

Volume 9, Issue 12(2), December 2020
**International Journal of Multidisciplinary
Educational Research**

**Published by
Sucharitha Publications
Visakhapatnam
Andhra Pradesh - India
Email: victorphilosophy@gmail.com
Website: www.ijmer.in**

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IJMER, Journal of Multidisciplinary Educational Research, concentrates on critical and creative research in multidisciplinary traditions. This journal seeks to promote original research and cultivate a fruitful dialogue between old and new thought.

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ISSN : 2277 – 7881
Impact Factor :6.514(2020)
Index Copernicus Value: 5.16



Editorial.....

It is heartening to note that our journal is able to sustain the enthusiasm and covering various facets of knowledge. It is our hope that IJMER would continue to live up to its fullest expectations savoring the thoughts of the intellectuals associated with its functioning .Our progress is steady and we are in a position now to receive evaluate and publish as many articles as we can. The response from the academicians and scholars is excellent and we are proud to acknowledge this stimulating aspect.

The writers with their rich research experience in the academic fields are contributing excellently and making IJMER march to progress as envisaged. The interdisciplinary topics bring in a spirit of immense participation enabling us to understand the relations in the growing competitive world. Our endeavour will be to keep IJMER as a perfect tool in making all its participants to work to unity with their thoughts and action.

The Editor thanks one and all for their input towards the growth of the **Knowledge Based Society**. All of us together are making continues efforts to make our predictions true in making IJMER, a Journal of Repute

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EXPLICATING THE BRAND IMAGE CONSTRUCT

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Abstract

This paper discusses and analysis the existing brand image literature. It found that there is a little consensus in the progressive definitions of brand image. It lays a foundation for further brand image research. For most of the marketers the brand image is the fundamental construct in making many of the marketing strategies decisions in situation to targeting a market segment and positioning of the product or service. Most of the researchers measure the brand image as a unidimensional concept but it is a multidimensional concept that is reinforced by symbols, consumer attitudes, benefits, emotions, messages and consumer cognitions.

The varied definitions of brand image given by different researchers might be a bit confusing with reference to measurement of brand image and its further assessment with respect to positioning and equity. But brand image is one of the significant elements of impacting and setting up a higher level brand equity and brand positioning and so relooking once again at the concept of brand image is necessary and a requirement. Marketers can craft consistent brand identity, brand personality, brand positioning, brand tone and brand communication strategies but very hard to craft the brand image construct as it is influenced by numerous external factors. For the companies it is tough to control the brand image because it is how the customers receives and decodes the messages and it includes how the customers sees and perceives the brands. Brand image includes brand associations, brand judgment and evoking of emotional feelings in the minds of the customers. And hence therefore it is necessary for the brand strategists to rework on the brand image.

Keywords: Brand, Brand Image, Cognitive Aspect, Brand Identity, Brand Strategist.

Introduction

It is very much intriguing to explode and look at how the branding elements can have intangible, rational influence on the consumer mind. The marketers can leverage the brand if they can understand the consumer's perception and feelings towards a brand. The companies can get maximum advantage if they can understand how the consumer sees and perceives the brands. Brand image is how the customer sees and perceives the brand. Kapferer (2005) asserted that for the Companies, the brands and brand image are very significant and hence the marketers should know how to build, measure and manage the brand image construct. Biel (1992) asserted that brand image is one of the significant drivers of brand equity. For good brand equity the marketers prefer to establish a strong brand image. Brand image is based on customer brand associations, brand judgment and evoking of brand feelings in the consumer mind.



The commercial transmits the encoded marketers' vision of the specific brand; brand concept. The consumer decodes, adds different cues and develops their own vision of the brand; that is the brand image. There is a problem of mismatch between these two processes and the marketers are not able to communicate the brand core meanings and brand significant strengths and they can be applauded if they are able to transmit the brand DNA to the consumers, Ambler, T. (1992). Despite of eighty years of research, the brand image concept even today remains ambiguous. Though the brand image concept research had started in 1950's, still there is a higher intensity of confusion and discrepancies about the brand image concept and this could be due to insufficient knowledge and comprehension of brand image. And this confusion had increased due to many reasons like having no empirical evidence, contribution of new unclear concepts towards branding literature. And many branding research studies had deviated from the core brand concepts. And there is lack of strong brand image conceptualizations in the research. Moreover, the marketing is a dynamic discipline. The brand image concepts will change over time.

The brand image concept needs to be developed further more for proper brand management in reality. This paper focuses mainly on understanding the brand image concept. And in this process the work looks at the past brand image definitions. And a better knowledge of past brand image definitions will certainly improve the research. Dobni and Zinkhan (1990) said that past definitions, meanings, concepts will certainly help the research scholars for better understanding of the concepts in research.

Brand Image Concept

Usually, the consumers develop the individual perceptions towards the brands based on various brand attributes and other criteria and the consumers use these developed brand related perceptions in evaluations and purchases. Churchill, G. A. (1979) described that emerging definitions is the initial step in the process of establishing superior measures of marketing concepts. Engel et.al (1986) said that these individual perceptions are arranged by the consumers into an expressed picture of the brand which will influence the consumption purchase behaviour. These pictures present in the consumers mind are known to be brand image. Gordon, W. et al (1996) said that the brand image held by the consumers is computed at the time of brand purchase, usage, brand past experience, exposure to the other stimuli like advertising, packaging and to other promotions. For the marketer the brand image helps in improving the brand and product performance, Shocker, A. D. and Srinivasan, V (1979). Helps the organization in defining, creating and establishment of brand position, Park.C.W. et al (1986). Brand image helps the marketer in defending the competitor attack, Oxenfeldt, A. R. and Swann, C. (1964). The brand image is a complex phenomenon and it is a encapsulated concept consisting of many attributes and dimensions like user image, Restall, C. and Gordon, W (1993).

Park et al. (1986) explained that building and maintenance of the brand image is indispensable to the brand management. According to Hsieh et al (2004), the brand image aids the consumers to recognize the needs that the brand accomplishes and to differentiate the brand from its competitors and as an output increases the chance that consumers will buy the brand. Gardner and Levy (1955) and Bullmore (1984)



emphasized the brand image as beliefs, feeling, perceptions and attitudes towards a brand. Dobni and Zinkhan (1990) asserted that brand image exemplifies a significant portion of marketing activities, market offerings and branding with divergent definition and approaches to its abstraction. Bambang Sukma Wijaya (2013) asserted that brand image is a 'guideline' for consumer audience to try or use a product or service then giving rise to a particular brand experience. Many empirical studies have accepted that a positive image (i.e. brand, store/retail) will bring about loyalty, Kandampully and Suhartanto, (2000), brand equity, Faircloth et al, (2001), purchase behavior Hsieh et al, (2004) and brand performance , Roth, (1995).

Apparently, all products and services could be demonstrated by functional, symbolic or experimental elements, through which brand image is entrenched. Most of the researchers defined the brand image generally from four angles i.e., blanket definitions, meanings and messages, personification, cognitive or psychological aspects. Different authors and researchers had defined and explained the brand image construct in different ways. The Progressive evolution of Brand Image explanation and definitions are exhibited in Table 1.

Table 1. The Progressive evolution of Brand Image explanation and definitions.

SOURCES	DEFINITION OF BRAND IMAGE
Gardner and Levy (1955)	A set of ideas, feelings and attitudes that consumers have about brands.
Martineau (1957)	Brand image is a symbol of the buyer's personality
Newman (1957)	A brand can be viewed as a composite image of everything people associate with it
Herzog (1963)	Consumers' general perception and impression of a brand
Joyce, T. (1963)	The set of associations acquired by the brand by an individual.
Sommers (1964)	The meaning that a product has perceived product symbolism -"perceived product symbolism"
Grubb and Grathwohl (1967)	The psychic or symbolic value of goods purchased in the marketplace
Bird, M., Channon, C. and Ehrenberg, A. S. C. (1970)	Attitude of a brand.
Pohlman and Mudd (1973)	Product image is value for its utility as a prestige symbol
Levy and Glick (1973)	The concept of brand image aptly sums up the idea that consumers buy brands not only for their physical attributes and functions, but also because of the meanings connected with the brands
Levy (1978)	A mixture of the physical reality of the product and the beliefs, attitudes and feelings that have come to the attached to it meaning as being learned or stimulated by the component experience that people have with the product
Bettinger, Dawson, and Wales (1979)	(BP) Products have personality images, an "adult" image and a "child" image of the product-age image
Swartz (1983)	In symbolic consumer, interest lies in investigating the role of products as "messages" - "the messages communicated by products"



Reynolds and Gutman (1984)	The set of meanings and associations that serve to differentiate a product or service from its competition
Bullmore, J. (1984)	A brand's image is what people think and feel about it: and those thoughts and feelings will not - cannot - be universally identical. The image lies in the mind of the beholder - and is conditioned at least as much by the nature of the beholder as by the nature of the object itself.
Hendon and Williams (1985)	Brand personality or brand character involves nothing more than describing a product as if it were a human being - "brand character"
Sirgy (1985)	Products are assumed to have personality image, just as people do - "personality image"
Dichter (1985)	Brand image is the configuration of the whole field of the object, the advertising, and more important, the customer's disposition and the attitudinal screen through which he observes.
Park, C. W., Jaworski, B. J., & MacInnis, D. J. (1986)	Brand image is the comprehension of all the brand related activities carried by the firm.
Engel, J. F., Blackwell, R. D. and Miniard, P. W (1986)	Consumers' organization of the subjective perceptions into a succinct picture of the brand.
Friedmann and Lessig (1987)	A mental position, understanding or evaluation of the product that develops in a non-random way form interaction between perceiver and product stimulus - psychological meaning
Durgee and Stuart (1987)	Each product or brand has a "meaning profile" which is defined as the complex of key meanings associated with the product or brand of what the product means symbolically in the eyes of consumers - "Brand meaning"
Kotler, P. (1988)	Brand image is the set of beliefs held about a particular brand.
Dobni and Zinkhan (1990)	Meaning that the consumers associate with the product based on {experiences, impressions, perceptions} of {functional, emotional, symbol} benefits of the brand
Lee, D. H. (1990)	A symbolic meaning associated in the minds of many consumers.
Biel (1992)	Cluster of attributes and associations that consumer's connect to the brand name
Kirmani, A. and Zeithaml, V (1993)	It is the perceptual construct held by the consumer in his mind.
Keller (1993)	Perceptions about a brand as reflected by the brand associations held in consumer memory.
Sampson, P. (1993)	Brand image as the aggregation of brand identity (which is <i>explicit</i>) and brand personality (which is <i>implicit</i>).
Foxall, G. R. and Goldsmith, R. E. (1994)	Brand image is the collection of perceptions held by the consumers for a brand.
Kapferer, J.N. (1995)	The brand image refers to the consumer decoding of all the entities of product, brand, service or any other brand



	attributed communicated by the organization.
Lancaster, G. and Reynolds, P. (1995)	The ideas of the product properties in use, which are not associated properly by the consumers.
Upshaw, L. B. (1995)	It is the products or brand significant personality held by the market as a whole.
Gordon, W (1996)	It is the resultant of compiled information by the consumer through the direct experience of the brand, exposure to commercials, packaging and even through observation.
Aaker, D. A. (1996)	The brand image is the perception of the brands by the customers.
Zikmund, W G. and d'Amico, M. (1996)	A set of meanings and symbols connected to a brand.
Keller (2008)	Consumer perceptions of any preferences for a brand, measured by the various types of brand associations held in memory (p. 636) and The consumer's perceptions about the brand as reflected by a set of brand associations held in consumer's memory (p. 384)
Roy and Banerjee (2014)	The perception of a brand that is being formed in the process of decoding brand identity facets (p. 2)
Lee ,L., J., James, J. D., Kim, Y. K. (2014)	Brand image acts as the basis for making strategic marketing decisions about targeting particular market segments and positioning a product. However, the brand image has been defined and applied in various ways by different researchers. The variations in definition of brand image can be confusing with respect to brand image measurement and subsequent assessment of brand equity and brand positioning.
Anselmsson, Bondesson, and Johansson (2014)	The associations and beliefs that the customer has regarding the brand (p. 4)
Zhang (2015)	Brand image is a crucial element of brand equity, which refers to the consumers' perception and feeling about a brand.
Aranda, Gomez, and Molina (2015)	Brand image comprises attributes related to consumer behavior and a holistic concept that includes cognitive components such as visual representation and functional features as well as affective components such as emotions and or impressions.
Westre, M. (2016)	Branding is a promise to the customers from the company. And it is more than a list of attributes.
Yuan, R., M.J. Liu, J. Luo, and D.A. Yen. (2016)	The subjective knowledge and consumers beliefs towards a brand.
Aleksandar Grubor and OljaMilovanov (2017)	Brand is a peculiar blend of functional and emotional characteristic perceived by consumers as an additional value, unique experience and fulfilled promise. It has a symbolic value different from everything that is available in reality and ability to represent interests that go beyond the brand itself. For the marketer, it is the core strategic resource and most powerful invaluable asset.



During the years between 1950s to 1970s ,the brand image was considered as the total of customer's cognitive and affective perceptions apart from the product's physical attributes , Garner and Levy, (1955); Herzog, (1963); Levy, (1978); Newman, (1957); Pohlman and Mudd, (1973). Few researchers used meanings , Levy, (1978); Levy and Glick, (1973); Sommers, (1964), Symbols, Grubb and Grathwohl, (1967); Martineau, (1957); and associations such as beliefs, feelings and attitudes to express the brand image. The symbolic approach of brand gained recognition throughout the 1980's, Dobni and Zinkhan, (1990). Researchers used messages, Swartz, (1983), meanings, Durgee and Stuart, (1987); Reynolds and Gutman, (1984) and associations to interpret the intangible perceptions of customers minds.

In the beginning of 1990s, brand image was explained as being different from product image. The image of a service now forms a part of brand image. Aaker (1991) and Keller (1993), two acclaimed authorities on branding, predominated the definition of branding, having brand image. Aaker (1996) naked known the concept of brand identity, attributing to a unique set of associations that the brand strategist aims to create or maintain. He elucidated that brand identity is the image that the companies aspire for the customer to perceive and see.

Aaker asserted that brand image is just one input along with expertise which were considered to incorporate the brand identity, the definition seems to be similar and incorporated in Keller's (1993) brand association notion (i.e., the sum of the customer's perceptions), which was most accepted in this period. Furthermore, his term and definition of brand identity which included varied terms to explain part of the entire concept. S.A.Chunnawala (2000) explained that brand image is the meaning consumers give to a product based on the perceived values it delivers. The perceived value is more important than the actual value.

Methodology

Content analysis was adopted to identify the significant features and definitions of brand image. The content analysis is a research method which helps in checking the uniformity in the existing brand image definitions and helps in identifying the indicators in each definition of brand image. This method aids in understanding of brand image concepts which helps in further brand image research. Off-course the qualitative content analysis can have the quantitative ingredient by which the researchers can make subjective interpretations and inferences, Berelson.B (1971). The past research papers, books and other sources are selected on snowball sampling which is one of the non-probability sampling techniques.

Outcomes

Once after examining the existing brand image definitions, it can be understood that there are a wider differences between each of them. There is a little consensus in the progressive definitions of brand image. It is a significant brand construct because most of the consumers select the brand alternatives based on brand image. Only successful brands can create the brand image. Even the marketers too realized the significance of brand image. The consumers perceive the brands in terms of the respective images. And this aspect influences their purchasing behaviour process. But it is very clear that mostly



all the brand image definitions are based on the consumer perception view point. Many other words like symbols, personality, attitudes appear in the definitions. The marketing paper of Gardner et. al (1955) is the first one which dealt with the brand image definition. Most of the consecutive papers had referred to the Gardner and Levy (1955), a popular marketing paper.

Recontextualizing the Brand Image

Based on the past material definitions of brand image, it can be reconceived as, “The ultimate brand profile developed by the consumer in his mind by compiling the information related to brand judgment, associations and perceptual feelings”. Brand image is a complex, dynamic and multidimensional construct. Brand image is a significant phenomenon because it reflects the marketing behavior of consumers. One has to address many latent variables influencing the brand image. The marketers need to adopt an integrated marketing approach to strengthen the brand image aspect.

Conclusions

First and foremost, for any marketer brand image is one of the significant elements because it is one of the complex elements of brand equity. Secondly the brand image is not a simple perception but related to associations of tangible and intangible brand benefits which aid the consumers in selection of the brands during purchase process. Thirdly in this intensive competitive market, the companies should try to retain the customers, which is a tough task. The brand strategists should understand how the customers perceives and sees the brand, so that they can craft the strategies to build the brand image.

In the context of Indian market the study of review of brand image literature proclaims that there is a big gap in understanding the factors, attributes and dimensions accountable in building of brand image. After going through many research works only some of the authors and experts have made noticeable comments and remarks on the brand image construct. Because of impact of many factors there is a high probability that the customers change their perceptions of brand image because of change in their profile variables and moreover they develop new brand perception elements for brand associations replacing the old perceptions. Therefore, a study is required in the domain of brand image conjecture. And additionally, there should be an understanding of developing and augmentation of brand image so that there can be a differentiation form the other constructs like brand hierarchy, brand personality and brand equity. And furthermore, the study should fill the gap and should pinpoint or identify the factors and dimensions of brand image construct. The research study should even enable the brand strategists and other practitioners in specific in formulating the strategies and strengthening the brand image and it also facilitates the academicians too in common to progress into the innovative areas of research.

A wider examination of brand image literature had been done. The discrepancies found in the different brand image definitions might be due to high interdependency of the brand image attributes. With a better understanding of the brand image concept, the marketers can create a positive image in the minds of the consumers by adopting integrated marketing communication strategies. Even today the brand image



research is in starting stage and not in ending stage. So, the researchers need to put extra efforts to develop more precise brand image concepts for further brand image research and should contribute significantly.

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A COMPARITIVE STUDY ON VIEWERS PERCEPTION ON SERIALS WITH REFERENCE TO STAR MAA AND ZEE TELUGU CHANNELS

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Abstract

Entertainment is important as it brings people together and is a good way for the entire family to bond. It diverts people's attention from their demanding lives and amuses them in their leisure time. In the recent times, television has emerged as the most powerful force throughout the world. It can disseminate information with lightning speed and impacts viewers in subtle and imperceptible manner. A large proportion of television viewers watch and enjoy serials. Serials dominate the national audience ratings over other programmes that are telecasted in television. The present study has been initiated to examine the viewers perception about characters, content, costumes, dialogues etc of Karthika Deepam and Muddha Mandaram serials that are telecasted in star maa and zee telugu channels respectively and to compare the viewers interest and perception of both the serials.

Keywords: Channel, Information, Serials, Television, Viewers.

Introduction

Entertainment is something that holds the attention and interest of an audience or gives pleasure and delight to the audience. Now-a-days television has become an important source of entertainment and relaxation. There are different kinds of television programs targeting different kind of audience such as old, young and children. Movies and TV serials reflect with brands these days. It is a multimillion-dollar business with every frame in a movie or TV serial having an opportunity for branding. Indian TV shows or drama serials, certainly, have attracted a large and loyal fan base in our country. These TV shows enjoy a significant and enormous fame among the existing society and become an important source of entertainment. Television has become a source which provide us information about different religions, their traditions and customs. On one side people are getting entertained by the serials and on the other hand they are learning about different traditions, culture, custom, etc. So, it is like a double benefit as entertainment with knowledge.

Star Maa And Zee Telugu Channels

Star Maa is an Indian Telugu language general entertainment pay television channel based in Hyderabad, Telangana. In terms of STAR MAA, the main General Entertainment Channel (GEC) in the network, is among the top 20 TV channels in India. The highest rated serial of Star Maa is Karthika Deepam. Zee Telugu is a telugu general entertainment channel in India. It is offered by Zee Entertainment Enterprises, part of



the Essel Group. Zee telugu is also telecasting various serials and one of the most rated serials of zee telugu is Muddha Mandaram.

About Study serials

Karthika Deepam is an Indian television serial which was launched in star maa on 16th October 2017. The show has consistently topped the ratings chart since its inception. The channel ratings are increasingly day by day on a huge scale and it remains on first place among all other channels. Muddha Mandaram is a Telugu television serial that airs on the Zee Telugu channel that started on 17th November 2014. Muddha Mandaram Serial is one of the well-entertained serials on Zee Telugu. With this serial, the ratings of channel have also increased on a huge scale. However, the demand has slightly decreased for this serial but it is coming with good concepts to entertain audience.

Objectives of the Study

- To study about entertainment industry.
- To study Star Maa and Zee telugu television channels.
- To study about perceptions of viewers about Karthika Deepam and Muddha Mandaram serials.
- To compare the perception of viewers of the serials.

Methodology of the Study

In a comparative survey study on TV serials of Star maa and Zee Telugu, the convenience sampling technique has been applied and 70 respondents were selected from Batlapalem village. Amalapuram, East Godavari district. Both qualitative and quantitative data aspects have been taken into consideration for the present study. Questionnaire method seemed most relevant for collecting information from respondents. Data is collected personally by interviewing individuals. The questionnaire consists of both demographic and study related data. The questionnaire consists of various multiple-choice questions related to the perception of viewers about serials like concept, costumes, dialogues etc. Certain key demographics like age, gender, kind of cable network and general interest of TV serials viewing have been taken into consideration in sample distribution. Simple percentage method is used to calculate the perception of viewers and to analyze and interpret the data. All the information about 70 selected respondents have been shown in percentages form. Finally, inferences were drawn and recorded as results and discussions.

Analysis and Interpretation

Study shows that 46 percent of the Karthika Deepam viewers felt about concept in the serial as excellent, 40 percent felt it as good, 11 percent felt it as average and remaining 3 percent felt it as poor. 11 percent of Muddha Mandaram viewers felt that concept in the serial is excellent. 49 percent felt it as good. 26 percent felt it as average and 14 percent felt it as poor. Majority viewers of Karthika Deepam felt that concept in serial is excellent whereas coming to Muddha Mandaram the majority viewers felt it as good.

Study reveals that 60 percent of Karthika Deepam viewers have felt that costumes in serial are excellent. 31 percent perceived it as good and remaining 9 percent felt it as



average. No one felt it as poor. 14 percent of Muddha Mandaram viewers felt about the costumes in serial as excellent. 54 percent felt it as good. 20 percent felt it as average and remaining 12 percent felt it as poor. Maximum number of viewers of both the serials felt good about the costumes in respective serials.

Study reveal 20 percent of Karthika Deepam viewers rated excellent about content in serial. 66 percent rated it as good and remaining 14 percent rated it as average. No one rated it as poor. 9 percent of Muddha Mandaram viewers rated excellent about content in serial. 26 percent rated it as good. 51 percent rated it as average while 14 percent rated it as poor. Majority of Karthika Deepam viewers felt that content in serial is good whereas coming to MuddhaMandaramthe majority viewers felt it as average.

Study depicts that 51 percent of Karthika Deepam viewers have felt that actions in serial are excellent. 37 percent felt it as good. 9 percent felt it as average and remaining 3 percent felt it as poor. 23 percent of Muddha Mandaram opined that actions in serial are excellent. 25 percent perceived it as good. 29 percent felt it as average and remaining 23 percent felt it as poor. Majority of KarthikaDeepam viewers felt that actions in serial are excellent while in Muddha Mandaram the majority viewers felt it as average.

Study illustrates 66 percent of Karthika Deepam viewers have felt that entertainment is the main purpose of viewing serial. 23 percent felt it as time pass. 8 percent felt it as relaxation and remaining 3 percent felt other reasons. 57 percent of Muddha Mandaram viewers expressed that time pass is the main purpose of viewing serial. 26 percent perceived it as entertainment while 17 percent expressed it as others. Majority of Karthika Deepam viewers opined that entertainment is the main purpose of viewing serial while in Muddha Mandaram the majority viewers opted it as time pass.

Study shows that 54 percent of Karthika Deepam viewers expressed that action of character artist inspires them to view serial while 46 percent expressed it as heroine. 43 percent of Muddha Mandaram viewers expressed that action of heroine inspires them to view serial. 23 percent felt it as character artist. 17 percent felt it as hero and others respectively. Majority of both the serial viewers felt that action of heroine inspires them to view serial.

Study shows that 74 percent of KarthikaDeepam mostly like emotional scenes. 23 percent rated it as action scenes and remaining 3 percent rated it as violence scenes. 29 percent of MuddhaMandaram viewers mostly like emotional scenes in serial. 11 percent like action scenes. 26 percent like violence scenes and remaining 34 percent like comedy scenes. Majority viewers of Karthika Deepam mostly like emotional scenes while referring to Muddha Mandarammajority viewers like comedy scenes in the serial.

Study depicts that 37 percent of Karthika Deepam viewers felt that there may be an impact of violence on viewers to a little extent. 26 percent rated it as to a large extent. 23 percent of viewers opined as to some extent while 14 percent of the viewers felt that violence in serial not at all show impact on viewers. 40 percent of Muddha Mandaram viewers opined that violence in serials may show impact on viewers to a large extent. 26 percent felt it as to a little extent. 17 percent rated it as to some extent and not at all respectively. Majority of Karthika Deepam viewers felt that there may be an impact of violence on viewers to a little extent whereas coming to Muddha Mandaram majority viewers felt it to a large extent.



Study reveals that 6 percent of Karthika Deepam viewers accept that serials provide false image of real life to a large extent.28 percent felt it as to a little extent.57 percent rated it as to some extent while 9 percent of viewers not at all accept that serials provide false image of real life. 26 percent of Muddha Mandaram viewers accept that serials provide false image of real life to a large extent.40 percent to a little extent.23 percent to some extent while 11 percent of viewers not at all accept that serials provide false image of real life. Except a few both the serial viewers felt that serials provide false image of real life.

Results and Discussion

In both the serials, majority have felt that serials are the main thing that makes television so successful and profitable. Majority of Karthika Deepam viewers felt high interest in viewing serial. In Muddha Mandaram majority viewers felt it as medium. Majority viewers of Karthika Deepam felt that concept in serial is excellent whereas in Muddha Mandaram majority felt it as good

Maximum number of viewers of both the serials felt good about the costumes in respective serials. Majority of the Karthika Deepam viewers felt about the dialogues in serial as excellent while referring to the Muddha Mandaram viewers the majority felt it as good. Majority of Karthika Deepam viewers felt that content in serial is good whereas coming to Muddha Mandaram the majority viewers felt it as average. Majority of Karthika Deepam viewers felt that actions in serial are excellent while in Muddha Mandaram majority viewers felt it as average.

Majority of Karthika Deepam viewers opined that entertainment is the main purpose of viewing serial while in Muddha Mandaram the majority viewers opted it as time pass. Majority of both the serial viewers felt that action of heroine inspires them to view serial. Majority viewers of Karthika Deepam mostly like emotional scenes, in Muddha Mandaram majority viewers like comedy scenes in serial. Majority of Karthika Deepam viewers felt that there may be an impact of violence on viewers to a little extent whereas in Muddha Mandaram majority viewers felt it to a large extent. Except a few both Karthika Deepam and Muddha Mandaram viewers accept that serials provide false image of real life.

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PRIORITIZING LEARNING OUTCOMES OF MATHEMATICS SUBJECT AT ELEMENTARY LEVEL: AN ANALYSIS OF DATA OF NATIONAL ACHIEVEMENT SURVEY 2017

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Abstract

This paper focuses on the need to prioritize certain learning outcomes for mathematics at the elementary level. The Learning Outcomes at Elementary Stage defined by National Council of Educational Research and Training (Learning Indicators and Learning Outcomes at the Elementary Stage, 2017) cover learning topics domain-wise comprehensively for each grade but the learning pathway is not specifically sequenced nor prioritized for students. This leaves a gap for agencies conducting short-duration intervention programs, dedicated to achieving goals of foundational numeracy & grade readiness, to search for a more focused set of learning items on their own accord. Evidence-Based decision making in consonance with academic reasoning may be necessary for determining which learning outcomes might more critical than others. To filter out relatively critical learning items, the performance of student assessment data of National Achievement Survey 2017 analyzed using factor analysis & correlation study. To derive conclusions on objectives of the study, the learning outcome averages of each state/UT in NAS data reports considered as a variable and each data point of learning outcome for a state/UT considered as a case. Most critical underlying factors, which contribute most to variation in the data found to be 'Number Operations' & 'Data Handling'. While Learning Outcomes related to 'Measurements', 'Mensuration' & 'Shapes/Spatial Understanding' conceptual areas found to be of relatively lesser significance.

Keywords: Elementary Mathematics, Learning Outcomes, Minimum Learning Levels, National Achievement Survey, Primary Education.

Introduction

Competence frameworks lend themselves as more agile & powerful tools to teachers, school administration, non-profit organizations, etc. for carrying out interventions targeted to serve students' learning needs. The diagnosis of the problem is the first most critical step in using such a framework which should eventually then be used to develop targeted content, teacher training material, pedagogical approaches & assessments for impact evaluation.

To this end UNICEF's report (UNICEF support for National Achievement Survey 2017) states that, National Achievement Survey 2017 made a progressive move by "resolving various technical and operational issues which prohibited accurate assessment of student learning which included rote-based cognitive tasks, weak monitoring mechanisms, non-user-friendly reporting & poor dissemination of findings." "UNICEF India embedded technical support staff within India's National Council of Educational Research and Training (NCERT) to accompany each step of the NAS with assured high technical standards. Which included test development, sampling, field operations, monitoring, analysis, reporting, dissemination and use of NAS findings. As a result, the NAS 2017 was competency based and clearly linked to learning outcomes with results that could be fed back into improving classroom instruction."

"NAS items are linked to learning outcomes, and they assess students' competencies instead of memorization of content. This shift from content to competencies is promoting 21st century skills such as problem solving and critical thinking in teaching and learning practices."

Thus, using performance data of NAS 2017 for learning outcomes to identify implications for mathematics education in coming times makes for a significant case. The analysis does not endeavor to conclude on any final solutions for the problem at hand, but to establish data-driven implications for teaching mathematics at elementary level.

As per the NEP (National Education Policy, 2020) released by Government of India, the focus has shifted now more than ever on 'conceptual understanding rather than rote learning and learning-for-exam'. It clearly states that, "To close the gap in achievement of learning outcomes, classroom transactions will shift, towards competency-based learning and education. The assessment tools (including assessment 'as', 'of', and 'for' learning) will also be aligned with the learning outcomes, capabilities, and dispositions as specified for each subject of a given class."

In the wake of Covid-19, it has become imperative to respect agility in providing effective & efficient support to the needs of paralyzed education delivery system of the country like India where internet penetration stands at 40% with 504 million active users above 5 years old or above, as per Internet & Mobile



Association of India (IAMAI) and Nielson Report November 2019. This is leading to a wider gap of learning opportunities available to children having access to internet & those who do not. There is going to be a need to reassess where this already burgeoning gap between the privileged & the underserved has reached and how it is going to be addressed post-Covid times.

Internet Penetration in India is rising at a more accelerated pace than anywhere in the world, which presents an opportunity to tap into the potential it brings for online mode of education in coming times, especially, for the new users who will be added to this group due to necessities of times. Children who would have missed/are missing the learning curve in current times will need focused & highly effective interventions, which must lead to maximum recovery in learning in shortest possible time.

Today, there is no recognized or prescribed method/framework, which addresses the concerns of short-duration interventions in a specific & structured manner. The grade-wise learning outcomes shared by Indian Govt./NCERT are sufficient as a curriculum for year-wise progression but doesn't help in prioritizing as they are all-encompassing from a grade competence point of view.

Literature Review

As per the following papers published, empirical studies concerning student performance in non-standardized focused assessment tests suggested conclusive evidence that few mistakes & learning items are more fundamental in nature. Following is the summary of two papers studied in relation to the subject:

Dahiya, Neelam (2013): A Study of Minimum Level of Learning of Primary School Students in Mathematics in Haryana

Objective: To determine if primary school students do possess the minimum level of knowledge required for learning of Mathematics.

Tools Used: The questionnaire prepared by N.C.E.R.T. in mathematics based on MLL curriculum was given to the students to solve. The mistakes made by students were divided into the following categories:

- Mistakes in addition.
- Mistakes in subtraction.
- Mistakes in multiplication.
- Mistakes in division/LCM
- Mistakes in arithmetic.

Major Findings of the Study:

- Students of standard V committed maximum mistakes in multiplication and division.
- They did not know how and where to apply unitary method.
- Most of the students didn't know the concept of LCM.
- Addition and multiplication in decimals was a difficult job for them.
- Exact measurements were not known to them.
- Most of students face the problem in solving questions of area and perimeter.
- Students did not know about even and odd numbers.

Dr. Srivastava, Minoti (March 2019): A Critical Insight into Minimum Level of Learning

Objective: To help create quality and equality in education, basic features of MLL, objectives of creating minimum level in those subjects and strategies of teaching and learning for better results

Major Findings based on relevance:

- Specification of MLLs should meet the purpose of increasing learning attainments and serve as performance goals for the teachers and output indicators for the system. For this, the MLL must have apart from relevance and functionality, the attributes of achievability, understandability and evaluability
- Strategies for mathematic learning:
 - Arrange objects in order according to size, length, thickness, weight and volume and use vocabulary describing the relationship, e.g. 'bigger than' 'smaller than' 'the same as', 'levier', 'heaviest' etc.
 - Classify group of object according to various properties, e.g. size, shape, length etc.
 - Compare positions of things and persons in terms of the distance given points of reference and use vocabulary describing the relationships, e.g. 'near', 'far', 'nearest', etc.
 - Perceive and reproduce simple patterns relating to shapes, colour, positions and quantity.



Objectives of the study

1. To identify relatively high effect/critical learning outcomes for mathematics out of the total learning outcomes assessed by National Achievement Survey 2017
2. To group Learning Outcomes into fewer dimensions
3. To identify interrelationships between different learning outcomes for mathematics across grades

Delimitations of the study

1. Limited to National Achievement Survey 2017 data analysis as a tool for drawing all/any conclusions
2. Limited to finding results for only Mathematics subject learning outcomes
3. Limited to identifying implications for mathematics at Elementary level , not to entirely create any curriculum design as an outcome of the study
4. Data Collection to be limited to Data points of State Level Averages of Learning Outcomes

Methodology of the study

Multivariate Factor Analysis & Pearson Correlations

In order to derive conclusions on objectives of the study, the learning outcome averages of each state/UT in NAS data reports considered as a variable and each data point of learning outcome for a state/UT considered as a case. Thus, Factor Analysis will be used to identify common underlying factors which contribute most to variation in the data, therefore, indicating the high effect/foundational learning items desired to be targeted for mathematics subject at Elementary level.

Principal component analysis used for extracting the factors. PCA starts extracting the maximum variance and puts them into the first factor. After that, it removes that variance explained by the first factors and then starts extracting maximum variance for the second factor. This process goes to the last factor.

Factor loading is the correlation coefficient for the variable and factor. Factor loading shows the variance explained by the variable on that particular factor. Therefore, grouping of multiple Learning Outcomes as one-dimensional factor will be possible through this. It will also help us find the relative strength of interrelationships across Grades & Learning Outcomes.

Eigenvalues used as a Qualifying Condition for identifying a factor as significant. Eigenvalues shows variance explained by that particular factor out of the total variance.

Criteria for determining the number of factors: According to the Kaiser Criterion, Eigenvalues are a good criterion for determining a factor. If Eigenvalues is greater than one, we should consider that a factor and if Eigenvalues is less than one, then we should not consider that a factor.

In increase reliability of factors identified: Rotation method will be to understand the output. Eigenvalues do not affect the rotation method, but the rotation method affects the Eigenvalues or percentage of variance extracted. Varimax rotation method used.

A more direct method of drawing inferences maybe used to determine conceptual area-wise trends using Pearson Pair-wise Correlations among different conceptual areas encompass similarly grouped Learning Outcomes of NAS based on NCERT Learning Indicators.

Population of the study

As per NAS (National Achievement Survey 2017, NCERT) website on State Reports - "The National Achievement Survey (NAS) conducted throughout the country on November 13, 2017 for Classes 3, 5 and 8 in government and government aided schools. The survey tools used multiple test booklets with 45 questions in Classes III and V and 60 questions in Class VIII in Mathematics, Language, Sciences and Social Sciences. The competency-based test questions developed reflected the Learning Outcomes developed by the NCERT which were recently incorporated in the RTE Act by the Government of India. Along with the test items, questionnaires pertaining to students, teachers and schools were also used.

The learning levels of 2.2 million students from 1,10,000 schools across 701 districts in all 36 States/UTs were assessed. The findings of the survey, will help to guide education policy, planning and implementation at national, state, district and classroom levels for improving learning levels of children and bringing about qualitative improvements."

Sample

All the data points pertaining to average performances of 52 Learning Outcomes of Mathematics for 35 State/UTs, i.e., 1,820 Data Points considered for factor analysis minus the outliers detected during data analysis. District level data not used as their averages subsumed in the state level reports.



Tool & techniques of data collection

All data is available in the State level report for each State/UT on NCERT’s NAS website. This will be downloaded & collated into a spreadsheet with average performance of each LO of mathematics & language mapped against state/UT name. As illustrated below,

Table-1: Learning Outcomes of National Achievement Survey

Class	Subject	LO Code	Learning Outcome Class 3
3	Language	L304	Reads small texts with comprehension i.e., identifies main ideas, details, sequence and draws conclusions
3	Language	L312	Reads printed scripts on the classroom walls: poems, posters, charts etc
3	Mathematics	M301	Reads and writes numbers up to 999 using place value
3	Mathematics	M302	Compares numbers up to 999 based on their place values
3	Mathematics	M303	Solves simple daily life problems using addition and subtraction of three digit numbers with and without regrouping
3	Mathematics	M304	Constructs and uses the multiplication facts (up till 10) in daily life situations
3	Mathematics	M305	Analyses and applies an appropriate number operation in the situation/ context
3	Mathematics	M306	Explains the meaning of division facts by equal grouping/ sharing and finds it by repeated subtraction
3	Mathematics	M309	Identifies and makes 2D-shapes by paper folding, paper cutting on the dot grid, using straight lines etc
3	Mathematics	M311	Fills a given region leaving no gaps using a tile of a given shape
3	Mathematics	M312	Estimates and measures length and distance using standard units like centimetres or metres & identifies relationships
3	Mathematics	M317	Reads the time correctly to the hour using a clock/watch
3	Mathematics	M318	Extends patterns in simple shapes and numbers
3	Mathematics	M319	Records data using tally marks, represents pictorially and draws conclusions
5	Language	L504	Reads and comprehends independently storybooks, news items/ headlines, advertisements etc
5	Language	L508	Reads text with comprehension, locates details and sequence of events
5	Mathematics	M401	Applies operations of numbers in daily life situations
5	Mathematics	M412	Explores the area and perimeter of simple geometrical shapes (triangle, rectangle, square) in terms of given shape as a unit
5	Mathematics	M418	Calculates time intervals/duration of familiar daily life events by using forward or backward counting/addition and subtraction
5	Mathematics	M421	Represent the collected information in tables and bar graphs and draws inferences from these
5	Mathematics	M501	Reads and writes numbers bigger than 1000 being used in her/his surroundings



5	Mathematics	M504	Estimates sum, difference, product and quotient of numbers and verifies the same using different strategies like using standard algorithms or breaking a number and then using operation
5	Mathematics	M505	Finds the number corresponding to part of a collection
5	Mathematics	M506	Identifies and forms equivalent fractions of a given fraction
5	Mathematics	M508	Converts fractions into decimals and vice versa
5	Mathematics	M509	Classifies angles into right angle, acute angle, obtuse angle and represents the same by drawing and tracing
5	Mathematics	M512	Relates different commonly used larger and smaller units of length, weight and volume and converts larger units to smaller units and vice versa
5	Mathematics	M513	Estimates the volume of a solid body in known units
5	Mathematics	M514	Applies the four fundamental arithmetic operations in solving problems involving money, length, mass, capacity and time intervals
5	Mathematics	M515	Identifies the pattern in triangular number and square number
5	Mathematics	M516	Collects data related to various daily life situations, represents it in tabular form and as bar graphs and interprets it
8	Language	L813	Read textual/non-textual materials with comprehension and identifies the details, characters, main idea and sequence of ideas and events while reading
8	Mathematics	M601	Solves problems involving large numbers by applying appropriate operations
8	Mathematics	M606	Solves problems on daily life situations involving addition and subtraction of fractions / decimals
8	Mathematics	M620	Finds out the perimeter and area of rectangular objects in the surroundings like floor of the class room, surfaces of a chalk box etc
8	Mathematics	M621	Arranges given/collected information in the form of table, pictograph and bar graph and interprets them
8	Mathematics	M702	Interprets the division and multiplication of fractions
8	Mathematics	M705	Solves problems related to daily life situations involving rational numbers
8	Mathematics	M706	Uses exponential form of numbers to simplify problems involving multiplication and division of large numbers
8	Mathematics	M707	Adds/subtracts algebraic expressions
8	Mathematics	M710	Solves problems related to conversion of percentage to fraction and decimal and vice versa
8	Mathematics	M717	Finds out approximate area of closed shapes by using unit square grid/ graph sheet
8	Mathematics	M719	Finds various representative values for simple data from her/ his daily life contexts like mean, median and mode
8	Mathematics	M721	Interprets data using bar graph such as consumption of electricity is more in winters than summer



8	Mathematics	M801	Generalises properties of addition, subtraction, multiplication and division of rational numbers through patterns
8	Mathematics	M802	Finds rational numbers between two given rational numbers
8	Mathematics	M803	Proves divisibility rules of 2, 3,4, 5, 6, 9 and 11
8	Mathematics	M804	Finds squares, cubes, square roots and cube roots of numbers using different methods
8	Mathematics	M808	Use various algebraic identities in solving problems of daily life
8	Mathematics	M812	Verifies properties of parallelogram and establishes the relationship between them through reasoning
8	Mathematics	M818	Finds surface area and volume of cuboidal and cylindrical object
8	Mathematics	M819	Draws and interprets bar charts and pie charts

Additionally, Learning Outcomes maybe grouped based on Conceptual Areas as per NCERT Learning indicators document for further analysis.

