chairman and discuss the matters.” “This is how politics works.”

The conversation acted as a big jolt for Prof. Sneha. Sweat ran through her body profusely. She was standing there ...immoveable. It was on the ringing of college bell that she came back to her senses. She could just utter to herself “If I had known about the personalities of people working, culture prevailing and politics and systems functioning there, hopefully I would have handled the situation in a better manner!”

The pain, that this stint of her professional life had brought, made her work like a *solitary reaper*. All her academic years and books couldnot teach her those lessons which she learnt in this case of her progression. Four months had passed and gradually she was able to recover from the *turmoil and betrayal* she went through. She started getting affiliation from colleagues in staff room and recognition from students in class room.

It was on one *fine morning* that she got a call from secretary, PUJA College, wanting her to **re-join** PUJA college and that too on HER TERMS AND CONDITIONS. The entire phase of tumult ran over her mind. She’s in dilemma now. On one hand were her ambitions, status needs and emoluments that she had strived for. Now the management was offering her whatever she would ask for. But on the other hand there were many questions of which the answers were not clear.

Perhaps doubt is now not about emoluments but about something else.

Should she trust the management, especially, Mr. Navraj? How will she deal with Mr. Navraj? How will she face the staff members there for whom she never bothered and who were so much against her that they did not even give her a warm send off? How will she get the work done from them? How will she gain their trust and cooperation?

Questions for Discussion:

1. What dilemma was Prof. Sneha clutched with? If you were Prof. Sneha, what would have been your

move now? Should you accept the offer or decline it? Give reasons to justify your response.

2. Bring to light various organizational/individual problems or gaps that created havoc.
3. Where did Prof. Sneha go wrong? Why did Prof. Sneha, despite being an intelligent professional, failed in carrying out her duties as an administrator in an amiable manner?
4. If Prof. Sneha re-joins, what should be her strategy? What steps should she take or what factors should she keep in mind while planning her moves in such a manner that the bitterness of past fades away?
5. Do you think people like Prof. Sneha are fit for the post of an administrator? Is she emotionally mature?
6. Do you feel that an administrator should be sensitive as to how an organization behaves? How can studying the elements of an organization culture affect the functioning of any administrator?
7. Extract portions/sentences from the case which depict respective Organisational Behaviour/HRM constructs. (This question to be asked if the case is taken up at the end of semester.) (or else the case can be taken up at the beginning of semester to introduce the constructs/terms that will be covered up in the subject/syllabus as a whole).

Teaching notes of case study “Passion in Perplexion”

Objective and intended readers of the case:

- The case titled “**Passion in perplexion**” is intended to be taught to management students on the first day of their specialization class of Human resource management (organization behavior). This case can be a useful instrument in introducing various concepts. Students will get an outline of the terms that they shall study in the curriculum. Studying this case will provide acquaintance to students about the constructs. They can be familiarized with the concepts.
- On the contrary, teacher can use it at the end of all classes pertaining to organizational behavior in order to recapitulate the concepts studied by them throughout. Students can identify the concepts highlighted in the case and try to analyse the situation in the halo of these constructs.
- Present case study depicts a real life-like scenario in an educational institution. Some students pursuing management courses may aspire to make their career in educational institutes. And hence, this case can help them understand few of the organisational issues that might arise in their professional life. Yet the constructs intended to be discussed are not restricted to educational institutions alone and therefore, can be replicated to any type of organization. The author has tried to preserve the basic fragrance and objectives of a case study.

Hints to answers of questions:

1. **What dilemma was Prof. Sneha clutched with? If you were Prof. Sneha, what would have been your move now? Should you accept the offer or decline it? Give reasons to justify your response.**

Ans: Prof. Sneha was not able to decide whether she should re-join PUJA college or not. Before taking either of the decisions she should do the pros/cons analysis.

➤ Arguments in favour of re-joining:

- The important reason for her deciding in favour is her ‘*Passion to become an administrator*’.
- Destiny is giving her another opportunity and that too ‘*on her terms and conditions*.’
- Moreover, Prof. Sneha had been the incharge of many activities and that too in a college where colleagues are tough to handle. They will not hesitate in throwing sarcastic remarks. On the contrary, employees of PUJA College were more dedicated and cooperative. They were achievement oriented.
- The only gap Prof. Sneha needs to fill- in is her own temperament and tactics.

➤ Now, since she knows about culture and personality of organizational members, it will be perhaps easier for her to adapt. She can now easily re-establish herself.

● **Arguments against re-joining:**

- She had worked as incharge of activities in Aashray College. Culture of PUJA College is quite different from Aashray College.
- She had **re-joined** Aashray College and now if she leaves this college once again then it might be impossible for her to come back.
- In PUJA College, she had portrayed herself as an anti-employee administrator who is more inclined towards fulfillment of her personal objectives.
- If she joins again, she will have to re-establish herself with altogether changed personality and behavior. This is easier said than done.
- Moreover, what about Mr. Navraj? She cannot change him. Now after knowing about his reality, it will be difficult for her to have cordial relation with him.

2. Bring to light various organizational/individual problems or gaps that created havoc.

- Communication gap – Between Chairman and Prof. Sneha. Between faculty members and Sneha.
- Preference to individual interest: Both Prof. Sneha and Mr. Navraj were focused more on their individual benefits.
- Lack of understanding of Organisation behaviour: Prof. Sneha did not make an effort to understand the perception, personality and culture of the new college before taking decisions.
- Politics: Mr. Navraj wanted to get his work done but through Prof. Sneha. He didn't want to face any resentment from subordinates and hence, launched new systems by using Prof. Sneha as tool. Similarly, Prof. Sneha wanted to impress Mr. Navraj without caring for subordinates.
- Putting together all bits, there seem to be a problem with the leadership styles followed by

protagonist. An efficient leader would understand the culture and people before making any decision. Also, he would subordinate the individual interest to organizational interest.

3. Where did Prof. Sneha go wrong? Why did Prof. Sneha, despite being an intelligent professional, failed in carrying out her duties as an administrator in an amiable manner?

She failed to study the organization's behavioral pattern and hence, couldnot adopt a leadership style which could suit the needs of individuals and organization. Due to her personal objectives, the style that she adopted was pro-boss and not pro-employee. She couldnot strike a balance between the two.

4. If Prof. Sneha re-joins, then what should be her strategy? What steps should she take or what factors should she keep in mind while planning her moves in such a manner that the bitterness of past fades away?