Method of data analysis

Minitab 19 & Statgraphics 18-X64 Tools will be used for running Multivariate Factor analysis as well Correlation Analysis on the data of National Achievement Survey Learning Outcomes in each column with each data point mentioned for State/Union Territories in 35 rows.

Minitab & Statgraphics 18-X64 are statistical package tools that provide a broad range of basic and advanced data analysis techniques. Analysis performed using simple drop-down menus & command buttons in one-click using these tools, accommodating both beginners and advanced users.

Assumptions of factor analysis considered:

1. No outlier: Assume that there are no outliers in data.
Outliers found in the data removed through Grubb’s Outlier Test
2. Adequate sample size: The case must be greater than the factor.
There are 35 states/UTs (cases) against which data of 52 Learning Outcomes (variables/factors) for Mathematics & Language for Grades 3,5 & 8 is mapped.
For the purpose of understanding data variations in specific segments of grade-levels & too triangulate findings with the results of factor analysis done with whole data set(cases<factors), Factor Analysis will be run once for all learning outcomes together & then separately in groups in following combinations:

- Mathematics - Grade 3 LO through Grade 8 LO
- Mathematics – Grade 5 through 8 LO & Language (All Grades) LO

Language Outcomes considered especially for analysis to understand relationship of language & mathematics performance in more detail.

Finally, grouping done for all Mathematics & Language NAS Grade 3 through Grade 8 Learning Outcomes based on Conceptual Areas as per NCERT to run Correlation Analysis on them.

Data Analysis Results

Outlier Test

Table-2: Outliers found in data

Variable	Row	Outlier
M301	24	24
M710	29	59
M719	17	67
M812	18	50



Therefore, for factor analysis out of the 1820 data points available, these 4 data points removed for analysis & replaced with mean values.

Table-3: Descriptive Statistics of Data analyzed

Variable	Mean	StDev	Median	Range	IQR	Skewness	Kurtosis
L304	66.71	6.66	67.00	27.00	10.00	-0.29	-0.57
L312	64.31	7.09	64.00	31.00	10.00	0.03	-0.36
M301	59.40	7.32	59.00	26.00	13.00	0.24	-0.73
M302	73.26	6.99	73.00	30.00	9.00	-0.23	-0.04
M303	56.34	7.82	56.00	31.00	13.00	0.07	-0.65
M304	63.80	7.19	64.00	26.00	12.00	-0.15	-0.93
M305	57.89	8.60	58.00	32.00	13.00	-0.07	-0.72
M306	59.29	9.12	60.00	41.00	13.00	-0.35	0.14
M309	79.11	6.88	81.00	23.00	12.00	-0.36	-1.05
M311	45.06	12.62	48.00	54.00	15.00	-1.05	1.35
M312	34.69	7.25	36.00	29.00	9.00	-0.13	-0.19
M317	73.371	5.816	72.000	24.000	8.000	-0.12	-0.30
M318	55.09	7.67	54.00	30.00	10.00	0.13	-0.46
M319	76.63	7.41	79.00	26.00	11.00	-0.55	-0.77
L504	54.63	6.62	54.00	28.00	9.00	0.23	-0.14
L508	57.14	7.61	56.00	30.00	11.00	0.37	-0.64
M401	46.17	13.11	44.00	48.00	22.00	0.33	-0.89
M412	52.34	6.52	52.00	29.00	9.00	0.33	0.02
M418	62.83	8.34	62.00	31.00	11.00	0.23	-0.34
M421	58.54	8.47	57.00	32.00	13.00	0.45	-0.52
M501	58.46	8.82	59.00	37.00	15.00	-0.19	-0.43
M504	49.91	8.49	50.00	32.00	13.00	0.38	-0.82
M505	56.26	6.54	56.00	31.00	8.00	0.52	0.85
M506	42.60	6.77	41.00	27.00	10.00	0.72	-0.17
M508	55.31	7.56	55.00	34.00	10.00	0.71	0.86
M509	53.06	8.81	52.00	33.00	12.00	0.47	-0.37
M512	53.34	10.13	52.00	37.00	20.00	0.34	-0.93
M513	37.23	7.89	35.00	30.00	12.00	0.42	-0.51
M514	45.34	9.85	44.00	36.00	15.00	0.18	-0.83
M515	44.94	9.08	43.00	32.00	12.00	0.47	-0.49
M516	64.09	10.47	63.00	50.00	16.00	0.05	0.16
L813	53.97	6.44	54.00	26.00	9.00	-0.15	-0.64
M601	36.37	8.62	36.00	33.00	13.00	0.47	-0.28
M606	38.43	11.62	36.00	46.00	18.00	0.49	-0.37
M620	38.40	10.65	37.00	43.00	19.00	0.69	-0.11
M621	35.14	9.60	32.00	37.00	13.00	0.68	-0.47
M702	37.857	5.786	37.000	21.000	10.000	0.47	-0.60
M705	37.29	8.33	36.00	35.00	9.00	0.67	-0.12
M706	32.51	10.75	33.00	38.00	19.00	0.10	-1.17
M707	46.17	10.76	42.00	42.00	15.00	0.46	-0.61
M710	29.57	8.14	29.00	31.00	15.00	0.55	-0.52
M717	32.486	4.668	32.000	20.000	6.000	0.13	-0.09
M719	46.457	5.495	46.000	24.000	8.000	0.89	0.74
M721	35.49	9.84	32.00	37.00	16.00	0.59	-0.74
M801	30.086	5.506	31.000	24.000	9.000	0.32	-0.05
M802	38.71	8.64	38.00	38.00	11.00	0.48	-0.02

M803	45.60	9.32	45.00	40.00	14.00	0.70	0.27
M804	41.03	10.81	39.00	43.00	18.00	0.40	-0.46
M808	44.83	8.18	43.00	32.00	13.00	0.40	-0.51
M812	30.657	4.752	29.000	19.000	8.000	0.54	-0.35
M818	29.26	6.92	31.00	27.00	9.00	0.35	-0.04
M819	41.97	7.98	42.00	31.00	13.00	0.11	-0.70

Factor Analysis Results

Data input: observations
 Number of complete cases: 35
 Missing value treatment: list-wise
 Standardized: yes
 Type of factoring: principal components
 Number of factors extracted: 7

Table-4: Factor Analysis Results

Factor Number	Eigenvalue	Percent of Variance	Cumulative Percentage
1	33.8	64.959	64.959
2	4.71	9.049	74.008
3	2.1	4.046	78.053
4	1.7	3.267	81.320
5	1.43	2.755	84.075
6	1.27	2.441	86.517
7	1.02	1.957	88.474
8	0.928	1.784	90.258
9	0.733	1.409	91.666
10	0.588	1.130	92.796

The Stat Advisor

This procedure performs a factor analysis. The purpose of the analysis is to obtain a small number of factors which account for most of the variability in the 52 variables.

In this case, 7 factors have been extracted, since 7 factors had eigenvalues greater than or equal to 1.0. Together they account for 88.5% of the variability in the original data. Since you have selected the principal components method, the initial communalities estimates have been set to assume that all of the variability in the data is due to common factors.

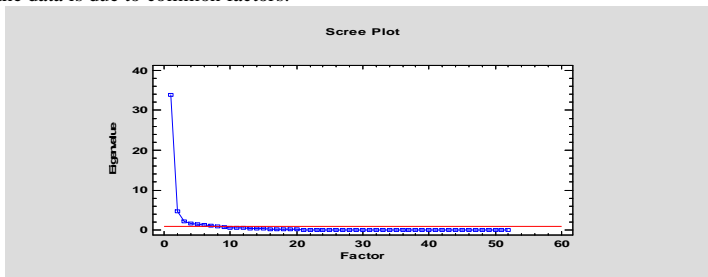


Table-5: Factor Loading Matrix after Varimax Rotation

Variance %	64.959	9.049	4.046	3.267	2.755	2.441	1.957
Cumulative Percentage %	64.959	74.008	78.053	81.32	84.075	86.517	88.474
Eigenvalue	33.8	4.71	2.1	1.7	1.43	1.27	1.02



Mean	LO	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
72	L304	0.43	0.70	0.27	0.02	0.33	0.22	0.16
71	L312	0.48	0.70	0.25	0.21	0.28	0.21	0.09
61	L504	0.47	0.45	0.24	0.44	0.21	0.42	0.19
66	L508	0.56	0.48	0.07	0.39	0.36	0.28	0.11
59	L813	0.52	0.23	-0.20	0.30	0.43	0.55	-0.06
59	M301	0.35	0.49	0.66	0.26	0.23	0.00	0.08
78	M302	0.52	0.62	0.26	0.27	0.14	0.11	0.01
60	M303	0.50	0.70	0.40	0.16	0.15	0.02	0.08
67	M304	0.58	0.72	0.30	0.09	0.02	-0.02	0.11
65	M305	0.51	0.53	0.27	0.32	0.29	0.09	0.11
68	M306	0.47	0.79	0.18	0.16	0.22	-0.02	0.07
81	M309	-0.08	0.37	0.81	0.27	0.09	0.22	0.11
54	M311	0.07	0.11	0.25	0.20	0.01	0.79	0.12
48	M312	0.31	0.77	-0.10	0.19	0.16	0.05	0.06
77	M317	0.35	0.68	0.31	0.17	-0.10	0.30	0.11
62	M318	0.46	0.65	0.38	0.36	0.18	0.09	0.09
80	M319	-0.07	0.42	0.45	-0.06	0.19	0.18	0.56
42	M401	0.52	0.22	0.58	0.14	0.33	-0.24	0.19
60	M412	0.65	0.33	0.24	0.41	-0.10	0.21	0.09
70	M418	0.69	0.40	0.00	0.33	0.26	0.14	0.30
65	M421	0.31	0.43	0.44	0.44	0.42	-0.01	0.28
68	M501	0.66	0.44	0.08	0.37	0.12	0.11	0.14
58	M504	0.64	0.45	0.20	0.25	0.42	0.16	0.16
63	M505	0.43	0.32	0.21	0.42	0.52	0.18	-0.12
47	M506	0.50	0.45	0.35	0.54	0.18	-0.13	0.05
58	M508	0.34	0.30	0.33	0.29	0.29	0.24	0.57
68	M509	0.48	0.21	0.13	0.64	0.09	0.21	0.34
57	M512	0.80	0.33	0.31	0.13	-0.01	0.06	0.18
42	M513	0.67	0.38	0.15	0.40	0.12	-0.12	0.21
51	M514	0.75	0.42	0.19	0.27	0.19	-0.05	0.23
52	M515	0.66	0.35	0.21	0.51	0.17	0.06	0.21
76	M516	0.01	0.17	0.20	0.85	0.01	0.24	-0.07
38	M601	0.89	0.31	0.18	0.09	0.05	0.04	0.02



45	M606	0.95	0.25	-0.02	0.08	0.03	0.03	0.00
41	M620	0.91	0.21	0.05	0.27	0.15	0.07	0.01
38	M621	0.83	0.30	0.19	0.20	0.27	0.11	0.00
38	M702	0.71	0.12	0.17	0.37	0.27	0.19	-0.24
35	M705	0.77	0.27	0.44	0.14	-0.07	0.02	-0.08
37	M706	0.92	0.20	-0.04	0.14	0.12	-0.10	0.12
50	M707	0.91	0.28	0.06	-0.01	0.11	0.09	-0.02
29	M710	0.81	0.24	0.11	-0.05	0.25	0.01	-0.12
37	M717	0.74	0.37	0.14	0.21	0.16	0.21	-0.13
46	M719	0.44	0.41	0.32	0.40	0.39	-0.05	-0.14
38	M721	0.79	0.33	0.20	0.21	0.27	0.07	0.02
34	M801	0.84	0.29	-0.08	0.21	0.03	0.05	0.13
40	M802	0.78	0.25	0.32	0.09	0.25	0.14	0.11
49	M803	0.86	0.27	-0.06	0.13	0.06	0.14	0.20
43	M804	0.95	0.24	0.02	0.04	0.00	0.07	0.07
42	M808	0.06	0.29	0.32	0.02	0.82	0.02	0.23
29	M812	0.70	0.16	0.17	0.30	0.25	0.29	0.14
20	M818	-0.03	0.07	0.84	0.12	0.07	0.13	0.04
40	M819	0.63	0.03	0.56	-0.06	0.34	0.18	0.02

Table-6: Factors identified

LO	Factor 1	
Variance %	64.959	
Cumulative Percentage %	64.959	
Eigenvalue	33.8	Description
M804	0.947	Finds squares, cubes, square roots and cube roots of numbers using different methods
M606	0.945	Solves problems on daily life situations involving addition and subtraction of fractions / decimals
M706	0.923	Uses exponential form of numbers to simplify problems involving multiplication and division of large numbers
M620	0.912	Finds out the perimeter and area of rectangular objects in the surroundings like floor of the class room, surfaces of a chalk box etc
M707	0.908	Adds/subtracts algebraic expressions
M601	0.885	Solves problems involving large numbers by applying appropriate operations
M803	0.863	Proves divisibility rules of 2, 3,4, 5, 6, 9 and 11
M801	0.843	Generalises properties of addition, subtraction, multiplication and



		division of rational numbers through patterns
M621	0.83	Arranges given/collected information in the form of table, pictograph and bar graph and interprets them
M710	0.81	Solves problems related to conversion of percentage to fraction and decimal and vice versa
M512	0.803	Relates different commonly used larger and smaller units of length, weight and volume and converts larger units to smaller units and vice versa
M721	0.791	Interprets data using bar graph such as consumption of electricity is more in winters than summer
M802	0.781	Finds rational numbers between two given rational numbers
M705	0.772	Solves problems related to daily life situations involving rational numbers
M514	0.747	Applies the four fundamental arithmetic operations in solving problems involving money, length, mass, capacity and time intervals
M717	0.735	Finds out approximate area of closed shapes by using unit square grid/graph sheet
M702	0.708	Interprets the division and multiplication of fractions
M812	0.701	Verifies properties of parallelogram and establishes the relationship between them through reasoning
LO	Factor 2	
Cumulative Percentage %	74.008	
Variance %	9.049	
Eigenvalue	4.71	
M306	0.785	Explains the meaning of division facts by equal grouping/ sharing and finds it by repeated subtraction
M312	0.767	Estimates and measures length and distance using standard units like centimetres or metres & identifies relationships
M304	0.722	Constructs and uses the multiplication facts (up till 10) in daily life situations
M303	0.704	Solves simple daily life problems using addition and subtraction of three digit numbers with and without regrouping
L312	0.695	Reads printed scripts on the classroom walls: poems, posters, charts etc
L304	0.695	Reads small texts with comprehension i.e., identifies main ideas, details, sequence and draws conclusions
M317	0.682	Reads the time correctly to the hour using a clock/watch
M318	0.645	Extends patterns in simple shapes and numbers
M302	0.619	Compares numbers up to 999 based on their place values
M305	0.525	Analyses and applies an appropriate number operation in the situation/context
LO	Factor 3	
Cumulative Percentage %	78.053	
Variance %	4.046	



Eigenvalue	2.1	
M818	0.843	Finds surface area and volume of cuboidal and cylindrical object
M309	0.809	Identifies and makes 2D-shapes by paper folding, paper cutting on the dot grid, using straight lines, etc.
M301	0.66	Reads and writes numbers up to 999 using place value
M401	0.584	Applies operations of numbers in daily life situations
M819	0.557	Draws and interprets bar charts and pie charts
LO	Factor 4	
Cumulative Percentage %	81.32	
Variance %	3.267	
Eigenvalue	1.7	
M516	0.853	Collects data related to various daily life situations, represents it in tabular form and as bar graphs and interprets it
M509	0.641	Classifies angles into right angle, acute angle, obtuse angle and represents the same by drawing and tracing
M506	0.543	Identifies and forms equivalent fractions of a given fraction
M515	0.511	Identifies the pattern in triangular number and square number
LO	Factor 5	
Cumulative Percentage %	84.075	
Variance %	2.755	
Eigenvalue	1.43	
M808	0.82	Use various algebraic identities in solving problems of daily life
M505	0.518	Finds the number corresponding to part of a collection
LO	Factor 6	
Cumulative Percentage %	86.517	
Variance %	2.441	
Eigenvalue	1.27	
M311	0.787	Fills a given region leaving no gaps using a tile of a given shape
L813	0.545	Read textual/non-textual materials with comprehension and identifies the details, characters, main idea and sequence of ideas and events while reading
L504	0.421	Reads and comprehends independently storybooks, news items/headlines, advertisements, etc.
M317	0.301	Reads the time correctly to the hour using a clock/watch
LO	Factor 7	



Cumulative Percentage %	88.474	
Variance %	1.957	
Eigenvalue	1.02	
M508	0.565	Converts fractions into decimals and vice versa
M319	0.556	Records data using tally marks, represents pictorially and draws conclusions
M509	0.337	Classifies angles into right angle, acute angle, obtuse angle and represents the same by drawing and tracing
M418	0.304	Calculates time intervals/duration of familiar daily life events by using forward or backward counting/addition and subtraction
M421	0.281	Represent the collected information in tables and bar graphs and draws inferences from these

Observations

- 1st Factor: Grade 6,7,8 Mathematics learning outcomes pertaining to number operations account for most factor loadings to factor with highest Eigen Value & explaining 65% of variation in data
- 2nd Factor: Reading & daily life situation related Learning Outcomes account for second highest contributing factor. Time, Number Operations, Length & Distance related outcomes variation contributes to this factor. All these are primary grades outcomes (Grade 3 only) which signifies foundational nature of this factor.
- 3rd Factor: Spatial Understanding/Shapes & basic numeracy in grade 3 leading to mensuration & data handling outcomes in grade 8
- 4th Factor: Relates to Pattern Identification & Data Representation LO of grade 5
- 5th Factor: Data representation in Grade 5 & using Algebraic identities for solving daily life problems in Grade 8
- 6th Factor: Relates to Shapes & Time related LO in Grade 3 & Reading Comprehension in higher grades
- 7th Factor: Relates to Early grade LO of Fractions, Data Handling & Representation

Factor Analysis with Conceptual Areas categorization for all Learning Outcomes Grade 3 through 8 & Language

Table-7: Grubbs Test for Conceptual Areas Factor Analysis

Variable	N	Mean	StDev	Min	Max	G	P
Algebra	35	45.50	7.51	33.50	61.00	2.06	1.000
Data Handling	35	50.48	6.76	40.63	64.25	2.04	1.000
Fractions	35	41.54	6.20	31.25	56.75	2.45	0.370
Geometry	35	38.79	6.72	28.50	55.25	2.45	0.372
Measurements	35	34.69	7.25	22.00	51.00	2.25	0.704
Mensuration	35	29.26	6.92	19.00	46.00	2.42	0.411
Number Operations	35	46.81	8.06	35.00	62.83	1.99	1.000
Numbers	35	51.91	7.21	40.00	68.14	2.25	0.700
Reading	35	59.35	6.33	45.80	70.80	2.14	0.964
Shapes&Spatial Understanding	35	57.90	6.57	42.50	71.00	2.34	0.525
Time	35	68.10	6.50	54.00	81.50	2.17	0.892
Volume	35	45.29	8.54	33.50	63.00	2.07	1.000

No outlier at the 5% level of significance

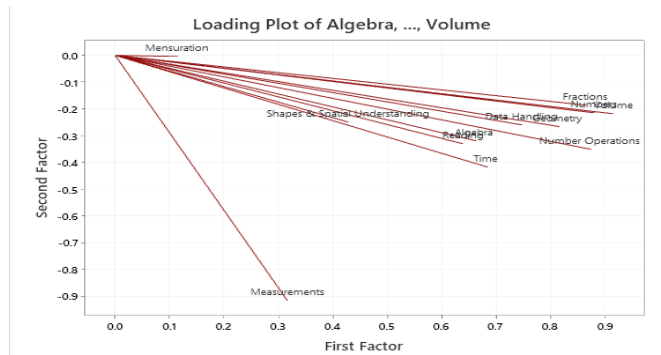
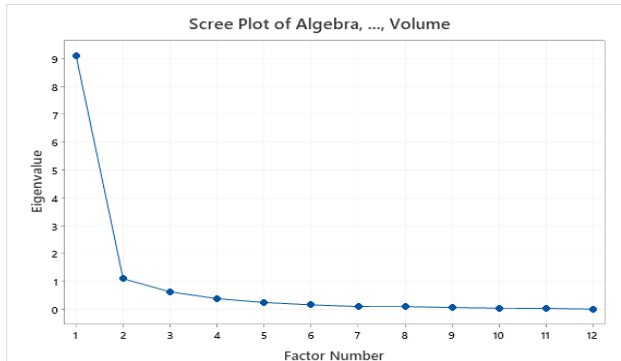


Table-8: Factors Identified for Conceptual Areas

Variable	Factor1	Factor2
% Var	50%	14%
Eigen Value	9.1	1.1
Variance	5.95	1.68
Volume	0.915	-0.218
Numbers	0.88	-0.215
Number Operations	0.874	-0.351
Fractions	0.864	-0.186
Geometry	0.814	-0.266
Data Handling	0.748	-0.26
Time	0.682	-0.416
Algebra	0.661	-0.318
Reading	0.639	-0.331
Shapes & Spatial Understanding	0.429	-0.25
Measurements	0.317	-0.918
Mensuration	0.115	-0.004

Table-9: Correlation Analysis of Conceptual Areas – All Learning Outcomes – Grade 3 through 8 for Mathematics & Language

Conceptual Area	Average of Correlations with All other Conceptual Areas
Data Handling	0.80
Number Operations	0.80
Fractions	0.80
Numbers	0.79
Geometry	0.77
Time	0.77
Reading	0.77
Volume	0.76
Algebra	0.72
Shapes & Spatial Understanding	0.67
Measurements	0.55
Mensuration	0.29

Table-10: Pairwise – Pearson Correlation Analysis of Conceptual Areas

Sample 1	Sample 2	N	Correlation
Numbers	Number Operations	35	0.96
Numbers	Fractions	35	0.955
Number Operations	Fractions	35	0.938
Volume	Number Operations	35	0.938
Fractions	Data Handling	35	0.926
Geometry	Fractions	35	0.926
Volume	Numbers	35	0.911
Numbers	Data Handling	35	0.907
Numbers	Geometry	35	0.907
Geometry	Data Handling	35	0.899
Number Operations	Geometry	35	0.896
Volume	Fractions	35	0.896
Number Operations	Data Handling	35	0.893
Time	Number Operations	35	0.892
Reading	Data Handling	35	0.887
Time	Reading	35	0.876
Number Operations	Algebra	35	0.875
Volume	Geometry	35	0.865
Reading	Numbers	35	0.863



Reading	Fractions	35	0.861
Time	Numbers	35	0.86
Time	Fractions	35	0.854
Volume	Data Handling	35	0.851
Reading	Number Operations	35	0.847
Fractions	Algebra	35	0.839
Numbers	Algebra	35	0.838
Time	Data Handling	35	0.838
Time	Geometry	35	0.838
Volume	Time	35	0.838
Reading	Geometry	35	0.837
Data Handling	Algebra	35	0.827
Reading	Algebra	35	0.805
Volume	Reading	35	0.799
Geometry	Algebra	35	0.794
Shapes & Spatial Understanding	Data Handling	35	0.791
Shapes & Spatial Understanding	Reading	35	0.775
Time	Algebra	35	0.756
Volume	Algebra	35	0.754
Time	Shapes & Spatial Understanding	35	0.75
Shapes & Spatial Understanding	Fractions	35	0.725
Shapes & Spatial Understanding	Numbers	35	0.716
Time	Measurements	35	0.708
Shapes & Spatial Understanding	Geometry	35	0.704
Number Operations	Measurements	35	0.668
Reading	Measurements	35	0.653
Shapes & Spatial Understanding	Number Operations	35	0.651
Volume	Shapes & Spatial Understanding	35	0.649
Measurements	Algebra	35	0.619
Measurements	Geometry	35	0.596
Measurements	Data Handling	35	0.59
Numbers	Measurements	35	0.563
Shapes & Spatial Understanding	Algebra	35	0.551
Shapes & Spatial Understanding	Mensuration	35	0.547
Measurements	Fractions	35	0.54
Volume	Measurements	35	0.534
Shapes & Spatial Understanding	Measurements	35	0.522
Mensuration	Data Handling	35	0.431
Volume	Mensuration	35	0.293
Mensuration	Fractions	35	0.292



Mensuration	Algebra	35	0.267
Time	Mensuration	35	0.266
Numbers	Mensuration	35	0.26
Reading	Mensuration	35	0.251
Mensuration	Geometry	35	0.233
Number Operations	Mensuration	35	0.231
Mensuration	Measurements	35	0.084

Pairwise – Pearson Correlation coefficients maybe referred for learning outcome wise diagnosis on need basis.

Observations

1. 'Measurements' maybe considered as an entirely separate Factor in itself
2. 'Data Handling', 'Number Operations', 'Fractions' are most correlated with other Conceptual Areas
3. 'Measurements', 'Mensuration' & 'Shapes/Spatial Understanding' are least correlated to other conceptual areas in general
4. 'Volume' is correlated strongly to numbers/number operations
5. 'Reading' & 'Data Handling' are strongly correlated
6. 'Geometry' & 'Volume' are weakly correlated to 'Mensuration'
7. 'Time' is strongly correlated to 'Reading'
8. 'Shapes & Spatial Understanding' is most correlated to 'Data Handling'

Conclusion

1. It is possible to arrive at a list of unidimensional factors, which are statistically distinct & significant in explaining variation in learning outcomes for Mathematics & Language subjects for grades 3 through 8 using the NAS 2017 Learning Outcomes data for States/UTs. Eighty eight percent of the variability of data is explained by seven factors identified through factor analysis with Eigen Value>one. It can also be seen that on running factor analysis separately for different set of variables, with no. of variables<no. of cases, the variation explained by factors with Eigen values>1 is at least 60% consistently for all sets. This means that, as a whole, variation attributed conclusively to a set of factors made up of these learning outcomes chosen by NCERT to assess student-learning levels. This is due to high correlation seen among a set of learning outcomes & overall data.
2. Learning Outcomes related to 'Number Operations' Conceptual Area emerge as the most significant learning items as their factor loading is highest for factors having highest Eigen Values & variation attributions. This is true for all Grades.
3. Learning Outcomes related to 'Measurements', 'Mensuration' & 'Shapes/Spatial Understanding' conceptual areas are attributable to factors of distinct nature & low correlation to other Learning Outcomes
4. 'Shapes & Spatial Understanding' learning outcomes maybe important for student learning needs related to learning outcomes of 'Data Handling & 'Data Representation'.
5. 'Data handling' is the most correlated learning outcome to all other learning outcomes. This establishes that it is a good indicator to assess student-learning needs of mathematics. Though it doesn't serve a foundational skill, inference maybe made that many foundational skills are required to perform well in 'Data Handling' from academic point of view.
6. Learning Outcomes related to Language for grades 3 & 5 (not grade 8) serve as a significant factor in determining variation for Mathematics Learning Outcomes for all grades
7. Extremely high pair-wise correlations are observed for some learning outcomes (not necessarily belonging to same conceptual areas) which might signify their foundational nature w.r.t to other learning outcomes

Suggestions

1. For assessing performance of students in Mathematics subject for grades 3 through 8 National Achievement Survey 2017 Learning Outcomes can be grouped into fewer assessment parameters for establishing & improving student academic achievements



2. It is possible to identify & club learning outcomes of NAS 2017 into fewer dimensions(factors) so as to target them effectively & efficiently through prioritization
3. Some learning outcomes are of nature that is more fundamental & such learning items take precedence over other learning items. For example, learning items related to Language (Primary grades) & 'Numbers/Number Operations' Conceptual Areas (For all Grades) serve as the most critical & foundational focus area
4. Multi-dimensional content items maybe created to promote ease of learning based on factors which encompass learning outcomes from different conceptual areas
5. Learning items belonging to 'measurements', 'shapes/spatial understanding' & 'mensuration' seem to be of distinct nature. So, it may be easier to teach these items relatively easily to weak students as s these learning items seem to be founded on very specific learning needs
6. 'Data Handling' Learning Outcomes maybe relatively more important than others to understand overall student learning level for mathematics subject
7. Teachers may analyze the student academic achievement data bifurcated into NAS 2017 Learning Outcomes using formative assessments to devise more effective & efficient teaching strategies by troubleshooting learning needs of students referring to the pair-wise correlation statistics for learning outcomes/conceptual areas.

Acknowledgements

This paper and the research behind it would not have been possible without the exceptional support of my supervisors, Nuriya Ansari and Agnes Nathan. Their enthusiasm, knowledge and attention to detail have been an inspiration & motivating factor.

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**CUSTOMER RELATIONSHIP MANAGEMENT PRACTICES AND STRATEGIES IN BSNL
(A STUDY WITH REFERENCE TO URBAN AND RURAL SUBSCRIBERS IN GUNTUR DISTRICT)**

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Abstract

Money is not permanent in life; human relationships are an ultimate in life. It is difficult to survive without relationships either in the family or in the society. Whereas, in businesses relationship building is a unique bondage between individuals and organizations. In some cases, these relationships may be strong for lifetime, or very delicate to broken within no time without no reason. Therefore, managing the lifelong relationships is an important and at the same time difficult task and complicated issue.

The Customer Relationship Management (CRM) has attracted the attention of scholars in the world during the recent past. It is a fact that there is a need for premier customer knowledge to build a cordial relationship with customers is an essential task. It represents an organizational approach for developing a complete data about customers attitude and their perceptions to prepare an information system to motivate their business relationship with the organization. The CRM has become an important aspect of marketing philosophy in the recent past to the companies, institutions, and organizations of any sector. There are several research studies have been conducted both in India and abroad on the practices of CRM. The present study made an attempt to examine the CRM practices and strategies in urban and rural areas of Guntur Telecom District with reference to the land and mobile services in BSNL. This type of studies in various organizations is necessary to add value to the knowledge of CRM for serving the customers with satisfaction.

Keywords: Customer Relationship Management, Customer Loyalty, Customer Retention, Pre-paid and Post-paid Services, CRM Strategies

Introduction

The customer relationship management is playing a vital role in engaging the customer in a competitive world especially in-service sector. The present study has made an attempt to examine the CRM practices in Bharath Sanchar Nigam Limited in Guntur SSA. The key issue for vendors is not to offer high-quality products or services, but to maintain loyal customers, who contributed to organizations 'long-term benefits as the competitive environment becomes turbulent (Tseng, 2007). As a result, marketing relationships with other marketing strategies have become a way for firms to build strong and constant customer relationships (Andaleeb 2006). Hence, great attention has been paid in recent decades to the development of relationships in the corporate world. Thus, the customers relationships have begun to dominate the marketing subject in the last decade of the 20th century (Egan, 2001).

During this time, customer marketing relationships have become an important trend in many companies' worldwide marketing and management. The customer loyalty, customer interaction and long-term marketing relationships are the key strategic objectives of the marketing function, offering customer information tailored to their needs and interests and promoting open communication. This approach often leads to greater word of mouth, repeated business and customer willingness to inform the company (Peng and Wang, 2006). The market buyers and



sellers benefit from each other by developing the relationships. The relationship related marketing tactics are practical marketing relationship approaches (Tseng, 2007). An effective customer-focused marketing tactics could contribute to the market acquisition, customer retention and customer profitability, and ultimately customer loyalty developments.

Evolution and Development of CRM

The practices of CRM can be traced during the period of pro-industrial revolution, where producers of agricultural products and their customers interacted directly. The advent of middlemen resulted in a setback to the direct interactions between producers and customers making the process more of transaction oriented rather than relationship oriented. The recent surge in CRM is due to the growth of service industry (banking, insurance, air travel etc) and the advent of sophisticated telecommunication and information technology, resulting in the direct contact between the customers and marketers/ producers. Another important factor, contributing to the development of CRM is the intense competition between the organizations that has forced marketers to be more concerned with customer retention and loyalty. The customer expectations with the availability of advanced product features and services are changing rapidly. Therefore, the co-operative and collaborative relationships with customers is the best way to deal with the scenario.

The customer -centricity, as associated with the present understanding of CRM was first mentioned in the 1960s. The concept has been evolved since then and developments related to it have been traced as: Levitt (1969) has introduced the concept of augmented product, emphasizing that consumers are interested in the total buying experience, and not just the core product. The concepts of needs of customers and the total buying experience kept on evolving over a period of time, finally pointing to the benefits of management of relationships with customers in the marketing domain. The customer relationship management itself is not a new concept but is now practical due to recent advances in enterprise software technology. An outgrowth of sales force automation (SFA) tools, the CRM is often referred to in the literature as one-to-one marketing (Peppers and Rogers, 1999). The SFA software automates routine tasks such as tracking customer contacts and forecasting. The goal of SFA is to allow the sales force to concentrate more on selling.

Importance of 'Customer Relationship Management'

The Customer Relationship Management (CRM) refers to the principles, practices and guidelines that an organization follows when interacting with its customers. From the organization's point of view, this entire relationship encompasses direct interactions with customers, such as sales and service-related processes, and forecasting analysis of customer trends and behaviors. Ultimately, the CRM serves to enhance the customers' overall experiences. The CRM is one of the most important of the information technology and is an integration of business and technology process to gain the customer satisfaction and used to satisfy the need of a customer. Thus, the CRM basically begins with the deep analysis of customer behavior. A telecom company that wants to create personal interaction with the customers, for which they gather all the customer related data and using this data they will predict the churn customers. Further, the CRM helps the telecom industry to increase the profitability through their interactions with the customer while at the same time making the interactions friendlier through individualization. Thus, retaining the customers is important for Telecom service to identify the problems of their customers and to solve the problems.

Review of Literature

Ravi Dhar and Rashi Glazer [1]made an attempt on "A Longitudinal Study of Complaining Customers' Evaluations of Multiple Service Failures and Recovery Efforts" and they have



presented a twenty month long longitudinal field study that investigates within- subject evaluation of overall satisfaction with the firm, word-of-mouth (WOM) recommendations and repurchase intent at key intervals following two customer-initiated complaints and ensuing service recovery efforts. The findings suggested that though satisfactory recoveries can produce a ‘recovery paradox’ after one failure, they do not produce such paradoxical increases after two failures.

Peter C. Verhoef, in his study on [2] “The Impact of Customer Relationship Characteristics on Profitable Life Time Duration”, has made the following observations in the study: American firm AT&T analyzes its relationships with its customers and tracks in particular retention and termination characteristics. By analyzing the factors that drive retention, AT & T is much more efficient in keeping customers who are at a risk of defection and it was also able to better pin point the customers in its acquisition campaigns. It is considerably more profitable to keep and satisfy existing customers than to renew a strongly churning customer base constantly, given the discrepancies between concept and reality in relationship marketing, it is important to study the concept of customer management and customer life time for two reasons:

- a) First a better understanding is needed related to the facets of customer management orientation.
- b) The second reason is that although the importance of an analysis of dynamic customer – firm relationship is hardly disputed, empirical evidence is scarce.

Werener J. Reinartz and V. Kumar [3] made an attempt on “Consumer – Company Identification: A Frame work for Understanding Consumers’ Relationships with Selected Companies” and revealed that conditions under which consumers enter into strong, committed and meaningful relationships with certain companies, becoming champions of these companies and their products. The authors have conducted research in both individual and organizational psychology to elaborate on the nature of customer- company identification and articulate their consumer level conceptual frame work, which offers propositions regarding the key determinants and consequences of such identification in the market place.

Werner Reinartz and V. Kumar in their work on [4]“Understanding the Effect of Customer Relationship Management Efforts on Consumer Retention and Customer Share Development”, observed that firms aim to build close relationships with customers to enhance Customers’ Relationship perceptions (CRPs). Customer relationship perceptions are considered as evaluation of relationship strength and a supplier’s offerings, and customer share development is the change in customer share between two periods. In this context the customer share is defined as the ratio of a customer’s purchases of a particular category of products or services from supplier X to the customer’s total purchases of that category of products or services from all suppliers.

Mohanbir Sawhney [6] in his study on “The Mismanagement of Customer Loyalty”, reported that the relationship between loyalty and profitability is much weaker- and subtler- than what the proponents of loyalty programs claim. Instead of loyalty alone, companies need to find out ways to measure the relationship between loyalty and profitability so that they can identify the customers on whom more focus is required. As per the study conducted by the authors, it was revealed that when customers are sorted according to their profitability and longevity, it became evident that the relationship between loyalty and profits is by no means assured.

Dareel I K. Rigby, Fredrick F. Reichheld, and Phil Schefter [7]in their study on “Clueing in Customers”, have observed that when customers lack the expertise to judge a company’s offerings, they start focusing on, people, facilities, and processes for evidence of



quality. The authors conducted a five-month study of evidence management at the Mayo Clinic. They interviewed more than 1,000 patients and employees, observed hundreds of doctor visits, and stayed in the organization's many hospitals. Their experiences led them to identify best practices applicable to just about any company, in particular those that sell intangible or technically complex products. The authors express their opinion that companies need to determine what kind of an image they want to create among the customers, and then they should ensure that their employees and facilities consistently show customers evidence of that image.

Research Gap

The literature review has helped to identify research gaps in the domain of the present research. The important research gaps in relation to the present study are summarized as: Literature review broadly indicates that there is a considerable interest, motivation and research to study and understand the customer behavior and satisfaction levels on telecom sector with a view to design marketing strategies to improve sales, new phone connections of land and mobile services. The customer keeping is more challenging than customer catching. Increasingly a greater number of studies are focusing on this aspect from survey of literature, it is found that the studies on CRM are many in western context. The studies in Indian context on telecom industry are few and are mostly focused on service quality. There are reasonably good number of studies on customer satisfaction but with limited scope.

From the above discussion on literature review, it can be understood that numerous studies have been conducted with respect to different areas in CRM and BSNL, but no worthwhile studies have been conducted on the “**Comparison in Rural and urban areas in Guntur district of AP Circle**”, although no studies have been conducted comparison of the major services of landline and mobile prepaid and post-paid services in rural and urban areas of BSNL. Further, it is understood that among the studies conducted in other circles problems have been identified.

Problem of the Study

The customer acquisition and their retention are an important and highly predictable in telecom organization, where high churning and low customer loyalty is the characteristics. The importance of better customer service for capturing business in service companies had become a focus point and there is an intense need to study on the Customer Relationship Management of a service organization. The CRM enables the firm to know the better customer interaction to improve and encourage relationship building with existing and potential customers of the forum.

Scope of the Study

The study covers the topic of customer relationship management in urban and rural areas of BSNL in Guntur District. The Guntur Telecom District includes 12 sub-divisions which are treated as rural areas. The present study, which considers a large quantity of variables like, quality of services, perceived values, customer satisfaction, brand image, complaint management, Image, empathy, customer retention, commitment, trust, loyalty, customer interaction and relationship quality and their interrelationships.

Research Questions

The present study seeks to investigate CRM in the context of Guntur Urban rural areas of BSNL. The focus of inquiry is set on the following questions.

- i. What are the major CRM practices in BSNL with reference to the services from perspective of Urban and Rural customers of BSNL?
 - ii. How far BSNL is implementing CRM practices in the selected area of the study?
 - iii. What developments/future steps must be introduced to do further in Guntur district?
-



Need for Study

Telecommunications occupied the center stage in a fast-developing country, which would alone make it an interesting to study. The complex situation faced by state owned BSNL with its drop from near monopolistic number one position to a loss making fifth position makes the need for study more significant. BSNL is presently losing market share and incurring financial losses. Company is seriously planning to come out of bureaucratic mold and reorient the organization structurally and operationally to enhance customer relations and to exploit its largest subscriber base, technical strengths and infrastructural assets. In this context, the philosophy, and practices of CRM merit due consideration in the revival plan. The present study proposed to examine the CRM issues in case of BSNL.