After having understood Mr. Navraj and faculty members, she should start involving members of faculty in the major decisions. Not only this, she should make herself approachable and allow healthy discussions on matters concerning the institution. She should strike a balance between the management and faculty members. She should also try to make her available for the interaction over personal matters to the extent feasible. She should not get inclined towards the either totally.

5. Do you think people like Prof. Sneha are fit for the post of an administrator? Is she emotionally mature?

Arguments in favour:

Any person who wants to be successful must have a Passion or longing for that work. Prof. Sneha is an ambitious professional. Her first failure doesnot mean that she is not fit for the post of an administrator. Rather, she is an emotionally mature lady who normally took decisions after analyzing pros and cons. She has understood the personality and culture of PUJA College and now she can handle the situations

in a better manner. After all, she had headed various activities in her previous college very well.

Arguments against:

Though the post of Director was new for her, but she had handled various activities in Aashray College. She should have known by now as to how different people behave differently. Her inclination towards her personal motives shows her self-centered approach. How can it be assured that in future she will be able to subordinate her individual interest in case of conflicting goals? Had she been emotionally mature, she would not believe and react to Mr. Navraj's opinion for Ms. Lata and Ms. Promila. Also, she could not stop the aggravating problem of non-cooperation from her subordinates. If she was emotionally mature, she would have handled and corrected the situations calmly instead of just resigning.

6. Do you feel that an administrator should be sensitive as to how an organization behaves? How can studying the elements of an organization culture affect the functioning of any administrator?

Yes, certainly understanding how individuals and groups behave in an organization is of utmost importance for any administrator to become efficient and acceptable.

7. Extract portions/sentences from the case which depict respective Organisational Behaviour/HRM constructs. (This question to be asked if the case is taken up at the end of semester.) (or else the case can be taken up at the beginning of semester to introduce the constructs/terms that will be covered up in the subject/syllabus as a whole).

Following is the list (may not be exhaustive) of constructs highlighted in the case:

➤ Leadership –

A. Democratic vs Autocratic – It was former director's style of leading which was in contrast with Prof. Sneha. Democratic leader (former Director) got acceptance and loyalty as compared to Autocratic leader (Prof. Sneha).

Lines from the case - I don't know what charisma she possessed but we always offered our services willingly. We had worked under her stewardship even beyond our usual working hours whenever needed. She also would accommodate us in our hour of need. The changes that she introduced had our participation but the decisions you took had considered none of ours' perspective. We have to implement those changes but you never bothered about the practical hassles involved in implementation. Many systems seem good on papers but their real benefits certainly may not outweigh the efforts and cost involved.

B. Boss – centered leadership vs Employee – centered leadership:

Both Prof. Sneha and

Mr. Navraj had worked to please their respective bosses without bothering about their subordinates' needs.

Lines from the case –

- Obsessed with her desire to impress Mr. Navraj and making the attendance system a success, Prof. Sneha, at first ignored them by pretending to be on a phone call.
- You know *big boss has big problem*. Why will she bother about you and me.
- Prof. Sneha would scratch her head to bring something new and Mr. Navraj would present this to chairman WITH HIS NAME. He was not bothered about staff but was focused for his 'job'.
- **Ulterior transaction:** Mr. Navraj had an ulterior motive while he acquainted the staff members about the fact that new attendance system was an idea floated by Prof. Sneha. On one hand, Prof. Sneha felt that he was appreciating her but on the other hand he was serving his own interest. He actually wanted to save his face from the staff.

Lines from the case – Next day, before lunch, a faculty meeting was convened by Mr. Navraj, where he acquainted faculty about the new attendance mechanism. He also told them, "This idea of biometric attendance system had been brought in by Prof. Sneha and I appreciate her

for this. I am glad that she has started taking interest in the college.

- **Politics / Impression management:** Mr. Navraj himself believed in impression management and this was perhaps the reason for the former director being chucked out. Actually former director had an amiable relation with the staff and staff was very close to her. They liked her very much. Mr. Navraj however, would have wished the same liking from the staff for himself. It was possible only if she goes. For the same reason, he presented Prof. Sneha in front of them (in the meeting for new attendance system) as pivot for the system. Despite all efforts and good work in terms of new systems, he did not pushed Sneha's case favourably in front of Chairman. Had he done that Prof. Sneha would have got what she deserved and then she would not had to leave the college. His politics doesn't end here. He had understood Sneha's philosophy of working *for boss*. And that's the reason he had asked her to re-join.

Lines from the case -

1. Poor Prof. Sneha never realized that Mr. Navraj was making fool out of her. He had understood that Prof. Sneha would never go to chairman and discuss the matters." "This is how politics work.
2. Prof. Sneha got the idea of her first move to impress him.
3. Obsessed with her desire to impress Mr. Navraj and making the attendance system a success, she, at first ignored them by pretending to be on a phone call.
4. I have a friend working in PUJACollege and she had told me a number of times about how much Mr. Navraj believes in impression management. Prof. Sneha would scratch her head to bring something new and Mr. Navraj would present this to chairman WITH HIS NAME. He was not bothered about staff but was focused for his 'job'.
5. "Oh now we understand. Madam, either you are a poor judge of human beings or you never made

an effort to look at the other side of coin." "Just think why didn't Navraj sir introduce this system himself? Didn't he have the knowledge of such systems?"

- **Personality and Perception:** – Both Prof. Sneha and Mr. Navraj had such traits whereby they would just think of themselves, without bothering about their people. Both were ambitious. Both believed in impression management. Both are highly self-monitors(personality trait normally associated with impression management). Prof. Sneha perceived Mr. Navraj to be a strict discipline loving person and hence, made moves accordingly. But, unfortunately she could not understand his personality as a professional.

Mr. Navraj was high on self-monitoring trait of personality. He took all care and steps to avoid any kind of unpleasant relation. Be it relation with staff, Chairman and even Sneha to the extent possible. He made earnest efforts to create good image of himself; atleast on the face.

Colleagues of Aashray College had perceived Prof. Sneha to be intelligent and wise and hence, their expectations from her were high. Satires and informal chat in the staff room depicted that they were disappointed from Prof. Sneha. She blindly believed Mr. Navraj. She looked at the staff from the Mr. Navraj's eyes and made perceptions accordingly. She should have made an effort to learn about what was others' perspective regarding Ms. Lata and Ms. Promila.