Research Framework

The objective of this research is not only to prove the validity of the model but also based on what is found, suggest some measures. It is necessary to extend the study to gain customers' needs and perceptions on CRM objectives and their priorities in the present practices, to gain helpful inputs to make suggestions with focus on their perceptions

Objectives and Hypothesis

The study is specifically designed with the following objectives:

- a) To study the Customers Relationship Management in Telecom Industry in general and CRM practices adopted by BSNL.
- b) To evaluate the customers' perception of CRM practices of BSNL with respect to Land-line and Mobile pre-paid & post-paid services in urban and Rural wise.
- c) To assess the levels of Customer Satisfaction towards BSNL Land line and Mobile prepaid as well as post-paid services and the causes leading to disconnections.
- d) To examine the strategies adopted by BSNL to attract the new customers and retain the existing Customers.
- e) To suggest measures for BSNL to retain customers and serve them in a better way.

Hypotheses of the Study

The following hypotheses have been formulated for the study.

- a) There is no significant relationship between the type of issues/statements and level of satisfaction Urban & Rural customers.
- b) There is no significant relationship between the type of customers and the level of satisfaction.
- c) There is no significant difference among the levels of satisfaction /perceptions/rankings/ratings given about the various issues /statements.
- d) There is no significant difference in the level of satisfaction in respect of customer care management of Urban and Rural customers.
- e) There is no association between the retention strategies of the Urban and Rural customers
- f) Retention strategies of Land and mobile customers are not independent of the circle.
- g) There is no significant difference in the chances of replacing BSNL services in Urban and rural customers.

Methodology of the Study

The following is the methodology adopted for the study:

A) Source of Data Collection

The study is designed to be an analytical one based on Survey method. The primary and secondary data has been used for the study. The primary data has been collected from direct survey conducted through circulation interview schedule among BSNL Land line and Mobile Customers in the selected areas. The secondary data relevant to the topic has been collected from

the office records, reports and other published documents of BSNL, DOT. TRAI websites and relates sources.

B) Method of Data collection

The data was collected for the study by means of 3-sections through structured questionnaire.

Section a: The questionnaire was framed to obtain the general information about the Customers of BSNL land line and mobile service.

Section b: Perceptions/opinions/ views of the respondents through different optional and Scaled questions regarding land line and mobile services of BSNL.

Section c: To ascertain the level of Agreement, Opinion, and suggestions, of the Customers on various CRM Practices of BSNL of Land and mobile services

C)Sampling Size and Design:

The prepared questionnaires are pre-tested and final draft of questionnaires is prepared. A sample size of researcher has chosen 2150 from Guntur Town, out of this 540 customers are from Land line and 1100 from various areas in of pre-paid mobile services and 510 postpaid customers from Guntur town and as well as surroundings of Guntur. The researcher has taken respondents from Guntur town and its rural surroundings of Guntur. The details of the of the survey and its respondents.

Sl. No	Description	Total
1	Number of outlets approached	100
2	Number of outlets surveyed	50
3	Number of customers surveyed:	2150
4	Number of customers, who returned completed questionnaire	2105
5	Number of usable questionnaires	2000
6	Response rate of usable questionnaires as % of questionnaires received	90%

Data Analysis

Suitable statistical and mathematical tools like percentages, Standard deviation, Chi square tests have been conducted to reach meaningful conclusions. In the study 5 points Likert scale has been adopted to suit the objectives of the study. Certain options were designed to suit the requirements of the study. The interview schedule contained several questions coverage various dimensions of Customer Relationship Management Practices. The data is analyses with the help of percentages.

I. Analysis

Table 1: Demographic Profile of the selected Respondents Region wise

Area	Urban	%	Rural	%	Total Frequency	%
Residential Area	1200	(60)	800	(40)	2000	(100)
Gender						
Male	720	(60)	512	(63.80)	1232	(61.6)
Female	480	(40)	288	(36.25)	768	(38.4)
Age in years						
20-30	70	(5.8)	55	(6.87)	125	(6.3)
31-40	305	(25.41)	288	(36)	593	(29.7)



41-50	465	(38.75)	226	(28.25)	691	(34.6)
51-60	310	(25.83)	202	(26.25)	512	(25.6)
Age above 60	50	(4.16)	29	(3.62)	79	(4.0)
Occupation						
Self Employed	140	(11.66)	122	(15.01)	262	(13.1)
Service	320	(26.66)	120	(15)	440	(22)
Business	250	(20.83)	199	(16)	449	(22.5)
Profession	260	(21.66)	140	(18)	400	(20.0)
House Wife	90	(7.5)	109	(13.62)	199	(10)
Retired from services	140	(11.66)	110	(13.75)	250	(12.5)
Monthly income						
Below25,000	60	(5)	74	(9.01)	134	(6.7)
25001-50000	332	(27.66)	420	(52.5)	752	(37.6)
50001-100000	638	(53.16)	266	(33.25)	904	(45.2)
100001-200000	170	(14.16)	50	(6.25)	210	(10.5)
Education qualifications						
SSC	20	(1.6)	67	(8.37)	87	(4.4)
Intermediate	52	(4.33)	160	(20)	212	(10.6)
Graduate	607	(50.58)	322	(40.25)	929	(46.5)
Post Graduate	511	(42.58)	223	(27.87)	734	(36.7)
Others	10	(0.08)	28	(3.5)	38	(1.9)
Size of the Family						
Single	325	(27.08)	186	(18.87)	511	(25.6)
2 members	568	(47.33)	186	(23.25)	754	(37.7)
4 members	127	(10.58)	189	(23.62)	316	(15.8)
More than 4 members	180	(15)	239	(29.8)	419	(21.0)
Marital status						
Married	750	(62.5)	683	(85.37)	1433	(71.7)
Unmarried	325	(22.91)	211	(26.25)	536	(26.8)
Widow	21	(1.75)	10	(1.25)	31	(1.6)
Type of services						
Land line	300	(25)	200	(25)	500	(25)
Mobile Prepaid	600	(50)	400	(50)	1000	(50)
Mobile Post paid	300	(25)	200	(25)	500	(25)
Period of usage						
Below 10 years	25	(8.33)	25	(12.5)	50	(10)
10 to 20 years	100	(33.33)	50	(25)	150	(30)
20 -30 years	125	(41.66)	100	(50)	225	(44)
More than 30 years	50	(16.6)	25	(12.5)	75	(15)

Source: Compiled from the Data Collected through Survey Figures in parentheses are in %

Table-1 depicts the socio-economic profile of the respondents in region wise which shows percentages of the participants data, the majority (60%) of respondents are from urban and 40% from rural area with highest age group 41-50 is (34.6%) followed with 31-40- age group is (29.7%) and the age group of 51-60 years is (25.6%). The age group of 20-30 years are (6.3%) and the rest (4.0%) of the respondents age group are 60 above. The majority of the respondents (22.5%) occupation is business followed by service (22%), whereas the next occupation is profession (20%) and self-employee category of the respondents are (12.5%) and the retired are (12.5) whereas house wives are (10%) respectively. The majority (45.2%) of the respondent's

monthly income is 50001-100000 followed by (37.6%) belongs to 25001-500000 of the monthly income and (10.5%) of the respondents belongs to 100001-200000 of the monthly income and the rest of respondents (6.7%) monthly income 25,000. Majority (46.5%) of the respondents are Graduates (36.7%) followed by Postgraduates (10.6%) and Intermediates are (4.4%) are SSC and the rest (1.9%) of the respondents are other categories. The majority of (71.7%) of the respondents are married followed by 26.8% are unmarried and the rest of the respondents are (1.6%) Widowers. The majority (37.7%) of the respondents depending on 2 members in their family followed by (25.6%) of the respondents single member in the family and (21.0%) of the respondents are 4 members in their family and the rest (15.8%) of the respondents are more than 3 members in their family. The majority of the respondents (50%) used the mobile prepaid services and (25%) are postpaid service users, whereas Land line service user are (25%) respectively. A greater part (44%) of the respondents are using services from 20-30 years followed by (30%) of the respondents are 10-20 years and (15%) of the respondents are more than 30 years and the rest (10%) of the respondents are utilized the service of BSNL from 10 year onwards.

Table-2: Reasons for Selection of Mobile Pre-Paid Services -Views of the selected Respondents Region- wise

Region	Convenience for the Usage						Total	Value	P Value
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree				
Urban	26(2.6)	44(4.4)	92(9.2)	348 (34.8)	90 (9.5)	600 (60.0)	2.742 ^a	0.602	
Rural	22 (2.2)	24 (2.4)	44(4.4)	242 (24.2)	68(6.8)	400(40.0)			
Economy Purpose									
Urban	30 (3.0)	30 (3.0)	150 (15.0)	300 (30.0)	90(9.0)	600(60.0)	5.141 ^a	0.273	
Rural	20 (2.0)	40 (4.0)	96 (9.6)	196 (19.6)	48(4.8)	400(40.0)			
Free SMS without Calls									
Urban	26 (2.6)	32(3.2)	118(11.8)	332 (33.2)	92(9.2%)	600(60.0)	5.789 ^a	0.216	
Rural	22(2.2%)	40(4.0)	82(8.2)	212(21.2)	44(4.4%)	400(40.0)			
Easy to Know the usage									
Urban	16 (1.6)	36 (3.6)	96(9.6)	352 (35.2)	100(10.0)	600(60.0)	7.694 ^a	0.103	
Rural	0.4 (0.2)	44 (4.4)	62(6.2)	235 (23.8)	54(5.4)	400(40.0)			

Source: Compiled from the Data Collected through Survey Figures in parentheses are in %

The BSNL service providers are having a firm brand image in the minds of the customers. Here, the researcher framed a questions to know their opinion for selection of mobile prepaid services [7-8]: Convenient of usage, economy purpose, free SMS without calls, easy to adapt the usage of BSNL services are trying to analyze an elevate the reasons behind the selection of mobile prepaid services.

Table-2 depicts the opinion of the respondents on **reason for selection of BSNL mobile prepaid services**, it can be concluded that thecalculated p-values are more than the standard significant value at 5% level of significance i.e. (p>0.05) in all the attributes. Therefore, the null hypothesis is accepted in all the attributes for selection of BSNL prepaid service irrespective of the location of the respondents

Table- 3: Reason for Selection of Mobile Post-Paid Services -Views of the selected Respondents Region-wise

Region	Payment is after usage only						Total	Value	P-Value
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree				
Urban	4 (0.8)	19(3.8)	37(7.4)	189(37.8)	300(60.0)	200(40.0)	8.294 ^a	0.081	
Rural	0(0.0)	24(4.8)	27(5.4)	122(24.4)	50(25)				
No limitation in usage									
Urban	1(0.2)	19(3.8)	42(8.4)	186(37.2)	52(10.4)	300(60.0)	6.465 ^a	0.167	
Rural	0(0.0)	24(4.8)	25(5.0)	124(24.8)	27(5.4)	200(40.0)			
Unlimited Data/Calls/SMS									
Urban	1(0.2)	18(3.6)	43(8.6)	199(39.8)	39(7.8)	300(60.0)	4.609 ^a	0.330	
Rural	0(0.0)	21(4.2)	23(4.6)	132(26.4%)	24(4.8)	200(40.0%)			

Source: Compiled from the Data Collected through Survey Figures in parentheses are in %

The BSNL service provider is having a unique and splendid reputation image in the hearts of the customers. To know the satisfaction level of the respondents' researcher put some attributes like: Payment is after usage only, no limitations in usage and unlimited data/calls/SMS of BSNL services are trying to elevate the reasons behind selection of post-aid services.

The table 3 explain the reasons behind the selection of BSNL service providers in the respective locations of the respondents, it can be conclude that irrespective of the location of the respondents residing in urban and rural areas are agreed to use BSNL postpaid services as the calculated p-values of all the attributes are more than the standard significant value at 5% level of significance, i.e., (p.>0.05). Hence, the null hypothesis is accepted.

Table- 4:Reason for opting Land line Service -Views of the Selected Respondents Region-wise

Region	Address Proof for all						Total	Value	P-Value
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree				
Urban	15(3.0)	20(4.0)	45(9.0)	160(32.0)	60(12.0)	300(60.0)	7.410 ^a	0.116	
Rural	10(2.0)	21(4.2)	40(8.0)	103(20.6)	26(5.2)	200(40.0)			
Annual Payment Facility									
Urban	20(4.0)	15(3.0)	30(6.0)	165(33.0)	70(14.0)	300(60.0)	9.660 ^a	0.047	
Rural	5(1.0)	10(2.0)	13(2.6)	107(21.4)	65(13.0)	200(40.0)			
Option for Outgoing/Incoming Calls									
Urban	24(4.8)	16(3.2)	29(5.8)	162(32.4)	69(13.8)	300(60.0)	5.314 ^a	0.257	
Rural	12(2.4)	9(1.8)	14(2.8)	86(17.2)	58(11.6)	200(40.0)			
Fixed Instrument									
Urban	47(9.4)	18(3.6)	32(6.4)	136(27.2)	67(13.4)	300(60)	4.878 ^a	0.300	
Rural	21(4.2)	11(2.2)	24(4.8)	86(17.2)	58(11.6)	200(40.0)			
Speech audible									
Urban	33(6.6)	17(3.4)	29(5.8%)	151(30.2)	70(14.0)	300(60.0)	2.374 ^a	0.667	
Rural	27(5.4)	13(2.6)	21(4.2%)	87(17.4)	52(10.4)	200(40.0)			
Caller ID Facility									
Urban	44(8.8)	16(3.2)	29(5.8%)	143(28.6)	68(13.6)	300(60.0)	1.992 ^a	0.737	
Rural	29(5.8)	14(2.8)	19(3.8%)	85(17.0)	53(10.6)	200(40.0)			

Source: Compiled from the Data Collected through Survey Figures in parentheses are in %

The BSNL is having a great image and sustained position in the minds of the esteemed customers. To capture/assess their frame of mind on which reason they have opted Land line services through various interested statements like: Address proof for all, annual payment facility, option for outgoing/Incoming calls, speech audible and caller ID facility of Land line service in BSNL to elevate the reasons behind the Land line services.

Table-4. explain the reasons behind the selection of land line services in the irrespective location of the respondents, it can be conclude that the respondents are willing to opt the land line services of BSNL as the calculated p-values are more than the standard significant value at 5% level of significance, i.e.($p > 0.05$). Hence the null hypothesis is accepted.

Table- 5: Purpose for Option of the Network Service -Views of the selected Respondents Region- wise

Region	Personal						Value	P-Value
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total		
Urban	41(2.1)	67(3.4)	107(5.4)	882(44.1)	103(5.2)	1200(60.0)	1.370 ^a	0.849
Rural	22(1.1)	42(2.1)	70(3.5)	589(29.5)	77(3.9)	800(40.0)		
Business								
Urban	38(1.9)	67(3.4)	97(4.9)	918(45.9)	80(4.0)	1200(60.0)	1.511 ^a	0.825
Rural	22(1.1)	44(2.2)	58(2.9)	614(30.7)	62(3.1)	800(40.0)		
Education								
Urban	49(2.5)	65(3.3)	97(4.9)	908(45.4)	81(4.1)	1200(60.0)	5.156 ^a	0.272
Rural	19(1.0)	44(2.2)	61(3.1)	613(30.7)	63(3.2)	800(40.0)		
Overseas Calls								
Urban	32(1.6)	61(3.1%)	96(4.8)	915(45.8)	96(4.8)	1200(60.0)	.973 ^a	0.914
Rural	18(0.9)	39(2.0)	60(3.0)	612(30.6)	71(3.6)	800(40.0)		
Urban	35(1.8)	61(3.1)	95(4.8)	914(45.7)	95(4.8)	1200(60.0)	2.294 ^a	0.682
Rural	16(0.8)	38(1.9)	61(3.1)	614(30.7)	71(3.6)	800(40.0)		
Work from Home								
Urban	14(0.7)	128(6.4)	86(4.3)	728(36.4)	244(12.2)	1200(60.0)	.760 ^a	0.944
Rural	10(0.5)	88(4.4)	61(3.1)	470(23.5)	171(8.6)	800(40.0)		
Total	24(1.2)	216(10.8)	147(7.4)	1198(59.9)	415(20.8)	2000(100.)		
Online Service Business								
Urban	16(0.8)	174(8.7)	82(4.1)	661(33.1)	267(13.4%)	1200(60.0)	.350 ^a	0.986
Rural	10(0.5)	116(5.8)	57(2.9)	432(21.6)	185(9.3)	800(40.0)		

Source: Compiled from the Data Collected through Survey Figures in parentheses are in %

The main motto of the BSNL is to arrange the qualitative services to the customers and to fulfil their expectations. To obtain the fascination of their minds some purposes have been mentioned through survey for what purpose they have opted network services in BSNL: Personal, Business, Education, Overseas calls, Entertainment, work from home and online business service [9-11].

The table 5 elevate the reasons behind the selection of Network services in the location of the respondents, it can be concluded that the calculated p-values of all the statements are more than the standard significant value at 5% level of significance, i.e., ($p > 0.05$). Hence, the null hypothesis is accepted.

Table-6: Purpose for visiting the Customer Service Centers -Views of the selected Respondents Region-wise

Region	To Book a Complaint						Total	Value	P-Value
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree				
Urban	12(0.6)	34(1.7)	117(5.9)	830(41.5)	207(10.4)	1200(60.0)	2.173 ^a	0.704	
Rural	8(0.4)	16(0.8)	86(4.3)	544(27.2)	146(7.3)	800(40.0)			
Payment of Bills									
Urban	10(0.5)	29(1.5)	143(7.2)	809(40.5)	209(10.5)	1200(60.0)	4.193 ^a	0.381	
Rural	10(0.5)	11(0.6)	105(5.3)	530(26.5)	144(7.2)	800(40.0)			
To know the Plans and Offers									
Urban	11(0.6)	47(2.4%)	138(6.9)	804(40.2)	200(10.0)	1200(60.0)	2.170 ^a	0.705	
Rural	11(0.6)	26(1.3%)	99(5.0)	524(26.2)	140(7.0)	800(40.0)			
Recharge/Top-up									
Urban	28(1.4)	33(1.7)	116(5.8)	818(40.9)	205(10.3)	1200(60.0)	2.479 ^a	0.648	
Rural	15(0.8)	16(0.8)	87(4.4%)	539(27.0)	143(7.2)	800(40.0)			
Other queries if any									
Urban	84(4.2)	32(1.6)	125(6.3)	454(22.7)	505(25.3)	1200(60.0)	2.330 ^a	0.675	
Rural	57(2.9)	16(0.8)	71(3.6)	309(15.5)	347(17.4)	800(40.0)			

Source: Compiled from the Data Collected through Survey Figures in parentheses are in %

Customer service centers are foundation stones for the service. Customer is God to that center who provides the remuneration to the employees and profit to the organization. To assess the reasons from the respondents for visiting the CSCs through some statements like: To book a complaint, payment of bills, to know the plans and offers, recharge/top-up and other queries if any.

Tables-6 narrates to explain the reasons behind customer care centers in the irrespective location of the respondents, it can be conclude that the calculated p-values of all the attributes are more than the standard significant value at 5% level of significance i.e.(p>0.05). Hence, the null hypothesis is accepted.

Table 7: Time taken for rectification of complaints-Views of the selected Respondents Region-wise

Region	Up to one day						Total	Value	P-Value
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree				
Urban	6(1.2)	16(3.2)	22(4.4)	231(46.2)	25(5.0)	300(60.0)	.971 ^a	0.914	
Rural	3(0.6)	9(1.8)	18(3.6)	151(30.2%)	19(3.8)	200(40.0)			
1 to 2 days									
Urban	3(0.6%)	35(7.0)	20(4.0)	185(37.0)	57(11.4)	300(60.0)	6.978 ^a	0.137	
Rural	0(0.0)	19(3.8)	20(4.0)	111(22.2)	50(10.0)	200(40.0)			
2 to 3 days									
Urban	3(0.6)	44(8.8)	20(4.0)	171(34.2)	62(12.4)	300(60.0)	5.981 ^a	0.201	
Rural	0(0.0)	27(5.4)	18(3.6)	101(20.2)	54(10.8)	200(40.0)			
Above 4 days									
Urban	3(0.6)	45(9.0)	16(3.2)	181(36.2)	55(11.0)	300(60.0)	5.351 ^a	0.253	
Rural	0(0.0)	29(5.8)	16(3.2)	109(21.8)	46(9.2)	200(40.0)			

Source: Compiled from the Data Collected through Survey Figures in parentheses are in %

The primary duty of the organization is to look into the complaint of the customers and resolve it expeditiously. Rectification of faulty is the prime duty of technical/field staff who working in (FRS) faults control system (RS) the indoor/outdoor of the exchanges. To know the satisfaction level of the customers on rectification faults or complaints through some periods like up to one day, 1 to 2 days, 2 to 3 days and above 4 days.

Table 7 presents the time taken for rectification faults or complaints in the subscriber premises, it can be concludes that the calculated p-values of all the periods are more than the standard significant value at 5% level of significance. i.e.($p > 0.05$). Therefore, the null hypothesis is accepted.

Findings

- About 70% of respondents of customers are expressed their view that the mobile pre-paid services of BSNL are convenient to use, know the balance and more free messages which are economy purpose and transparent.
- Payment will be affected after completion of usage which is one the reason for selection of Postpaid services
- One of the major sources for getting land line connection is annual payment of deposit facility which convenient to the customers
- Majority of the respondents are used the network services for the purpose of Education.
- Reason for visiting the CSCs is for payment of bills and make recharge to their mobile phones.
- Most of the respondents expressed that time taken for rectifying the faults is 1 to 2 days but not with in one day

Conclusion

BSNL being a public sector, in order to thrive and excel, have to understand about the Customers expectations. They also have to understand about their competitors and their nuances in understanding their Customers. A change in the current scenario is very necessary as it is found that dissatisfaction is growing due to inefficiencies and customers will not tolerate dissatisfaction for long periods. Major revisions need to be made about the policies of the organizations. The technological enhancement is very inevitable in many are: Good HR policies to motivate good performance of employees have become inevitable human resource management should be properly done. Try to capture the market where there is less coverage of BSNL. Backbone infrastructure is essential to provide broadband connectivity to village Panchayats, Post offices, Schools and universities and common service centers being setup by Department of Information Technology (DOIT) in the rural areas. It is also found that involvement of top management is essential for resolving all the hurdles and conflicts of the customers.

Suggestions

- Attractive and innovative plans and offers have to be introduced in pre-paid services to beat their competitors. Department has to disclose all the new plans/tariffs/packages from time to time through conducting Roadshow, Open house sessions with customers, conducting telephone Adalat's, fort night customer meets through brochures, etc.,
- Transparency should be maintained while preparing the postpaid bills and must come out with date time duration pulse everything should be there without any ambiguity to the customers.
- Wide publicity must be issued to the rural customers for annual payment deposit scheme which results one-month rebate.



- New towers installation and wide coverage is an important task in Broad band services as they have preferred net services mainly for education purpose. BSNL has to mainly concentrate in improvement of average/sufficient network in rural areas also
- Along with CSC services, it has been required by the customers that mobile bill payments may also be arranged at e-Seva, which will be more helpful to the rural customers for bill payments and recharges, etc.
- An attention has to be paid by officers of Faults Repair system for rectification of faults within one day.

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**RURAL ART FORM MUGGU
(WITH SPECIAL REFERENCE TO ANDHRA PRADESH)**

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Introduction

Indian tradition of Hindus begins with rising up when the early cock begins to crow. Then they sweep the front yard of the house and sprinkles cow dung water. Further Rangoli is being drawn in front of the houses. Rural art form Muggu (Rangoli) was part and parcel of their day. Apartment culture, cement floors, and craze for polish made this culture to be diminished even in the villages. Although it is being diminished, people draw Rural Muggu (Rangoli) with chalk pieces in some places available. The idea behind this culture is not so clear but people believe if there is no muggu drawn that's a bad omen for the visitors of the house because the house is under mourn for some reasons, so the visitor may not enter into that particular house. Hence, it is considered obligatory to sweep and to draw the Rural Muggu (Rangoli) every morning and evening.

The history of the rangoli

History of Rangoli cannot be traced back with particular proof due to the unavailability. But it is believed that, it has its origin in Puranas. All the Puranas mention the art of the Muggu (Rangoli) or "Rangavalli". A story even can be seen in Purana about rangoli. The story is about a King's master and his son. Some years back there was a King, who had a teacher (Guru). This teacher had a only son. All of a sudden, the son becomes sickly and dies. Then, the teacher being the pious man of Lord Brahma; eventually he goes into the deep penance for the death of his only son. Being pleased with the penance of the Master, Brahma appears to him and enquires him of the desire. Then, the Master requests him to bring his son's life back. Thus, the Lord Brahma orders him along with the whole kingdom to sweep their homes, clean them and draw the Rangolies in front of all the houses. Then being ordered by the king, the people do as the Brahma ordered them. But the teacher who loved his son very much draws the image of his only son in front of his house. Brahma rejoices with the Rangolies of the whole people especially with the Masters, Brahma grants life to Master's Son; from then, people made it a habit to sweep their homes and to draw the Rangolies in the front of their homes. It is sign of good event when a Rangoli is drawn with two lines are horizontally beside the Rangoli; otherwise, the house will be overshadowed by the evil powers and Lakshmi Devi will leave the house. Even when the worships are conducted to goddess, religious ceremonies and good deeds are done, there should be always Rangholies; even the Rangoli will suffice.



Rural Village females draw the Rural Muggu every morning and evening

Anuradha Ananth says:The tradition of rangolis; ⁴ termed alpana, kolam, muggu, depending in which part of the country it is found in, is an ancient Indian one. One that has been passed down from generation to generation. Besides enhancing the visual appeal of one's home, like most traditions, its roots are steeped in philosophy.

Traditionally made with powdered rice and sugar, the patterns are usually laid out within a grid of dots. The designs with either geometric patterns or images of flowers range from the simple to the elaborate and is believed to help one earn merit or *punya*, by providing food for birds, insects and the other lives that thrived in the soil.

Rangholy and Gobemma

In the month of Sankranti, there are Rangholies over them are kept the Gobemmas made of cow dung and flowers, particularly of the Pumpkins. These are the sceneries which are found in almost all the homes, in the villages; during this time people make them very beautifully and places in the centre the small balls made up of cow dung, the colours like yellow and red are applied over them and decorate them with flowers of the Pumpkin, Mary gold and Chamomiles. These are called Gobbemma. Around these Rangholies gather the young women holding their hands, dancing and singing songs. Behind this, there is a lot of meaning.

During the winter the distance between the sun and moon increases, due to which there is a climate change; consequently, the danger of contagious diseases from the bacteria are more. Hence, sprinkling cow dung water and drawing the Rural Muggu (Rangoli) will help to increase the immunity system to be strong. Drawing Rural Muggu (Rangholies) by bending down is a kind of exercise. Remembering the Rangholies which people either have seen or heard long back as the children increases the memory power and discussing about the Rural Muggu Rangholies with the people will help to be friendly with them.

Than Goppekas today's Gobbemmas

Gobbi the word comes from the word Gopi. There is a tradition that the young women imagine Sri Krishna as the Gopi and Gobbemma as the Goppika and all the goppikas make a round around the Gobbemma, holding their hands and singing songs. Some people make a bigger Gobbemma as the image of the Sri Krishna and around that

8 other gobbemas; imaging them as the 8 wives of Sri Krishna. Some others say that the big one as the Sun and the other 8 as the planets which are around the Sun; imaging the Gobbamma as the Goddess of Gowri and on the last day putting the similar Gobbamma the young women sing songs. By doing this they believe that they get married soon to the man of their choice. Having drawn the beautiful Rural Muggu (Rangholies) and decorating them with the colourful Gobbammas is like bringing down the sky to the Home and it is believed that these Gobbammas show many mysteries which are even beyond the Astronomical Mysteries.

Rangholies and Believes

Behind the drawing of the Rangholies there are a lot Social, Humanistic, Health and Spiritual aspects. There are lot of meaning in our cultures and traditions; therefore, let us see some of their meanings;

The Rangholy which is drawn as the image of stars keeps away the evil powers to enter into the homes

The Rangholy is understood as call from the Goddess; hence people do not trample over them.

There is a belief from the Bhagvat Gitta that is “if women draw a Rural Muggu (Rangholies) devoutly in front of a temple of the Lord Vishnu, she will not become a widow rather she remains wife for next 7 generations

Drawing Rural Muggu (Rangholies) every day in the front of the house, behind the house, near to the tulasi plant and in the place of worship is a symbol that this house will not be affected by the Evil powers nor Evil desires.



These are called Gobbemma

Evil persons too draw the Rural Muggu (Rangholies) but they draw them for the disasters/evil intentions. If they want to destroy a man, they make the man to sit in the middle of the Rural Muggu (Rangholies) and recite the prayer of the evil powers. Then it is believed that these people will obey the evil man and does whatever the man says. Even on the pumpkins, which are tied at the threshold, keep away the evil powers. Rural Muggu or Rangholies are drawn on the pumpkin and different colours are applied like yellow, red and white dots and drawing the images of Sun, Moon and small stars is the tradition. By doing so the household believe that they are protected from the natural forces like Tsunami, breeze, thunderstorm and fire.

Rangholies-the nature of the people

The way people draw the line of a Rural Muggu (Rangholies), reveals the character of the person. If the lines are drawn like a thin line, people are considered as the people who saves and give preference to the beauty; and if the thick lines are drawn, they are considered as people who have no guile. People who draw Poems and the images of the animals; they are considered as friendly and eco-friendly and jovial/cheerful people. If the images like Sun, Moon are drawn they are said as the lovers of the traditions and Astrology.

The Rangholy and Time to be drawn

If the newly married couple are eating together for the first time, the Rural Muggu (Rangholies) should include the images of flowers and the images of Gods/Goddess, Om and Sri are not to be drawn. But the images like Mangalaharathi and Pittalu can be drawn.

During the worship in the Temples like Shiva, in the premises of the temple there should a Rangholy called Astalinga. It is drawn using the colours like red and yellow. In the temples of the Goddess and Lord Vishnu, the Rural Muggu (Rangholies) like Astalinga and Sri Chakra are drawn.



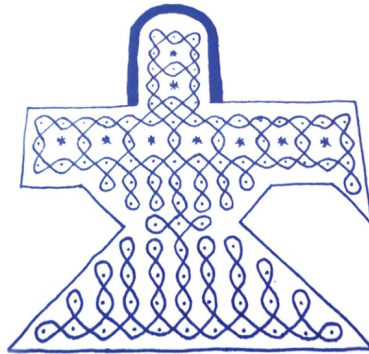
During the festivals like NagulaChavithi

During the festive season RadhamRangholy will be drawn. During the festivals like NagulaChavithi, Naga Panchami and Subbaraya Shashti, the images of Nagu (Snake) or twine serpents corresponding the festivals.

During the worship of Goddess, the images similar to Sri Chakra are drawn. During the special celebration, there should be a colourful Rural Muggu (Rangholies) in front of the houses, in ceremonies like entering into a new house, there should be a dots pertaining to the Astrology, images of star from the Astrology are drawn on the entrance of the houses. The Ancestors used to draw the Rural Muggu y on the ovens even before cooking and after everybody's eating, there used to be a Rangholy known as aliki Muggu, by doing so, it is believed that particular place is cleansed.

Sri Chakra is also a Rangholy

¹The image of Sri Chakra is considered as the similar image to the Sri Maha Lakshmi, as the holy image. The image of Sri Chakra looks exactly like the Rangholy. In the Sri Chakra there are about 72 triangles; intrinsically, there are numerous triangles. There is Science which says that when the triangles are intertwined, there comes a kind of force from them. The dot which is in the centre of the Rangholy is called as “Sahasra”, hence, this Rangholy is not drawn in the front of the house. Instead of this, they draw a Rural Muggu with the small triangles. Kommuravalli Mallanna Rangholy comes under the Sri Chakra rangholy. Therefore, people take an oath that they would draw the Rangholy in his temple. These Rangholies are known as Patna; since Mallanna is found of Patna, he is named as the Patnala Mallanna.



The traditional worships

Rangholy and the Men:¹ Normally Rural Muggu are drawn by women. Nonetheless, they are even drawn by the men. This is not done in the front of the house, but in the drawing and engineering books for the academic purpose. Yet the famous artist Leonard Deviancy used to draw Pictures/Rangholies publicly. He is not only a painter but also a costume designer. There used to be design of him of the clothes, which used to look very beautiful. Even the engineers are considered as the artists; because all of their drawing plans are considered as the Rural Muggu. Therefore, there is no gender differentiation in civil engineers and architects' in drawing the Rural (Muggu) Rangholies.

Reasons for Drawing Radham Rangholy during Sankranthi

The significance of Radham Rangholy is to add the happiness to the festivals which are celebrated for three days of Sankranthi. It is drawn as a symbol of harmony with everyone; to show this harmony at the end of the Radham Rangholy a long line is drawn reaching to the next Rangholy in the neighbours' house. On Makara Sankranthi, it is said that the heat from the Sun increases consequently vanishing the mist. This is a kind of invitation to the Sun, by the people who have been in the season of winter for so many days.

Significance of sankranthis: Sankranti (Sanskrit: संक्रान्ति saṁkrānti) means transmigration of the Sun from one Rāshi (constellation of the zodiac in Indian

astronomy) to the next.[1] Hence, there are 12 Sankranti in a year.[2] Makara Sankranti is a festival day in the Hindu calendar, devoted to the deity Surya. It is perceived each year in the lunar month of Magha which relates with the month of January as per the Gregorian calendar and is a day the people of India rejoice their harvest. Makara Sankranti is viewed as important for spiritual practices and thus, people take a holy dip in rivers, particularly in Ganga, Yamuna, Godavari, Krishna and Kaveri.

Every year Makar Sankranti is celebrated in the month of January to mark the winter solstice. It is also one of the largely celebrated Hindu festivals of India and Nepal which is **celebrated** differently in various cultures but the common practice on the day of Makar **Sankranti** is flying colourful kites.



The Radham Rangholy a long line

Festival of sankranti with devotees since morning as many people dressed in traditional attire performed special pujas. There was a buzz in the streets with women turning up for the Rangoli competitions organised by rural village welfare associations. On the whole, the city was bathed in the festive spirit of Sankranti as the skies slowly cleared and colourful kites started flying high up in the skies. Youth were seen flying kites till late in the evening accompanied by loud music on rooftops.

The History of the Rangholy

It was mandatory for our ancestors to draw a Rangholy during the traditional worships, religious activities and celebrations. This has been since 8th century. In the time of Harappa, Mohanjadaro, and Indus civilization, people used to collect colorful stones from the caves and make powder out of them like lime; this powder was used for making the tools, vessels and weapons. The powder which was balance used for drawing pictures on the walls of the house; specially the images of the animals. The colors like black, white, yellow and green were used; the main essence of these colors is called Muggu made from the soft lime stones.



The Tradition of Rangholy in the Central India

In states like Chhattisgarh which is in the central India, the Rangholy is called as the "Chovoka". Normally they use the powder made out of Rice or a white lime stone. This powder/chock is used for drawing the pictures. The home which is decorated with the Rangholies is believed to be the fortunate home and the people who have drawn these pictures believed to be lucky.

They are, however, generally thought to be 'auspicious'. As for the historic roots of the tradition, there have been some studies that trace the origins of threshold designs to early ~ara~an,' i.e., pre-Aryan cultures." This interpretation seems to have gained some currency, even if the evidence for this claim can be arped to be trlluous.' Rather than embarking on a project of excavating histories or mapping the diverse and hybrid fonnal characteristics of the designs encountered, however. This essay will focus on establishing how the rangoli tradition fibres in the complex contests of cultural practice in contemporary India. It arpes that any proposed origins will acquire meaning only in the context of the highly gendered discourse of Indian art and culture and will therefore primarily signify as a function of the latter.

Streets, women and designs The following account aims to introduce rangoli designs as encountered in the street and as conveyed to me by the women of Godavari districts, rural telugunetigens . It is purposely written in a lighter narrative style, in an attempt to reflect some of the inevitable tensions of the so-called 'fieldwork' situation, drawing attention to the multiple acts of translation that occur 'in the field'.

Tamilnadu :⁶ Threshold designs, called 'kolam' in the local vernacular, can be found in front of almost every conceivable building in Tamil Nadu. Walking down the local high street you will not only find the designs on the doorsteps of private houses along the road, but also marking the grocer's store, the tailor, the school, the post office, etc. Against prevailing perceptions of its rural character, the drawing of threshold designs also figures in the urban environments of Madras, where the designs are seen less often, but nevertheless make a frequent appearance.

Kolams come in a variety of shapes, but the so-called continuous loop designs, characterized by one or more continuous loops winding around a structure of dots, are considered to be most traditionally Tamil. Shows a woman drawing such a traditional design, using the dots she has first placed on the ground as guidance for the circling lines. She is typically holding a small bowl full of white powder in her left hand, which she trickles through the thumb, index and middle finger of her right hand in swift and measured movements, skilfully maintaining an even flow of the powder. Traditionally, rice flour² would be used for the creation of these designs, but nowadays, especially for everyday use, the cheaper white chalk powder is generally employed, with the addition of coloured chalk powders for designs on festive occasions.

Cultural representations Having sketched some of the parameters of the design practice in question, let me now widen the focus and move on to the subject of cultural representations. where we are faced with a curious situation. E\en though, as has been seen, the practice of drawing threshold designs is very distinctive and highly visible on the streetr and paths of T and Nadu

Ralph Steinmann, published in 1989, where he discusses the practice in the context of folk art.¹⁴ Yet certainly in the parts of Tamil Nadu I visited, almost every



household engaged in the practice of kolan~ drawing on a daily basis." In terms of the sheer numbers of practitioners and households actively engaged in the practice, it could therefore be said to be one of the most popular forms of visual practice in contemporary Tand Nadu.

Rstpalli is, however, exceptional in presenting a textual element that ranges from one to three pages. Except for the first edition of the magazine," these editorials are written in English. The accompanying texts are all by the editor A. P. Bayiri, and present information ranging from various etymological references and explanations of motifs, to the tracing of possible historical roots of the practice and some mythological and symbolical references.

Overall, a cross-regional approach is adopted. Designs from various regions are presented, commenting on regional names and differences²" and therefore claiming the tradition not in terms of local" but of national Indian culture. In his prefaces, the editor maintains throughout that the practice forms a valuable part of Indian heritage, which, in the wake of the colonial encounter and the impact of modernity, is perceived to be under threat of extinction. The stated objective of the publication IS to keep the tradition alive.

Maharashtra

In state of Maharashtra people not only draw Rangholies in the front of the house but even on the doors of the house pictures are drawn. They usually sprinkle the water in front of the house mixed cow dung. By doing so they believed that no evil spirits enter the home.

Kerala

During the celebration of the Onam, there people will compulsorily put the Rangholies for about 10 days. They paint their ends beautifully with decorations, whose ends however are geometric. Rice and chalk are used to make Rangholies at home. At the end we see that it has a conical shape and a wheel shape.

Astronomy in the Rangholies: Astronomy is the family of the Sun. astronomy means infinite universe. There are evidences that Aryabhata studied astronomy as early as 5th century and painted them on the ground in the form of Rangholies. Ptolemy and Damascus, who came after him also kept astrological secrets in the palms. Since then, it has been said that dots symbolize astronomical mysteries and combine them into different shape. We know that since there are only 27 stars, it has become the norm to end up in the palm of the hand in whatever shape the 27 stars are.

Madhubani Rangholies

²These Rangholies are used to cover the walls of the house with red clay and fine flower and vines on it. These types of Rangholies are landmarks of the rural culture and are most common during the Sankranti season in shilparam, Hyderabad. In some wild tribes, they are surrounded by a variety of boulders and dried leaves. Doing so is believed to prevent toxins, snakes and scorpions from entering the house.



Sankranti season Muggu Designs

There are also proverbs about the Rangholies like to nod, to nod. Stumbling; means trying to get one out of one's way or trying to manipulate one. The head turned gray; that means one has become empiricists. It is time to stop talking about the Science of Rangholies and let us put dots to make beautiful Sankranti Rangholies

Conclusion

Returning to our investigation of rangoli designs, the vicissitude and ambition of female associations in the cultural realm have now become more legible as symptomatic of the particular constructions of Indian cultural heritage.

In consequence, while women, on the one hand, were given the task of keeping the metaphorical spiritual festivals Sankranti, Diwali, Atlataddi, Nagula Chavithi, Vinayaka chaturdi home observing religious rituals as an act of service to the cultural art forms.

Each Sankranti is marked as the beginning of a month in the sidereal solar calendars followed in Andhra Pradesh, Telangana, Karnataka, Maharashtra, Kerala, Odisha, Punjab, Gujarat & Nepal. On the other hand, in the sidereal solar Bengali calendar and Assamese calendar, a Sankranti is marked as the end of each month and the day following as the beginning of a new month.

These religious acts were at the same time worship considered to be part of the culture rural Women, home and popular religion, all three of which can be linked to the drawing of inspiration of Rangoli culture Even when the worships are conducted to goddess, religious ceremonies and good deeds are done, there should be always Rangholies; even the Ranghly will suffice.