Lines from the case:

1. "Oh now we understand. Madam, either you are a poor judge of human beings or you never made an effort to look at the other side of coin." "Just think why didn't Mr. Navraj sir introduce this system himself? Didn't he have the knowledge of such systems?"
2. Former Director had spoiled you all. You all are like that. If I excuse anybody today, others will make it a habit of barging in my office every morning requesting me the same.

- **Communication gap and informal communication:** Communication gap between Chairman and Prof. Sneha:

Lines from the case - He had understood that Prof. Sneha would never go to chairman and discuss the matters.

Communication gap between Prof. Sneha and staff:

Lines from the case - The changes that she introduced had our participation but the decisions you took had considered none of ours' perspective. We have to implement those changes but you never bothered about the practical hassles involved in implementation. Many systems seem good on papers but their real benefits certainly may not outweigh the efforts and cost involved. A number of times we tried to come to your office so that we could discuss and share our problems but everytime we would find you either having a meeting with Mr. Navraj sir or writing notes highlighting the benefits of new systems or busy figuring out something with the office clerk.

- **Informal Communication:**
Chats going on in the staffroom have served a source of information which made Prof. Sneha ponder upon her decision everytime.

Lines from the case - While crossing the corridor one day, she overheard few teachers chatting in the staffroom. "How can Prof. Sneha be such a big fool? Or may be really an innocent one? She made all her earnest efforts in bringing new systems. But she couldnot read Mr. Navraj's personality. I have a friend working in PUJA college and she had told me a number of times about how much Mr. Navraj believes in impression management. Prof. Sneha would scratch her head to bring something new and Mr. Navraj would present this to chairman WITH HIS NAME. He was not bothered about staff but was focused for his 'job'. Poor Prof. Sneha never realized that Mr. Navraj was making fool out of her. He had clearly understood that Prof. Sneha would never go to chairman and discuss the

matters." "This is how politics work." The conversation acted as a big jolt for Prof. Sneha.

- **Understanding work groups – group behavior:**
Lines from the case -

- Teacher: I have never said that. We all have always marched forward but by keeping human limitations and capacities in consideration. We have introduced and accepted changes over these past years. But have always tried to strike a balance between work and people needs.
- Teacher 2: Madam, do you know anything about Ms. Lata madam and Ms. Promila madam? What kind of persons are they?

Prof. Sneha: Yes of course, they are chronic habitual late comers.

Teacher 3: That's all you needed to know about them? Madam, these two veteran teachers commute daily from a nearby town and look at their age. They had spent all their effective years of life serving the college. Director and management could resiliently count on them. We have seen them sacrificing their family and health for the college or colleagues. We all look forward to them in case of any problem – official or personal. They are sorted humans we have. You should have inquired about them before making a bitter opinion.

- **Individual interest vs Organizational interest:**
Lines from the case -

1. She thought it's the right moment to begin the drive towards increase in her emoluments. "I think I deserve an incentive for this, isn't it sir?"
2. Obsessed with her desire to impress Mr. Navraj and making the attendance system a success, she, at first ignored them by pretending to be on a phone call.
3. We approached clerk so that he could take an appointment from you but he mockingly said: "Madam is still confused as to what is going to be her package. Every now and then she asks me about government norms, salary and perks being given to Directors in other colleges of the city

etc...You know *big boss has big problem*. Why will she bother about you and me...”

4. He was not bothered about staff but was focused for his ‘job’.

➤ **Emotional awareness:**

Lines from the case -

She stood in front of a mirror and questioned to herself “What had happened to my colleagues? Were they right in what they said? Should I not join a college which is not providing me all that the post deserves and demands? What was my ambition? What did I long for these years.”

Inner voice, on the other side, replied “Your Passion had been to become an administrator, to get respect in the society, to have a prestigious status.”

Prof. Sneha: But the post is coming at lesser emoluments than prescribed by government norms. Had I negotiated with them perhaps I would have got it.

Inner Voice: It’s not too late Prof. Sneha! You know that management was impressed by you. You are the best. Have confidence in yourself. You join for the time being and gradually build up good relation with the management and get what you want.

Prof. Sneha: Yeah! Great! Thanks! Certainly through my cordial liaison I shall be able to win them over.

➤ **Participative management:**

Lines from the case -

The changes that she introduced had our participation but the decisions you took had considered none of ours’ perspective. We have to implement those changes but you never bothered about the practical hassles involved in implementation.

➤ **Organizational culture:**

Lines from the case -

Culture at Aashray College: Aarti embraced her and said, “Congratulations dear on your DRY PROMOTION”. Everyone in the staff room laughed. Another professor said, “Very bad Ms. Aarti. Dare not

mess with THE DIRECTOR PROF. SNEHA. Prof. Sneha is *very wise*. But sometimes you know...” and he giggled. “Prof. Sneha, I am sure you would get a ‘chauffer driven car’ atleast before your retirement! Please do call me for a ride.” “If you don’t get a personal peon, please let me know. I shall certainly arrange one.” Baffled with the reactions and satires Prof. Sneha just walked out. She felt like a fish out of water.

Culture at PUJA College:

- Teachers sitting there at once got up from their seats and marched towards Director’s office. Keeping hand on Ms. Promila’s shoulder, one teacher started “Excuse us Sneha madam but we feel that the way you’ve behaved with these elderly teachers is not right.”
- Teacher: Of course madam. Everything was going so smooth until you joined. We had worked together, we had laughed together and that too without compromising with the quality of our work as a team. We had produced remarkable results.
- Teacher: I have never said that. We all have always marched forward but by keeping human limitations and capacities in consideration. We have introduced and accepted changes over these past years. But have always tried to strike a balance between work and people needs.
- Another teacher(interrupted in between): Sorry to say madam, our former Director was very participative and cooperative. I don’t know what charisma she possessed but we would offer our services willingly. We had worked under her stewardship even beyond our usual working hours whenever needed. But then she would also accommodate us in our hour of need. The changes that she introduced had our participation but the decisions you took had considered none of ours’ perspective.
- Teacher 3: That’s all you needed to know about them? Madam, these two veteran teachers commute daily from a nearby town and look at their age. They had spent all their effective years

of life serving the college. Even Director would count on them. We have seen them not bothering about their family or even their health. We all juniors look forward to them in case of any problem – official or personal.