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A STUDY ON TRAINING EFFECTIVENESS WITH REFERENCE TO VIZAG STEEL PLANT

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Abstract

An organisation cannot build a good team of working professionals without human resources. HRM and its training is key function to achieve better results. Training can be conducted by someone within or outside the company and should have serve as a platform to ensure employees compatibility with the process of the company and address skill gaps. The present study “Training Effectiveness” has been initiated to know its phenomenon in steel industry with reference to VSP and to study the Effectiveness of the comprehensive Managerial course training program in VSP pertaining to employees belong to Instrumentation and Central Maintenance Mechanical Departments, so as to understand real time satisfactory deriving scenario of the employees on the job. The paper has been covered with objectives, methodology, training aspects, its adaptation, and perception of employees on the same.

Keywords: Adaptation, Compatibility, Comprehensive, Professionals, Training.

Introduction

HRM is a function in organizations designed to maximize employee performance in service of an employer’s strategic objectives. The most important objective of HRM is to facilitate employees in achieving the collective goals of the organization. Achieving goals by the employees depend largely on their competencies, while competencies of different employees can be ensured by the organization through the process of training and development. Every organization needs to have well-trained and experienced people to perform the activities to achieve better results. It is necessary to raise the skill levels and increase the versatility and adaptability of employees. It improves effectiveness, development of self-confidence and assists everyone in self-management and in achieving organizational goals perfectly. The present study is about comprehensive management course training, followed in Vizag Steel Plant (VSP) covering Instrumentation Department and Central Maintenance Mechanical Department.

Visakhapatnam Steel Plant

VSP is one of the top 10 steel companies in India with its headquarters at Visakhapatnam. This best steel brand in India was founded in 1982 and is one of the top 100 steel companies in India. Vizag Steel is one of the top steel manufacturers in India and has an annual turnover of around \$2 billion. It was founded by the Government’s Steel Authority of India Limited (SAIL). It is ranked as one of the most profitable ventures of the Indian government and is one of the most highly rated steel suppliers in India today. In annual production capacity at present is 7.3 MTPA. The man power in



VSP is around 17634 employees, VSP was developed on 28000 acres of land, out of which 8000 acres were exclusively earmarked for the plant and its operations.

Objectives of the Study

The present study has been undertaken with following objectives.

1. To study about Vishakhapatnam steel plant's macro aspects.
2. To study about general HRM pertaining to comprehensive managerial course training practices and perceptions of employees in VSP.
3. To collect, consolidate, analyze, interpret and draw inferences from the data obtained and to present results and discussions.

Methodology

The study has been initiated through empirical approach on effectiveness of Comprehensive Managerial Course (CMC) training in VSP. The questionnaire consists of different types of questions, related to the training effectiveness and perception of employees about CMC training program in VSP, have been selected and designed. The study dealt with selected employees of VSP out of the total 17634 employees spread across various departments. The focus of present study has been confined to Instrumentation Department and Central Maintenance Mechanical Department comprised with the strength of 547 (262+285) employees. Out of the selected department's strength (547) 1/10 coming around 55 has been fixed as sample size based on stratified random sampling technique. Percentage format has been representing for total 55 samples everywhere in the study. Accordingly, questionnaire has been designed covering demographic elements like age, gender, qualification, experience etc, and core areas viz., selection criteria for training, training efficiency, quality of induction and foundation training, support material, effectiveness of methodologies, duration of program, overall satisfaction about foundation training and induction.

Training Activity in VSP

The novel feature of VSP is that almost 90% of the work force in the works division has been recruited through training in various schemes like Management Trainees, Senior Trainee, Junior Trainees. There is a wing called Training & Administration, which helps in taking care of the administration aspects in smooth functioning of the training programmes. Various trainings in VSP includes on the job training i.e., demonstration, stimulation, apprenticeship training and also vocational training, industrial training etc. Among various Training Programmes, CMC (comprehensive managerial course training) is one mandatory programme meant for all incumbents both technical & non-technical in VSP.

Comprehensive Managerial Course Training

In VSP comprehensive managerial course (CMC) is a training program conducted to the employees who are promoted as junior officers. CMC is conducted in 3phases viz., Phase-1 Induction course, Phase-2 Foundation course, Phase-3 Specialization course. Phase -1 is conducted during the daytime i.e., general shift hours



on various functional areas and managerial topics for technical stream, junior officers (JOs) besides this all the production topics are covered for non-technical stream JOs. The program duration is 6 days for technical stream and 9 days for non-technical stream. Phase -2 is conducted during out of duty hours i.e., from evening 6 to 8 pm every day. Duration is weekly 5 days on alternative weekly repeat basis. This phase is common for both technical stream and non-technical system. The subjects that are covered under this program are: Principles of management, Organizational behavior, Personnel management, Financial management and accounting principles, Materials management and marketing. A total of 41 topics are covered out of these five papers. The present study has been taken up to understand the perception of trainee employees in which way they were benefitted through Phase 1 & 2 of VSP's Comprehensive Managerial Course Training.

Analysis of Demographics

Age of the respondents is the important demographic factor in perception. Study shows, 71 percent of the respondents are in the age group of between 31-35, while 16 percent of the respondents are in the age group of between 36-40. 13 percent of the respondents are 25-30 age group.

Gender is also an important parameter for the study. Study shows, that 87 percent of the samples have been distributed to male employees, remaining 13 percent of the samples have been distributed to female employees.

Qualification always carry a good bearing upon the quality of response they give. Study shows, 49 percent of the respondents are representing from UG/ Diploma, while 31 percent respondents are taken from below UG/ Diploma. Remaining 20 percent respondents are from above UG/ Diploma.

Perception will never be homogeneous and will be differed in all elements to ensure more applicability in generalising the study related matters two different departments have been selected. Study shows, 47 percent of the respondents belongs to instrumentation department. Remaining 53 percent of the respondents belong to CMM department.

Experience of employees will show its impact on the perception. Study shows, 71 percent of the samples have been distributed to the employees having above 5 years experience, while other 29 percent of the employees belong below 5 years category.

Perception will be differed by virtue of nature of responsibilities the individuals carry. Samples have been distributed to both technical and non-technical stream. Study shows 75 percent of the samples have been distributed to technical stream, remaining 25 percent of the samples have been distributed to non-technical stream.



Study Analysis

Infrastructure & environment is an important component in learning because it support and promote learning effectively. Study shows 93 percent of respondents have strongly agreed with training infrastructure & environment, congenial for learning and improvements, while 7 percent respondents have just agreed.

Trainers competency play a crucial role in orienting and imparting knowledge. Study shows, 71 percent of the respondents felt excellent about trainers competency while 16 percent respondents felt good and remaining 13 percent of the respondents felt it as average.

Learning depends on the ability of learners. Learning ability must be ensured by the training efficiency. Study shows 53 percent of the respondents have strongly agreed that training efficiency is in commensurate with their learning ability, while 25 percent of the respondents have just agreed with the statement. 18 percent of the respondents rated it as neutral, remaining 4 percent respondents have disagreed.

Better training leads to better process and productive outcome. Induction training is a systematic training provided to the new employees. Study shows 94 percent of the respondents have felt quality of induction training was excellent. 4 percent respondents opined good, remaining 2 percent respondents opined it as average.

Foundation training inculcate an impressive insight over the responsibilities of an individual in the organisation. Study shows, 90 percent of the respondents felt excellent about quality of foundation training, remaining 5 percent opined good, while equal number of respondents have felt it as average.

During the process of training, material intended to adapt is very useful in conveying information to employees and to have better understanding in improving their abilities. Study shows, 97 percent respondents have opined material supplied during training was highly relevant, remaining 7 percent felt just relevant.

In training, duration is also an important aspect. The duration must ensure that the learners' enthusiasm shall not be decreased. Study shows, 95 percent of the respondents are comfortable with duration of training. Remaining 5 percent of the respondents are not comfortable. No one rated it as neutral with the duration of training.

In any training programme the methodology we adopt and implemented will contribute a large in its success. Study shows, 80 percent of the respondents have felt excellent about methodologies adopted during training, while 13 percent have opined good and remaining 7 percent have felt it as average.

Employee satisfaction in an organisation is a key aspect. Satisfaction with the induction & foundation training activities contribute to form a good mind-set. Study shows 83 percent of the respondents have highly satisfied with the induction &



foundation training, while 13 percent have moderately satisfied. 2 percent are just satisfied while remaining 4 percent have not satisfied.

Results and discussions

The majority of study respondents belong to the age group of 31-35 years of age. Study related perceptions have been obtained from both genders. Majority of the respondents are hailing from UG/Diploma. In this study two different departments have been selected. Majority of the respondents are representing from CMM department. More than half of the respondents have good experience.

All the respondents are positive that training infrastructure & environment are congenial for learning. Majority of the respondents have felt their trainers' competency was excellent in VSP with respect to Induction & foundation training. More than half of the respondents agree that training efficiency is in commemoration with learning ability of employees in VSP. Except a few all the respondents have rated quality of induction training was excellent in VSP.

Except a few, all the respondents have opined as excellent about foundation training. Almost all the respondents are satisfied with material supplied during the training program in VSP. Except a few all are comfortable with the duration of training program. More than half of the respondents have felt methodologies adopted during training are excellent. Maximum number of respondents are happy with Induction & Foundation training in VSP.

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A STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAM ON GLASGOW COMA SCALE AMONG STAFF NURSES WORKING IN INTENSIVE CARE UNITS & EMERGENCY DEPARTMENTS AT SELECTED HOSPITALS OF GREATER NOIDA, U.P.

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Abstract

Consciousness is a term that refers to the relationship between the mind and the world with which it interacts. It has been defined as: subjectivity, awareness, the ability to experience or to feel, wakefulness, having a sense of selfhood, and the executive control system of the mind. **Aims:** The aim of this study was to evaluate impact of an planned teaching program for nurses' knowledge and practice about Glasgow coma scale (GCS). **Material & Methods:** A quantitative research approach was used and the research design adopted for the present study was Quasi experimental design, one group pre and post-test. **Sample Size:** The study was carried out on 60 nurses working in an intensive care (ICU), an emergency departments of Sharda hospital. **Result:** The data was collected using two tools; "Structured questionnaire sheet" which is consisted of 24 questions related to socio-demographic characteristics, and knowledge about GCS , the post-test knowledge scores showed a significant difference majority of them 66.7 percent (40) gained good knowledge and 33.3 percent (20) gained average knowledge, which showed that planned teaching programme on Glasgow coma scale among staff nurses working in critical care units and emergency departments was effective. **Conclusion:** Statistically significant improvements of nurses' knowledge and practice about GCS. Therefore, it can be concluded from the results of the present study that this planned teaching program for nurses had a positive impact on their knowledge and practice.

Keywords: Glasgow Coma Scale, Staff Nurse

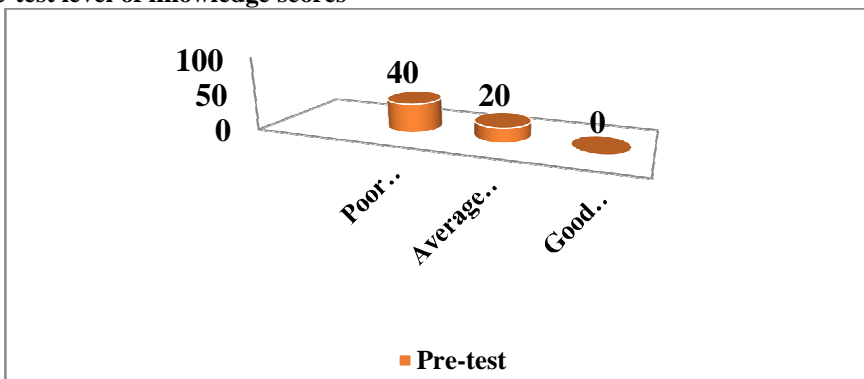
Introduction

In medicine, consciousness is examined using a set of procedures known as neuropsychological assessment. There are two commonly used methods for assessing the level of consciousness of a patient: a simple procedure that requires minimal training, and a more complex procedure that requires substantial expertise that is using Glasgow coma scale and other one is neurological examination. Glasgow coma scale begins by asking whether the patient is able to move and react to physical stimuli. If so, the next question is whether the patient can respond in a meaningful way to question and commands. If so, the patient is asked for name, current location, and current day and

time. A patient who can answer all of these Question is said to be fully conscious. The Glasgow Coma Scale evaluates visual, motors, and verbal responses to stimuli from three categories. Each response- or lack thereof – by the patient is scored. The score from each category is added and assessed a patient score. The score 3 indicating deep unconsciousness, score 7 indicates coma and either 14 or 15 indicating fully awareness. The score can be assessed by Best Eye Response (4) No eye opening (1) Eye opening to pain (2) Eye opening to verbal command (3) Eyes open spontaneously (4) Best verbal response (5) No verbal response (1) Incomprehensible sounds (2) Inappropriate words (3) Confused (4) Oriented (5) Best motor response (6) No motor response (1) Extension to pain (2) Flexion to pain (3) Withdrawal from pain (4) Localizing pain (5) Obeys commands (6).

Result

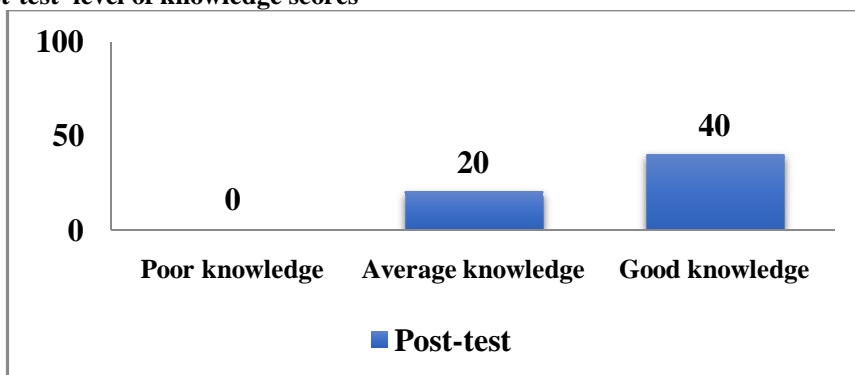
Pre-test level of knowledge scores



A bar diagram showing the frequency distribution between pre-test scores.

The data obtained in figure revealed that the majority 40(66.6%) had poor knowledge, 20(33.3%) had average knowledge and 0(0.0%) had good knowledge.

Post-test level of knowledge scores





A bar diagram showing the frequency distribution between post- Post-test level of knowledge scores

The data obtained in figure revealed that the majority 40(66.6%) had good knowledge, 20(33.3%) had average knowledge and 0(0.0%) had poor knowledge.

Discussion

Pre-test level of knowledge scores

The data obtained revealed that the majority 40(66.6%) had poor knowledge, 20(33.3%) had average knowledge and 0(0.0%) had good knowledge.

Post-test level of knowledge scores

The data obtained revealed that the majority 40(66.6%) had good knowledge, 20(33.3%) had average knowledge and 0(0.0%) had poor knowledge.

Conclusion

There is no statistically significant association found between pre-test level of knowledge regarding Glasgow coma scale of staff nurses working in critical care units and emergency departments and selected demographic variables such as age, gender, marital status, residence, education, work experience. Hence the null hypothesis is accepted and research hypothesis is rejected.

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AN OPTIMIZED APPROACH TO FORECASTING FINANCIAL TIME SERIES

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Abstract

Time series prediction may be one of the foremost tasks in many areas of research including business and engineering. The key to the forecasting capacity whereby the behavior a system can be predicted lies in the key knowledge that underlies a given phenomenon. Further, when the knowledge can be transformed to solvable equation, given prior assumptions, it would be possible to forecast the long-term behavior. One-step prediction techniques have long been used to forecast future samples with the availability of historical data. However, in situations where a broader perspective of the statistical behavior is expected, one-step prediction schemes may be insufficient to meet the expectations. Within the context of time series applications, the long-term or multi-step prediction problem is additionally a motivating problem. The method achieves predictions numerous steps ahead into the future favoring predictions for long term. In this paper, a technique favoring multi-step prediction employing lazy learner technique with application to financial time series has been discussed.

Keywords: Forecasting, Time Series, Instance Based, Prediction, MAPE, NMSE

Introduction

A dataset characterized as time series data, as visualized in most statistical applications could be regarded as an arrangement of data points, measured at successive periodic intervals, that are often even. Adding to this, harnessing the one-way natural ordering of time, the data can be expressed as values derived from past values, rather than future values. Forecasting could be a central component to many applications [1,2,5]. As an example, one among the foremost critical aspects of inventory and provide chain management is that the ability to accurately predict demand. Probability of stock outs, Inventory levels and production levels are all supported forecasted demand [6]. Forecasting is so important that companies in virtually every industry are deploying data warehouses to gather and retain data over time in order that decision support systems may identify and predict changes and trends to enhance business operations [7]. Forecasting involving healthcare data helps prediction of future events that not only helps the hospital with demand estimation for a particular clinical service but also eases operations and marketing strategy [3]. Hybrid forecasting systems have recently gained a lot of importance in several applications including autonomous computing [6,8,9].



Approaches to forecasting

Approach	Features
<ul style="list-style-type: none">Forecast of series with no trendForecast of series with trendForecast using regression Methodology applied to time series forecasting	Time series remain constant over time Time series have long term patterns Regression following statistical
<ul style="list-style-type: none">Forecast of seasonal series levels of time series	Seasonal variations influence average
<ul style="list-style-type: none">Forecast of cyclical series causes oscillations around the trend	Factors other than seasonal variations

Methodology

With the availability of a dataset such as the time series, the instance based approach to learning is based on identifying a set of data that are most similar to the last information available before the data that is to be predicted or forecasted [10,12]. The main assumption in the time series data is that the series copies its own behavior and previous pieces of information on the series have symmetry with the last information available. The classification technique targets at discovering similar pieces of information free of their position in time [4]. While discovering the most comparable neighbors the method tries to exclude outliers existing in the data using correlation [11].

As a first step the method organizes the input data set into a training set and test set. The training set is then divided into 'N' instances each of a specific size, say 'L'. 'N' would therefore be given by (size/'L') where 'size' is the number of observation constitute the training period. 'H' is the number of nearest neighbors that will be chosen as the best instances out of 'N' instances for the procedure of forecasting. The 'H' and 'L' values are decided on an experimental basis so as to yield improved results in terms of NMSE (Normalized Mean Squared Error) and MAPE (Mean Absolute Percentage Error). 'H' thus indicates the size of the nearest neighborhood and 'L'.

Methods

Following modules are implemented in the project:

1. Control module
2. Vector generation module
3. Single step generation module
4. Euclidean Correlation module

Control module

- Initialization of parameters indicating window size and number of windows which are essential to perform Instance based learning technique.
- Preprocessing the original time series data



- Computing Forecast vector, a vector containing forecasted values and the error vector containing the prediction errors
- Performance evaluation of the developed model using performance measures such as NMSE,MAPE

Vector generation module

- Iterative computation of the forecast windows for the test data set
- Revising the train data set to include the new forecast vector generated every time
- Checking if the required number of forecast values are generated covering the test period.
- Single step generation module

The Single step generation module is intended at achieving the following tasks:

- Dividing the denoised training set into 'n' windows where 'n' is 'size/L'
- Identifying the reference pattern and candidate patterns
- Choosing nearest neighborhood for the reference pattern
- Combining the best instances (nearest neighbors) using regression to forecast the next window (window that lies next to the current or last window)

Euclidean Correlation module

- Computing correlation indices between reference pattern and candidate patterns
- Choosing positive correlation indices to shortlist the patterns that have a high correlation with the reference pattern
- Computing the Euclidean distance between shortlisted patterns and the reference pattern
- Choosing "H" patterns(windows) having lowest Euclidean distances

Results and discussion

The following two financial datasets were used to validate the proposed system:

Dataset1

Ftse100: FTSE (Financial Times Stock Exchange) 100 Index, Weekly, 1984 To 1993 (521 Observations)

Number of Forecasted Values Is 260

Normalized Mean Square Error (NMSE) For the Chosen Time Series is 0.0281

Mean Absolute Percentage Error (MAPE) For the Chosen Time Series is 0.0236

Dataset 2:

Prudential Share Price, Weekly, 1984 To 1993 (521 Observations)

Size of The Chosen Data Set Is 521

Number of Forecasted Values Is 260

Normalized Mean Square Error (NMSE) For the Chosen Time Series is 0.0679

Mean Absolute Percentage Error (MAPE) For the Chosen Time Series is 0.0413



The NMSE and MAPE values obtained with both the datasets indicate lower error percentage associated with the prediction and hence suggest good degree of reliance on the proposed system for financial prediction.

Conclusion

The technique proposed was seen to demonstrate fairly good results as estimated using performance metrics such as NMSE and MAPE. The optimized approach towards the adoption of lazy learner methods involving instance based learners for the task of forecasting, yielded better results as assessed by its generalization capability. The method, with further optimizations can yield better results when adopted for the prediction process in various applications. The hyper parameters including, training data size and choice of parameters such as sliding window are the major choices, playing a vital role in the forecasting process for the developed model. In conclusion, the recommended system can be used as an effective tool for prediction, by adopting suitable optimizations in the algorithm.

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CLASSROOM MANAGEMENT STRATEGIES TO DEVELOP HIGH SCHOOL STUDENTS

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Abstract

For effective classroom learning teacher's role is most important in a high school. It is the teacher's responsibility to make her/his class interesting so that students are keen to attend and actively participate in the classroom. Some teachers are keeping complaining about the class which they teach. The problem is normally related to student's behaviour and discipline in the high school. Some students are missed out on teaching-learning process. They are irregular in school. Today's many high school students do not know the value of education. As children centric education in high school, the teachers are confused for that student. If they are sitting at home doesn't change their attitude and behaviour. For this reason, it may be a fresh look at the approach to Classroom management is required. But why we as the high school teachers are losing our grip with the classes? This paper focuses on the reasons, problems, and suggestions for effective classroom management in the high school level education system in India.

Keywords: Effective Classroom Learning, Student's Behaviour, High School, India

Introduction

High school education is children centric and rather working with the students to grow learn and succeed together. By having strong student-teacher relationships in high school, the classroom will be a place for each student to express their feelings as well as work together. Teaching -learning process is succeeded on these close relationships, supervision, counselling and guidance that teachers and students have with one another.

The main aim of Classroom management to establish student self control through a process of promoting positive student achievement, thinking and behaviour. In children centric education in the high school, teachers efficacy, and teachers and students behaviour are directly linked with the concept of classroom management. The teachers are always rated discipline as one of the most serious obstacles to promote effective teaching. Proper Classroom management leads to class control as well as conducive excellence teaching learning environment. In a creative research of C.M. Evertson & C.S. Weinstein (2006), Classroom management has two distinct purposes: It not only seeks to establish and sustain an orderly environment so students can engage in meaningful academic learning, it also aims to enhance student social as well as moral growth (p- 4). High school Classroom management is a multi-faceted activity as well as extends beyond the traditional behaviour management techniques recommended to deal with students with disruptive thinking and behaviour. Teachers should be



developed caring, supportive relationships with and among high school students; organize as well as implement instruction in the ways that optimize students' access of learning; they may be used group management methods that encourage student engagement with homework, project work or assignment; promote the development of high school student social skills and self-regulation as well as used appropriate interventions to assist students who have behaviour problems. Kounin, J.S (1970) believed that if high school students were engaged in their lessons, tasks or project work, they would less likely to misbehave. In a creative research by Sarkar, P.K. (2020) to modify of student's behaviour that the high school students are career centric and ultimate aims of education is job satisfaction (p-416). So, suitable motivation is essential to conduct excellent classroom management in high school. When high school students are engaged, they are concentrating on the lesson as well as focus on learning and it prevents the problems. It is important for all the students in high school level to be part of the decision-making processes. If students are having fun, they will engage. When they are engage in a lesson or study, they will not think about misbehaving as well as will be focused on the task. According to Freiberg, H. J., Stein, T., & Huang, S. (1995), students should be played an active role in setting classroom rules. By allowing the students to help create the rules, the students are participating in classroom community building joyfully.

The high school students are working together and are able to clearly understand the rules. Rose, L. C., & Gallup, A. M. (2006) believed that parents need to inform from day one about behaviour and both positive and negative consequences should share with parents and guardians. Parents should be known how their children are behaved in classroom, whether it is good or not. By keeping in touch with letters and notes, emails, Mobile or phone calls, parents will be felled as if they are important to their children's success in the classroom. If parents do not feel important to their child's education, or welcome in the classroom, the students will suffer Lifetime. There must be needed a good teacher-parent relationship so that everyone is on the same page to support the student's needs. If there is no support at home, the high school students are struggled in the classroom.

Problems of High School Classroom

Indiscipline is a problem normally faced by high school teachers which creates a hindrance in teaching-learning process in children centric education. Due to indiscipline situation students are arrived late for class, are not punctual for the classroom learning or simply bunk classes as the class is not very interesting or rather as a high school teachers, we are unable to create interest in the classroom activists. This may be a result of lack of lesson planning as well as teachers' activists. At the times effective management of time is overlooked. Nonverbal cues like body language as well as communication skills play a major role in making the classroom effective. As a high school teacher, we can overcome the problems by preparing for class, providing excellent learning environment, motivating the students, building students' self esteem, being creative and imaginative in daily lessons. Teachers should not be carried personal problems to the class by being impulsive. There must be willingness of the high



schoolteachers to accept responsibility for classroom control and Long-term, solution-oriented approaches to problems in children centric teaching -learning environment.

Techniques to excellent classroom control in high schools

In children centric teaching-learning process, teachers need to Focus attention on entire class and must not talk over student chatter. At the starting point of the class silence can be effective. Sarkar, P.K. (2020) state that the high school students with insufficient knowledge can progress smoothly without unpleasant feeling of their ignorance, humiliation and no frustration while for the most advanced students teaching will be boring. Students should be known what is going to happen in the classroom learning as well as monitored to check up the progress. Teacher should be moved around the classroom so students have to pay attention more readily and give students academic non-verbal cues. Lessons should be planned to ensure that the period is filled with teaching-learning activities.

Teacher must have a knack to memorize students name as quickly as possible. It enhances class control as well as confidence of the teacher. Few techniques are given below;

With-it-ness in high schools

In children centric teaching-learning process, with-it-ness refers to a teacher's awareness of what is going on in the classroom behaviours before they get out of line, keeping students on tasks or learning activists. Many problems occur during transitions in high school classroom. Theorist Kounin, J.S. (1970) stated that the importance of "with-it-ness," which is the idea that the high school teacher knows what is going on in their classroom at all times. The teachers can understand the importance of having a close eye on the students. Teachers who have "with-it-ness" are able to spot areas where misbehaviour are arise, when students are upset and are able to correct problem of behaviours before they cause major distress in the classroom. These experienced teachers are able to manage their classrooms at all times as well as prevent problems from expanding or occurring. In a community of high school learners, it is the duty of the teacher to make sure everything runs smoothly for students by being able to spot problems in children centric education.

Ripple effect in high schools

Kounin, J.S. (1970), created an idea of the "ripple effect." The idea is that if one student sustains positive or negative consequences, the rest of the class will be seen what is taking place as well as a ripple effect will be occurred. In my experience from the high school classroom, when one student misbehaves others will be joined in as well. But on the other hand, a student are receiving a reward will motivate all class. If we manage students' behaviour in positive ways, it is the key of success. Students in the classroom learn from class friends and by believing in the ripple effect, we will be able to manage Student's behaviours.



Creating a model classroom in high school

C.M. Evertson & C.S. Weinstein (2006) believed that teachers should teach and reflect it as model classroom behaviours. Students are able to see virtually what is expected as well as what is not allowed in the classroom. This is most important so that students can understand what it looks like to participate in positive behaviour in classroom management. Students will be learning to responsible managers of their behaviour by seeing class friends do what is expected.

When students are misbehaving, it is important to sit down with the Student to make counsel situation in the classroom. By having sweet relationships with students-teachers, we will able to get the cause of the behaviour as well as help the students come up with alternatives to prevent the unwanted behaviour from occurring in the future. B.F. Skinner(1904-1990) gave behaviour modification theory and believed that behaviour is shaped through systematic reinforcement and punishment has limited effects. But in the children centric classroom punishment is extremely prohibited. In a research, Sarkar P.K.(2020) find that Intrinsic Motivation can be increased by enhancing: a) Value, b) perceived competence, c) interest and d) relatedness to the high school teachers and students (p-2614).Likewise

William Glasser(1925-2013) contributed Choice Theory which emphasizes human behaviour is purposeful also applicable to high school. Students are responsible for their behaviours. The basic needs of the high school students must be met. Kounin, J.S. (1970) emphasised on Lesson Management to prevent misbehaviour for high school students. Pianta, R.C. (2006) proclaimed Student's needs and democratic high school classrooms. He believed that students have a need for belongingness and misbehaviour occurs when needs are not methane moreover democratic classrooms supported effective teaching-learning activists. Soodak, L. C, & McCarthy, M. R. (2006) focused on assertive discipline in high school level, students have right to learn in a calm, organized classroom and teachers have the right to teach in a classroom free of interruption as well as misbehaviour. Assertive teachers model classroom expectations confidently, clearly and consistently. Crone, D. H., Horner, R. H., & Hawken, L. S. (2004) believes that traditional instruction is not effective and meaningful learning takes place when students have choices, feel respects, feel like a part of something as well as can construct their own learning as the application of children centric education in high school level.

Conclusion

In children centric teaching learning environment in high school the role of teachers are not to grade students but the main role of the teachers are being help each student to reach the highest possible level of achievement as well as learning goal. The long-term goal of high school classroom management program is self-management which means both students & teachers attitudes and activists management. The procedures may be involved to use positive reinforcement, negative reinforcement as well as time to time interventions. Effective classroom management in high school level must be aligned with school's goals and activities which means Headmistress/Headmaster's creativity. Brophy, J.(2006) stated that when teachers are identified that good student behaviour looks like; the high school teachers work backwards from



desired outcomes to determine which management systems will be most effective for that students.

The teacher would be arrived in class and being in one's seat on time, paying attention, being prepared for a lesson, volunteering information and responding to questions lead to effective classroom control. Accepted good behaviours may vary for classroom to classroom and unique strategies may adopt for different contexts and environments that emerge in the high school classrooms.

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A STUDY ON HRD WITH REFERENCE TO VIZAG STEEL PLANT

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Abstract

HRD is considered to be one of the important aspects of organisational development as it helps in making people aware of the skills required for job performance. HRD encourages communication between work teams, organisations has an underlying belief in the employees potential for growth and provides adequate opportunities to utilize the services of the employees for the success and growth of the organization, for this purpose various HRD programmes are to be taken up by the organization to achieve desired results in a smooth way. The present study has been initiated to know about the HRD initiatives and their practical impact in implementation in VSP and to understand the real time scenario of the employee satisfaction upon the same. Study covers HRD introduction, company profile, objectives, methodology, analysis and results discussion.

Keywords: Skills, Potential, Utilize, Initiatives, Scenario.

Introduction

Human Resource Development

HRM is the process of recruiting, training, compensating, ensuring relations and welfare. In addition, it deals with issues related to performance management, safety, benefits, employee motivation, etc. The very achievement of these objectives largely depends on improving the overall performance-efficiency of the employees which can be had through HRD activity. It especially focuses on training and development of the employees in the organization. The main objective of HRD is to bring about all round development of people' performance efficiency in the organization. By that they can contribute their best to the organization, society and nation. The present study has been taken up to understand the HRD activity in Vizag Steel Plant (VSP).

Study company profile

Visakhapatnam steel plant, which was commissioned in 1992 with a capacity of 3 m.t.p.a liquid steel, is now in the midst of commissioning and stabilizing its 7.3 m.t.p.a facilities, thus realizing its first phase of growth in line with its vision and mission. Main steel products of VSP are angles, billets, beams, channels, flats, rounds, re-bars, squares, wire rods. It was established in 28000 acres that includes plant, housing, green belt etc. Out of total 83 departments, Major departments in VSP are production department, personnel department, marketing department, finance and accounts department, Projects Division, vigilance department, research and development. The government of India dedicated the integrated Visakhapatnam Steel Plant on 1st august 1992 by the then Prime Minister, Sri. P.V.Narasimharao.



Human Resource Development in VSP

HR strategies and HR functions take its root from vision, mission & objectives of VSP. HRD facilitates the VSP employees to cope-up with the role requirements, standardize them with strong knowledge and information base to enable them create effective teams and also overhaul systems & structures in HR area corresponding with the organizational vision, mission and objectives. HRD handled in VSP mainly include In-house management development programmes, External programme nominations, Organizational studies, Membership with professional bodies, industry-academy interaction, guest lectures by eminent personalities.

Objectives of the Study

The under mentioned objectives have been fixed for the study.

1. To understand about macro scenario of VSP.
2. To study and understand about HRD in VSP.
3. To collect, analyse, interpret and to draw inferences connected to HRD aspects.
4. To present results and discussion.

Methodology of the study

The study is empirical one, titled as HRD in VSP. Primary data collected through questionnaire consists of different types of questions, related to measure the perception of executives about HRD pertaining to performance appraisal practices, training programs, career planning aspirations, career development etc, in VSP. The overall manpower strength of VSP is 17634 and there are around 83 departments, out of the total strength the strength of executives in 'Quality Assurance and Technology Development Department' is 182. The stratified random sampling technique has been applied and 1/3rd of the strength that came around 61 out of total executives of the selected department have been selected for the study. The questionnaire is distributed to them and their responses have been elicited, analysed and interpreted by using simple percentile calculations, and drawn inferences. All the analysis pertaining to the 61 selected sample respondents have been shown in percentages form. The study contains brief introduction about HRD, Visakhapatnam Steel Plant, Objectives, Methodology, Analysis and Result Discussions.

Data Analysis

Age is an important factor in the process of perception, it has been considered as one of the parameters for the study. Study shows that 67 percent of the respondents have been selected from above 26-below 35 age group, 21 percent of the respondents have been selected from above 36 - below 45 age group, while 12 percent of the respondents have been selected from above 46-below 55 age group.

Qualification always carries a good bearing upon the quality of response they give. Study reveal 80 percent of the respondents are representing from below UG/DIP category. While 20 percent of the respondents are representing from UG/DIP and above. Experience of the workers working in the organization will shows its own impact on the work culture and performance. Study shows that 61 percent of the respondents are having above 5- below 15year's experience. 31 percent of the respondents are having



above 15- below 25year's experience. While 8 percent of the respondents are having above 25- below 35years experience.

Policies influence and determine all major decisions and actions. Study details that 72 percent of the respondents are having fully awareness of the HRD policies and activities. While 28 percent of the respondents are having partly awareness of the HRD policies and activities.

HRD activities deal with the learning and development needs of individuals. Study indicates that 69 percent of the respondents have felt it as excellent about their awareness of job role and its potential contribution to HRD activities. 28 percent of the respondents have felt it as good; 3 percent of the respondents have felt it as average.

Planning training programs is a most challenging task. Study depicts 89 percent of the respondents have strongly agreed that training programs are given adequate importance and well planned, 8 percent of the respondents have agreed, 3 percent of the respondents were neutral.

Identifying training needs is the first stage in training process. Study shows that 68 percent of the respondents have strongly agreed that training needs are identified in a systematic basis. 10 percent of the respondents have agreed, 14 percent of the respondents were neutral, while 2 percent of the respondents have disagreed.

Competent faculty is essential to develop skills and capacity to work in a more productive way. Study shows 73 percent of the respondents have strongly agreed that training programs are strongly handled by competent faculty. 12 percent of the respondents have agreed, 12 percent of the respondents were neutral, while 3 percent of the respondents have disagreed.

Career planning and development helps an individual to move in the right direction and try to achieve the goals in a challenging manner. Study shows that 80 percent of the respondents have felt excellent with regard to organization support in facilitating career planning and development, 12 percent of the respondents felt it as good, while 8 percent of the respondents have felt it as average.

Performance appraisal is a method of evaluating employee efficiency and behavior. Study determines that 72 percent of the respondents have perceived that performance appraisal practices were undertaken fairly as a part of HRD activity to a large extent, 20 percent of them rated it as a small extent, 6 percent of them rated it as a little extent, and remaining 2 percent rated it as not at all.

Workers participation in management implies positive involvement of workers. Study depicts 61 percent of the respondents have felt excellent that WPM mechanism in VSP is positively contributing as a part of HRD activity. 25 percent of the respondents have felt it as good, 11 percent of the respondents felt it as average while the remaining 3 percent of the respondents have felt it as poor.

Grievance redressal through proper handling enable the employees to perform well. Study shows 69 percent of the respondents have felt excellent that Grievance handling system is positively contributing as a part of HRD activity. 24 percent of the respondents have felt it as good, 5 percent of the respondents felt it as average while the remaining 2 percent have felt it as poor.

Social and cultural activities play a good role in ensuring the resource of employees in the best manner. Study depicts that 62 percent of the respondents opined



that social and cultural programs are contributing to HRD to a large extent, 21 percent opined it as to a small extent, 12 percent of the respondents rated it as to a little extent, while the remaining 5 percent have opined it as not at all.

Training increases the quality of human relations in an organization. According to study 75 percent of the respondents have strongly agreed that human relations competencies are developed through training in human skills. 20 percent of the respondents have agreed, 3 percent of the respondents were neutral, while 2 percent of the respondents have disagreed.

HRD team should focus on improving the knowledge, ability, skills and other talents. Study shows 67 percent of the respondents have strongly agreed that HRD team advice and counsel the employees for their development, 10 percent of the respondents have agreed, and 15 percent of the were neutral, 8 percent were disagreed to the statement.

Improving the functional efficiency through skills, abilities, and knowledge of individuals are very vital for any organization. Study illustrates 85 percent of the respondents have strongly agreed that HRD activity is enabling the individuals to improve the skills and knowledge in functional area, 12 percent of the respondents have agreed, 3 percent of the respondents were neutral.

Results and Discussion

Majority of the respondents are representing from above 26 to 35 age group. UG/DIP and above category employees are high. So far as experience is concerned majority are hailing from above 5-below 15years category. Maximum number of respondents has full awareness of the HRD policies and activities. Majority of the respondents have felt excellent about their awareness of job role and its potential contribution to HRD activities. Except a few, all the respondents have strongly agreed that training programs are well-planned and given adequate importance. More than half of the respondents have strongly agreed that training needs are identified in a systematic basis as a part of HRD activity.

Training programs are handled by competent faculty in VSP. Half of the respondents have perceived that employees have scope to meet their career planning aspirations to a large extent and career development well facilitated. Performance appraisal practices are undertaken fairly as a part of HRD activity. Majority of the respondents have felt that workers' participation in management, grievance handling system, social and cultural programs are contributing to a large extent in development of human resources in. Majority of the respondents have strongly agreed that human relations aspects are developed through training in human skills as a part of HRD. More than half of the respondents have strongly agreed that HRD team advice and counsel the employees for their development. HRD activity is enabling the individuals to improve the skills and knowledge in functional and behavioral areas.



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ASSESSMENT OF VARIOUS VULNERABILITIES OF THE SLUMS OF KOLKATA, WEST BENGAL, INDIA: CHILDREN PERSPECTIVE

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Abstract:

India is the home to the largest number of children in the world who are susceptible to several difficulties and challenges. It has been noted that a large number of children are living in urban slums and are facing inadequacies concerning infrastructure, poor hygienic conditions, and basic services to daily life. Hence, the physical environment of the slums is a huge challenge for these children. Several studies have been conducted on the vulnerabilities of children living in slums which states several health problems, poor educational development, and numerous protection issues prevalent in the areas of slums, which lays a negative impact on the development of these children. This paper looks into the vulnerabilities and the challenges faced by the children of the selected slums of Kolkata. This paper seeks to assess the various types of vulnerabilities prevalent in the slums of Kolkata with respect to housing conditions, infrastructure, and also perspectives from children. This research also seeks to understand the factors which are contributing to the vulnerability of the urban slum dwellers which are affecting the children and their families in return.

Keywords: Children, Vulnerabilities, Urban Slums.

1. Introduction

The experiences of children in an urban setting is gradually increasing. This is due to the fact the world's population is increasing every year by about 60 million. It is estimated that by the year 2050, 7 in 10 people will reside in cities and towns. Hence countries like Asia and Africa will have the most growth of urban population. It is expected that children born in urban areas account for 60% of urban growth. The reason for the growth of the urban population is migration-being the major factor in these countries. Hence children along with families migrate in search of employment and also with the dream to have a better life with enhanced opportunities (UNICEF, 2012).

India is the home to the largest number of children in the world, where 19% of the world's children live in India. In continuation to this, the urban population of India with respect to children is about 128.5 million, and children located in urban areas comprise 34 percent of the total urban population. Out of this, 67.7 million (52.7 %) are male and 60.7 million (47.3 %) are female. Hence, the children in urban areas constitute 27.2 percent of the total children population (National Institute of Urban Affairs (NIUA), 2016).