- **Self – Efficacy:** Prof. Sneha had belief in her capabilities and perhaps this was the reason giving her an impetus to become an administrator.

Lines from the case-

- Inner Voice: It's not too late Prof. Sneha! You know that management was impressed by you. You are the best. Have confidence in yourself. You join for the time being and gradually build up good relation with the management and get what you want.

Prof. Sneha: Yeah! Great! Thanks! Certainly through my cordial liaison I shall be able to win them over.

- While walking out of the meeting room, she felt victorious and that too on her first move! She thought it's the right moment to begin the drive towards increase in her emoluments. "I think I deserve an incentive for this, isn't it sir?"
- **Socialisation / orientation:** Prof. Sneha should have learnt about people, teams and culture of the organization that prevailed at the time she joined. Perhaps the process of socialization would have given her a better picture of the organizational behavior.

Lines from the case –

"If I had known about the personalities of people

working, culture prevailing and politics and systems functioning there, hopefully I would have handled the situation in a better manner."

➤ Organizational commitment:

Lines from the case-

- Mr. Arvind, while having a cup of tea in his office, without any apprehension shared with

Prof. Sneha that university positions of the college are due to the dedication of teachers.

- I don't know what charisma she possessed but we would offer our services willingly. We had worked under her stewardship even beyond our usual working hours whenever needed.

➤ Dry promotion:

Lines from the case - She was, in no uncertain terms, told about the lumpsum salary that she would get with no other facility. She gave her consent for this. On a day in the latter half of June, she got a call from secretary, PUJA college, congratulating her for she was selected as Director. Next day when she entered the staff room, Aarti embraced her and said, "Congratulations dear on your DRY PROMOTION". Everyone in the staff room laughed. Another professor said, "Very bad Ms. Aarti. Dare not mess with THE DIRECTOR PROF. SNEHA. Prof. Sneha is *very wise*. But sometimes you know..." and he giggled. "Prof. Sneha, I am sure you would get a 'chauffer driven car' atleast before your retirement! Please do call me for a ride." "If you don't get a personal peon, please let me know. I shall certainly arrange one."

¹It is a fictional case study. It has no connection with any real person or organization living or dead. Any resemblance is co-incidental. Author has no intention to quote any person's or organisation's experience in real. The purpose of this case study is purely academic in nature so that students can view the parts of the entire story from different perspectives and then analyse the situation.

India's Population: Opportunities and Looming Threats

Ramaa Arun Kumar*

Abstract

With falling fertility rates in India, the fear of population explosion has receded; however, the challenges posed by the present population are enormous. This paper throws light on some recent trends in health and nutrition that are the adverse fallouts of a huge population. The recent fall in the ranks in Global Hunger Index of India from 83rd position in 2000 to 97th position among 118 countries in 2016 ring an alarming bell to the miserable condition of our present population. The paper has also discussed the looming dangers of a mismatch between rising young population and stagnant job growth as well as the far-fetched but approaching troubles of an ageing population.

Key Words: Population, Undernourishment, Ageing Population.

I. Introduction

In the context of India, there is no doubt that population issues are of utmost importance for policy discussions. However, population dynamics are the result of individual choices and opportunities. Given the diverse socio-cultural and ideological differences in India, it is a Herculean task to make the people of the second largest populated country in the world understand the approaching challenges that the future generations would be facing if our additions to population does not cease or even reduce in the immediate future. Global Footprint Network data shows that if all 7+ billion of us were to enjoy a European standard of living - which is about half the consumption of the average American - the Earth could sustainably support only about 2 billion people. India is home to almost 20 per cent of the world population. Therefore, the disaster looms large on over populated countries like India.

This article captures some of the recent trends such as hunger, undernourishment and demographic age divide which are pertinent to the discussions on population growth in India. With total fertility rate falling from 3.81 in 1995 to about 2.4 in 2012,

nearing the replacement level of 2.1, the fear of population explosion has receded, however, the challenges posed by the present population of India are colossal. The paper is divided into three sections including the introduction. Section II discusses the trends in food availability and nutrition while section III throws some light on the challenges faced in terms of cashing in on the demographic dividend and approaching dangers of ageing population. Section IV concludes.

II. Food Availability and Nutrition

The Malthusian theory believed that the population grows exponentially during a cycle, while food production rises arithmetically. This scenario of arithmetic food growth with simultaneous geometric human population growth predicted a future when humans would have no resources to survive on. Major fallout of this phenomenon is hunger in a large part of population that curbs the potential of country to develop further into a healthy nation.

The recent Global Hunger Index brought out by the International Food Policy Research Institute (IFPRI) that captures the extent of hunger in the world has revealed that the state of hunger in India is worse than many under developed countries like Mali and Malawi and Uganda, which have a better score on the hunger index than India's. According to World Bank

Ramaa Arun Kumar*

Assistant Professor

Institute of Innovation and Information Technology

Table 1: Global Hunger Index for 1992 and 2016 for Select Countries²

India's record in combating hunger is worse than that of many poorer countries

Country	GDP per capita in 2015, PPP, constant 2011 international dollars	Hunger index	
		1992	2016
China	\$13,400	26.4	7.7
Thailand	\$15,345	26.1	11.8
Nicaragua	\$4,884	36.1	13.3
Ghana	\$3,953	42.7	13.9
Vietnam	\$5,668	41.5	14.5
Senegal	\$2,287	37.1	16.5
Cambodia	\$3,278	45.3	21.7
Nepal	\$2,313	43.1	21.9
Uganda	\$1,717	41.3	26.4
Malawi	\$1,113	57.6	26.9
Bangladesh	\$3,136	52.4	27.1
Rwanda	\$1,655	54.6	27.4
Mali	\$2,285	50.2	28.1
Lao PDR	\$5,341	52.2	28.1
Guinea	\$1,135	46.1	28.1
India	\$5,730	46.4	28.5
Liberia	\$786	49.7	30.7
Pakistan	\$4,744	43.4	33.4
Zambia	\$3,625	47.1	39

Source: IFPRI, World Bank

indicators, in 2015, Mali's GDP per capita, in purchasing power parity terms in constant 2011 international dollars, was \$2,285 while Malawi's was \$1,113 and that in Uganda was \$1,717. Compared to that, India's per capita income was \$5,730 (See Table 1). Moreover, India's ranking has declined from 83rd position in 2000 to 97th position among 118 countries in 2016. India fared worse than all its neighbours like China (29), Nepal (72), Myanmar (75), Sri Lanka (84) and Bangladesh (90), except Pakistan (107) in measures of hunger.