According to the Committee on Slum Statistics, Government of India, 2011, slums are defined as ‘a compact settlement of at least 20 households with a collection of poorly built tenements, mostly of temporary nature, crowded together usually with inadequate sanitary and drinking water facilities in unhygienic conditions’. Again, as per the 2001, census of India’s population, the percentage of the slum population of West Bengal is more or less the same as Maharashtra which is having the highest slum population. Furthermore, another report of the National Sample Survey Organization (NSSO) of 2008-2009 stated that the state of West Bengal has about 10.3% of total slums in the country. The state of West Bengal is the home to 33.53% of the slum population as per the Government of India report (GOI), 2010. However, according to the census 2011, the slum population of West Bengal has increased by 13.65% where India’s average is 23.64% (Chaudhuri. S, 2013).

Slums are characterized by poor infrastructure and are considered as the sufferings due to its deprivation concerning poor socio-economic and living conditions. The problems of these slums include poor housing conditions, lack of basic infrastructural facilities like health and hygiene, and also lack of safety and security (Ray. B, 2016).

Therefore, the present study attempts to assess the various vulnerabilities and challenges faced by the children in the selected slums of Kolkata. Hence the objectives of the study: (i) to explore various vulnerabilities of slums of Kolkata through the perspectives of children (ii) to explore the availability of several services - health, education, and protection.

2. Methodology of the Study

The researcher has used semi-structured interview schedule for the families as well as for the children residing in the slums of Kolkata. The study was conducted in Kolkata, West Bengal. The slums selected for the study include Chatubabu lane and Darapara, Tiljala. This comprises 26 households from the slums which include parents and children, to explore and assess the vulnerabilities of these slums.

3. Results and discussion

3.1. Physical Location of the Slums

The Chatubabu Lane is a non-registered slum of Kolkata. The slum is situated along the side of the major transport alignment and is surrounded by a residential area. The physical location of the slum is a deterrent to the existence of the slum and often lands children in a vulnerable position due to the occurrence of several accidents as reported by the parents of the slum.

Dara Para, Tiljala slum is a registered slum and is situated along the railway track connecting to Sealdah station. Interview from the children and parents have highlighted that the physical location of the slum is also vulnerable and is surrounded by industrial and residential areas. Thus, insights from parents and children highlight that, both the physical location of the slums are vulnerable for the children and thereby locates them in several situations vulnerable them, as well as slum dwellers under extreme vulnerabilities.



3.2. Poor housing conditions of the slums

The information related to the land status and housing conditions of the Chatubabu lane slum highlights that 23% of the families reside with the occupancy right which means they do not have any land rights nor have any land-related documents or papers for their houses, while only 62% of them reside in rented apartments and 15% reside in their own apartments. Following this, the condition of the houses states that 85% of the families reside in semi-pucca houses, 15% have pucca and the room density is also very high in this slum.

Similarly, concerning the Dara Para, Tiljala slum, the land occupancy status is 8% which states that families reside with the occupancy right, and 92% of the families reside in rented settlements. This shows that the majority of the families of this slum reside in rented apartments and few of them do not have any documents for their settlements. The condition of the houses in this zone is also very poor. 61% of the families reside in pucca houses, 31% of them reside in semi-pucca houses, and only 8% in kaccha houses. The room density is also very high keeping in view the number of members in a family.

The materials used for preparing these settlements for both the slums are usually polythene sheets and asbestos for semi-pucca settlements, while in the case of the pucca houses they are made concrete with poor ventilation. Therefore, as the houses of these 2 slums are made up of poor-quality materials, there exists a poor quality of housing conditions, the poor environment in the apartments with lack of proper ventilation, and as a result, it affects the children and the slum dwellers residing in these slums. Further, it was also observed during the study that these slums are under the threat of poor quality environment in their homes, congested settlements with lack of provision for ventilation in the houses create a miserable condition of the slum dwellers as well as for the children.

It is observed that the majority of the slum dwellers from these slums are the migrant population. Majority of them have migrated from rural areas and few of them have migrated from urban-to-urban areas. About 85% of the slum dwellers from the slum Chatubabu lane have migrated from urban-to-urban areas while only 15% of them have migrated from rural areas. Similarly, with the other slum, of Dara para, about 46% of the slum dwellers have migrated from rural to urban areas and 54% have migrated from urban-to-urban areas. The reasons for migration are especially due to marriage, unemployment, and other includes (conflict, drought, and flood).

3.3 Poor Sanitation and Drainage System

The data collected from the slum of Chatubabu lane showed that the sanitation facility of this slum is extremely poor. They use community and shared bathrooms in the slums. Consequently, about 69% of them have to stand in a long queue for the use of these bathrooms and toilets and 31% of the slum dwellers reported that the conditions of the bathrooms are in good condition. There is a drainage facility in this slum, but the condition of these drains is extremely poor therefore leading to an unhygienic environment of the slum with poor health of the children and slum dwellers. Though the slum dwellers have a facility of drinking water in their slum despite having drinking water facility in their slums, these slum dwellers face the problem of standing in a long



queue for fetching water, due to its inadequacy and low frequency of water supply in the slum area.

Similarly, for another slum Darapara, Tiljala the slum dwellers use the community toilets and bathrooms present in the slum area. Although, the condition of these community bathrooms and toilets for the slum is under the serious threat of extremely unhygienic conditions. Detailed interviews from the slum dwellers as reported highlights that 47% of the respondents reported that the community bathrooms and toilets are in extreme unhygienic condition, 13% of them have to stand in a long queue (usually mismanaged) for using of the bathrooms and toilets, and 40% of them reported that the slum toilets and bathrooms are in good condition. There is a drainage facility, but the condition of the drains are in extremely poor condition. The drains are usually clogged and overflowed during the rainy season with the breeding of the mosquitoes, leads to the onset of several communicable diseases affecting both slum dwellers and children. There is a drinking water facility in this slum. The slum dwellers collect water from the public taps present in the slum area. Although, they have to have to stand in a long queue for hours for fetching water and also due to its inadequacies.

Further, in a similar context, a study conducted by Malaviya and Bhagat (2013) reported that the slums of Jammu are characterized by poor infrastructures such as lack of drinking water, proper sanitation, drainage, and waste management facilities, poor housing conditions, and other basic facilities of life like health and medical facilities. Hence, these slum dwellers are compelled to lead a miserable life and are often vulnerable to children also. Similarly, the present study also highlights the similar conditions of the families residing in the slums of Kolkata, with lack of proper housing conditions, the inadequacy of proper drinking water facility, poor drainage and sanitation facilities in the slums are also prevalent.

3.4. Health

The slum dwellers from both the slums are suffering from various diseases which includes general fever, common cold and cough, asthma,diarrhea, typhoid, and other digestive diseases, rheumatism or other bone-related ailments, cardiovascular/blood pressure, diabetes other problems such as mental health problems, tuberculosis, etc.

In continuation of this, the place of deliveries, immunization, availability of birth registration certificate, and benefits after delivery were also taken into consideration for the present study. The percentage of immunization in the Chatubabu lane slum is high with 94% of the children are immunized whereas only 6% of children were not immunized properly. Further, 89% of the children have received their birth registration certificate while 11% of the children are falling out of the bracket. Therefore, the children are receiving the government health services concerning immunization facility and receiving of the birth registration certificate is quite high in number. The percentage for hospital or institutional delivery is 81% whereas the rest 19% had home delivery. Following this, another data highlights that only 6% of the women could avail maternity benefit scheme, whereas 94% of these women did not avail of the benefit.



Similarly, the slum dwellers from the Darapara slum also are suffering diseases which include fever, cold and cough, asthma, diarrhea, tuberculosis, typhoid, and other digestive diseases, rheumatism or other bone-related ailments, cardiovascular/blood pressure, diabetes other problems such as skin diseases, etc. Insights from slum dwellers reported that the lack of proper sanitation and other daily requirements of life in the slums are the reasons that the slum dwellers are suffering from various diseases. Data collected from the families which include institutional delivery, immunization, and availability of maternity benefits and birth registration certificates of the slum children. Hence the deliveries of the pregnant women for this slum was mainly carried out in hospital (68%) while only (32%) had home delivery. Further, 95% of the children are immunized whereas only 5% of the children are not immunized in this slum. Availability of birth registration certificates among the children is (58%), while 42% of them do not have a birth registration certificate. Again, with respect to the availability of maternity benefit scheme, the data highlights that 89% of the women did not receive any maternity benefit scheme while only 11% of them could avail the benefit from the maternity benefit scheme. Several interviews from the women highlighted the lack of awareness of the importance of hospital delivery and knowledge about the benefits among the women. Although some had the information hence, they made use of the information in availing the benefit.

Thus, inferences can be drawn that there are cases of home delivery in both the slums and less number of women are availing the maternity benefit scheme. So, there is a need to conduct awareness programs on the importance of institutional delivery and also awareness on the procedure of availing maternity benefit scheme among these slum dwellers immediately to address the need of the hour.

Similarly, Kadri et.al (2010) in his study observed that there is a difference between male and female children being vaccinated in the age group of 12-24 years in the slums of Ahmedabad, Gujarat. About 70.3 % of the children were fully immunized and the rest needs the initiative to reach the target of full immunization. The prevalence of diseases and inadequate services in one of the study conducted by Agarwal and Taneja (2005) also highlighted that the health conditions of the children in the slums are in a worse condition along with inadequate services available to them, and there are disparities which exist among the slums due to various vulnerable factors; thus has led to the fluctuating degrees of health problems among the slum children. Poor availability of proper sanitation facilities, lack of drainage system, location of the slums, employment patterns, and literacy levels also affects the health status of urban slum children.

Hence, the findings of the present study highlighted that the percentage of immunization is pretty better than the study conducted by Kadri.et.al (2010). Although there are issues related to the present study such as initiatives needed to be taken in improving the percentage related to hospital delivery, conduct awareness programs among the female residing in these slums on the benefits and process of availability of maternity benefit scheme, etc.



3.5 Education and Protection

The availability of an educational facility is another important criterion for the assessment of the infrastructural conditions. In both the slums as studied, have primary school operational in the area. Even though, the children have to travel about 500 m-5 km daily for access to schools for their education. Majority of the children from both the slums are enrolled in government schools due to the fact that it involves low cost of education in the government schools. Although the Non-Governmental Organizations (NGOs) are operational in this zone and hence are providing supplementary education to the children of these slum dwellers, helping them to brighten their lives.

Children from both the slums are vulnerable to several child protection issues. The slum dwellers from Chatubabu Lane reported that the children are vulnerable to several child protection issues. About 29% of children are engaged as child labours, 21% of child marriages, followed by 7% of child sexual abuse and child trafficking respectively each, and 36% of them did not respond to any of the problems. Therefore, it is evident that major child protection issues of this slum are child labour and child marriage and is very much prevalent in this slum as reported by them. Similarly, in another slum of Darapapra, Tiljala, child labour is also rampant with 56%, hence the children are engaged in various occupations supplementing their family's income, followed by 33% of child marriage also being prevalent in this zone, and 11% did not respond to any such problems.

Similarly, a study conducted by Mallik.S (2014) highlighted that the condition of education and gender discrimination in the slums of Kolkata is worst, with poor literacy status of the female slum dwellers. Similar conditions prevail in one of the study conducted by Lahon.S (2017) carried out to study in the city of Guwahati, Assam, India stated only 40% of the children are regular to the school, others are not regular to the schools though are enrolled to the schools only to get the benefits provided under the SarvaSikhsha Abhiyan act (free test-books, midday meal, etc). Children work as child domestic labour in the slums of Guwahati and as a result, there is a lack of time and no space for these children to study at home.

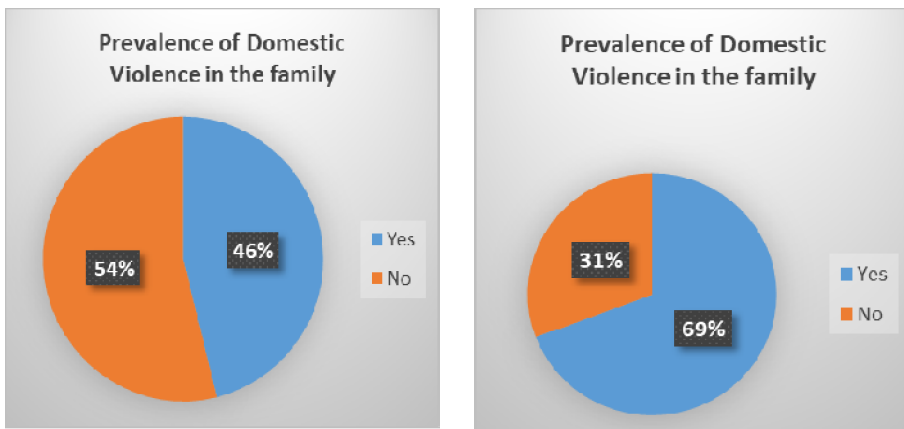
Hence, the analysis for the present study highlights that these slum children are also under the threat of several child protection issues, have poor academic careers are the major concern area. There are issues related to gender discrimination, violation of their rights where the young adolescent girls are drop-out from schools due to poor financial conditions, and several other reasons. Children are also victims of child labour and child marriage which are quite rampant in these slums than the other child protection issues among children. This also highlights that there are incidences of several issues related to children and are affecting them equally.

Hence, several studies have been conducted related to the vulnerabilities related to children across the globe, which highlights that children are victims of various child protection issues such as child labour, child marriage, etc. Consequently, the data collected from these slums for the present study also shows that children are victims of child labour, child marriages and sexual abuse against them are rampant in the slums of these two zones.

3.6 Domestic violence-A vulnerability affecting children:

UNICEF in their report stated that the utmost need of children is the first and foremost requirement in their childhoods is a safe and secure home which is free from violence and parents who love and protect them. It also highlighted that every year hundreds and millions of children are exposed to the ill-effects of domestic violence in their homes which impacts their future lives. Therefore, the children who are exposed to such type of violence in their homes face difficulty in learning, have limited social skills, sometimes behaves violently, are much riskier and are very much exposed to several delinquent behaviour, also suffer from depression, severe anxiety, and other forms of mental health problems (UNICEF,2006).

Similarly, the present study also highlights the prevalence of domestic violence in the slums of Kolkata has been reported by the children. The figure no. 1.1 (a) represents that 46% of the children from Chatubabu lane are victims of domestic violence whereas 54% of them did not report such type of violence. Similarly, figure no 1.1(b) highlights the prevalence of domestic violence that has been reported by the children in the Darapara, Tiljala slum, 69% of the children experience domestic violence in their families whereas 31% of them did not report any such violence against them. Hence, this highlights the poor conditions of children affected due to family violence and are vulnerable to several unusual situations in their life. Therefore, it is evident that the children are under the ill-effects of various problems such as risks of delinquent behaviour among children would be much more prevalent due to the presence of poor family environment and also other mental health problems.



Domestic violence-A vulnerability affecting children Figure no.1.1 (a)- Chatubabu Lane, (b)- DaraPara, Tiljala

3.7. Violence against Children

Children from these two slums reported that they are victims of violence. Children from Chatubabu lane reported that there are several types of violence that they come across very frequently while residing in these slums. Hence, the figure no 1.2 (a) highlights that 50% of the children are victims of abuse which includes (physical abuse,

verbal abuse, domestic violence, and eve-teasing), 43 % of gambling and drug addiction, and the rest is 5% and 2% includes accidents and other settlement-wise vulnerabilities.

Following this, figure no 1.2(b) highlights that children in Darapara, Tiljala a slum, are victims of violence. 65% of the children reported that they are victims of different types of abuses which include (domestic violence, physical abuse, verbal abuse, eve-teasing), 35% are victims of gambling and drug addiction against children. Thus, it is very evident that the children from both the slums are in vulnerable conditions and encounter numerous challenges while they reside in these slum areas.

In the similar study conducted by Renhazo et.al. (2017) highlighted that the violation of child rights was very much prevalent in the slum areas of Kampala, Uganda such as physical, emotional, and sexual abuse, and about 74.7 % of children have reported that they are the victims of such violence and abuse.

Hence, the author for the present study also highlighted the similar types of vulnerabilities associated with the slum children of Kolkata. They are victims of abuse, alcoholism, drug addiction, and other related vulnerabilities which has an ill-effects on them.

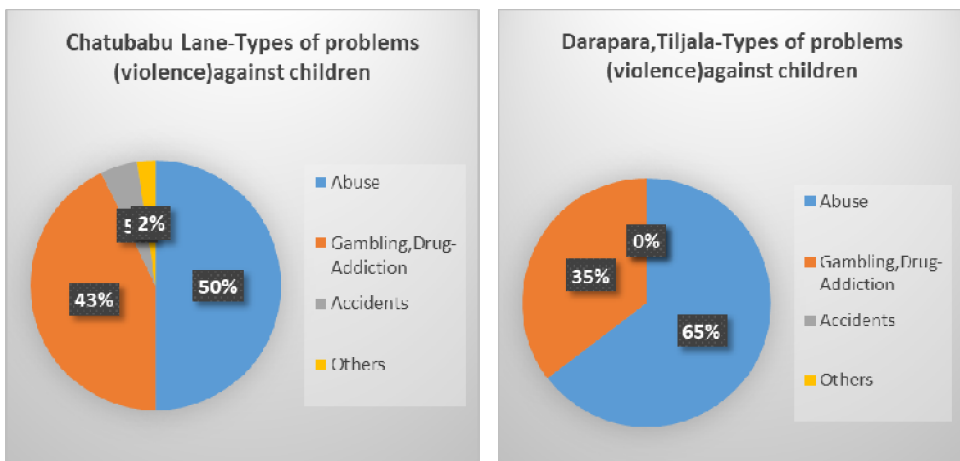


Figure no 1.2: Violence Against Children (a)North Zone-Types of problems (violence) against children (b) West Zone-Types of problems (violence) against children

3.8. How safe is the slum for children?

Children from both the slums reported that they do not feel safe residing in the slums. This is due to the reason for the prevalence of violence against children in the slums and as such, they are victims of such violence and challenges. Hence figure no 1.3(a) shows that 77% of the children from the Chatubabu lane slum do not feel safe as there are issues related to safety and security, while 23% of them did not report any such problems of safety and security. Similarly figure no 1.3(b) shows that 100% of the children from Darapara slum, Tiljala reported that they do not feel safe in residing in the slum as they are victims of violence daily.

So, it is very much evident that the children experience issues related to safety and security in both the slums. This is due to the prevalence of several types of violence

and the challenges they encounter daily. Children are victims of problems related to abuse, drug addiction, gambling, witness violence, and other issues that are vulnerable to them.

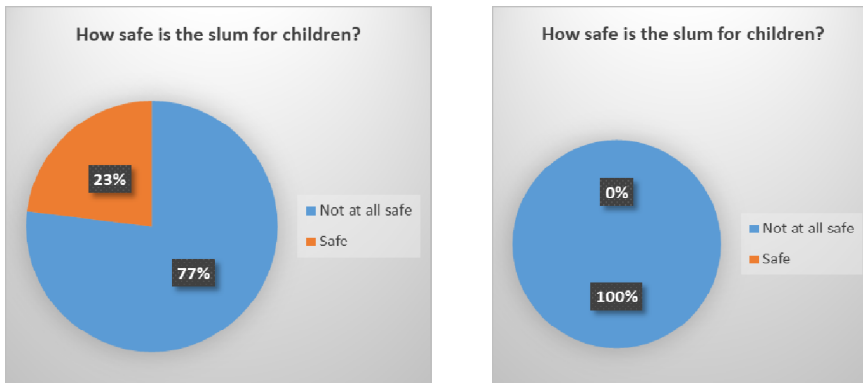


Figure no 1.3: How safe is the slum for children (a)North Zone (b) West Zone

4.0. Findings

Thus, the findings of the study state that the slums of Kolkata are vulnerable to children. The physical location of both these slums depicts the picture of vulnerability with respect to health hazards, prone to accidents, etc. The children are victims of several diseases such as cold, cough, tuberculosis, diarrhea, asthma, etc. Lack of proper drainage facilities and a clean environment in the slums are also responsible for the vulnerable conditions of children. There are schools in the slums, but children are engaged in the workforce. The data analyzed highlights that the prevalence of major child protection issues are child labour, child marriage, followed by child trafficking, and child sexual abuse in both the slums of Kolkata and are issues of concern that needs to be focused on to improve the condition of children. Furthermore, the prevalence of domestic violence in the families of the slums of Kolkata is a serious effect on the children. In continuation to this, as stated by the children from both the slums that they are victims of violence such as abuse, gambling, drug-addiction, etc. Hence in this context, they also reported that there are issues related to safety and security, and have reported that the slums are unsafe for them due to the prevalence of several problems that effects them. Thus, children being the future of any country the conditions of children in the slums of Kolkata are in extremely depressing conditions and it is the utmost responsibility of any State and the Non-governmental organizations to look into the matters and provide them with a proper environment for their growth and development.

The factors for such vulnerabilities in these slums are due to increased migration, lack of education and awareness among the slum dwellers, poor socio-economic conditions, increased number of children in a family, lack of cordial relationship between parents and children, lack of initiatives from the slum dwellers to address the issues related children against violence and other vulnerabilities.



5.0. Conclusion and Recommendations

Hence the recommendations for improving the vulnerabilities of these slums thereby would help to provide an enhanced environment for the children. The government should take proper initiative to provide a proper environment for the children of these slum areas. Policy level changes should be implemented to incorporate the slum children. Though the initiatives have been taken up, but behavior change modification is needed at its best. Monitoring of the several programs at the slum level should also be initiated. Partnership with Civil Society Organizations and Non-Governmental Organizations would help the government to address the issues prevalent in the slums, especially for children. Awareness of several child protection issues especially (child sexual abuse) and its ill-effects should be made in an extensive way to create awareness among the children. Employment opportunities should be created in rural areas to curb the rates of migration in the urban areas. Several changes are required for different laws related to the children to provide a better development of children. Awareness concerning the benefits of institutional delivery, rights entitlements-issuance of birth registration certificates, and proper immunization should also be the strategies for improving the conditions of children in the slums of Kolkata. Therefore, we can conclude that the situational analysis of both the slums are in depressing conditions and several recommended measures should be taken to provide a better life to the future generation of our country. This is because children are the future of any country and the country should try to protect them from any vulnerabilities. The comparison of both the slums highlights the vulnerable conditions of children in the urban slums of Kolkata. These slum dwellers are vulnerable to several health problems, poor drainage system, and lack of proper sanitation facilities in both the studied slums of Kolkata. Furthermore, children come across several challenges and vulnerabilities daily in these slums, which affects them. Thus, proper program implementation in an organized manner would help to address the problems for children.

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THERAPEUTIC DIET IN THE MANAGEMENT OF PRAMEHA (Diabetes Mellitus Type II)

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Abstract:

Therapeutic diet or Medical nutrition therapy (MNT) is a unique concept of Ayurveda which has gained limelight especially in the recent times to manage non - communicable diseases. Diabetes mellitus type II a chronic ailment which requires not only medical management but also MNT for reducing the impact of the disease and also for enhancing the quality of life. Ayurveda prescribes the dietary modification as the first line of treatment principle which checks the progression of the pathogenesis of the disease. The dietary modification mainly involves the use of whole grains which have the ability to sustain the nutritive state in the individual but not adding up to the progression of the disease. Ayurveda dietary management, in the context of prameha (DM type II), includes a wide range of food articles designed in such way that fulfils the basic needs – availability, consumability and palatability. Some of the dietary prescriptions include use of whole grains of Yava (barley – *Hordeum vulgare*), Godhuma (wheat - *triticumspelta*), Shali (rice - *Oryzasativa*) in different forms of administration along with Yusha (a specific dietary preparation) of Tiktashaka (vegetable with bitter taste) or Mudga (green gram - *Vignaradiata*), Kulattha (horse gram – *Mracytomauniflorum*), Takra (butter milk), Sarshapataila (mustard oil).

Among them Yava (barley – *Hordeum vulgare*) has been given utmost importance. Current researches on Yava (barley – *Hordeum vulgare*) and its effect on prameha state that it is having a notable effect in arresting the pathogenesis by reducing the oxidative stress and further preventing the complications arising out of the disease. Even though Yava (barley – *Hordeum vulgare*) as a whole grain and in an unprocessed state has plethora of phyto -chemicals which help in this phenomenon but the same effect may not be consistent when the form is changed to make it consumable. Among the various processes adopted to make it consumable and palatable, thermal and bio processing have been considered important. Among them the latter one is said to be efficacious as it increases the bio availability.

Today researchers all around the world are trying to find a way of bio processing which will enhance the bio availability of Yava (barley – *Hordeum vulgare*) where Ayurveda can play a major role. Various methods of bio processing of Yava (barley – *Hordeum vulgare*) have been explained in Ayurveda literature and one of which is processing Yava (barley – *Hordeum vulgare*) in Triphalakashaya. Triphalakashaya is known to have anti diabetic property and can hence enhance the bio availability of yava and proving it to be efficacious in prameha.



Keywords: Medical Nutrition Therapy (MNT), Therapeutic Diet, Prameha, Diabetes Mellitus, Non-Communicable Disease, Pathya.

Introduction

Prameha (Diabetes Mellitus type II) though is considered as hereditary disease, has mainly converted itself into a lifestyle disorder in current era. The upsurge of the disease can be understood by the prevalence rate of DM in India, which is 69.2 million (2015 survey) and WHO projects that Diabetes mellitus will be 7th leading cause of death in 2030.¹ Almost half of all deaths attributable to high blood glucose occur before the age of 70 years. The National urban survey conducted across the metropolitan cities of India reported 12.4% of prevalence in Bangalore.² The incidence and prevalence of those without family history of it is increasing over the time. WHO has credited diabetes as lifestyle disorder and the slogan of World Health Day 2016 is “Beat Diabetes: Scale up prevention, strengthen care and enhance surveillance”.³ On the other hand there are other challenges in the management of prameha (DM type II). In spite of efficacious medical management available for Prameha Diabetes Mellitus (DM type II), at the level of research, it is seen that, at the level of users, there are poorly managed or controlled cases with upsurge of various complications due to the long association of disease. This necessitates the need for the dietary modification which meets the requirements of the patient along with its efficacy in the management of the disease.

Ayurveda prescribes the dietary modification as the first line of treatment principle which checks the progression of the pathogenesis of the disease. The dietary modification mainly involves the use of whole grains which have the ability to sustain the nutritive state in the individual but not adding up to the progression of the disease. Ayurveda dietary management, in the context of prameha (DM type II), includes a wide range of food articles designed in such way that fulfils the basic needs – availability, consumability and palatability. Some of the dietary prescriptions include use of whole grains of Yava (barley – *Hordeum vulgare*), Godhuma (wheat - *triticum spelta*), Shali (rice - *Oryza sativa*) in different forms of administration along with Yusha (a specific dietary preparation) of Tiktashaka (vegetable with bitter taste) or Mudga (green gram - *Vigna radiata*), Kulattha (horse gram – *Mrctyloma uniflorum*), Takra (butter milk), Sarshapataila (mustard oil).

Among them Yava (barley – *Hordeum vulgare*) has been given utmost importance. Current researches on Yava (barley – *Hordeum vulgare*) and its effect on prameha state that it is having a notable effect in arresting the pathogenesis by reducing the oxidative stress and further preventing the complications arising out of the disease. Even though Yava (barley – *Hordeum vulgare*) as a whole grain and in an unprocessed state has plethora of phyto -chemicals which help in this phenomenon but the same effect may not be consistent when the form is changed to make it consumable. Among the various processes adopted to make it consumable and palatable, thermal and bio processing have been considered important. Among them the latter one is said to be efficacious as it increases the bio availability.

Today researchers all around the world are trying to find a way of bio processing which will enhance the bio availability of Yava (barley – *Hordeum vulgare*) where Ayurveda can play a major role. Various methods of bio processing of Yava



(barley – *Hordeum vulgare*) have been explained in Ayurveda literature and one of which is processing Yava (barley – *Hordeum vulgare*) in Triphalakashaya. Triphalakashaya is known to have anti diabetic property and can hence enhance the bio availability of yava and proving it to be efficacious in prameha.

Review of literature

Body is said to be the product food and so are its states of health and disease. ⁴Diet has been an invariable part of therapy in Ayurveda and is said to be playing a major role in the management of disease. ⁵Medical nutrition therapy is a dietary intervention that is used to prevent or treat health conditions that are caused by or made worse by unhealthy eating habits. The changes are made in the foods that an individual consumes to manage the disease condition along with the treatment to support healing. ⁶ Medical nutrition therapy or dietary manipulation is important in preventing diabetes, managing existing diabetes, and preventing, or at least slowing, the rate of development of diabetes complications. ⁷

Prameha

Prameha is a santarpanajanyavyadhi (caused due to food and lifestyle which reduces the metabolic rate) which occurs because of the vitiation of three dosha (the functional entities vital for both health and disease) in turn disturbing the Dushya (structural entities which give shelter for pathology). The treatment protocol depends on the presentation and strength of the patient. If the patient is obese and strong then the doshas have to be eliminated which is followed by Bruhmana therapy and if the patient is lean and weak then it starts with Bruhmana therapy. Bruhmana is the therapy which brings stoutness to the body. The method of achieving Bruhmana should be in the form of nutrition which includes such diets which even though act Bruhmana but do not gear on the pathology. These diets mainly include use of whole grains like yava (barley – *Hordeum vulgare*), godhuma (wheat - *triticumspelta*), shali (rice - *Oryzasativa*) in different forms of administration along with yusha (a specific dietary preparation) of tiktashaka (vegetable with bitter talse) or Mudga (green gram - *Vignaradiata*), kulattha (horse gram – *Mraetylomauniflorum*), takra (butter milk), sarshapataila (mustard oil). But much emphasis has been laid on the use of yava which is administered in different forms. One of the form of usage being the use of yava which is soaked in Triphalakashaya overnight. ⁸

Role of Diet and lifestyle in the manifestation of Diabetes mellitus

Healthy diet, regular physical activity, maintaining normal body weight and avoiding tobacco are the ways to prevent or delay the onset of Diabetes Mellitus. Diabetes Mellitus has been rising more in low- and middle-income group countries and is a major cause of kidney failures, blindness, stroke, heart attack, lower limb amputation. ⁹The aetiology of diabetes in India is multifactorial and includes genetic factors coupled with environmental influences like obesity associated with rising living standards, steady urban migration and lifestyle changes. ¹⁰



Role of Whole grains in the prevention of diabetes mellitus

Dietary patterns featuring wholegrain cereals are associated with reduced risk of DM.^{11,12,13,14} Systematic reviews and meta-analyses of large, prospective studies consistently demonstrate that frequent consumption of wholegrain foods improves metabolic homeostasis and delays or prevents the development of DM and its complications.^{15,16,17,18,19,20,21,22} Furthermore, wholegrain foods improve indices of diabetes risk, including glycemic control, fasting plasma insulin and glucose, and insulin sensitivity and also aid in the management of those individuals with or at high risk of developing DM.^{17,20,23,24,25}

Mechanism of whole grains in preventing diabetes mellitus

Understanding the mechanisms by which whole grains prevent or delay the onset and progression of DM is pivotal to developing effective diabetes prevention options. The components of whole grains which are responsible for protecting against diabetes have not been clearly identified but the high nutrient and fibre contents in general, as well as the physical structure of whole grains are considered leading contenders.^{19, 26, 27} Whole grains contain a plethora of minerals, vitamins and phytochemicals and it is often difficult to ascribe protective effects on metabolic health to any one particular constituent, such as fibre. One of the primary pathogenic factors leading to insulin resistance, β -cell dysfunction, impaired glucose tolerance and ultimately DM is oxidative stress.^{28,29,30,31} Whole grains generally contain diverse combinations of phyto – chemicals depending on the type of cereal, location within the grain and how the grain has been processed. The outer structures of grains, in particular the pericarp seed coat and aleurone layers, contain much higher levels of phyto – chemicals such as phenolic compounds, phytosterols, tocopherols, betaine and folate, than the germ and endosperm.³² Phenolic compounds are the most diverse and complex class of phyto – chemicals in cereal grains.^{31,33} They include numerous derivatives of benzoic and cinnamic acids as well as flavonoids, flavones and flavanols, anthocyanidins, avenanthramides, lignans and alkylresorcinols. In most grains phenolic acids are concentrated in the bran and embryo cell walls and exist mostly in an insoluble bound form, free and soluble-conjugated forms being minor entities.^{34,35} The phenolic acid content of wholegrains is considered a major contributor to total antioxidant capacity.³⁴ Other major phyto – chemicals that occur in wholegrains which may have a role in protecting against diabetes include various carotenoids, notably α - and β -carotene, lutein, β -cryptoxanthin and zeaxanthin, all of which are located mainly in the bran and germ fractions.³⁶ Aside from some having pro-vitamin A activity, they all function as antioxidants. Other phyto – chemicals with strong antioxidant capacities include phytate (which chelates prooxidant minerals) and various terpenes and terpenoids (phytosterols and tocopherols).³⁷

Barley anti diabetic property

Barley (*Hordeum vulgare*) is an important miscellaneous grain and a widely used cereal, because of its dietary health advantages, ready availability and low costs. Barley is mostly known for its high amount of dietary fiber such as β -glucan that may decrease the risk of coronary heart disease. Barley leaves have also a high antioxidant



activity that might be useful in metabolic syndrome prevention or therapy, as well as diseases caused by oxidative stress damage. The findings demonstrate that *H. vulgare* seeds hydroalcoholic extract, in long term consumption, might have some benefits in diabetes mellitus control and management, probably through a mechanism similar to euglycemic agents like biguanids.³⁸ High dose barley beta-glucan supplement can improve glucose control when added to a high-CHO starchy food, probably due to increased gastro-intestinal viscosity, but not when added to a high-CHO beverage where rapid absorption combined with decreased beta-glucan concentration and viscosity may obviate this mechanism.³⁹ Among the potential role of phyto – chemicals in wholegrain cereals for the prevention of type-2 diabetes, BARLEYmax® has a range of substantiated nutritional and health benefits. It has a phenolic content (5 mg/g), tocopherol and tocotrienols (125 µg/g).^{40,41}

Bioavailability

Bioavailability refers to the fraction of ingested phytochemical (or other dietary constituent) which reaches the systemic circulation. More commonly it is defined as the fraction which is absorbed in the gastrointestinal tract.⁴²

Enhancing the Bioavailability of barley

To render them palatable, grains are processed by various means including milling, grinding and flaking. Although these treatments may reduce content of phyto – chemicals, their bioavailability is often increased.^{30,43,44} Thermal and bio processing too can improve phytochemical bioavailability, especially the latter method, although the results are not always consistent. Cereal bio processing is receiving increasing attention as a technique for purportedly improving the bioavailability of bound phyto – chemicals in grains. This technique utilises hydrolytic enzymes or enzyme cocktails to selectively release phyto – chemicals from the bran layer. However, there is very little evidence that cereal bioprocessing actually improves phytochemical bioavailability in humans.³⁴

Triphala and antidiabetic property

The Three Myrobalans (Terminaliabellicrica- Belliricmyrobalan, Terminaliachebula-Inknut, Embilicaofficinalis - Indian gooseberry) for a period of 45 days. Statistical evaluation of the blood profile showed significant reduction in the blood glucose level of the subjects. Triphala showed glycolytic enzyme inhibitory and antiglycation potential. Hence, it can be effectively used in the diabetes management.^{43,44}

Conclusion

Medical Nutrition therapy or Therapeutic diet is a unique contribution of Ayurveda to medical science and is an effective way of managing non communicable diseases. Yava (barley – *Hordeum vulgare*) is one of the best ways to tackle Diabetes mellitus type II. But there are few challenges that need to be addressed and one of the issue is to find a way of bio processing which will enhance the bio availability of Yava. Various methods of bio processing of Yava (barley – *Hordeum vulgare*) have been explained in Ayurveda literature out of which processing Yava (barley –



Hordeumvulgare) in Triphalakashaya is one. Triphalakashaya is known to have anti diabetic property and can hence enhance the bio availability of yava and proving it to be efficacious in Prameha thus providing an effective solution.

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AWARENESS, USE AND ATTITUDE OF STUDENTS TOWARDS E- LEARNING INGULBARGA UNIVERSITY KALABURAGI

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Abstract

The rapid growth of information and communication technology has brought change in information scenario. Advent of ICT and its use in library operation has changed information needs and behavior of the users. E- learning is basically the computer and network- enabled transfer of skills and knowledge. It includes the electronic applications and processes applied and teaching and learning. E- learning applications may include web-based learning, computer-based learning, virtual classrooms and digital collaboration. The purpose of the study is to find out the use awareness and attitude toward E-Learning by the users of Gulbarga University, Kalaburagi. Data for the study was collected via a wellstructured questionnaire that was administered 150 users of library. Out of 150, a total of 129 questionnaires were completed and received back by respondents, showing an overall response rate of 86% percent. The data so collected were analyzed and interpreted with the help of MS Excel. The study findings reveal that 61.24% respondents are male and 84.49% of respondents are aware about the E-learning 58.91% of the information through E-learning the study found that 58.13% of the respondents faced the problems lack of familiarity with English language. Its aims to consider the various factor of E-learning usage by such as purposes, problems and using palace internet.

Keywords: E-Learning, E-services, Higher Education, User Attitude, Gulbarga University

Introduction

This is an age of high- technology revolution for the foreseeable future, not only will it be necessary for everyone to be computer literate, it will be also be information communication Technology in the field of education. Current advancement in ICT has manipulated education and learning strategies and has created a new system of education which is called E-Learning (Farzaneh, 2012) in simple way E-learning is a use of any electronic media in learning and teaching, which covers a wide set of applications, and process. E – learning is being implemented more and more frequently in higher education, creating new opportunities for both educational institutions and students (Jaiswal, 2013) E- Learning educates students using learning material that is fully enriched with multimedia content. Students get self learning experience through the e-text, audio-video materials, online exams etc. e- learning can become more popular in current scenario where students are more inclined to use ICT equipments for their daily life E- learning can be engaging and even addictive for social network and Google generation students.



Definition of E-Learnings

The letter “E” in E-learning stand for the word “electronics” E-learning would incorporate all educational activities that are carried out by individuals, or groups working online or offline and synchronously asynchronously via networked or standard alone computer and other electronic devices. Learning facilitated by internet and www technologies, delivered via end user computer that creates connectivity between people and information provides opportunities for social learning process. The term E-learning comprised a lot more than online learning virtual learning distributed learning, networked or wed-based learning. The aim of E-learning is to replace the old fashioned “time-place content bounded learning with a “just-in-time”, at work place, customize of demand, process of learning.

Need for E-Learning

When the distance mode of education was introduced in education, it became essential to have e- sources e-Library and e-learning. It is true that physical access of sources is limited and it is difficult to reach in certain time limit in the era of Google whenever any student requires any curriculum of certain courses form certain universities, by one click he or she gets the curriculum. While in traditional approach students are required to visit particular university library to get the requires information. It will be time consuming. “the use of technologies has modified the ways lecturers distribute course materials to students rarely do university students transcribe notes from blackboards. Course materials are disseminated online through files of course notes, power point (Microsoft, 2009) presentations podcasts video castes and wed- links with e- dissemination enabled access to electronic learning resources (Littlejohn,2009) use of media also started in the field of education many educational institute update their course and admission information s curricular activities announcement of seminars and placement via radio, newspaper and television new technology has also brought alternative for students to record the lectures and listen it again at their home. The true meaning of education is to empower the students at least in the advanced marked. To sustain in the e-world one should have own skills competencies and updated knowledge. For above all reason e-learning is the demand of time. Obviously, students need to access wider knowledge will be easily provided via online access of library.

Gulbarga University Kalaburagi

The foundation of Gulbarga University was founded in 1980 Presently 407 Affiliated Colleges comes under University, since is university has pursued excellence in teaching and research. It is widely acknowledged as a premier institute in key areas of higher education 38 PG Departments, like Science, Applied Science, Humanities, Social Sciences, Management, Languages and Education performing arts and sports. The university campus spread over 860 acres is located on the south bank.

University Library

The Jawaharlal Nehru library is located prominently in the university campus. The library building is centrally air conditioned and has a total plinth area of 1, 06,730sq feet for accommodating nearly 1270 Readers at a time. At present the library has a rich



collection of 3, 75,303 Books including ph. D theses 15,328 manuscripts and 250 Journals (Local and foreign) covering all the subjects/disciplines. In some areas of study, it is regarded as one of Indias richest libraries.

Objectives

The following are the objectives of the study:

- To identify the use and awareness about the E-learning
- To find out the preferred place for E-learning usage by the users.
- To identify the benefits of using E-learning by the users
- To identify the problems faced by students while using E-learning
- To identify the aspects towards the E- learning

Literature Reviews

Joshi (2016) conducted a study on E-learning and E-services in Higher Education with special Reference to library support services and find out the age of high – technology revolution for the foreseeable future not only will it be necessary for everyone to be computer literate but it will also be necessary for all to be occupied with computer skills. Of course, it is probably true to say that growth of online learning and usage of e- services in higher education is increasing in the last decade. In addition, the impact of digitalization in the field of education, where through computer networks such as internet has posed new challenges in higher education and online Library support services. **Tirziu and Vrabie (2015)** conducted a study on Education 2.0: E-learning Methods at the 5th world conference on learning. Teaching and educational leadership in 2014. The study provided a framework for teachers for a better einteraction with students and showed the literature to focus on e- learning statistics. They concluded that the study accentuates the importance of C in ICT; communication was a fundamental component of the types of pedagogies that linked closely to fixed integrated uses of e- leaning and provide a link to positive achievement outcomes for students overtime.

Sharma et al. (2014) conducted a study on the Indian education scenario presentation tools for e-learning challenges faced by e-learning in India and future of e-learning in India. The study provided some suggestions on use of e-learning for information and vocational training which was highly effective for a developing country like India, where the majority of populations were living in rural and remote areas, had received almost negligible formal education. They found the lack of infrastructure in terms of connectivity availability of the Internet and awareness about of e- learning were the major challenges of e-learning in India. **Fatima (2013)** conducted a study on E-learning trends and challenges she stressed on the trends issues and challenges of e-learning In India.

The study concentrated on the educational scenario e-learning content preparation and presentation tools and application of e-learning to spread education to remote areas and also talked about the latest trends in e-learning **Jaiswal (2013)** conducted a study to find out the current status of e-learning in Indian higher education used by 2919 teacher (839 teacher from professional courses and 2080 teachers from non-professional courses at UG& Pg levels) from the eleven state university in utter Pradesh. The study revealed that 34.09% professional course teachers and 11.30% nonprofessional courses teachers

were using e-learning in their classrooms. The study indicated that majority of professional courses teachers 188 (80%) in favor of using intelligent tutoring system.

Research Methodology

The questionnaire was designed for the users to assess their awareness and use about E-learning the questionnaire included different types of questions such as multiple choices. The various aspects covered in the questionnaire. The well-structured questionnaire was administered to the students. The investigator personally visited libraries and departments for taking response through the questionnaire random sampling was process was followed for data collection. 150 questionnaires were distributed among respondents of these universities and out o 150 questionnaires only 129 questionnaires were received back. The data so collected was tabulated and analyzed with help of MS excel and observation made during the study. The quantitative data collected with the help of questionnaire was analyzed with the help of percentage method.

Table 1: gender wise Distribution of Respondents

Gender	Respondents	Percentage
Male	79	61.24
Female	50	38.75
Total	129	100

Table -1 shows that out of 129 respondents 79 (61.24%) respondents were male and 50 (38.75%) respondents were female.

Table 2: Respondents' Awareness about E-Learning

Awareness	Respondents	Percentage
Yes	109	84.49
No	20	15.50
Total	129	100

Table -2 shows that the awareness among the respondents about E-learning and it was resolved that 109 (84.49%) respondents were aware and 20 (15.50%) were not aware about E-learning.

Table 3: Preferred place to use Internet by Respondents

Place of using Internet	Respondents	Percentage
University	76	58.91
Department	46	35.65
Home	23	17.82
Hostel	65	50.38
Others	13	10.07

Table 3 shows that the majority of the respondents give preference to use the Internet in their University library, which include 76 (58.91%) Respondents second preference to use Internet is at department which include 46 (35.65%). 65(50.38%) students give preferences to use the Internet in their Hostel. Only 13 (10.07%) respondents use Internet at other places.

Table 4: students Response about benefits of E-Learning

Benefits	Respondents	Percentage
It is easy to share information through E-Learning	73	56.58
E-Learning is an effective medium for learning	46	35.65
E-Learning system provides an attractive learning environment	37	28.68
E- learning helps to acquire new ideas and technology	43	33.33
E-learning gives grater control over learning than traditional learning	34	26.35
E-learning is compatible with your lifestyle	27	20.93

Table 4 shows that majority of student respondents i.e. 73 (56.58%) benefit Easy to share information through E-Learning 46(35.65%) agree with E-Learning is as effective medium for learning 37 (28.68%) agree with E-Learning system provides an attractive learning environment and 43(33.33%) agree with E-Learning helps to acquire new ideas and technology 34(26.35%) students agree with E-Learning gives greater control over learning than traditional learning and 27(20.93%) students agree with E- learning is compatible with your lifestyle.

Table 5: students Response about problems of E-Learning

Problems	Respondents	Percentage
Lack of familiarity with English language	75	58.13
Lack of Internet access speed in University	49	37.98
Lack of knowledge about Internet	31	24.03
Lack of comfort with technology	23	17.82
Lack of faculty Interest	67	51.93
Lack of a awareness about ELearning	36	27.90
Lack of training facility provided for E-learning techniques	91	70.54
Limited infrastructure to support the use of technology for E-Learning	21	16.27

Table 5 shows that majority of student respondents i.e. 75 (58.13%) lack of familiarity of the English language, 49 (37.98%) Lack of internet access speed in university, 31 (24.03%) Lack of knowledge about the internet, 23(17.82%) lack of comfort with technology is a problem in E-Learning 67(51.93%) lack of faculty internet 36(27.90%) students with Lack of awareness about E-Leaning 91(70.54%) lack of



training facility provided for E-Learning techniques and 21 (16.27%) limited infrastructure to support the use of technology for E-Learning.

Table 6: students Response about Other aspects of E-Learning

Statements	Respondents	Percentage
You feel the need of training for E-Learning	86	66.66
Training of E-Learning must be provided by the Department	92	71.31
Training of E-Learning must be provided by the Library	59	45.73
You intend to use the Internet to support your learning	98	75.96
You intend to use the E-Learning tools in your future learning	87	67.44

Table 6 shows that overall response of students is also. Majority of student respondents i.e., 86 (66.66%) feel the need of training of E-Learning 92 (71.31%) Training of E-learning must be provided by the Department and 59 (45.73%) think E-Learning Training provided by the Library, 98 (75.96%) intend to use the Internet to support for their learning and 87(67.44%) you intend to use the E-learning tools on your future learning.

Major Findings

From the sample of 129,61.24% o students are male and remaining are Female. Thus, majority of the respondents are male. 84.49% of the respondents are aware of E-learning since in the university campus wireless LAN is established, more students (50.38%) prefer to use Internet in their hostels than in respective departments or other places in the university. Majority of respondents (58.91%) prefer Internet use in their university Library. 33% of the students are uncertain about the number of computers in the university's computer lab. 48% of the students can easily search information from Internet. 51% of the students think study through E-learning is a good idea. 50% of the students are agreed with the need to change in traditional learning methods according to the generation. 48% of the student respondents are agreed with E- Learning should be adopted in Indian Higher education system. 56.65% of the students think the fact that sharing information through E-Learning is easy. 35.65% of the student that E-Learning is an effective medium for learning 20.93% of the students think that E-Learning is compatible with their lifestyle. 37.98% of the student that the slow speed of Internet in University is a problems lack of awareness about E-Learning is obstacle in E-learning most of the students think lack of finance, lack of training for E-Learning and limited infrastructure in university are barriers in E-learning 67.44% of the students use the E-learning tools in future study.

Suggestions

- Students should attend regular training courses related to the new hardware; software related to E-Learning systems.
- It is necessary to change the students attitude toward E-Learning



- University should provide sufficient financial support for training skilled and enthusiastic staff.
- In order to remove E-Learning challenges like students having little knowledge about E-Learning software's slow Internet access speed etc
- It is important to equip and provide appropriate infrastructure such as high bandwidth capacity depending on the number of users and computers for E-Learning in the university

Conclusion

This study focused on the challenges of the E-Learning at Gulbarga University Kalaburagi in India. It also explores students attitude toward E-Learning or level of awareness about ICT tools. Outcomes demonstrated that Gulbarga University students need to increase the level of their technological skills to significantly benefit from the opportunities offered by E-Learning has found its special positions and identify in today's information age but its development and applications face different challenges and barriers that require identification removing and acquiring suitable policies results show that students are ready to use E-Learning in place of traditional learning methods. E-learning is easy and effective method of study. according to the response rate challenges with E-learning in Gulbarga University Kalaburagi are lack of comfort technology lack of knowledge about computers limited infrastructure to support the use of technology for E-learning this shows that E-learning has many benefits like easy to use save time and effort effective medium for students and these benefits of E-Learning are in favor of learning.

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A STUDY ON WORK LIFE BALANCE OF FEMALE CONDUCTORS IN APSRTC- RAJAHMUNDRY DEPOT

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Abstract

Human Resource is a basic need of any work to be done in an orderly manner. It plays a very crucial role in implementing policies that aid facilitating the work needs, wherein by reducing work stress and work life imbalance. Work Life Balance has been considered of crucial importance in many public and private sector undertakings for establishing and sustaining a productive work culture. To understand need of work life balance, first we have to understand about work life imbalance, as with the understanding of the concept, causes and effects of this imbalance, the balancing act becomes easier. The present study “Work life Balance” has been initiated to know the work life balance practices and its impact towards employee job satisfaction and perception on work life balance of female conductors of APSRTC’s Rajahmundry depot, East Godavari district. The study has been presented with the elements covering objectives, research methodology, Data analysis, interpretations, inferences and perception of the employees.

Keywords: Culture, Depot, Female, Imbalance, Policies.

Introduction

Human Resource Management is a very difficult task for those who are entrusted with the successful operation of an organization. It is concerned with the human beings in the organization. Since every organization is made up of people, acquiring their services, developing their skills, motivating them to higher levels of performance, ensuring that they continue to maintain their commitment to the organization are essential to achieve organizational objectives. So human resources are the focus of attention of every progressive organization. Work Life Balance refers to the level of prioritization between personal and professional activities in an individual’s life and the level to which activities related to their job are present in the home. Many companies find that paying attention to the needs of employees can benefit the company in terms of productivity, employee loyalty and company reputation. The present Research study is about the Work Life Balance of Female Bus-conductors of, Rajahmundry Depot. The study is undergone through need, objectives, research methodology, Data analysis, interpretations and inferences.

Need of the Study

Human Resource is a basic need of any work to be done. Human Resource Development can play a very crucial role in implementing policies that aid in reducing work stress and work life imbalance. Work Life Balance has been considered as crucial importance in many public and private sector undertakings for establishing and



sustaining a productive work culture. To understand need of work life balance, first we have to understand about work life imbalance, as with the understanding of the concept, causes and effects of this imbalance, the balancing act becomes easier. The corporate world of today is exceedingly demanding quality output and the work culture will be different from organization to organization. If the organization has to achieve the targets at global level, the organizations have to design, optimize and expect quality work from their employees. On the other hand employees are also demanding more from employers to improve their family and social life through properly ensuring work life balance.

Objectives of the Study

The present study has been undertaken with certain objectives that have been mentioned here under:

- To study the profile of APSRTC in general and Rajahmundry depot in specific.
- To know perception of women employees towards their personal and work life.
- To understand the concept of work life balance and its importance.
- To know about employees position and factors that affect their balance between dual life.
- To identify key factors which influence the work life balance of female conductors in APSRTC, Rajahmundry Depot.
- To understand the perceptions of female conductors for work life quality and balance.

Research Methodology

Research methodology define how to proceed, how to carry the research systematically. In the current study the primary data was collected by a well defined structured questionnaire from the Female conductors working in Rajahmundry Depot of APSRTC and through interaction with the officers working in that organization. The study variables have been chosen in three dimensions such as Demographic, individual variables and employee satisfaction. Secondary data is collected from published data like from journals, official company website, text books, and internet data bases. APSRTC is large organization, so it is very difficult to interview all the employees in the organization. On the basis of stratified random sampling the sample size has been decided to collect the data.

APSRTC Rajahmundry depot consists of total 490 employees out of which 246 are drivers and 187 are conductors. Among the total 56 female conductors category working in the depot 28 were considered for the present study. All interpretations are mentioned in percentage form with regard to the 28 selected sample respondents.

Data Analysis and Interpretations

Age is an essential demographic variable in a research and perceptions. Hence it has been considered as one of the parameters for the study. The study depicts that 46% of the respondents belong to 41-50 age group, 36% of the respondents belong to 31-40 age group, 14% of the respondents belong to 20-30 age group and remaining 4% of respondents belongs to 51-60 age group. Thus, majority are hailing from 41-50 age group.



Education of the respondents will show major impact on quality of perception. In the present study the samples have been administered among respondents hailing from different educational backgrounds. The study reveals that 30% of the respondents are representing from SSC, while same number of respondents are representing from intermediate, 27% of the respondents are from degree and remaining 13% of the respondents are hailing above degree category. SSC and Intermediate are representing as qualification among majority respondents.

Experience of employees is considered as a significant element for the study because it shows its own impact on the work culture. The study depicts that 50% samples have been administered to the respondents having more than 10 years of experience, 29% have more than 8 years, 14% have more than 5 years and remaining 7% of the respondents have been representing from more than 3years experience category.

The study shows that 50 percent of respondents expressed three members are depended on them in the family, 29 Percent have expressed it as more than three members, and remaining 21 Percent have expressed as two members. Majority respondents are having three dependents.

The study determines that 61 percent of female conductors felt it as no towards expression of negative feeling from family members regarding duty hours, 32 percent have felt it as to some extent and the remaining 7 percent of respondents felt it as yes about negative feeling from family regarding duty hours. So far as enjoying family support majority respondents are happy.

The study describes that 79 percent of the respondents expressed positive opinion about equal family support as compared to a male member of the same family and remaining 21 percent have expressed their negative opinion. The study further explains that all the respondents opined positive about extra benefit in work place as an woman. No one is negative in this aspect.

As per study details 54 percent of the respondents rated it as 2 to 4 hours time they spent on domestic activities per day, 39 percent of the respondents rated it as less than 2 hours and remaining 7 percent of the respondents rated it as 4 to 6 hours and no one has rated it as more than 6 hours. Majority are happy in balancing their family life with regard to their participation in domestic activities,

The study depicts that 46 percent of the female conductors felt that the organization provides comfortable leaves to manage work, 29 percent of the respondents have felt flexible work timings will be more advantageous. 25 percent of the respondents have felt other reasons for the same. Majority are at the option of comfortable leaves in striking balance between work and life.

Study reveals that 82 percent of the respondents expressed positive opinion about offering comments and suggestions to higher authority related to work and remaining 18 percent have expressed negative opinion. Majority are interested in offering their feelings and suggestions in work life balance ensuring.

The study represents that 46 percent of the respondents expressed the work hours affect sometimes in balancing their work and personal life and family commitments ,25 Percent have expressed as doesn't affect, 22 percent have expressed as always affects and remaining 7 percent of the respondents have expressed as it affect many times.



Study states that 39 % of the respondents have opined that excessive household work affects them in balancing their work life, 32 % of the respondents have opined as overtime, and remaining 29 % of the respondents have opined as work on holidays. No one has opined their family and supervisors or colleagues are the reason for their negative opinion.

Study reveals that 46 percent of the respondents felt that sometimes they are missing quality time to spend with their family and friends because of pressure of work, 43 percent of the respondents felt it as frequently, while 7 percent of the respondents felt it as occasionally and remaining 4 percent of the respondents have felt it as never. No one has expressed as rarely. Thus, majority saw the reason as spending with their family members ensure managing work life balance in a happier way.

Findings

Majority of the respondent employees representing in the present study are in between 41-50 age group and educational qualification is ranging from SSC to above degree level. All bus conductors are female and married in the taken sample. Out of the sample majority of them have 2 children. Most of the employees have experience above 10 years in APSRTC as bus conductors.

Except a few all the respondents are enjoying the positive feeling with regard to duty hours from their family members. Most of the employees get equal family support from their family Members in their household work and taking care of their children. All the employees are receiving extra benefit at work place based on the gender representation. Majority of the employees are spending their time up to four hours on their daily domestic activities. Except a few, almost all the employees are experiencing some sort of work pressure during some or other duty times.

Majority of the respondents are preferring to strike balance between work and life through utilization of leaves and preferring flexible work timings. Majority employees are showing interest in offering comments and suggestions to higher authority related to their work. Majority of the employees have felt that excessive household work and over time duty are the main reasons that affect in balancing their work life and family commitments. Most of the employees are missing quality time to spend with family and friends. Financial support stood as a major reason among majority of employees in work motivation. Except a very few all the respondent employees are deriving positive satisfaction. Amid all these complex elements the respondents, compared to their male counter parts, are performing better in their jobs from organization point of view.

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DETACHMENT IS COMPLEMENTARY TO MINDFULNESS- INSIGHTS FROM BHAGVAD GITA

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Abstract

Jon Kabat-Zinn is said to have introduced the concept of Mindfulness. He has defined mindfulness as -“the awareness that arises from paying attention, on purpose, in the present moment and non-judgmentally”. Williams & Kabat-Zinn, (2011) . The concept of mindfulness has received a lot of attention from various fields of study due to its increasing potential benefits and applications. Mindfulness practice is not only restricted to any religious practice rather it is found beneficial in overcoming physical ailments, social-emotional imbalance and making higher achievements in education and workplace. Looking into the contribution of mindfulness to different spheres of personal as well as organizational life it is an aberration that the concept has drawn attention from various perspectives and philosophies. Extending the same, the present study is attempts to visit from the perspective of ancient Indian wisdom. The study primarily compares and contrasts the teachings of SrimadBhagvad Gita, a sacred scripture of Hindus, with the prevailing concept of mindfulness. In this study by delving deep into Bhagvad Gita, it has been found that detachment in any work is complementary to mindfulness.

Keywords: Mindfulness, Bhagvad Gita, Kabat-Zinn, Detachment, Sthithprajna, Impermanence, Karmayoga.

1. Introduction

1. Mindfulness

Jon Kabat-Zinn is said to have introduced the concept of Mindfulness. He has defined mindfulness as -“the awareness that arises from paying attention, on purpose, in the present moment and non-judgmentally”. Williams & Kabat-Zinn, (2011) .Mindfulness is now a frequently studied concept. Different researchers have defined awareness in different forms. Mindfulness is defined as the fundamental human capacity to be observant, to maintain a moment-by - moment awareness of where we are and what we do without being judgmental. Kabat-Zinn J (2013). It is also defined as a quality of mind and it is referred to as something that can be developed through proven techniques. Mindfulness on one hand is characterized as an inherent quality or state of mind and on another described as a long term trait that everyone holds and that it can be developed and lessened over a period of time due to various factors. Black,D.S.(2011), Brown et al., (2007), Bishop et al., (2004). The seven attitudes necessary for the foundation of mindfulness being are – Non-judging, patience, beginner’s mind, trust, non-striving, acceptance and letting-go. Kabat-Zinn J (2013)

Mindfulness is initially said to be associated with Buddhist psychology. (Karunamuni & Weerasekera, 2019; Shonin et al., 2015). The term “mindfulness” comes from the Sanskrit word “Smṛti,” which literally translates to “that which is remembered” (Williams, Leumann, & Cappeller, 2004). The word *mindfulness* originally comes from the Pali word *sati*, which means having awareness, attention, and remembering (Bodhi, 2000). The Buddhist meaning of mindfulness is “to know the mind and to be aware of its capacity” Bodhi, (2000). The mindfulness concept has been discussed in Satipatthana Sutta, the Scripture of the Foundations of Mindfulness Bodhi,(2011). Satipatthana Sutta is a detailed explanation of mindfulness practice. It offers practical instructions. According to Sutta, mindfulness practice requires that one should remember to hold the practice in mind with a higher goal of one’s life. The four components/



domains of Mindfulness identified in Buddhism are - the body; feelings (vedana); mind (citta) and principles or universal truths (dhammas) (Path & Path, n.d.; Bodhi, 2011). The most important element of mindfulness is Impermanence and detachment with any kind of object, feeling or senses. Path & Path, (n.d.). Realization of the deathless or attaining Nibbana is the goal in mindfulness. (Path & Path, n.d.; Bodhi, 2011). And on consistent practice of observation, non-attachment, being non-judgmental one achieves the state of observing the things as they are, and this state is called Buddha /Buddha wisdom. (Path & Path, n.d.; Bodhi, 2011; Olendzki, 2011) In mindfulness, when one begins to realize the limitations, the un-satisfactoriness, the changing nature of all sensory experience, one begins to realize “Not Me or Mine”, it is *Anatta*. (Path & Path, n.d.; Bodhi, 2011; Olendzki, 2011). When one reaches this stage, one starts leading a life full of joy, compassion and kindness.

In recent years, the concept of mindfulness has received a lot of attention from various fields of study due to its increasing potential benefits and applications. The scope of mindfulness is expanding to newer fields i.e., clinical, personality psychology, industrial organizational psychology, neuroscience, (Hülshager et al., 2013; Papies et al., 2015).

2. Contribution of Mindfulness

Irrespective of its origin, mindfulness practice has been applied in diversified spaces of study. Mindfulness practice is not only restricted to any religious practice rather it is found beneficial in overcoming physical ailments, social-emotional imbalance and making higher achievements in education and workplace.

2.1. Therapeutic Applications

Mindfulness based therapeutic applications have been suggested as a treatment to address a variety of psychological problems. Mindfulness practice has been suggested to viz.-major depression, chronic pain, stress, anxiety, eating disorders and others. (Bishop et al., 2004; Brewer et al., 2011; Grossman et al., 2004; Hölzel et al., 2013; Kabat-Zinn, 1982) .Mindfulness practice has been accepted and applied in hospitals, schools, prisons and industrial organizations. Ergas, (2014). It has been studied that cultivation of mindfulness improves psychiatric and stress related symptoms. (Sampath, 2018, Mayer et al 2019). It has been suggested that mindfulness meditation exerts its effects through several components – (i) attention regulation, (ii) body awareness, (iii) emotion regulation, and (iv) change in perspective on self. (Britta, et al 2011). Mindfulness-based therapy is found to be a promising intervention for treating anxiety and mood problems. (Hofmann et al., 2010, Baer, 2003, Desrosiers 2013, Beauchemin et al 2008). Mindfulness practice reduces depression and improves mood disorders. (Teasdale et al., 2000, Desrosiers 2013, Vivane et al 2015). Mindfulness Based Stress Reduction mediates physical health, relieves chronic pain and also helps significantly in coping with panic disorders. (Bodenlos et al 2015, Baer, 2003, Grossman et al., 2004).

2.2. Emotional Regulation

Mindfulness has positive psychological effects including increased subjective well-being, reduced emotional reactivity, improved behavioral regulation. (Sampath, 2018, Bodenlos et al 2015, Cash Whittington 2010, Shian-Ling Keng, 2011). Mindfulness leads to better social adjustments and improved quality of life. (Beauchemin et al 2008, Vivane et al 2015, Sampath, 2018). Mindfulness-based interventions may enhance positive emotional regulation strategies, as well as self-compassion levels, and decrease rumination and experiential avoidance. (Neff 2003, Chiesa et al 2014).



2.3. Work Related Variables

In Industrial and organizational psychology context, studies suggest that mindfulness has positive effects on optimal functioning of individuals, groups and organizations (Akin & Akin, 2015; Brown & Ryan, 2003; Dane & Brummel, 2014) it influences work-engagement (Malinowski & Lim, 2015), task performance (Dane & Brummel, 2014; Glomb et al., 2011) and work-family balance (Allen & Kiburz, 2012). Mindfulness intervention helps ease burnout (Choi and Koh, 2015, Fortney and Luchterhand, 2013, Malik and Aslam, 2019, Charoensukmongkol, 2014). Mindfulness has positive effect on stress at work. It suggested that engaging in mindfulness lowers blood pressure and thereby lowers perceived stress. (Choi and Koh, 2015, Andersson and Engervall, 2017, Wasylkiw, Holton, et al, 2015). Mindfulness is positively associated with employee job satisfaction. (Raza, Muhammad Ali, et al 2018, Choi and Koh, 2015, Charoensukmongkol, 2014, Narayanan, 2014, Hülshager, Alberts, et al, 2013). It stimulates task performance in the workplace. (Dane, 2011, Hyland, Lee, et al, 2015). Non-reactivity and non-judging are suggested to be important mindfulness skills in the workplace. Mindfulness increases positive affect, hope and optimism and thereby enhances work engagement. (Gunasekaran, Zheng, 2018, Malik and Aslam, 2019, Malinowski & Lim, 2015). Mindfulness positively effects employee well-being. (Fortney and Luchter hand, 2013, Narayanan, 2014, Malinowski & Lim, 2015). Mindfulness contributes to positive long lasting changes to awareness, these changes stimulate conscious development of specific behavior expected to improve leadership effectiveness. (Lippincott, 2018, Beekun, 2015, Ulmcke, 2016, Stedham&Skaar, 2019) It is also suggested that mindfulness based leader characteristics and behavior positively influence trust (Stedham&Skaar, 2019).

Organizations such as General Mills (Gelles, 2012), Aetna Inc ((Wolever et al., 2012), Intel, Google (Kelly, 2012), and others are utilizing Mindfulness training to boost employee well-being and effectiveness. (Hyland et al., 2015).

Looking into the contribution of mindfulness to different spheres of personal as well as organizational life it is an aberration that the concept has drawn attention from various perspectives and philosophies. Extending the same, the present study is attempts to visit from the perspective of ancient Indian wisdom. The study primarily compares and contrasts the teachings of SrimadBhagvad Gita, a sacred scripture of Hindus, with the prevailing concept of mindfulness. There is scant work available that has attempted this comparison earlier.

3. Srimad Bhagvad Gita

The *Bhagavad* Gita is a 700-verse Hindu scripture that is part of the epic Mahabharata (chapters 23–40 of Bhishma Parva). The *Gita* is a dialogue between Pandava prince Arjuna and his guide and charioteer Krishna at the start of battle of battles i.e., Mahabharata, where almost all nations on earth is said to have participated from one side or the other. Geeta is a narration of the dialogue between Krishna, considered to be the God by Hindus, and Arjuna, the best archer of the earth at that point of time and a prince. Krishna attempts to offer resolves to dilemma and be wilderness faced by Arjuna since on the other side of the battle were his own cousins with whom he spent his childhood and shared lot of hot and sour memories. His whole value system was got rattled. He was not able to decide what is right and what is wrong. Arjuna was filled with moral dilemma and despair about the violence and death the war will cause in the battle against his own kin. He wondered if he should renounce and seeks Krishna's counsel, whose answers and discourse constitute the *Bhagavad Gita*. At this critical juncture, the Krishna shared the nuances of value system, the reality of worldly life, attainment of emancipation while living a common life, distinction between pleasure and pain among others.



2. Srimad Bhagvad Gita and Mindfulness

2.1 Arjuna's Turmoil and Krishna's message of Peace

The backdrop in which Geeta narrates and argues mindfulness and its outcomes is in the backdrop of war where *Arjuna* is overwhelmed by grief and lack of wisdom since he observes that on the other side, the so called enemies, actually are his kith and kin with whom he has spent his childhood. //Geeta //1.26-27//¹ He expresses his helplessness to fight a war where winning in a way was losing. //Geeta//1.31-35//² It results in a dialogue where *Krishna* attempts to overcome his dilemma by offering transcendental view of the life. What is followed is a rich and immersive interaction that offers insights into the path to attain peace, happiness and stable wisdom which in turn leads to perpetual alignment of body, mind and soul.

2.2 Mindfulness –Key to Happiness

To this end, *Geeta* suggests that the being mindful is key to happiness. According to *Krishna*, one who attains power over motivations of want and outrage devastates different preferences and accomplishes composure of psyche by resting in self, he is Mindful, He is a Happy Man. //Geeta //5.23//³. A simple illustration of the sequence can be illustrated via a flow diagram (Figure-1)

Figure-1: Being Mindful leads to Happiness

¹tatrāpaśhyatsthitānāpārthahpitṛnāthapitāmahān/āchāryānmātulānbhrātṛīnputrānpautrānsakhīnsthāshvaśhurān
suhṛidaśhchaisenasayorubhayorapi //1.26//

There, Arjun could see stationed in both armies, his fathers, grandfathers, teachers, maternal uncles, brothers, cousins, sons, nephews, grand-nephews, friends, fathers-in-law, and well-wishers.

tānsamikṣhyasakaunteyaḥsarvānbandhūnavasthitān/ kṛipayāparayāviśhṭovīśhīdannidamabravit //1.27//

Seeing all his relatives present there, Arjun, the son of Kunti, was overwhelmed with compassion, and with deep sorrow, spoke the following words.

²na cha śhaknomyavasthātumbhramatīva cha me manaḥ/ nimittāni cha paśhyāmviparītānikeśhava/ na cha
śhreyo `nupaśhyāmi hatvāsva-janamāhave //1.31//

My whole body shudders; my hair is standing on end. My bow, the Gāṇḍīv, is slipping from my hand, and my skin is burning all over. My mind is in quandary and whirling in confusion; I am unable to hold myself steady any longer. O *Krishna*, killer of the *Keshi* demon, I only see omens of misfortune. I do not foresee how any good can come from killing my own kinsmen in this battle.

nakānṅkṣhevijayamkṛiṣhṇana cha rājyamsukhāni cha/ kīm no
rājyenagovindakīmbhogairjīvitēnavā//yeśhāmarthe kānṅkṣhitān no rājyambhogāḥsukhāni cha/ta ime
`vasthitāyuddheprāṇānṅmstyaktvādhānāni cha//1.32-33//

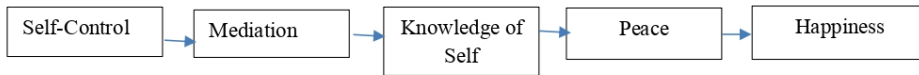
O *Krishna*, I do not desire the victory, kingdom, or the happiness accruing it. Of what avail will be a kingdom, pleasures, or even life itself, when the very persons for whom we covet them, are standing before us for battle?

āchāryāhpitarahputrāstathai va cha pitāmahāh/
mātulāśhvaśhurāhpautrāśhryālāśhsambandhinastathā//etānnahantumichchhāmi ghnato `pi madhusūdana/
apitrailokya-rājyasyahetoḥkīm nu mahī-kṛite //1.34-35//

Teachers, fathers, sons, grandfathers, maternal uncles, grandsons, fathers-in-law, grand-nephews, brothers-in-law, and other kinsmen are present here, staking their lives and riches. O *Madhusudan*, I do not wish to slay them, even if they attack me. If we kill the sons of *Dhritarashtra*, what satisfaction will we derive from the dominion over the three worlds, what to speak of this Earth?

³śhaknotīhai vayaḥsoḍhuṃprāk śharīra-vimokṣhaṇāt/ kāma-krodhodbhavaṃvegamsayuktaśhasukhīnaraḥ
//5.23//

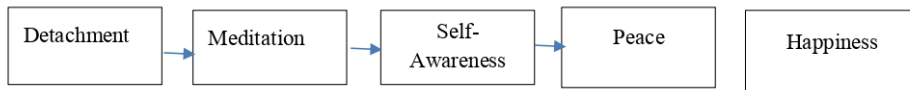
Those persons are yogis, who before giving up the body are able to check the forces of desire and anger; and they alone are happy.



2.3 Self-Awareness-Key to Mindfulness

//Geeta // 2.66 // ⁴ proposes a path to happiness, of which self-control is the starting point. Further, it elaborates, that an individual with self-control can only meditate. Meditation helps in changing the direction of thought-process. Meditation helps in bringing more self-awareness which is the key to mindfulness. (Figure-2) Geeta has illustrated the nature of Self of Yogi and compared it with a bright and steady lamp kept in windless place. Here, Geeta describes the characteristics of transcendentalist, whose mind is controlled and always remains focused on Self during his meditation. Geeta further adds that on practicing meditation and achieving state of perfection, when mind becomes purified, that is mind becomes completely detached from the material concepts, the Yogi realizes Supersoul, perceives the self as different from the body, mind and intellect. He then realizes and enjoys transcendental pleasure. //Geeta 6.19-6.20// ⁵

Figure-2: Meditation leads to Self-awareness



2.4 Peace- antecedent to Happiness

Mindfulness finally leads to peace which is an antecedent to happiness. The notion of peace here is not about respite from external events, rather, it is about abandonment of desires which frees one from 'I' and 'My'. //Geeta // 2.71 // ⁶ This abandonment leads to taking an impartial stance, a distance from events all around you, even from yourself and as a result, one gets more opportunity to her/himself. To practice abandonment, one needs to understand the concept of Samyasa and Tyaga. If we go by four phases of life (viz.- Brahmacharya, Grihastha, Vanaprastha and Samyasa) then, Samyasa means giving up of tasks completely, but according to Bhagavad Gita, the renunciation of works initiated by want is perceived to be Samyasa while the acquiescence of the products of all works is called tyaga that is, Samyasa is giving up of desire

⁴naastibuddhirayuktasyanachaayuktasyabhaavanaa/ nachaabhaavayatahshaantirashaantasyakutahsukham // 2.66 //

The man whose mind is not under his control has no Self-Knowledge and to the unsteady no meditation is possible and to the unmeditative there can be no peace and to the man who has no peace how can there be any happiness?

⁵yathādīponivāta-sthonenāgatesopamāsmṛitā/ yoginoyata-chittasyayunījatoyogamātmanah //6.19//

Just as a lamp in a windless place does not flicker, so the disciplined mind of a yogi remains steady in meditation on the self.

yatroparamatechittāniruddhaṁ yoga-sevayā/ yatra chaitmanātmanāmpaśhyannātmanitushyati //6.20//

When the mind, restrained from material activities, becomes still by the practice of Yog, then the yogi is able to behold the soul through the purified mind, and he rejoices in the inner joy.

⁶vihaayakaamaan yah sarvaanpumaamshcharatinihsprisah/ nirmamonirahankaarahsashaantimadhigacchati // 2.71 //

That man attains peace who, abandoning all desires, moves about without longing, devoid of the sense of 'I'-ness and 'my'-ness.



motivated actions and Tyaga is to work only for the sake of work and to remain detached with the outcome of the work. //Geeta 18.2//⁷

2.5 Achieving Detachment

Bhagvad Gita suggests the path of Tyaga /Sacrifice. It shows the path of work without attachment. Geeta has described three types of renunciation – (i) mode of ignorance (ii) mode of passion (iii) mode of goodness. //Geeta //18.4, 18.7-18.9//⁸ Geeta also describes characteristics of a true renouncer as one who neither hates anyone or any act due to bodily sufferings involved in it nor does he argues to do something because it appears pleasing and comfortable. A transcendentalist does work for the sake of work and never questions any kind of work. // Geeta //18.10//⁹ It is in reality incomprehensible for an epitomized being to surrender all exercises. However, he who denies the products of activity is called one who has genuinely repudiated. //Geeta//18.11//¹⁰

2.6 Realizing Reality-Impermanence of Everything

The desires can only be abandoned, BhG argues, when we are able to **realize impermanence of the sensory information**, which triggers desires, we are able to endure them in a relatively better manner//Geeta // 2.14 //¹¹. As a result, we start considering pleasure and pain to be two sides of the same coin. Such equanimity, between pleasure and pain, brings peace which

⁷shrī-bhagavānūvācha/ kāmyānāṁkarmaṇāṁnīyāsāmsannyāsāṁkavayoviduḥ/ sarva-karma-phala-tyāgamprāhustyāgamvichakṣhaṇāḥ //18.2//

The Supreme Divine Personality said: Giving up of actions motivated by desire is what the wise understand as sanyās. Relinquishing the fruits of all actions is what the learned declare to be tyāg.

⁸niśchayaṁśrīṇu me tatratyāgebharata-sattama/ tyāgo hi puruṣha-vyāghra tri-vidhaḥsamprakīrtitaḥ //18.4//
Now hear my conclusion on the subject of renunciation, O tiger amongst men, for renunciation has been declared to be of three kinds.

niyatasyatusannyāsahkarmaṇonopapadyate/ mohāttasyaparityāgastāmasaḥparikīrtitaḥ//18.7 //
Prescribed duties should never be renounced. Such deluded renunciation is said to be in the mode of ignorance.

duḥkhamityevayat karma kāya-kleśha-bhayātyajet/ sakṛitvārājasamtyāgamnaivatyāga-phalamlabhet //18.8//
To give up prescribed duties because they are troublesome or cause bodily discomfort is renunciation in the mode of passion. Such renunciation is never beneficial or elevating.

kāryamityevayat karma niyatamkriyate 'rjuna/ saṅgamtyaktvāphalamchaisatyāgaḥsāttvikomataḥ //18.9//
When actions are taken in response to duty, Arjun, and one relinquishes attachment to any reward, it is considered renunciation in the nature of goodness.

⁹nadveṣṭyakuśhalam karma kuśhalenānuśhajate/ tyāgī sattva-samāviṣṭomedhāvichhinna-sanśhayaḥ //18.10//
Those who neither avoid disagreeable work nor seek work because it is agreeable are persons of true renunciation. They are endowed with the quality of the mode of goodness and have no doubts (about the nature of work).

¹⁰na hi deha-bhṛitāśhakyamtyaktumkarmānyaśheṣhataḥ/ yastu karma-phala-tyāgīsatyāgītyabhidhīyate //18.11//
For the embodied being, it is impossible to give up activities entirely. But those who relinquish the fruits of their actions are said to be truly renounced.

¹¹maatrasparshaastukaunteyasheetoshnasukhadukhadaah/ agamaapaayinonityaastaamstītikshaswabhaarata //2.14 //

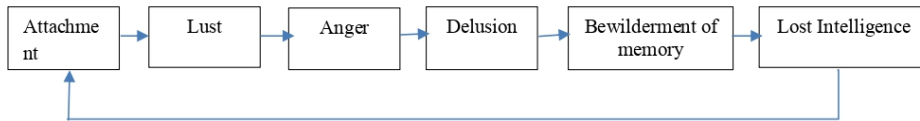
The contacts of the senses with objects, O son of Kunti, which cause heat and cold, pleasure and pain have a beginning and an end; they are impermanent; endure them bravely, O descendent of Bharata (Arjuna).

finally leads to true 'liberation' of oneself, BhG claims//Geeta // 2.15 //¹² Krishna illustrates the result of concentrated meditation is the end of worldly existence and advancement to the bright everlasting domains and achieves Supreme Bliss//Geeta//6.15//¹³In other words, it argues that the realization of momentariness of desires, triggered by information coming through by senses, shall help one to know more about one-self, which is immortality in real sense.

2.7. Attachment leads to Lost Intelligence

BhG lays down how attachment finally results into lost intelligence which again pushes a person towards attachment and then it becomes a challenge to break that vicious circle//Geeta // 2.62¹⁴ and 2.63 //¹⁵. The same is presented in the (figure-3) given below:

Figure-3: Attachment leads to Loss of Intelligence



Further BhG cautions that arresting senses are not carried away by them is always a challenge even for an intelligent person //Geeta // 2.60-67//¹⁶, //Geeta//3.37-38¹⁷, 41¹⁸//. They will

¹²yam hi navyathayantyetepurusshampurusharshabha/ samaduhkhasukhamdheeramsa' mritawayakalpate // 2.15 //

O Arjun, noblest amongst men, that person who is not affected by happiness and distress, and remains steady in both, becomes eligible for liberation.

¹³yuñjannevaṁsadātmānāmyogñiyata-mānasaḥ/ śhantīmīrnirvāṇa-paramām mat-sansthāmadhigachchhati //6.15//

Thus, constantly keeping the mind absorbed in me, the yogi of disciplined mind attains nirvāṇ, and abides in me in supreme peace.

¹⁴dhyāyatoviśhayānpumsaḥsaṅgasteshūpajāyate / saṅgātsañjāyatekāmahkāmātkrodho 'bhijāyate//2.62//

While contemplating on the objects of the senses, one develops attachment to them. Attachment leads to desire, and from desire arises anger.

¹⁵krodhādbhavatisammohaḥsammoḥātsmṛiti-vibhramah/ smṛiti-bhranśhād buddhi-nāsho buddhi-nāshātpṛaṇaśhyati//2.63//

Anger leads to clouding of judgment, which results in bewilderment of the memory. When the memory is bewildered, the intellect gets destroyed; and when the intellect is destroyed, one is ruined.