Hunger index is based on parameters such as shares of undernourished population, wasted and stunted children aged below five years and infant mortality rate. 'Wasting' refers to underweight children in relation to their height and reflects acute undernourishment. Stunting, on the other hand, refers to lower height achieved in relation to age that reflects chronic undernourishment. In India,

both types are prevalent in large numbers with the percentage of 'wasted' children at 15 per cent and stunted at 39 per cent.

According to the Food and Agriculture Organisation (FAO), State of Food Insecurity in the World, 2015 India has the second highest number of undernourished people at 194.6 million persons (15.2 per cent of Indian population) which translates into one quarter of the undernourished population in the world. Also 51 per cent of the women in India are anaemic and 44 per cent of children under the age of 5 are underweight.

The mounting pressures from population signal the need for dramatic changes that the world economy has to make in order to sustain the population. It is estimated that the world population, at the present rate of fertility, would surpass 9 billion by the middle of this century. Feeding a world population of 9 billion

² <http://www.livemint.com/Opinion/G9e65N45C3B27eu4LR7MmK/How-many-times-can-a-man-turn-his-head-pretending-he-just-do.html>

Table 2: Food-grain Stock Trend in India

(in Metric Tonnes, MT)		
Year	Grain Stock (As on April 1)	Buffer Norm
2011	44.31	21.2
2012	53.39	21.2
2013	59.75	21.2
2014	48.36	21.2
2015	41.03	21.2

Source: Food Corporation of India

will require an overall increase in agricultural output of about 70% according to the FAO (2010). In addition to increasing the output of the agricultural sector, countries will also need to increase production of many other vital goods and services.

In the case of India, a contrasting trend is observed on the food availability front which points to the comfortable situation that India is placed in. Despite its self-sufficiency in food availability, and being one of the world's largest grain producers, about 15% of Indians are undernourished or hungry. According to the Government of India data, the net availability of food-grains per capita has increased from 144.1 kg per year during 1951 to 179.3 kg per year in 2014 (GOI, 2016). However, the dependence of agriculture on rainfall is still high which is reflected in the fall of the total food-grain production during 2014-15 crop year (July-June) at 251.12 million tonnes (MT) from 265.04 MT in the corresponding period of 2013-14 due to unseasonal rains and hailstorm. There is a strong correlation between stability in agricultural production and food security. Volatility in agricultural production impacts food supplies and can result in spikes in food prices, which adversely affect the lowest income of the population.

India is also leading milk producer in the world with growth of 6.7 per cent in 2015-16, well over the world average growth rate of 2.2 per cent. Owing to the enhancement in milk production the availability of milk statistics based on daily basis per capita with the existing level of 337 gram is likely to go up 500 gram daily by the year 2021-22.

Data on food availability points to the fact that India has abundant food stock to face any food shortages. However, in the last two years, that is, 2014 and 2015, the foodgrain stock (rice and wheat) has fallen from 59.75 MT in 2013 to 48.36 MT and 41.03 MT in 2014 and 2015, respectively (Table 2) due to the vagaries of monsoons on which majority of the agricultural sector is still dependant. Although, the stocks were well above the buffer norm set by the Central Government at 21.2 MT.

It is evident that the deprivation of food to as well as undernourishment of a large population in India is not the result of shortage of food in the country. There is a missing link between the transfers of food to the needy. Moreover, it should be noted that the Global Hunger Index as stated above takes into account not only the undernourished population and infant mortality rate, but also the outcomes of improper nutrition to children below the age of five in the form of stunted and 'wasted' children. Thus, the majority of the population, mostly children, is not having access to sufficient food as well as nutrients that are essential for their physiological development. Studies have shown (Bhatla and Negi, 2016) that the nutritional aspect of the quantity of grain to be distributed to each person under the Public Distribution System (PDS) is somewhat less researched. Some of the factors responsible for this are poor quality of food lacking essential micronutrients, no diet diversity, and unhygienic conditions of storage.

Thus, there is need to have a relook at the food distribution policies that are in place for the poor

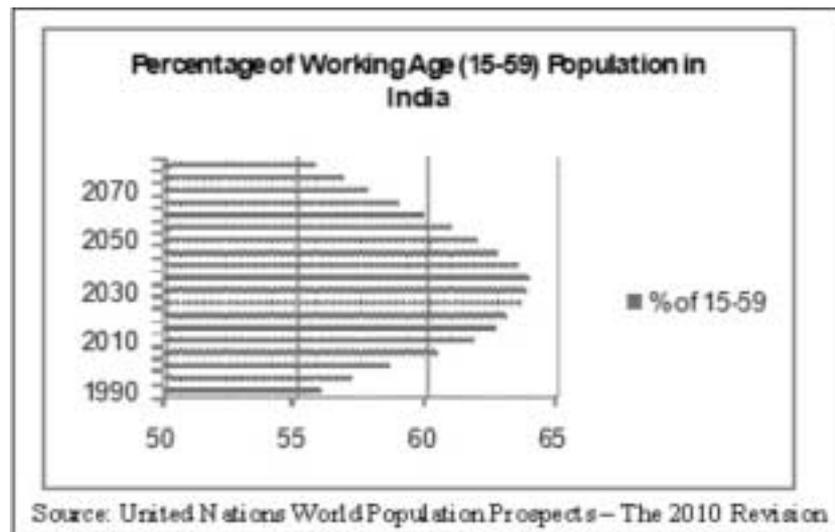


Figure 1: Estimated Percentage Working Age Population³

people in our country. The most important reform that is in the anvil is the inclusion of the existing PDS into the National Food Security Act, 2013. The Act provides for coverage of upto 75% of the rural population and upto 50% of the urban population for receiving subsidized foodgrains under Targeted Public Distribution System (TPDS), thus covering about two-thirds of the population. The eligible persons will be entitled to receive 5 kgs of foodgrains per person per month at subsidised prices of Rs. 3/2/1 per kg for rice/wheat/coarse grains. The existing Antyodaya Anna Yojana (AAY) households, which constitute the poorest of the poor, will continue to receive 35 kgs of foodgrains per household per month.