¹⁶yataohyapikauntayapurushasyavipaśhchitaḥ/ indriyāñipramāthīniharantiprasabhammanah//2.60//

The senses are so strong and turbulent, O son of Kunti, that they can forcibly carry away the mind even of a person endowed with discrimination and practicing self-control.

tānisarvāñisanyamyayuktaāśīta mat-parah/ vaśhe hi yasyendriyāñitasyaprajñāpratiśhṛitā//2.61//

They are established in perfect knowledge, who subdue their senses and keep their minds ever absorbed in me.

dhyāyatoviśhayānpumsaḥsaṅgasteshūpajāyate/ saṅgātsañjāyatekāmahkāmātkrodho 'bhijāyate// 2.62//

While contemplating on the objects of the senses, one develops attachment to them. Attachment leads to desire, and from desire arises anger.

krodhādbhavatisammohaḥsammoḥātsmṛiti-vibhramah/ smṛiti-bhranśhād buddhi-nāsho buddhi-nāshātpṛaṇaśhyati //2.63//

Anger leads to clouding of judgment, which results in bewilderment of the memory. When the memory is bewildered, the intellect gets destroyed; and when the intellect is destroyed, one is ruined.

rāga-dveṣha-viyuktaistuviśhayānīndriyaiśhcharan/ ātma-vaśhyair-vidheyātmāprasādāmadhigachchhati//2.64//

But one who controls the mind, and is free from attachment and aversion, even while using the objects of the senses, attains the Grace of God.

prasādesarva-duhkḥānāñhānirasypopajāyate/ prasanna-chetasohyāśhubuddhiḥpariyavatiśhṛitā // 2.65//

By divine grace comes the peace in which all sorrows end, and the intellect of such a person of tranquil mind soon becomes firmly established in God.

nāstibuddhir-ayuktasyanachāyuktasyabhāvanā /nachābhāvayataḥśhāntiraśhāntasyakutaḥsukham//2.66//



always lay a trap for the vicious circle of attachment. Desire, anger and greed have corrupted the mind since time immemorial, one has to train one's mind to break this vicious circle and remain unaffected and attain equanimity.

BhG compares sthithaprajña with the tranquility of ocean inspite of incessant merger of rivers into it. //Geeta // 2.69 //¹⁹BhG in details underpins the salient characteristics of sthithaprajña. Restraining of senses //Geeta // 2.68 //²⁰, moves consciousness towards self-realization //Geeta // 2.57²¹, 61 and 65 //²² free from attachment, fear anger etc. //Geeta // 2.56 and 57 //, remains equanimous in miseries and joy //Geeta // 2.56 //, good or evil //Geeta // 2.56 //, free from desires, sense of proprietorship and devoid of false ego //Geeta // 2.71 //.

2.8. Characteristics of Nobel Man

BhG further defines 'Nobel man' //Geeta // 2.16 //²³. According to BhG, 'Nobel Man' is one who remain equanimous between happiness and distress, therefore, is liberated in true sense. Such person is free from dilemmas, rooted in truth and since she/he is detached from material gain or safety, is situated in self in true sense //Geeta // 2.45 //²⁴ Additionally, when one situates in

But an undisciplined person, who has not controlled the mind and senses, can neither have a resolute intellect nor steady contemplation on God. For one who never unites the mind with God there is no peace; and how can one who lacks peace be happy?

indriyānām hi charatām yan mano 'nuvidhīyate /tadasyaharatiprajñānāvāyurnāvami vāmbhāsi //2.67//

Just as a strong wind sweeps a boat off its chartered course on the water, even one of the senses on which the mind focuses can lead the intellect astray.

¹⁷śrībhagavān uvācha/ kāmaśhakrodhaścharajo-guṇa-samudbhavaḥ/ mahāśhanomahā-pāpmāviddhyenamihavairiṇam//3.37//

The Supreme Lord said: It is lust alone, which is born of contact with the mode of passion, and later transformed into anger. Know this as the sinful, all-devouring enemy in the world.

dhūmenāvriyatevahniriyathādarśhomalena cha/ yatholbenāvṛitogarbhastathātenedamāvṛitam//3.38//

Just as a fire is covered by smoke, a mirror is masked by dust, and an embryo is concealed by the womb, similarly one's knowledge gets shrouded by desire.

¹⁸tasmāttvamindriyānyādauniyamyabharatarśhabha/ pāpmānamprajāhiyenamjñāna-vijñāna-nāśhanam //3.41//
Therefore, O best of the Bharatas, in the very beginning bring the senses under control and slay this enemy called desire, which is the embodiment of sin and destroys knowledge and realization.

¹⁹yāniśhāsarva-bhūtānāntasyāmjāgartisanyamī/ yasyāmjāgratibhūtānisāniśhāpaśhyatomuneḥ// 2.69//

What all beings consider as day is the night of ignorance for the wise, and what all creatures see as night is the day for the introspective sage.

²⁰tasmādyasyamahā-bāhonigrihitānisarvaśhaḥ / indriyāṇīndriyārthebhyastasyaprajñāpratiśṭhitā //2.68//

Therefore, one who has restrained the senses from their objects, O mighty armed Arjun, is firmly established in transcendental knowledge.

²¹yaḥsarvatrānabhisnehas tat tatpṛāyaśhubhāśhubham /nābhinandatinadveṣṭītasaprajñāpratiśṭhitā //2.57//

One who remains unattached under all conditions, and is neither delighted by good fortune nor dejected by tribulation, he is a sage with perfect knowledge.

²²tānisarvānisanyamyuktaāsīta mat-parah/ vaśhe hi yasyendriyānītasaprajñāpratiśṭhitā //2.61//

They are established in perfect knowledge, who subdue their senses and keep their minds ever absorbed in me.

prasādesarva-dukhānāmhānirasypajāyate/ prasanna-chetasohyāśhubuddhiḥparyavatiśṭhate //2.65//

By divine grace comes the peace in which all sorrows end, and the intellect of such a person of tranquil mind soon becomes firmly established in God.

²³naasatovidyatebhaavonaabhaavovidyatesatah/ubhayorapidrishto'nastwanayostattwadarśhibhih //2.16//

The unreal has no existence. The Real never ceases to be (never ceases to exist). Men possessed of the knowledge of the Truth fully know both these.

²⁴traī-guṇya-viśhayāvedānistrai-guṇyobhavārjuna / nirdvandvonyita-sattva-sthoniryoga-kṣhemaātmavān//2.45//



oneself then she/he attains the state of 'yoga' i.e., a state of alignment among body, mind and soul, which helps in remaining equanimous in the events of success and failure//Geeta // **2.48** //.²⁵ Performance of duty by such persons is detached from its outcomes in form of success and failure. Lack of allurements towards success and failure further roots intellect to self-realization, in other words, a state of *Yog* //Geeta // **2.53**//.²⁶ The state of *Yog*, where intellect is rooted into self-realization, BhG calls it a state *sthithaprajña* (a state of stable intellect)//Geeta// **2.55** //.²⁷ Further elaborating the state of *sthithaprajña*, BhG states that when a person fends of desires and derives satisfaction in realizing self then such a person is called in the state of *sthithaprajña*//Geeta // **2.56**//.²⁸

2.9. Practicing *Sthithaprajña* (Mindfulness)

BhG suggested *sthithaprajña* can be attained if a person contracts her/his all limbs like a tortoise and focuses solely on self-realization //Geeta // **2.58-64** //.²⁹ Since senses will always frustrate her/him, she/he should set a higher taste in form of liking for consciousness or self-realization. Once a person develops such higher taste other tastes become insipid //Geeta // **2.59** // . Geeta elaborates the seating for meditation and the required most suited posture for the body for meditation. It also adds that while practicing mindfulness (meditation), one has to focus on Ultimate power, has to give up everything to Him (Supreme Soul), and should not get oneself attached with the undergoing process. On constant practice one gradually achieves the eternal bliss. //Geeta //**6.10-6.11**//³⁰, **6.13-6.14**//³¹, //**6.24-6.26**//³².

The Vedas deal with the three modes of material nature, O Arjun. Rise above the three modes to a state of pure spiritual consciousness. Freeing yourself from dualities, eternally fixed in truth, and without concern for material gain and safety, be situated in the self.

²⁵yogasthah kuru karmanisangamtyaktwaadhananjaya / siddhyasiddhyohsamobhootwaasamatwam yoga uchayate // 2.48 //

Perform your actions, O Dhananjaya (Arjuna), being established in or integrated with Yoga, abandoning attachment and remaining even-minded both in success and failure. This Evenness of mind is called Yoga.

²⁶shruti-vipratipannateyadāsthāsyatiniśchalā / samādhāv-achalā buddhis tadāyogamavāpsyasi// 2.53 //

When your intellect ceases to be allured by the fruitive sections of the Vedas and remains steadfast in divine consciousness, you will then attain the state of perfect *Yog*.

²⁷prajahātiyadākāmānsarvānpārtha mano-gatān /ātmany-evātmanātuṣṭaḥsthitā-prajñastadochayate// 2.55 //

O Parth, when one discards all selfish desires and cravings of the senses that torment the mind, and becomes satisfied in the realization of the self, such a person is said to be transcendently situated.

²⁸duḥkheṣhv-anudvigna-manāḥsukheṣhuvigata-sprīhah / vīta-rāga-bhaya-krodhaḥsthitā-dhīrmuniruchayate// 2.56 //

One whose mind remains undisturbed amidst misery, who does not crave for pleasure, and who is free from attachment, fear, and anger, is called a sage of steady wisdom.

²⁹yadāsanharatechāyamkūrmo 'ṅgānīvasarvaśhaḥ/ indriyāṅindriyārthebhyastasyaprajñāpratiṣṭhitā //2.58//

One who is able to withdraw the senses from their objects, just as a tortoise withdraws its limbs into its shell, is established in divine wisdom.

³⁰yogīyujītasatata mātmānamrahasisthitha/ ekākīyata-chittātmanīrāṣhīraparigrahaḥ//6.10//

Those who seek the state of *Yog* should reside in seclusion, constantly engaged in meditation with a controlled mind and body, getting rid of desires and possessions for enjoyment.

śhucaudeṣhpratiṣṭhāpyasthiramāsanamātmanah/ nātyuchchhritamñāti-nīchamchailājina-kuśhottaram//6.11//
To practice *Yog*, one should make an āsan (seat) in a sanctified place, by placing kuśh grass, deer skin, and a cloth, one over the other. The āsan should be neither too high nor too low.

³¹samaṅkāya-śhiro-grīvamdhārayannachalamsthirah/ samprekṣhyānāsikāgraṁsvamīdīśhaśhchānavalokayan //6.13//



3. Conclusion

Bhagvad Gita is delivered in Kurukshetra which is also termed as Dharamashetra //Geeta //1.1//which was a field of battle between right and wrong, to do or not to do an act. It was a situation of dilemma which resulted into Arjuna's turmoil. This situation is faced by all in everyday life. To overcome difficulties of life and make all efforts to achieve set goals without getting affected by any favourable or unfavourable situation, Lord Krishna has laid down the characteristics of an individual with stable intellect. The entire state of confusion is because of ignorance and the only remedy is to learn to attain evenness of mind in all sorts of situations. The ways of acquiring stable intellect have been suggested in SrimadBhagvad Gita.

One of the facets of mindfulness is being non-judgmental of experiences and Krishna also asks Arjuna to fight the war without thinking about past or future consequences.

The essential conditions required for achieving stable intellect are that a person (1) should give up desires (2) should learn tolerance; (3) should rise above affection and hatred and (4) should learn self-control. When all the above four qualities are combined with equanimity one can achieve stable intellect. When one learns to stay focused without getting distracted through attachment, nobody and nothing can deviate such person. This leads to attainment of peace of mind which is the outcome of consistent mindfulness practice.

The sense of detachment and complete awareness confirms balance of mind due to which Ego becomes weak. When one attains wisdom, all events become irrelevant unless noticed carefully and thus any event cannot disturb one's peace of mind. It is a guidance to accept the present moment without getting affected by the good or bad, right or wrong, pain or pleasure—the concepts created by the mind. The tranquility dwells in the state of even mindedness where every passing moment is just a passing moment, inherent temporariness and not assigns significance to it. In SrimadBhagvad Gita, developing skill of acting with complete awareness and remaining non-judgmental of experiences is important for self-realization.

He must hold the body, neck, and head firmly in a straight line, and gaze at the tip of the nose, without allowing the eyes to wander.

praśhāntātmāvīgata-bhīrbrahmachārī-vratēsthitaḥ/ manāḥsanyamyamach-chittoyuktaāsīta mat-parāḥ //6.14//
Thus, with a serene, fearless, and unwavering mind, and staunch in the vow of celibacy, the vigilant yogi should meditate on me, having me alone as the supreme goal.

³²sañkalpa-prabhavāñkāmañstyaktvāsarvānaśheṣhataḥ/ manasaivendriya-grāmañviniyamayasamantataḥ//6.24//
śhanaiḥśhanairupamedbuddhyādhṛiti-grihīṭayā/ ātma-sansthañmanāḥkṛitvāñakīñchidapichintayet //6.25//
Completely renouncing all desires arising from thoughts of the world, one should restrain the senses from all sides with the mind. Slowly and steadily, with conviction in the intellect, the mind will become fixed in God alone, and will think of nothing else.

yatoyatoñiścharatimanāśchañchalamaṣṭhiraḥ/ tatas tatonyamyaitadātmanyeva vaśhañnayet //6.26//
Whenever and wherever the restless and unsteady mind wanders, one should bring it back and continually focus it on God.

Thus, in Bhagvad Gita lies the Roadmap of 'How to live in present.'(Figure-4)

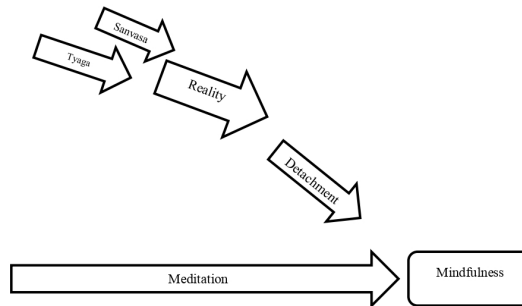


Figure-4:How-to live-in Present

Thus, with a serene, fearless, and unwavering mind, and staunch in the vow of celibacy, the vigilant yogi should meditate on me, having me alone as the supreme goal.

¹sāṅkalpa-prabhavāṅkāmanstyaktvāsarvānaśeṣhataḥ/ manasaivendriya-grāmaṁviniyamya samantataḥ//6.24// śhanaiḥśhanairupamedbuddhyādhrīti-grihītayā/ ātma-sansthaṁmanahkṛitvānakiñchidapichintayet //6.25//

Completely renouncing all desires arising from thoughts of the world, one should restrain the senses from all sides with the mind. Slowly and steadily, with conviction in the intellect, the mind will become fixed in God alone, and will think of nothing else.

**yatoyatonīścharatīmanaśhchañchalamasthīram/ tatas
tatoniyamya itadātmanyevavaśhaṁnayet //6.26//**

Whenever and wherever the restless and unsteady mind wanders, one should bring it back and continually focus it on God.

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A CASE OF EDUCATION SYSTEM IN INDIA: SOCIOLOGICALLY UNDERSTANDING THE RELATION BETWEEN EDUCATION AND ECONOMY

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Abstract

This paper looks on the status of education in contemporary India with focusing on issues like access of education, inequalities in education, reproduction in the society & also on the process of homogenisation through education after economic reforms. It also focuses on the very root of the emergence of these issues and also unravels the trajectory between the economy, politics & education in Indian context. Lastly in the light of these issues it tries to show the emergence of education as a site of production.

Key words: Education, Neoliberal, Inequality, Hierarchy, Economy.

Introduction

Now a day we can see and often heard lots of advertisement related to different education institution in India, for example, there is one advertisement of some university "Welcome to the ----- university (some private university). Here, you can see & find inclusive, supportive environment and students from across the world. The campus is spread over 30 lakh green acres and surrounded by a very peaceful area, which is easily accessible through train, bus and plane, affiliated by two world Class University, our campus is inaugurated by former & current chief minister and continued to be generously supported by authorities. Our Entrepreneurial partners own one of the largest media groups in India". This kind of advertisement in newspaper and on television is quite interesting and it actually shows to us the changing scenario of Indian education and also more & more intervention of neo imperialism in education. These not only points our gaze towards to the economy and education relationship but also highlights or uncover the 'between' element which T.S Elliot express in his poem 'the hollow man'.

"Between the idea
And the reality.....
Between the motion
And the act.....
Between the Conception
And the creation....."

This paper also intend to explore & uncover the 'between' moment between Education and economy. Education system is an important institution in Society & also central to new imperialism agendas of World Bank and other multilateral agencies for their vision of 'development'. It plays a very important role in shaping the individuals personality, thoughts & ideas. Schools & Universities are understood as an important place where after family, children's mostly learning takes place (Durkheim, 1925). In India, school



& universities are understood as ‘temple of knowledge’, which imparts knowledge to individuals, so that they can achieve excellence in their life and also for social mobility & benefits. But how many people are able to access education through these ‘temples’ is actually affected by many factors and economy is one of the factors which from ancient time affects the answer to the question that who can able to entre in educational institutions. In India, there are other factors also which also affects the decision to access the education like caste, gender. In this paper, first, I tried to understand & establish the relationship between Economy and Education by using Karl Marx notion of base and superstructure i.e., how the relations of production and forces of production ineconomy affect the whole education system. Second, I also looked upon the reproduction of inequalities and maintenance of these inequalities by education system in the society by looking at issues like access to the education, selection in the schools and universities etc.

Education in India

India had a long history of education. Earlier, during ancient & medieval period education is given through Gurukul, Madrasa but education at that time also is not for all, it was given only to upper strata of society. There are many famous centres of education in India during this time like Takshila, Nalanda University etc. Education curriculum was based on Veda, Kuran and the goal of education in Vedic culture was self-realisation. More emphasis was placed on the inner development of the individual rather than external. Learner is able to connect with what she/he learnt and education is for self-development and skill oriented. Earlier economy and education both had relationship but not in a profound way which we can see now. In contemporary time, education is directly related to occupation and occupation is related to lives of people, no occupation or jobs i.e. no food. Education become necessary part of life and become more occupation oriented, earlier education and occupation has very little dependence to each other. But this system was diminished after the intervention of colonial power in education system. 200 years of colonial rule that left a deleterious impact on Indian economic and social development. Education was particularly affected as British rule destroyed the network of indigenous schools and left in their place a poorly developed education system. The process of colonization not only colonizes the physical body of original inhabitant but also their mind, psyche and culture. As Ashish Nandy (1983), rightly points out that the west, colonisation established itself not through ‘in structure but also in mind’. The first step towards this was Macaulay’s Minutes, 1835 which proclaimed the whole idea of English education over vernacular education system and put emphasis on ‘Indian in blood, English in taste’. The motive behind this British education system is to form a clerical class for clerical work. This objective made education more occupation oriented and compelled it to come out from internal realm to external. This legacy of colonization period over education system, now we can see in English dominate private school for the Indian middle-class elite (called public school at that time) and English became the language of the colonial power, as a cultural resource, we can see its deep imprint in Independent India also. After Independence, India is still agricultural based economy but Nehruvian model of development and his whole fascination with science & technology, idea of social justice and state’s commitment to



social upliftment of backward class & group, mark the urge for education system. In the post-independence period, education came to assume a key role in the political economy of nation & contributing to the economic and social progress that was needed that time. Kothari commission (1964-67), National policy of education (NPE, 1986) are some step towards education system in India and budget expenditure on education decided between 9-11%. For independent India to build a state, we need more educated people with scientific temperament and rigour. And this contributed to making education more skill and industry oriented and led it to become more occupation oriented also.

But this whole scenario was changed after India's adoption of liberalisation, Privatization and Globalisation (LPG) in 1990's. India was forced to carry out structural adjustment policies and liberalise its economy in 1991, more than a third of the population was not literate and less than 50% of children in the relevant age group completed primary education (Nambissan&Lall 2011). The impact of these economic changes in the field of education, we can see in entering private actor in the realm of education and state taking step back from state-centric education. Like other sectors, education system was also opened up to global world and to neo-liberalism policy of economy. India are increasingly drawn into the global markets for education and labour state policies in education, which are influenced by global economic agreements such as the GATS and WTO and setting the international standards for education and skill development. In case of India, state didn't totally step back in terms of education but allow others to invest in education system because state doesn't have capital. The major policy shift was the bringing external aid/grant to supplement funds for elementary education. Foreign funders who supported the programmes like DPEP (District Primary Education Programme) included the World Bank, European Union (EU), The Department for International Development (DIFD, UK) as well as other multinational organisations (Nambissan&Lall 2011). The higher cut down of state funding during this period is actually give ways to bring private sources of funding. Education is become one of the booming economies in India and privatization justified itself by saying that it improves the quality of education& enhances the efficiency of teacher & students. This is evident through the number of increase in private education institution in previous 20 years in India. This marketisation of education is justified by their supporters by focusing on improving educational provision and outcomes by giving parents greater consumer sovereignty in their choice of public schools & by assuming that the motivation of parents to ensure that their children had a sound education. The class who benefitted most from these reforms is middle class and through more and free flow of opportunity in education, they build cultural, social capital for their social mobility in social hierarchy. But there are also some groups that not able to choose school for their own choice because of economic constraints, experience structural exclusion and also because of their location in the social hierarchy like caste, ethnic identity. The NSS data for 2004-2005, rural- urban disparities- enrolment rate being 6.73% and 19.80% for the rural and the urban areas respectively. However, inter-caste/ tribe disparities are the most prominent. The gross enrolment rate in 2004-2005 was about 11% at overall level. The Gross enrolment rate among the SCs is 6.30%, the STs are 6.33% and the OBCs is 8.50% (UGC).



Economy and education

After 1990's economic reforms, rule of game is changed. First education sector which was taken care by state now become site of execution of neoliberal policies and also site of production of knowledge which legitimize it. This whole legitimation of new economic reform is done by with the help of government. Foucault (1991) notion of govern-mentality rightly put forward this idea and show the nexus between state & economy. In his notion of governmentality, he shows how the art of governmentality is not confine to state only but it also govern and work in the 'self' of individual, which he called biopolitics. 'Biopolitics' refers to complex and multiple operation of power that govern a people, where 'people' itself is created by systematic exclusion and strategic control, and it is their 'life' that becomes the object of control. In neoliberal era, neoliberal policies also work like this & institutions such as World Bank legitimise their action in the field of education, health through global governance or through notion of 'global village'. Neoliberalism basically requires two things, which is the globalisation of market& opening up different sectors to them and creating the expansion of market friendly social structure to facilitate the expansion of domestic as well as foreign capital. David Harvey (2007:3) rightly puts that 'Neoliberalism has...became hegemonic as a mode of discourse. It has pervasive effects on ways of thought to the point where it has become incorporated into the common sense way many of us interpret, live in, and understand the world'. Media & whole culture industry (Adorno, 2002) plays important role in enhancing &projecting this hegemonic discourse. The whole sectorisation of education took place, which works on the principle of Neoliberalism. Education system becomes Education sector now, where you can enter through state centred institution but for higher education you have to spend money to buy education. For example -The Right to education act 2009, which ensures free education up to 14 year but after this if you have money to pay for your fees than you can enter into the system else you out. This actually shows the conspiracy of state and private institution, here state acts as manager. This affects state policies also, state policies are modified by investors according to their benefits so that they can make profit out of it but those who suffer more form this state- private group's nexus are poor people. This also opens up the trajectory between politics, economy and education. State also tries and works as to prevent gaps in the system, which gives way to generating critical ideas and understandings among education institutions. As Bowls & Althusser (1971) rightly point out that the state acts as a 'servant' of capitalism and state was active in the maintenance of class inequalities in society. This education system was designed and works in a manner that which reproduces the same system of hierarchy, where ruling class is always in upper position and it also reproduce the illusion and 'false consciousness' among masses that education system is work for them and provide equal opportunity to all. This education system is also produce skilled labour and attitudes required to maintain a capitalist economy. Education system, far from promoting progress by reducing inequalities and preparing individuals for democracy, actually acts as the instrument of 'oppression'. For example-Those people who belong to social backward class not able to pay fees are not able to access higher education, their status remains the same and whole system of social hierarchy is reproduced by it. Their chance of mobility also goes into vein and produce inequalities in societies. Due to not able to access the



education, this also creates two classes of people 'haves of education' and 'haven't with little education'. In these sense, education system become production site of inequalities, hierarchy and difference. Education which thought to be as a mean of achieving a balance between equality, liberty and community in the modern world actually become the site of wealth creation. The role of economy in education we can see through the theory of human capital theory which states that investment in education and training are profitable because it helpful for both the individual and the society. After adopting LPG reforms, we can see a range of schools from international schools to small private school, which serves the every class of people in India and similarly diverse forms of universities. These diverse educational systems cater parental aspiration for the success of their children and also those who believe in meritocracy. The possibility of choosing school benefits the middle class in India whereas poor class have to make do with the leftover. Apple (2007:7) points out this kind of appearance of new education system i.e. based on meritocracy, has underneath the big patterns of global economic policies in globalisation; to the 'dense relationship between the massive material and structural shifts associated with globalisation and everyday life'.

The new education sector works on the basis of crisis model, similar to Naomi Klein idea of disaster capitalism. The logic behind the crisis model of education is that, in a situation when crisis of educational attainment is so huge, it is better to accept any programme, funding, initiative that comes i.e. first creating crisis then providing funding for came out of that crisis. The issues of poverty and inequality are also supported by this because it only poses hope for betterment and improvement. This model also show crisis like quality of education, less number of teachers and resources, non- hygienic food in Mid-day Meal and provide substitute in terms of world class education, world class teachers and resources, packed food so that they can took over whole education system and making out benefit without doing anything. The other factor which compels students to become part of the education system is the notion of direct placement in work place. Introduction of vocational education and professional system is also tempt young generation to become part of the system and capitalist make profit out of it.

In India, the central government schemes such as CSS i.e., common school system which promise to provide equal opportunity to every Indian child to access an education of good and similar quality was also affected by increasing intervention market and also cut down of state spending over budget. As on the basis of recommendation made by Education Commission 1964-67, six percent of GDP is allocated for education but it also cut down after 1990's. The table no.1 indicates the state public expenditure on education, which shows only 2.44% of GDP, is allocated to education, which is very less which is prescribed by education commission. This also explains the increasing intervention of private sector in the domain of education system and state's position. Form 1951-52 to 1975-76 only 1.44% GDP increases. This table not show current position of GDP allocation, but it already show state less interest in reforming education. On the other hand table-2 which estimates 7% of GDP allocation is required in education.

Table -1

Statement indicating the Public Expenditure on Education

S.No.	Year	GDP at current prices (at factor cost) (Rs. in crore)	Total Expenditure by all Sectors (Rs in crore)	Expenditure on Education by Education Department (Rs. in crore)	Expenditure on Education by Education & Other Deptts. (Rs. in crore)	Expenditure on Education by Education & Other Deptts. as % age of Public Expenditure	Expenditure on Education by Education Department as %age of GDP	Expenditure on Education by Education & Other Deptts. as %age of GDP
1	1951-52	10080	814.14	64.46	64.46	7.92	0.64	0.64
2	1952-53	9941	857.67	72.26	72.26	8.45	0.73	0.73
3	1953-54	10824	908.2	80.06	80.06	8.82	0.74	0.74
4	1954-55	10168	973.74	95.82	95.82	9.94	0.94	0.94
5	1955-56	10332	1111.26	118.39	118.39	10.65	1.15	1.15
6	1956-57	12334	1158.01	132.88	132.88	11.47	1.08	1.08
7	1957-58	12610	1416.62	150.26	150.26	10.61	1.19	1.19
8	1958-59	14106	1594.36	173.78	173.78	10.90	1.23	1.23
9	1959-60	14816	1770.06	207.59	207.59	11.73	1.40	1.40
10	1960-61	16220	1997.93	239.56	239.56	11.99	1.48	1.48
11	1961-62	17116	2225.4	260.30	260.30	11.70	1.52	1.52
12	1962-63	18302	2942.67	278.76	278.76	9.47	1.52	1.52
13	1963-64	20916	3468.97	313.93	313.93	9.00	1.50	1.50
14	1964-65	24436	3844.91	369.29	369.29	9.60	1.51	1.51
15	1965-66	25586	4404.82	432.61	432.61	9.82	1.69	1.69
16	1966-67	29123	5100.24	487.83	487.83	9.56	1.68	1.68
17	1967-68	34225	5619.77	593.14	593.14	10.55	1.73	1.73
18	1968-69	36092	6922.07	649.13	649.13	9.38	1.80	1.80
19	1969-70	39691	7908.07	760.23	760.23	9.61	1.92	1.92
20	1970-71	42222	8787.12	892.36	892.36	10.16	2.11	2.11
21	1971-72	44923	10610.89	994.82	1011.07	9.53	2.21	2.25
22	1972-73	49415	11863.56	1128.80	1150.43	9.70	2.28	2.33
23	1973-74	60560	12884.48	1274.29	1300.72	10.10	2.10	2.15
24	1974-75	71283	14625.03	1539.98	1570.67	10.74	2.16	2.20
25	1975-76	75709	17958.99	1809.11	1849.47	10.30	2.39	2.44

Source:http://mhrd.gov.in/sites/upload_files/mhrd/files/Public%20Expenditure.pdf

Table- 2

Table 10: Estimate of Additional Requirement (Rs. 000 crore)

Year	Enrolment in General Education (000)	Total trend based State exp + Central Non-Plan	Based on recurrent expenditure of Rs. 26,250 per student			Based on recurrent exp. Of Rs. 21,200 per student			
			GDP Factor Cost	Total estimated expenditure	Additional Outlay Required	Additional Outlay as % of GDP	Total estimated expenditure	Additional Outlay Required	Additional Outlay as % of GDP
2006-07	10399								
11th Plan									
2007-08	482	13707	2958686	19181	5474	0.65	17556	3849	0.59
2008-09	787	14588	3195381	24751	10164	0.77	21103	6516	0.66
2009-10	980	15526	3451012	31719	16193	0.92	25797	10271	0.75
2010-11	1166	16525	3727093	37392	20867	1.00	28953	12428	0.78
2011-12	1033	17588	4025260	42716	25127	1.06	31933	14345	0.79
	4448	77933		155712	77779		125296	47362	

Notes: (1) All estimates based on 2006-07 prices (5.5% higher than 2005-06 level) and in Rupees crores

(2) Non-recurrent exp. At Rs. 40000 per student; (3) GDP growth rate conservatively assumed at 7 percent over 11th Plan period.

SOURCE:<http://www.ugc.ac.in/oldpdf/pub/report/12.pdf>



Teaching and Education

Teaching is an essential part of education system, without teaching no one imagines education in India but the condition of teaching practice & teachers in India is very bad. After 1990's economic reforms, when new private education institution came into being and state cut down the costs and pay of teacher, hire them again or new faculty through contract. In government schools in Delhi a teacher who worked on contractual basis get 13000 per month as salary and from which half of salary went into commuting. In some states teacher get 5000 per month, on the other hand pay commission of India prescribed 30,000 for primary teacher. This is similar to Marx notion of exploitation, by giving fewer wages for more work. This low wage of teacher not only weakens their spirit of teaching but alienate them from their work. In Delhi University also lectures are appointed on the basis of contract, which not only affect the quality of education but also show teacher salaries cutting down by state. The idea of biometric attendance system also another symbols of becoming education an Industry, where you have to mark out your presence and absence & on the basis of that you paid.

Due to this very less people adopt teaching profession because here you have to give more input and output is very less. Table 2 represents the vacant position of teacher at different educational level.

Table -3

Table - 7 (a): Vacant Positions of Teachers in Sample Universities (Academic Session 2007-08)

	Total Sanctioned	Total Filled	Total Vacant	% Vacancy	No. of sample university
Prof	2469	1367	1102	44.63	45
Reader	4506	2194	2312	51.31	46
Lecturer	9604	4503	5101	53.11	44
Total	16579	8064	8515	51.36	

Source: <http://www.ugc.ac.in/oldpdf/pub/report/12.pdf>

Conclusion

Education is something which has amazing potential for both changing the 'system' & maintaining the 'system'. The economy and education relationship can be understood how capital operates. Capital operates at a human cost. In neo-liberalism, capitalism system operates according to a design, which is based on the undemocratic and non-participatory mechanism, and it works in a way that ensures its interests get priority over popular interests. The state is acts as an instrument of their hands, which would not mind investing millions to organise big events like the Commonwealth Games but not in education. The important actor's that constitute the educational system, for ex -the teachers, student's parents of student along with the other kinds of workers - need to recognise the nature of the system .As Paulo Frere (1993) points oppressed to fully liberate society need to liberate themselves with oppressor. For liberation from neoliberal intervention in education we needs a common ground for the resistance, which would build itself and this common ground has to emerge from the



class consciousness of the different constituents. The transformation will have to be grounded within the labour-capital conflict and teachers as well as students will have to struggle that resists capitalism in education at the moment. Also intervention from policy makers is much needed. Simultaneously we have together have to strive for recommendation like common school system in our education systems in India, which opens it to all class irrespective of the capital they possess they have access to education. Together with this we also have to rethink on the purpose of our education. That is, do we still want to pursue our whole education system towards development oriented, skill based learning or does it have different meaning also like the way M.K Gandhi, Rabindranath Tagore and JidduKrishnamurti thought and explains.

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AYN RAND'S THEORY OF ALTRUISM AND RATIONALITY

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Abstract

Altruism holds deaths as its ultimate goal and standard of value. It is logical that renunciation, resignation, self-denial and every other form of suffering, including self destruction are the virtues it advocates. Logically, these are the only things that the practitioners of altruism have achieved. By evaluating the issue of helping others into the central and primary issue of ethics, altruism has destroyed the concept of any authentic benevolence or good will among men. It has indoctrinated men with the ideas that to value another human being is an act of selfishness. Ayn Rand argues that altruism also works not only for man's life but also for the state, for the society, for the race, for the gang and for the nation. It functions for the sake of a collective good. Altruism also functions as the collectivism which sustain human life and rational values. Altruism erodes men's capacity to grasp the concept of rights or the value of an individual's life. It also reveals a mind from which the reality of human being has been wiped out.

Rationality means the recognition and acceptance of reason as one's only guide to action. It means one's only source of knowledge, one's only judge of virtues and one's only guide to action. It means one's total commitment to a state of full, conscious awareness, to the maintenance of full mental focus in all issues, in all choices, in all of one's waking hours. It is also a commitment to the fullest perception of reality within one's power and to the constant active expansion of one's perception and knowledge. It is a commitment to the reality of one's own existence.

Keywords: - Altruism, Rationality, Recognition, Collectivism.

Introduction

Altruism is not a synonym for kindness, generosity or good will but the doctrine that man should place others above self as the fundamental rule of life. Ayn Rand has covered this ground too well in theory, practices in history and from every aspect. The concept of altruism advocates self-sacrifice and consistency.

Altruism is not a simple benevolence or charity but rather the moral and political obligation of the individual to sacrifice an interest for the sake of a greater social good. It has been man's ruling moral code through most of the history of mankind. The concept of altruism holds that man has no right to exist for his own sake. Man's service to others is the only justification of his existence and that self-sacrifice is his highest moral duty.

Ayn Rand wants to interpret that altruism is not a basic cause for brutality worship and that the cause lies in the fundamental philosophy of unreason. It lies in the



epistemology of intrinsicism and subjectivism. Intrinsicism reduces cognition to revelation. The moral man's reward is life.

The concept of altruism is also viewed by *Objectivism*. It is the idea that people live for others and place others above the self. The creators who are not altruists initiate or follow *Objectivism* are "self-sufficient", "self-motivated", and "self-generated" who serve no one but themselves. *Objectivism* leads the view beyond the perceptual level as a volitional adherence to altruism as well an adherence to reality. *Altruism* is also a volitional adherence to reality.

Chris Matthew Sciabarra comments:

"In her rejection of Russian mysticism, altruism, collectivism, and statism, Rand began to identify a philosophical conjunction that was not apparent to others of her generation"¹

Ayn Rand stresses the creative altruism as a means of conquering the human predatory instincts witnessed in the Soviet Union. Ayn Rand argues about the point that by placing God, the collective and the state above the self, altruism aimed for a culturally induced selfishness. Its goal is not benevolence to the relief of suffering rather its purpose is to prey on people's sense of guilt and inadequacy. Altruist code becomes a source of virtue and repudiates altruism's penchant to celebrate a nonexistent God by crucifying human beings.

Ayn Rand writes:

"Altruism holds that man has no right to exist for his own sake that service to others is the only moral justification of his existence, and that self-sacrifice is his highest moral duty."(VOR, 4)

She also illustrates her views about the characteristic of an altruist as a mixture of bitter contempt and intense, profound hatred for mankind, hatred impervious to reason. Altruist regards men as evil by nature, he complains about their congenial stupidity, mediocrity, depravity and the omnipotent power. Altruist is a man who has a profound hatred for mankind.

Mimi Reisel Gladstein supports Rand's philosophy of altruism and states:"Collectivism, altruism and mysticism all work against individual freedom, a healthy ego and rationality."² In Ayn Rand's philosophy of *Objectivism*, all these areas such as collectivism, altruism and mysticism are interconnected. *Altruism* is the tool by which the individual discerns that which is self-sustaining and ego nourishing Ayn Rand personifies and perpetuates the evils of collectivism.

Ayn Rand illustrates the point that it is a world in which competition is lauded as the basic axiom and guiding principle but too much competition is condemned as cutthroat. Ayn Rand argues that it is a world in which the law is so savage that businessmen have no way of knowing whether specific actions will be declared illegal until they hear the judge's verdict about the fact.

In the view of the confusion, contradictions and legalistic hairsplitting which characterize the realm of altruist, the entire altruist system must be opened for review. It is necessary to ascertain and estimate the historical roots of the altruist laws and economic theories upon which these laws are based. The entire structure of altruist states in this country is a jumble of economic irrationality and ignorance. It is the product of gross misinterpretation of history and of rather naïve and certainly unrealistic



economic theories. *Altruism* also presents the savages of cut-throat competition and gross capitalism in the principle of altruist status.

D.J.DenUyl and D.B. Rasmussen observe: “*Rand’s criticism of altruism and praise for capitalism are considered an antireligious message of philosophical materialism.*”³ The reaction to Rand’s philosophy reflects a tension within the conservative intellectual movement. Rand here gives more importance to Capitalism because of altruism as philosophical materialism.

Ayn Rand illustrates the two factions by contrasting admiration for Capitalism and Altruism. The first faction is roughly labeled with traditionalist. It sees government’s purpose to be the promotion of virtue. Traditionalist thinkers regard Christianity as the moral basis of Western civilization as ethical altruism. The second faction roughly called libertarian. It takes the purpose of government to be the promotion of liberty. Libertarian thinkers who deny the legitimacy of ethics or consider its enforcement to be beyond the government’s preview are ambivalent towards Rand’s conjunction of ethical egoism, altruism and laissez-faire Capitalism.

Ayn Rand propounds:

“The collective neglect of art has persisted precisely because the function of art is non-social. One of the grimest monuments to altruism is man’s culturally induced selfishness.”(TRM, 16)

Ayn Rand wants to illustrate an instance of altruism’s inhumanity, of its brutal indifference to the deepest need of man as an actual individual. Man’s willingness to live with himself as with the unknown, to ignore, evade, and repress the personal (non-social) needs of his soul. Rand says that man must know at least about the things that matter most and to consign his deepest values to the impotent ground of subjectivity and his life to the dreary wasteland of chronic guilt.

Ayn Rand proposes that altruism is introduced as an insolvable conflict into romantic literature from the start. The altruist morality cannot be practiced except in the form of self-destruction and therefore cannot be projected or dramatized in terms of man’s life on earth. Without altruism as a criterion of values and virtues, it is impossible to create an image of a man at his best, as he might be and ought to be.

Rationality is one of the prominent premises of Objectivism. It is an epistemological theory of Ayn Rand’s philosophy. In this regard, Ayn Rand says: “Rationality is man’s basic virtue, the source of all his other virtues” (VOS, 25). It is interpreted that man’s basic virtue, the source of all his evils is the act of unfocusing his mind, the suspension of his consciousness, which is not blindness, but the refusal to see, not ignorance, but the refusal to know. Irrationality is the rejection of man’s means of survival. It is also a commitment to a course of blind destruction that is anti-mind and is anti-life.

Rationality is the principle that all of one’s goals, values and actions take place in reality. Therefore, one must never place any value or consideration what so ever above one’s perception to reality. It means a commitment to the principle that all of one’s convictions, values, goals, desires and actions must be based on, derived from, chosen and validated by a process of thought. It is one’s acceptance of the responsibility of forming one’s own judgments and of living by the work of one’s own mind. It is the



virtue of independence. It means that one must never sacrifice one's convictions to the opinions and wishes of others which is the virtue of integrity.

One must never endeavor to consider reality in any manner which is the virtue of honesty. One must never seek or grant the unearned and undeserved neither in matter nor in spirit. It is the virtue of justice. An individualist is, first and foremost, a man of rationality. It is upon the ability to think, upon his rational faculty, that man's life depends. *Rationality* is the precondition of independence and self-reliance. An "individualist" who is neither independent nor self-reliant is a contradiction in terms. Individualism and independence are logically inseparable.

The basic independence of the rational individualist consists of the loyalty to his own mind. It is his perception of the facts of reality, his understanding, his judgment that refuses to sacrifice to the unproved assertions of others. The rational individualist is a man who lives for his own sake and by his own mind. He neither sacrifices himself to others nor sacrifices others to himself. He deals with men as a trader, not as a looter, as a producer.