III. Age Divide: India Getting Younger by Growing Old

1. Youth Bulge: An Opportunity

It is estimated that in four years, India will have the world's largest population of working people, about 87 crores in all. India will have a relatively large working-age population (aged between 15 and 59 years), as compared to its dependent population (aged 0-14 and 60+) over the next few decades. This 'youth bulge' will reach its peak in the year 2035 (Figure 1).

³ <http://www.strategicforesight.com/inner-articles.php?id=125#.WC6gf9J97ce>

Analysts consider this period of a 'youth bulge' to be a boom, during which the abundance of human capital can be used to fuel the growth of the country.

When nations reach a high ratio of working age population, they are expected to earn something called a demographic dividend. This simply means that because most citizens are working, economic growth goes up. In other words, demographic dividend can be defined as the rise in economic growth due to the rising share of working age people in a population.

Some demographers have pointed out that many Asian countries are expected to benefit from the change in the age structure in the coming years as growth of the working age population will be higher as compared to the growth of the child population leading to a lower dependency ratio. The study of Bloom and Williamson (1998) of 78 Asian and non-Asian countries showed a positive impact of growth of the working age population on economic growth. The estimates showed that nearly one-third of the economic miracle of East Asian countries can be attributed to demographic dividend.

A similar observation has been made in a study by Sharma (2016) which has analysed the factors for the

sluggish global recovery in the aftermath of the series of financial and debt crises in the developed world. It notes that one of the critical causes of the missing growth was the shrinking supply of people in the active workforce. For example, in the United States, productivity grew at an average of 2.2 per cent between 1960 and 2005 before slowing to just 1.3 per cent in the past ten years. The population slowdown was even more dramatic with the population growing annually at an average rate of 1.7 per cent, whereas, in the past decade the population growth has fallen to just 0.5 per cent leading to an approximately 1 per cent fall in the labour force growth.

With this background, this is an opportune time for India to cash in on the young population that is reaching its peak in order to maximize its economic growth. However, some observers have noted that the recent growth story of India and the policies in place have not been adequate to exploit this opportunity. Based on the National Sample Survey (NSS) Employment Unemployment Survey data, Thomas (2008) found that the generation of non- agricultural employment in the Indian economy has fallen behind the growth in the supply of “potential” non-agricultural workers. Additions to the pool of potential nonagricultural workers come from two sources: the growth of the working-age population and the shift of the workforce away from agriculture. At the same time, the growth in the number of students, who are not part of the labour force, tends to reduce the size of this pool.

Patel (2016) notes that with the current rate at which employment opportunities are growing would cast serious doubts India being able to take advantage of this demographic dividend. Based on the report by *IndiaSpend*⁴ that does data based journalism, these observations, as quoted in the article, are:

- “In 2015, India added the fewest organised-sector jobs in seven years across eight important industries.
- The proportion of jobs in the unorganised sector is set to rise to 93 percent in 2017.

- Rural wages are at a decadal low, as agriculture, which accounts for 47 percent of jobs, contracted 0.2 percent in 2014-15, growing 1.2 percent in 2015-16.
- As many as 60 per cent of those with jobs do not find employment for the entire year, indicating widespread ‘under-employment’ and temporary jobs.
- The formation of companies has slowed to 2009 levels, and existing companies are growing at 2 per cent, the lowest in five years.
- With large corporations and public-sector banks financially stressed, the average size of companies in India is reducing, at a time when well-organised large companies are central to creating jobs.”

As noted above, the additions to the labour force are extremely high and the commensurate growth in employment opportunities is not keeping pace with the former. A United Nations Development Programme report said that in China “the number of jobs grew from 628 million to 772 million between 1991 and 2013, an increase of 144 million, but the working-age population increased by 241 million.” A wider gap in India than China suggests a more limited capacity to generate employment - a serious challenge, given the continued expansion of the workforce in India over the next 35 years.

The other major challenge is posed by the levels and quality of education being provided to the population in India. Approximately 12.4% of 240 million school-aged children in India were able to get through schooling to the college level in 2010. The Government of India aims to increase this number to 30% by 2020. However, the government will have to contend with high dropout rates (as high as 46% before middle school at the national level), as well as subpar education quality in many parts of the country.

2. *Rising Old-Age Population: A Far-Off but Credible Threat*

Typically, people aged above 60 comprising the older population are also dependent on those who form the

⁴ <http://www.firstpost.com/india/india-wont-benefit-from-rising-population-mass-unemployment-unrest-looms-ahead-2980040.html>

Table 3: Age Structure in India by Broad Age Groups

Age Structure	All-India		
	1961	2001	2011
0-14	41	35.4	30.8
15-59	53.3	57.1	60.3
60+	5.6	7.5	8.6

Source: Puri and Mishra (2015)

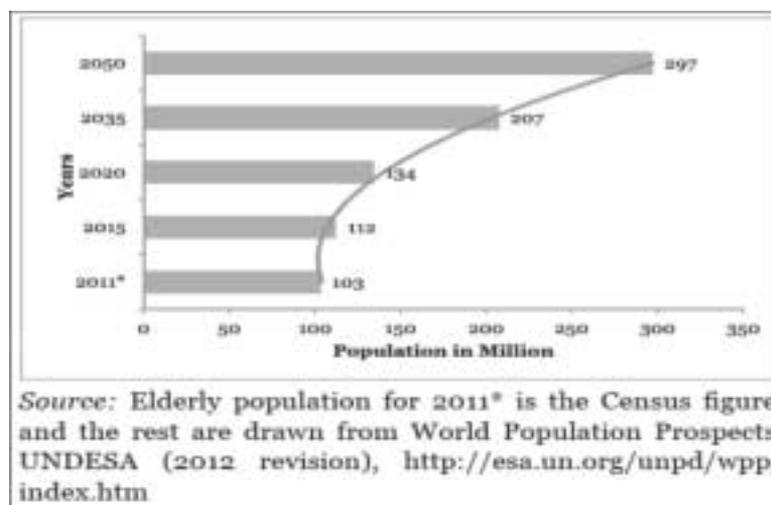
labour force. The other part of dependent population is the children aged below 14 years who are yet to join the labour force. Since India is still experiencing demographic dividend, the elderly people form a very insignificant part in the dependent population. A look at Table 3 gives clarity on the age structure and the change that has occurred over the years.

As it can be seen, there has been a drastic change in the population in the 0-14 and 15-59 age groups over the four decades. The falling birth rates have contributed to lesser additions to the former. The hitherto excessive additions to the populations with total fertility rates hovering around 4-5 have resulted in the present higher working population in India.

The percentage of the last group of 60 and above age is yet to make a significant presence. However, it is

crucial to note that the youth bulge being experienced presently will form part of the former group in coming decades. According to the Government of India data⁵, the citizens over the age of 60 jumped 35.5 percent from 7.6 crore in 2001 to 10.3 crore in 2011. The age dependency ratio of the older to the younger population has increased from 10.1 to 14.2 between the same period. Within India, Kerala tops the charts with highest number of old age population of 12.6 percent, followed by Goa, Tamil Nadu, Punjab and Himachal Pradesh. While states like Arunachal Pradesh, Meghalaya, Mizoram and Sikkim have a relatively lower proportion of elderly (4-6 percent).

Alam and Yadav (2014) have noted that with sustained decline in fertility–mortality parameters, improved public health and increasing life span in India, the

**Figure 2: Projections on Elderly Population in India**

⁵ indianexpress.com/article/india/india-news-india/india-population-growth-people-over-sixty-senior-citizens-2764848/

size of the elderly population in the country is projected to grow almost thrice in a short span of next 40 years, i.e., from 103 million in 2011 to 297 million in 2050 (Figure 2) according to the estimates of United Nations Department of Economic and Social Affairs (UNDESA). The study (based on a survey of older adults in few Indian states) also reveals that the present trends in the aged population pose many challenges of socio-economic and health related policies for the governments in the future.

They find that there are more elderly women than elderly men with the sex ratio as high as 1113 that indicates feminisation of ageing. In addition, they also observe that (i) there is involuntary participation of a large proportion of elderly persons in physically strenuous and poorly paid informal economic activities; (ii) no or inadequate income; (iii) growing changes in living arrangements of the elderly; (iv) feminisation of the ageing population with growing share of widows, particularly after reaching 75 and 80; (v) low levels of physical, mental and functional health conditions; and (vi) limited access to and inadequate knowledge of several government-run welfare schemes.

There are two aspects to these observations that citizens as well as the government should be wary of; one, that providing healthy living conditions is not only the responsibility of the government but also of the individuals who are an integral part of the society and the economy and therefore, have much to contribute to the larger picture. Second, that the government should be proactive in providing a competitive economic environment as well as policies for the older population such as to secure the future of the older generations.

The retirement age in many sectors and work places in India is 60 years. However, there are many people above the age of 60 who are still in the labour force. Bhat (2016) has noted that a significant part of the growth in the labour force in India and China, two very popular investment destinations, between 2000 and 2015 was driven by population aged 65. The number of economically active people aged 65 and above in India was 6.2 million in 2000 while

the numbers have risen to 35.6 million in India in 2015.

It is evidence enough that the older population can also contribute to the economic growth, provided that their socio-economic and health conditions allow them to be economically active. Moreover, with the challenges such as the poor health and economic conditions of growing population in general and of elderly women, in particular, in many states of India, it is imperative to take necessary steps to ensure that the present young population that will be joining the older age group in the coming decades does not have to face difficulties to sustain themselves.

Lessons can be learnt from the present experiences of the developed nations, especially European countries like France and Denmark and others like Canada, Australia that are facing stagnation in their working-age population and rising ageing population. Many countries have started taking steps to combat the difficulties that their economies are facing due to lesser population contributing to economic growth.

With fertility rates in many countries falling below the replacement level of 2.1, many countries are subsidizing motherhood to encourage women to have more than two children. For example, Sharma (2016) notes that in 1987 Singapore launched a campaign under the slogan, "Have three or more if you can afford it". Canada introduced a baby bonus in 1988 and Australia did in 2005. In France, the baby bonus incentives were targeted solely at parents to have a third child, extra home help subsidies, tax cuts, a 10 percent pension increase and a 75 percent discount on rail tickets. Very recently in 2015 China ended its one-child policy introduced in 1980 that has led to a skewed population in favour of men and a loss of working population.

India, on the other hand, has put in place many population control policies in order to control population growth. However, it is certain that India will be finding itself in the same position as developed world is in terms of demography. It will be prudent for the individuals and the government to realize this and be proactive in facing these approaching challenges.

IV. Conclusion

For a country's economic progress population growth is an essential condition. However, sustaining a huge population as well as creating an environment for them to contribute economically to the country's growth is a gargantuan task, especially for India which is set to become the most populous country in a few years, surpassing the population of China.

As discussed in this paper, the adverse fallouts of

having a huge population are evident from the Indian experience in the case of access to health and employment opportunities to the rising young population. The looming challenges in terms of the mounting pressures on resources to achieve a decent or even a better standard of living (in terms of American or European standards) for a large number of people in India have to be realized and acted upon to avert any disaster that may occur due to lack of proactive approach.

References

1. Alam, Moneer and Pratima Yadav, 2014. "The Other Side of Indian Demographics: Accelerating Growth in Ageing and Its challenges", Institute of Economic Growth, *Policy Brief No. 7/ 2014*.
2. Bhat, Sanchita. 2016. "Future of Work: 65 Age Bracket Drive Labour Force Growth in India and China", Euromonitor. Weblink: <http://blog.euromonitor.com/2016/08/future-work-65-age-bracket-drive-labour-force-growth-india-china.html>
3. Bhatla, Seema and Bal Krishan Negi. 2016. "Linking Food and Nutrition Security". Article in *The Hindu*, 8 November, 2016. Weblink: <http://www.thehindu.com/opinion/op-ed/linking-food-and-nutrition-security/article9316091.ece> (Accessed 17 November, 2016)
4. Bloom, David E and J G Williamson (1998): 'Demographic Transitions an Economic Miracle in Emerging Asia', *World Bank Economic Review*, Vol 12, No 3, pp 419-56.
5. Economic Survey of India, Various issues.
6. Food and Agriculture Organization (FAO) (2010), *Growing Food for 9 Billion*, FAO, Rome.
7. Herrmann, Michael (2012), "Factoring population dynamics into sustainable development", in OECD, *Development Co-operation Report 2012: Lessons in Linking Sustainability and Development*, OECD Publishing, <http://dx.doi.org/10.1787/dcr-2012-11-en>
8. James, K.S., 2008. Glorifying Malthus: Current debate on 'demographic dividend' in India. *Economic and Political Weekly*, Vol. pp.63-69.
9. Patel, Aakar. 2016. "India Won't Benefit from Demographic Dividend: Mass Unemployment, Unrest Looms Ahead", Article posted on 28 August, 2016. Weblink: <http://www.firstpost.com/india/india-wont-benefit-from-rising-population-mass-unemployment-unrest-looms-ahead-2980040.html>
10. Puri, V. K., S.K. Misra. 2015. "Indian Economy", edited, Himalayan Publishing House.
11. Sharma, Ruchir. 2016. "Rise and Fall of Nations: Ten Rules of Change in the Post-Crisis World", Edited. Penguin Random House, UK.
12. Thomas, J. J., 2014. 'Demographic Challenge and Employment Growth in India', *Economic and Political Weekly*, Vol. 49 (6), 2014.

Business Process Management 1: Introduction, Methods, and Information Systems (Second Edition)

Dr. Archana Krishnan

The affiliation(s) and address(es) of the author(s): Dr. Archana Krishnan is presently Assistant Professor, Institute for Innovation in Technology and Management (Affiliated to Guru Gobind Singh Indraprastha University), D-29, Institutional Area, Janakpuri, New Delhi-110058.

Dr. Archana Krishnan is a doctorate from Faculty of Management Studies (FMS), University of Delhi, New Delhi, India. The author has a B.E in Computer Science Engineering (2006, Anna University, Chennai, India) and an MBA in Human Resource and Systems (2008, Anna University, Chennai, India). Author's interests include Total Quality Management, Organisational Behaviour, Human Resource Management. The author could be contacted at: archanakrishnan85@gmail.com.

Vom Brocke, Jan, Rosemann, Michael (Eds.), *Business Process Management 1: Introduction, Methods, and Information Systems* (Second Edition), 2015, Springer-Verlag Berlin Heidelberg, pp 727, \$229, ISBN 13- 978-3-642-45099-0, DOI 10.1007/978-3-642-45100-3.

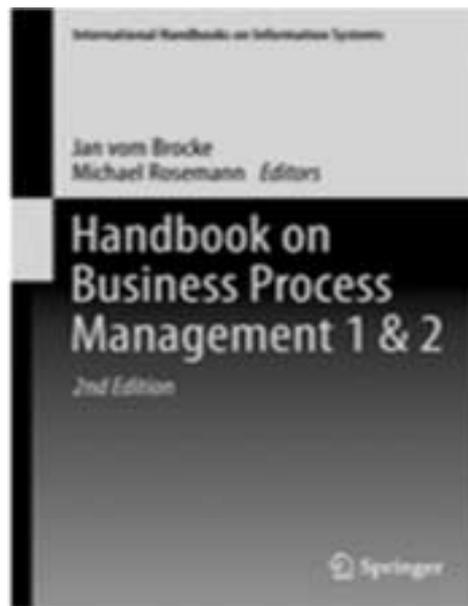
This bestselling book by Jan vom Brocke and Michael Rosemann's on *'Business Process Management 1: Introduction, Methods, and Information Systems* (Second Edition) as a first volume focuses on defining BPM approaches and examining various BPM methods and process-aware information systems. The book vividly guides in the integration of BPM into corporate methodologies and information systems for a customer centred approach to organisation management. This book's intended audience is both academic and non-academic readership.

As in the first edition, the second edition revolves around the six core elements of BPM such as strategic alignment, governance, methods, information systems, people and culture with some additions to the theoretical concepts of BPM, practical applications to the real life scenarios and some updates on the current progress made in the field. Additions to the chapters on areas such as in memory databases and social media and cases on how BPM could be applied to issues and challenges involved in process innovation, agility and sustainability. In addition, certain introductory chapters which have been added include process framework, process simulation, process value, process culture and process technologies.

The book is broadly divided into three parts, each subdivided into several chapters.

Part 1 Introduction briefly sets the scene by discussing the history of BPM, then describes the critical enablers for a high performance process, critical capabilities that are essential for success in processes. The later sections of this part introduce the concept of knowledge management and process improvement approaches to improve knowledge work. Further, the book focuses on the evolution of business process management through the work of great stalwarts like Geary Rumler and Micheal Porter.

Part 2 Methods focuses on various rules and guidelines for successful implementation of BPM. The methods are given at three levels. The process centric individual guidelines provide techniques for modelling, analysing, animating, simulating, improving or automating a process. The second level of methods focuses on the entire business process lifecycle which lays specific emphasis on various lifecycle phases with a special focus on lean management and six-sigma. The third level focuses on the enterprise wide implementation of BPR methods that define organisation's capability.



Part 3 Information Technology focuses on the role of IT in BPM in progression and innovation. This section highlights that there is much more to BPM than just automated execution of processes with three chapters showcasing the mutual impact of service management and process management. First chapter focuses on interrelationships between BPM and service oriented architectures with a special focus on enterprise optimisation and agility rather than technological challenges. The second chapter focuses on technical perspective on how the processes have to be designed to make full utilisation of the service oriented architecture. The third chapter focuses on the implementation plan from BPM to Service Oriented Architecture (SOA) that could act as a guideline in designing Process Aware Information Systems (PAIS).

Though the second edition revolves around the core elements of BPM, the author chooses a three part structure to focus broadly on introduction, methods and information technology. The structure makes it convenient for the readers to understand the various concepts.

The book brings together thought leaders around the world who have contributed in bringing together various concepts in BPM. Authors have substantiated their research work with extensive literary sources, which provides the researchers with enormous knowledge on various contemporary issues in implementing BPM. The fact that the authors were encouraged to include cross references from other chapters in the book highlights the integrated methodology adopted by the editors to follow a unique objective of the book, while providing rich individual contributions and viewpoints. The chapters have been beautifully compiled. The section on how to read the handbook provides in-depth understanding of the flow of the handbook. BPM Index has been developed in to give a quick understanding of the various terminologies. BPM who's who is an author index developed to provide an individual background of each author and its relatedness to their literature.

Overall, the book is a very good reference for academicians and practitioners for understanding and implementing the BPM practices. The book vividly covers both the managerial and the technical aspects of implementing BPM. Authors have brilliantly put together both aspects with enough examples from organisational processes for successful implementation of BPM. The book shall certainly be a boon to organisational leaders who want to bring significant changes in their business processes.