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EMERGING TRENDS IN RECRUITMENT AND SELECTION PROCESSES

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ABSTRACT

Since recruitment has become the most challenging human resources (HR) function across all industries today, the need of the hour is to shift from traditional reactive recruiting towards more proactive recruiting, by clearly understanding the various factors of the recruitment market. While the improving job market has brought greater opportunities for professionals ready to change jobs, new processes and priorities in recruitment will present new challenges for job seekers. As hiring processes become more thorough, businesses are investing significant resources in finding the right candidates. This can place professionals who are offered a role in a strong position to negotiate their salary and terms. By preparing in advance for these negotiations, professionals can secure favourable terms once the employer is keen to take them on. This paper examines the recruitment and selection process and the latest trends concerning recruitment and selection. The paper consists of new methods followed by companies.

Keywords: Poaching, Hiring, Recruitment, Selection.

1. Introduction

Recruitment is the process of identifying that the organisation needs to employ someone up to the point at which application forms for the post have arrived at the organisation. Selection then consists of the processes involved in choosing from applicants a suitable candidate to fill a post. Training consists of a range of processes involved in making sure that job holders have the right skills, knowledge and attitudes required to help the organisation to achieve its objectives. Recruiting individuals to fill particular posts within a business can be done either internally by recruitment within the firm, or externally by recruiting people from outside. Internet evolution is affecting our working and personal life in various aspects and no one can say the contrary. One of the areas that the internet has recently and strongly been involved in is Recruitment & Selection, as a medium between job seekers and companies since global competition persists and industries becoming more skill intensive, the recruitment of talent workers becomes essential and attracting the right applicants at the right time is getting tougher than ever. The use of conventional recruitment methods no longer suffices and timely to attract sufficient pool of qualified applicants. Many organizations have turned to adopting sophisticated recruitment strategies or combining various recruitment methods to attract them such as the E-Recruitment.



2. OBJECTIVES

- To know the recent recruitment and selection trends adopted by the employers.
- To know how could e-recruiting affects the overall recruitment process and whether it causes changes in the nature and sequence of tasks associated with the traditional recruitment of external candidates.
- To study new approaches in Recruitment and selection.

3. LITERATURE REVIEW

Recruitment and selection is a core function of the Human Resource department. It can be regarded as one of the most important functions performed by the HR department. Also commonly known as the staffing function, it involves the following phases:

- Job analysis
- Manpower planning
- Recruitment and selection

4. Trends in Recruitment process

4.1 Poaching/Raiding

Raiding or poaching is a method of recruitment in which competing firms attract employees from rival firms. In simple terms poaching may be described as buying talent rather than developing. Hefty pay packages, other terms and conditions may attract employees to join new Organizations. Poaching is a big challenge for human resource managers. Poaching weakens the Organizations competitive strength because of employee's migration.

4.2 Corporate talent network

Corporate "talent networks" are online platform for promoting the company brand name. Its main objective is to attract new talent from a variety of sources which includes job candidates, fans, employees, alumni, partners, suppliers and even customers. It is very popular among the big firms and are increasingly being adopted by smaller and medium size firms as well. A talent network serves as an advertising and promotional hub for the company brand name. It is used to communicate job openings, career information, and other company information. The contents are usually tailored and targeted for each specific candidate.

4.3 Building an end-to-end talent brand

More and more companies today are focusing on building end to end talent brand. A talent brand refers to how the company is being perceived by its current employees, past employees and prospective employees. It is a method for communicating and showcasing the company corporate culture in real time. Companies today are developing strong talent brand strategy to reduce their cost per hire and lower turnover rates. A talent brand is something that is created via the joint efforts of the marketing department and the HR department.



4.4 Use of applicant tracking software (ATS)

One fast emerging trend is rapid adoption of Applicant Tracking Software (ATS). ATS are software designed specifically to meet the recruitment needs of a company. These software focus on managing the entire recruitment process, monitoring ad campaigns, and creating an excellent candidate experience. ATS can be used to post job openings, screen resumes, and generate interview requests to potential candidates by e-mail. Other features include individual applicant tracking, requisition tracking, automated resume ranking, customized input forms, pre-screening questions and response tracking, and multilingual capabilities.

4.5 Develop mobile recruitment strategy

Recent surveys indicate that increasingly large number of prospective candidates use mobile devices to access the internet and carry out personal tasks including job search. Hence, a growing trend among large firms is to create a mobile career site built specifically to meet the needs of the mobile device users. The aim is to use mobile recruitment to post jobs and create postings that can be easily shared on social media and readily responded to.

4.6 E-Recruitment

E-Recruitment is the latest trend in recruitment. It is also known as online recruitment. Internet is the back bone for E-Recruitment. Companies advertise job vacancies on different websites. Exclusive job websites like nauk.com, monster.com, etc. help both job seekers and companies to contact each other. A 24x7 access to the database of the resumes to the employers is provided by these job sites which facilitate organizations to hire people more rapidly. Every Company website usually provides 'career' hyper link. This link helps job seekers to upload resume in the website. Using the uploaded resumes Companies can build their own resume database, which can be used for existing and future requirements. Online recruitment helps the organizations to automate the process of recruitment, which allow saving on time and costs.

4.7 Traditional way v/s E-way

In recent years, the traditional approach to recruitment has been revolutionized by the concept of online recruitment. Although Internet recruiting will not replace traditional recruiting in the near future, it is quickly becoming an essential aid for today's recruiters. Online recruitment varies from conventional recruitment in many ways this has been stressed by some authors. In this area, some researchers have compared between internet recruitment tools and traditional recruitment tools.

Some corporate companies even use their web sites to recruit people while others capitalized this change to become e-recruitment service providers. This latter "third-party" e-recruitment business thrived to become the second most popular online business besides booking airline tickets, in United States and Europe. This business trends was later caught up in South-east Asia and Asia Pacific focused on reactions to Internet-based job sites. They discovered that the Internet was evidently favoured as a source of finding jobs.



An examination of the literature on the various aspect of e-recruitment will allow us some insight and better understanding. When doing literature research many studies focused mainly on the applicant side or only on corporate side; in this study we will investigate both aspect in order to have a broad understanding of e-recruitment development.

4.8 Growing emphasis on using social networks

Over the past few years, social networking sites such as LinkedIn and Facebook have rapidly gained prominence amongst internet users. These sites provide wealth of information on prospective candidates. Sites such as LinkedIn, and to an extent Facebook, provide specific recruitment related tools and analytic software to improve the recruitment process. Their aim is to help companies identify and locate the right talent for their company. Not surprisingly many firms have actively started using social networking sites for soliciting and recruiting new talents. The top preferred site is LinkedIn followed by Facebook and others.

4.9 Increased focused on passive candidates

Traditionally recruiters have focused on active candidates-those actively seeking new jobs. However, research has shown that vast majority of prospects (as high as 73%) are passive candidates, that is they are not actively seeking jobs but are open to new opportunities and offers. This was found to be especially true in the case of social networking sites such as LinkedIn where vast majority of prospects were passive candidates. Hence, firms today are providing more and more emphasis on passive candidates. Indeed, much of the mentioned trends are aimed at attracting passive candidates.

4.10 Emerging techniques of upcoming job offer

Publications of job either in audio or on posters can be done through advertising agencies. The multinational "Accenture" is often called to encourage applications. When designed by advertising agencies, they have the benefit of the position value and attract the attention of the reader. Their effectiveness is proven through the actual response rate achieved by employers.

Ads may also be webcast on the most visited websites, for example, the homepage of Orange Mauritius, Facebook, etc. Rates vary depending on site and some may even be free, like Facebook. There is a mailing service very fashionable offered by RKcom, but highly not recommended as their service is considered as SPAM and their mail outs usually targeted inappropriate recipients and the mailing service is not free.

5. Trends in Selection process

5.1 Video interviews and video resumes

This type of interviewing will allow employers to see a candidate's communication skills and personality earlier in the process. This will cut down on time-to-hire and help employers cut out time consuming phone screens. Instead, employers can conduct one-way video interviews where candidates answer written questions on



film. If employers know the candidate is a bad fit for the company, they can move on quickly without wasting half an hour or more on phone with someone all wrong for the job. Furthermore, the technology will soon drive live video interviewing, thereby replacing face-to-face interviews. However, doubts remain as to the success of such technologies in Kenya; an environment that still struggles to serve up sufficient internet to power basic transactions. For candidates, video resumes are becoming a more effective means of showcasing the profile of a candidate and selling their ability in a way that a paper resume cannot.

5.2 Providing Employee Candidates with the Results of Assessment

When applying for a job, a person provides a lot of data to an organization, including the results of various types of assessment (for instance, personality, skills, and aptitude evaluations). Typically, the hiring organization controls the assessment process and the data. As a result, it is very difficult for applicants to learn from situations in which they are not hired, and they may feel animosity toward the employer. Now we are seeing a shift in business models by some assessment providers. They are exploring two-sided approaches in which they offer assessments for free to candidates to take on their own behalf (and for their own development) and then sell the data to companies recruiting employees. This provides greater autonomy for candidates, and it helps to avoid the mistrust that comes with employers forcing assessments onto candidates and often not providing results (whether the candidate is hired or not).

5.3 Gamification of the Assessment Process.

Most people do not like completing assessments but do like playing games. As a result, we are seeing a gamification of the assessment process in which gaming elements (badges, behaviour up, and so on) are being embedded in traditional assessments. And some organizations are going further and actually assessing people through games. The amount of data that can be captured while people play games is incredible and can provide real insight into abilities (for example, emotional intelligence, spatial reasoning, and finger dexterity), personality, and values. A benefit of this approach is that game play represents behaviour and therefore often relies less on self-report. Furthermore, drawing on the technological resources that the popularity of gaming has made possible, organizations can now create virtual realities that simulate the actual environments in which people work, making the assessments even more accurate, relevant, and unbiased.

5.4 Big Data

With the plethora of data at our disposal, many organizations are looking for ways to use personal data, like that available on social media and even data from activity trackers, to make inferences about individuals during the hiring process. In a previous blog, I discuss the pitfalls of using social media and other sources in the hiring process. These sources are unreliable and often provide personal information that is not relevant to the job (e.g., age, race, gender, marital status) that could be used inadvertently in decision making. While some of this information could be predictive, the information gleaned from these kinds of sources are often acting as proxies for underlying traits that



individuals possess. Instead of inferring from unreliable data, an assessment can do a better job of directly measuring the trait(s) of interest. Beware of personal data that could bias your decision making. Choose your data sources carefully.

5.5 Behavioural Prediction-An emerging trend

Some years ago, Yahoo! Hot Jobs started analysing the profile activity of its members and their Yahoo! search behaviour to come up with a composite score indicating the 'seriousness' of the job seeker. The approach adopted in this case is known as behavioural prediction. Behavioural modelling attempts to rank applicants on their seriousness and intends to weed out resume spammers. It's based on the assumption that serious job applicants are likely to spend more time on the website while applying for open positions. The quantum of time an individual spends in shaping up his/her resume and posting content seems to indicate the level of 'seriousness'. The technology is still in its infancy and is being adopted by select few enterprises. Nevertheless, this technique has the potential of cutting down the time recruiters spend in reviewing resumes.

6. Conclusion

Recruitment and selection remains one of the most important functions of the HR department. As competition increases between firms, selecting and recruiting the right and qualified talents become all the more important. Firms not only need to head hunt but also must retain existing employees. The entire recruitment and selection strategy has changed and evolved to a new form where the onus lies on the firms to advertise, attract, and retain top talents. Internet based technologies and various other software and information systems have provided new capabilities like never before. There is a growing trend amongst firms to adopt and utilize these technical solutions. The future is bound to see an increased role of internet-based solutions in recruitment and selection process.

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SOME IMPORTANT INSCRIPTIONS AT SIDDHAVATAM REGION IN KADAPA DISTRICT: A STUDY

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Abstract

In the Kadapa District of Andhra Pradesh has large temples belonging to the early and medieval times. Majority of the temples have inscriptions which throw welcome light on various aspects including cultural history. The present article attempts to analyze the Temple Inscriptions of the Siddhavatam area of this District. The earliest of inscriptions belong to the 13th Century. It is very interesting that these inscriptions mention the concerned rulers bestowing grants and gifts for conducting like reconstruction for *Sikharas* and *Gopurams* and compound wall etc. Some inscriptions is of significance in that it records the gifts for conducting *anga-bhoga* and *teru-tirunallamahotvas*. The following is a detailed study of the inscription of the Siddhavatam region.

Keywords: Temples, Inscriptions, Sikharas, Sunkamu, Rukas, Occasions.

Introduction

Joti (Siddhavatam Taluk)

This Village is named after the God Jyotinatha or Jyotesvara whose temple is on the left bank of the Penna. It is about 6 kms to the west of Siddhavatam. According to the local tradition, Joti and Siddhavatam formed the two ends of an ancient city¹. An inscription on a stone slab set up near the old Siva temple informs that the *gopura* of the temple of Jyotinatha was built by Chinta Rami-nayaka on the 13th day of the bright fortnight of *Jyeshtha* in the cyclic year Plavanga corresponding to Saka 1169 (1247 A.D. May 19)². It further states that the same person built a temple of Irugaladeva at the village Takaprolu³ and excavated two tanks and built another temple in the village Che(be)turu which he converted into an *agrahara*.

Siddhavatam (Siddhavatam Taluk)

Siddhavatam is picturesquely situated at the left bank of the Penneru at the foot of the Lankamala hills. The village is of great social, religious and political antiquity. This is attested by numerous inscriptions found in the tract surrounding Siddhavatam. An inscription in Grantha and Tamil characters of Saka 1155 (1233 A.D.) in the deserted temple of Siddhesvara in Siddhavatam referring to Rajendra III mentions the construction of the western *gopura* of the temple. The place passed into the hands of the Matli Chiefs who held it as their *nayankara* during the days of Vijayanagara. It is considered as the southern gate-way of Srisailam and *Daksina-Kasi*. The name of the village and the god suggest the association with the *siddhas* of bygone days. It is



believed that some *siddhas* were performing penance under the Banyan tree (*vataavriksha*) and thus the village came to be known by its present name⁴.

The second inscription is from the village Varikunta in Siddhavatam taluk. This inscription which is dated Saka 1226 (1304 A.D.)⁵ is found engraved on a slab lying in the compound of the Siva temple. It records that Tripurandeva, son of Ambadeva, granted the village Varikunta along with the tax incomes *sadam*, *sunkam* and *sastayam* (probably 1/6 of the produce to be paid as tax) to the god Siddhanathadeva of Sriparvata-Dakshinadvara (i.e.Siddhavatam). It is stipulated that from the produce (*utpatti*) of the gift village the *anga-bhoga* of the god during the afternoon service should be maintained. It further records the gift of four *puttis* of wet land and two *visas* of dry land probably for worship and food offerings. Among the items needed for *anga-bhoga*, sandal paste and musk are mentioned.

An inscriptions from Chanduvayi in Siddhavatam taluk which is dated Saka 1241 (1319 A.D.)⁶ refers itself to the prosperous reign of *mahamandalesvara* Kakatiya Prataparudradeva maharaja. While the king's subordinate *mahapradhani*Kattekolayanayaka-Juttayalemka was administering Pottapi-bhumi, Sakali-bhumi and Mulki-nati-bhumi, his younger brother Rudraya-lemka stationed at Kadapa in Mulki-nadu visited (the temple) on the occasion of the lunar eclipse and made a gift of all incomes like *rachasrotriyamu*, *ari*, *goru* (*koru*), *pannulu*, *kanikalu* due from within the four boundaries of the Chamduvaya village included in Sakali-bhumi for the mid-day offerings to the god Siddanathadeva, the presiding deity of the southern gate of Sriparvata. The grant was made for the merit of the king. The inscription was written by *devaragudi-karanam*. The record ends with the mention of the gift of a perpetual lamp.

An inscription from Siddhavatam, belonging to the reign of VijayanagaraVenkatapati and dated Saka 1527 (1605 A.D.)⁷ seems to state that a compound wall was built around the temple of Siddhavatesvara.

Varikunta: (Siddhavatam taluk)

There is an inscription on a slab in the Kesava temple in this village which belongs to Saka 1453 (1531 A.D.)⁸. It records that an amount of 120 *rukas* was given to the mason (*vupara*) for the constructing the *sikhara* and *ardha-mandapa* newly to the temple of Kesavaperumallu of Varikumta as it was in ruins. It is interesting to note that this arrangement was made by the *sthanamvaru* of the temple of Siddhesvara in Jyoti, an *adhikari* and the village *karanam* and others. Some land was also gifted to the temple as *sarvamanya* for maintaining worship, lamp, *naivedya*, etc., to the god.

Viruru: (Siddhavatam taluk)

An inscription lying near the Virabhadra temple, which is dated Saka 1449 (1527 A.D.)⁹ records the gift of a garden by some individuals of 24 *kulas* for supplying flowers, etc., to the gods Mahalingamu (Siva), Viresvara and the village deities Yaralidevi, etc., of Viruru. The gift was made over to Badi Lingaya in the presence of

the merchant guild *Ayyavali-mukhyamaina-chalumula-samasta-pekkandru*. Some provision was also made for the free feeding of the local people as well as to those who come from outside (*svadesi-paradesi*).

Vontimitta (Siddhavatam Taluk)

Regarding this place A.Gurumurthi gives the following information¹⁰.

“Towards the south-west of the village is situated the temple of Sri-Kodandarama with a spacious courtyard and three *gopura* gateways. Opposite to this temple, to the east, of the eastern *gopura* gateway, is the temple of Sanjivaraya (Anjaneya) facing west to the main temple. This temple is famous for its art and architecture in Cuddapah district. French traveler Travernier describes the shrine as “one of the grandest pagodas in whole of India¹¹”.

Vontimitta is said to have been a holy *ksetra* located in between the two great *ksetras* of the south, viz., Srisailam and Siddhavatam. Vontimitta was also called as *Dandakaranya-ksetramu*. In the Tretayuga, Rama accompanied by Sita and Lakshmana went to the forest to fulfill the wishes of his father. One mid-day, Rama to quench the thirst of his beloved wife, shot his arrow into the earth, through which sweet water sprang out. Later, this perennial flow of water was made to form two small tanks which are called Ramatirtham and Lakshmanatirtham. Rama, along with his consort Sita and brother, Lakshmana, toured all over Dandakaranya and met many *rishis*. The *rishis* appealed to Rama to free them from the atrocities of the demons. Rama, accordingly pushed the demons and made the *rishis* happy. This *anugraha* form is said to be the present images of Rama, Sita and Lakshmana enshrined in the sanctum. According to another legend the images are said to have been installed by Jambavanta.

Potana (1405-70 A.D.), a great devotee of Kodandarama as a poet par excellence lived at this village. He wrote the *Mahabhagavatamu* in Telugu at Vontimitta. A stone image of this poet is placed in the *mahamandapa* of the temple. Another poet AyyalaTipparaju, who wrote *Sri-Raghuvira-satakamu* and who was the court poet of Praudha-Devaraya (1423-46 A.D.) was also a native of Vontimitta. Ayyalaraju Ramabhadra, one of the *astadiggajas* of Krisnadevaraya and grandson of AyyalaTipparaju had close association with this village and the temple of Kodandarama.

The name of the village Vontimitta is said to be derived from the names of two persons called Vontedu and Mittadu. These two helped a king named Kampana, who camped with his army at this place, by showing the water of Ramatirtham to quench their thirst. Then the king being pleased with them built a village after their names Vontedu-Mittadu which later became Vontimitta. He also built a temple for Raghurama.

Another version is that the village is called because the images of Rama, Sita and Lakshmana are carved out of a single stone with a common pedestal. Vontimitta is also called Ekasilanagaram in literature.

However, the following account seems to be more reasonable and sounds true. This village is situated on a high level ground by the side of a high mound or a small hill.



The Vontimittavally is formed by confused spurs thrown off by the Palkonda range. The village got its name from the single mound or hill which in Telugu is Vontimitta (*vonti* = single and *mitta* = a high mound or hilly)”.

In all, three inscriptions give information about this temple. The first one is from the village Pulapatturu. This is found engraved on a slab near the Chennakesava temple and is dated Saka 1472 (1550 A.D.)¹². It records that the chief *mahamandalesvara* Srirangaraju-Ramayyadeva-maharaju and his brother Tirumalayyadeva-maharaju gifted the village Pulapatturu to the god Raghunatha of Vontimitta on the 12th day of the bright fortnight of the *Karttika* month, which is obviously the auspicious occasion of *Utthana-dvadasi*. The gift is intended for maintaining the 108 *upacharas* of the god. It is stipulated that the taxes *gutta* and *umbalika* should not be collected from this village.

The remaining two inscriptions are from the temple of Kodandaramasvami of Vontimitta itself. An inscription on a slab set up near the eastern *gopura* of the temple, which is dated Saka 1477 (1554 A.D.)¹³, records the gift of the villages Pulapatturu and its hamlet Renutumpalle by Gutti Tirumalayyadeva-maharaju and Bugepalle by Kanchiraju-yararaju, and some wet lands in Vontimitta to the god Raghunayaka of that village for maintaining daily worship, monthly festivals and the *pancha-parvas* and offerings.

It is interesting to note that the village Pulapatturu was already granted to the same god in 1550 A.D. by a chief and his brother as noted above. The donor of the inscription of 1554 A.D. is same as his name sake mentioned in inscription of 1550 A.D. referred to above.

The last inscription is also on a slab set up near the same *gopura*. It records the gift of the village Vontimitta with its hamlets in Siddhavatam-sima of Udayagiri-rajya to the god Raghunayaka of the same village said to have been consecrated by Jambavanta, by Nagarajayyadeva-maharaju of Kasyapa-gotra and Surya-vamsa.

The gift is stated to have been made for the daily worship, *amritapadis*, *anga-ranga-vaibhavas* and *teru-tirunallumhotsavas* and also also probably for maintaining the *gopura* and *prakaras*. The gift was made on the occasion of *Prathama-dvadasi* (Asadhasu 12). This inscription is dated Saka 1480 (1558 A.D.)¹⁴.

Conclusions

The inscriptions during 13th – 16th Centuries A.D. from Siddhavatam Region throw welcome light not only on the patterns of religious beliefs prevalent during those times but also the nature of temple art and offerings in the temples. A study of these inscriptions attest to the dominance of Saivite religion in this region although we come across Vaishnava tradition in Ontimitta.

The inscriptions narrate the important religious practices like endowments to the temples on the auspicious occasions like the lunar eclipse, Prathama-dvadasi, Utthana-



dvadasi. These endowments included lands, flower gardens etc. to meet the needs of the temple as well as the devotees.

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THE CONTRIBUTION OF THE AHOMS IN ASSAM'S ARCHITECTURE AND SCULPTURES

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Abstract

In India, even though several strands of the Thai people live such as the Khamti, Turung, Phakiyal, Khamyang, Nor etc., the Ahoms are the most prominent of them all. The arrival of Ahom Swargadew Chaolung Sukapha in the year 1228 AD marks an important event in the history of North East India which ushered in the conception of the Assamese society as we know it today. From the day of his arrival till the Treaty of Yandabo, the Ahoms brought together seven princely territories as a part of one kingdom and ruled the region for nearly 600 years. Along with the concepts of generosity, secularism and cultural tolerance in their way of ruling, the Ahoms also brought with them their language, literature and culture. The foundation of the Assamese society as shaped by the Ahom rulers was strengthened by a practice of non-discrimination on the basis of caste or creed which further offered a similar character to its language and culture as well. Not just language and culture, the Ahoms had added immensely to every aspect of the Assamese society including the religion, education as well as its architecture and sculptures of the place. In this paper, amongst the various contributions of the Ahoms, we will be discussing about their contributions towards the shaping the architecture, monuments and sculptures of Assam, focussing primarily on the Dol – Devalayas and the palaces of the Ahom royals.

Keywords: Thai, Ahoms, Sukapha, Assamese Society, Architecture, Sculpture.

Introduction

Formed before 2500 BC, the Thai civilization is an old and a large civilization. The main areas where the Thai people live are the southern parts of People's Republic of China such as the Yunnan, Guanji and Guandong Provinces, the north and north-west parts of Vietnam such as Quang ninh, Lang son Cao Bang, Bac Can, Hoang Lien Son, Lai Chav, Son La, West Thanh Hoa, NagheTinh provinces; almost the entire region of Lao Peoples Democratic Republic, The Royal Kingdom of Thailand=Muang Thai, Union of Burma, Northern Shan State and Southern Shan States, Khamti Long of Kachin State, Mugong, Bhamo, Myitkyina Mong Wong, SingkalingKhamti and Song Sup of the Sagaing division of Hukwang province along the banks of the Chindwin River till Ta Mu near the Manipur border as well as India's Upper Assam as well as Eastern Arunachal Pradesh.¹ In India, even though several strands of the Thai people live such as the Khamti, Turung, Phakiyal, Khamyang, Nor etc., the Ahoms are the most prominent of them all.



The arrival of Ahom Swargadew Chaolung Sukapha in the year 1228 AD marks an important event in the history of North East India which ushered in the conception of the Assamese society as we know it today. From the day of his arrival till the Treaty of Yandabo, the Ahoms brought together seven princely territories as a part of one kingdom and ruled the region for nearly 600 years. Along with the concepts of generosity, secularism and cultural tolerance in their way of ruling, the Ahoms also brought with them their language, literature and culture. The foundation of the Assamese society as shaped by the Ahom rulers was strengthened by a practice of non-discrimination on the basis of caste or creed which further offered a similar character to its language and culture as well. Not just language and culture, the Ahoms had added immensely to every aspect of the Assamese society including the religion, education as well as its architecture and sculptures of the place. In this paper, amongst the various contributions of the Ahoms, we will be discussing about their contributions towards the shaping the architecture, monuments and sculptures of Assam, focussing primarily on the Dol – Devalayas and the palaces of the Ahom royals.

Research Methodology

The word ‘analytical’ means examining things very carefully or involving the careful, systematic study of something. The approach taken in order to accurately discuss the subject of this research paper is analytical. Numerous history books, books, essays and magazines related to Thai language, literature and culture have been used as its secondary source of research.

Scope of Research and Its Significance

In this essay “**Assam’s architecture and sculptures: the contribution of the Ahoms**”, we are attempting to discuss the sculptures along with the Dev – Devalayas and the royal palaces which were built during the 600-year rule of the Ahom Kings.

Art and culture are dynamic in nature. The growth of architecture and sculpture as a part of these dynamics intensified during the Ahom rule. Even though a lot has been said and done about it, there is still quite an amount of scope left for more discussion. Keeping in mind the limitations of this paper, we will be focussing principally on the architecture and sculpture of the archaeological palaces and monuments built by the Ahom Swargadews.

A. Assam’s Architecture and Sculptures

North-east India is renowned as the playground of peacefully co-existing people coming from various cultures, castes and creeds. The arrival Chaolung Sukapha to this region in 1228 AD brought about a wave of breakthrough changes in the cultural landscape of the place. The period of 600 years of the Ahom rule is known as the Ahom era which had brought about an entirely new dimension to the language, literature and culture of the Assamese people. Instead of being rigid in its old ways, the culture-literature of the area shone in the brilliance of the fresh fervour that was brought about by the offerings of the Ahom era. Along with it, the architecture and craftsmanship of the artisans here also gained a new height during the same time. Here, we need to



mention that the sculptural monuments in Assam can be divided into two parts: pre-Ahom and Ahom. However, the pre-Ahom architecture and sculptures of Assam were of a higher standard. Even though the wet and humid weather of Assam, earthquakes, floods and other such natural disasters have destroyed many pre-Ahom monuments, yet, the Ahom sculptures and monuments have managed to withstand the negative forces of nature and still stand upright. The archaeological monuments of the Ahom era could be divided into the following categories: dol-devalayas, royal palaces, stone bridge, 'Maidam', 'Garh' and 'Aali'.

Amongst the pucca monuments constructed during the Ahom era, dol-devalayas are the highest in count. The Naag Shankar Devalaya built in the year 1480 AD under the command of Swargadew Susenpha is the oldest of all the devalayas built during the Ahom reign. Additionally, there are the dols that were built at Sibsagar -- Siva Dol, Devi Dol, Vishnu Dol, as well as Ganesh Mandir and Sri Surya Mandir. At Joysagar also, along the west bank of the Joysagar Pukhuri, three dols, namely -- Joy Dol, Vishnu Dol and Siva Dol were constructed. Situated at Negheriting, Dergaon, the Siva Dol there has temples of Devi, Vishnu, Shri Ganesh and Surya in its all four directions. The Joy Dol situated at Joysagar is the best amongst these in its structure and make. The Siva Dol named NatiGukhai Dol which is situated to the west of Gaurisagar Pukhuri is a small dol constructed in the distinctive Gauri style of architecture. This dol is a striking example of sculptural monuments made of burnt earth, which is a signature of the Ahom architecture.² The history books talk about the structure of the Dols in three parts – a) Naatghar, b) Jagmohan, c) Garbhankho.³ Along with the above mentioned dols, a number of dols were also constructed in the districts of Jorhat, Golaghat, Tinsukia, Dibrugarh and Lower Kamrup. In the building of these dols, inspiration was taken from North India's NaagarShaili. In general, bricks and stones brought from Naga Hills were used for the construction of pucca monuments; in addition, paste made of Mustard Oil, Copal, jaggery, fish, limestone, Urad dal were used as mortar for the construction of these monuments.

There are three palaces that were built during the rule of the Ahom Kings. They are: Kareng Ghar located at Garh Gaon, the Rang Ghar situated at the Ahom capital of Rangpur and Talatal Ghar.⁴ The method of construction of these buildings gives us an idea of the kind of architecture that was used by the people during those times. Furthermore, amongst these three buildings which were inspired by Mughal architecture, the KarengGhar and TalatalGhar speak aloud the craftsmanship and skills of the builders of that era. The KarengGhar and the TalatalGhar both are seven storey royal palace complexes with three storeys each constructed below the ground, three storeys constructed above the ground and another storey running along the ground. Access to the three underground storeys of TalatalGhar had been shut many years back. The shape of the bricks used in the construction of both these buildings is flat. To the west of the Talatal Ghar is situated the two storied Rang Ghar. The base of the monument has a series of arched entrances, while atop the roof sits a decorative pair of carved stone crocodiles.



The Ahom architecture holds a special distinction and specialty. Made of stones, bricks, wood and burnt/hardened earth, the walls of the monuments showcase a variety of creeper plants, flowers, leaves, animals, eminent personalities of various places as well as the general crowd and the gods and goddesses. Even though the conditions of many of these sculptures have deteriorated over time, the relics are still alive with the vestiges of their old artisanship. The splendour of the sculptures embedded in the walls of the Joy Dol is even more bounteous with the display of the stone art of the era, crafted in to the stone the life to a magnificent dream. Into the bargain, the statues made of burnt and hardened earth make the monuments even more spectacular; a special mention may be made of the statues of the NaatiGukhai Dol. Statues were also made out of the locally made mortar which were then given shape and pasted along the walls of these archaeological monuments.

Conclusion

The Ahom Era, which started with the arrival of Swargadew Sukapha in the Brahmaputra Valley after the end of his arduous journey from Mong Mao, via Myanmar through the Patkai Hills, brought about a tremendous change to the scene of the Assamese culture, literature, tradition by not only adding to what already existed but by also establishing the very foundation of what is known today as the Assamese society. Many of these fantastic Ahom monuments have been demolished because of the various reasons including man-made and natural disasters from the time of the Burmese invasions till the Indian independence. Despite this, there is a lack of consciousness in actively conserving and preserving these monuments. This urgent need for conscious efforts towards safeguarding of the monuments has to be created in order to preserve architecture and sculptures which together binds and creates the history and culture of Assam.

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ROLE OF YOGA FOR ENHANCEMENT OF SPORTS PERFORMANCE

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Abstract

Yoga postures are the physical positions that coordinate breath with movement and with holding the position to stretch and strengthen different parts of the body. Asana practice is the ideal complement to other forms of exercise, especially running, cycling and strength training, as the postures systematically work all the major muscle groups, including the back, neck, and shoulders, deep abdominal, hip and buttocks muscles and even ankles, feet, wrists and hands. By their very nature, asanas affect major and minor muscle groups and organs as they simultaneously import strength, increase flexibility and bring nourishment to internal organs. Learning to stay focused and centered through uncomfortable poses by concentrating on even inhalations and exhalations sets up the athlete to stay focused during a race or challenging workout. In today's highly competitive sports, yoga can be administered for relaxation purpose as well as supplements with the training schedule. Yogic practice and sports training simultaneously administer to the athletes for better performance in international sports by changing their physical, physiological and mental setup.

Keywords: Yoga, Exercise, Relaxation and Sports.

Introduction

Yoga is a comprehensive system whose aim is achievement of physical, psychological, and spiritual health and well-being and incorporates a wide variety of postures / exercise, breathing, and meditation techniques (1). Yoga has also been used as a therapeutic intervention (2-3) as it is believed that different techniques can produce unique psycho-physiological effects and that this specificity can be used to target specific disorders. Basic research on yoga has suggested that it is effective in influencing psycho-physiological, neuroendocrine, and autonomic parameters and therefore, has mostly been used to treat disorders that have a strong psychosomatic component (2-6). Research on the efficacy of yoga has been reported on its component techniques independently, as well as on its practice as a comprehensive multicomponent discipline (3-6). Respiration is a unique physiologic function which is automatic, but can be modified to a great extent by volition. It has an ability to modulate several visceral functions. For this reason, it has emerged as an important subject matter for psychosomatic studies, both as dependent parameter and also a modifier of psycho-physiological states (7). Our body is a self-regulating system. There are threats to its equilibrium as its environment changes and as the organism grows. These threats can be responded to adaptively by appropriate responses or destructively by inappropriate responses. The key to self-renewal lies in the level of awareness of threats and the



strategies available for dealing with them. Yoga is a highly effective strategy for stress management

Yoga can restore a weakened body and build it back up. Yoga postures, breath work and inner focus can help rebalance, strengthen and restore overtaxed muscles, joints and ligaments. Through this restoration process, athletes can increase their career longevity and develop an inner balance that will last a lifetime. Balancing the mind, body and spirit is a primary philosophical principle of yoga. It is considered the true way to honor the body (8).

Athletes in all sports are finding that yoga conditioning not only elongates tight, shortened, fatigued muscles but also brings calmness and clarity to the mind. Some athletes begin the practice to rehabilitate an injury and to gain more flexibility, stability and strength. Others take it up to increase their powers of concentration and quiet the mind. And some do it because they don't want to miss out on what everybody else is raving about! The reasons are many, but the results are consistent (8).

In today's world, all of us suffer from stress and a perpetual anxiety to perform well, leading to a plethora of diseases that we expose ourselves to. Yoga aims to calm and compose our minds and help us focus clearly on what really matters good health and the happiness that accompanies it. The practice of yoga was first developed in India and has evolved over thousands of years. Yoga disciples use poses, or asanas, to prepare their bodies for meditation practice much as an athlete would prepare for a sports competition. The poses also serve as a means to alter one's consciousness and mental focus in the spiritual quest for "enlightenment." This spiritually transformative process is, in fact, the overriding purpose of the practice of hatha yoga. In essence, yoga is designed to bring body, mind and spirit into balance. Through the practice of yoga, elite athletes and weekend warriors alike can benefit from this type of balance. This is especially true when athletes have pushed their bodies to the max, resulting in weakness or injury. Yoga can restore a weakened body and build it back up. Yoga postures breathe work and inner focus can help rebalance, strengthen and restore overtaxed muscles, joints and ligaments. Through this restoration process, athletes can increase their career longevity and develop an inner balance that will last a lifetime. Balancing the mind, body and spirit is a primary philosophical principle of yoga. It is considered the true way to honor the body. Athletes in all sports are finding that yogic conditioning not only elongates tight, shortened, fatigued muscles, but also brings calmness and clarity to the mind. Some athletes begin the practice to rehabilitate an injury and to gain more flexibility, stability and strength. Others take it up to increase their powers of concentration and quiet the mind. And some do it because they don't want to miss out on what everybody else is raving about! The reasons are many, but the results are consistent. Athletes in all sports are finding that yogic conditioning not only elongates tight, shortened, fatigued muscles, but also brings calmness and clarity to the mind. Some athletes begin the practice to rehabilitate an injury and to gain more flexibility, stability and strength. Others take it up to increase their powers of concentration and quiet the mind (9).



Asthanga Yoga

Yoga (asthanga) is often depicted metaphorically as a tree and comprises eight aspects, or “limbs” Patanjali codified the ancient marvel of yoga as asthanga which is one of the six schools of Indian philosophy and is known as Yoga Darshan: yama (universal ethics), niyama (individual ethics), asana (physical postures), pranayama (breath control), pratyahara (control of the senses), dharana (concentration), dyana (meditation), and samadhi (bliss). Each limb is connected with the whole, in the same way that bodily limbs are all connected. If someone pulls the body by the leg, the rest of the body will automatically follow. In the same way, when one pulls one of the eight limbs of yoga, the others will naturally come. They are not stages to be achieved in succession (10). For Sports performance elevation only Asanas, pranayama and meditation can be included.

Difference Between Yoga and Exercises

The ultimate aim of Hatha yoga is to reach Samadhi, a higher state of consciousness. In order to purify the mind, it is necessary for the body to undergo a process of absolute purification in order to remove impurities so the nadis function and the energy blocks are released. The main objective of Hatha yoga is to create an absolute balance of the interacting activities and processes the ultimate aim of the exercise is to improve overall physical fitness level and health by practicing an aerobic activity, which elevates the heart rate. Exercise can strengthen muscles and the cardiovascular system, improve athletic skills and aid weight loss. Regular exercise can boost the immune system and also improve mental health e.g., prevents depression and the promote/maintain positive self-esteem. Furthermore, exercise in the form of different sports can be practiced competitively and the aim is to be the best within the sport, which can be an external driver to the individual’s performance. Table-1 represents the comparison between Yoga and exercises.

There are a number of similarities between exercise and the physical aspects of yoga and they therefore are not necessarily distinct practices as yoga can be considered as a form of exercise. As a form of fitness, yoga is excellent at building strength, flexibility, balance, and functional movement skills. And as a mind/body modality, yoga is unparalleled in its ability to relieve stress, help people cope with medical treatments, find meaning in daily life, and create more positive relationships with their bodies. Yoga works brilliantly to improve and normalize distressed breathing patterns, which is key to shifting an individual from the taxing “fight or flight” mode of the sympathetic nervous system and enhancing the “rest and digest” mode of the parasympathetic nervous system to achieve homeostasis (11).

Table -1 Comparison between yoga and exercise

Benefits of yoga versus exercise	
Yoga	Exercise
Parasympathetic nervous system dominates	Sympathetic nervous system dominates
Sub-cortical regions of brain dominate	Cortical regions of brain dominate
Slow dynamic and static movements	Rapid forceful movements
Normalization of muscle tone	Increased muscle tension
Low risk of injuring muscles and ligaments	Higher risk of injury
Low calorie consumption	Moderate to high calorie consumption
Effort is minimized, relaxed	Effort is maximized
Energizing (natural & controlled breathing)	Fatiguing (breathing is taxed)
Balanced activity of opposing muscle groups	Imbalanced activity of opposing groups
Non-competitive, process-oriented	Competitive, goal-oriented
Awareness is internal (focus is on breath and the infinite)	Awareness is external (focus is on reaching the finishing line, targeting etc.)
Limitless possibilities for growth in self-awareness	Boredom factor

There are numerous studies that have substantiated the above findings but there is some distance to be covered on the road of research before we can cement these findings conclusively and with high objectivity. It can be safely concluded that manipulation of breathing which is an important part of yoga is one of the best available non-pharmacological interventions to modulate the autonomic nervous system and thereby increase one's efficiency to combat stress and ameliorate a number of psychosomatic disorders (12).

Development of Sports Qualities Through Yoga

The 1996 U.S. Surgeon General's "Report on Physical Activity and Health" is a landmark document that emphasizes the important link between physical fitness and American health. In a 2011 research report, the President's Council on Physical Fitness and Sports sought to broaden the definition of physical fitness laid down in the Surgeon General's report, sub-categorizing skill-related fitness as "those components of physical fitness that have a relationship with enhanced performance in sports and motor skills."






The components of a skill-related fitness program includes agility, balance, coordination, power, speed and reaction time.

THE COMPONENTS OF PHYSICAL FITNESS

The components of physical fitness are made up of five Health-Related components and six Skill-Related components.







HEALTH


The Health-Related components of physical fitness are related to overall health and how well the systems of the body work.

- Strength**

Strength involves applying a force to overcome a resistance.
- Cardiovascular Fitness**

Cardiovascular Fitness is the ability to exercise the whole body for prolonged periods of time, without tiring.
- Muscular Endurance**

Muscular Endurance is the ability of the voluntary muscle group or muscle to work for a prolonged period of time without tiring.
- Body Composition**

Body Composition is the percentage of body weight that is fat, muscle and bone.
- Flexibility**

Flexibility is the range of movement around a joint.

SKILL

The Skill-Related components of physical fitness form the basis for successful activity participation and involve the technical aspects of fitness that help enhance performance.

- Speed**

Speed is the ability to move your body, or part of your body, quickly.
- Agility**

Agility is the ability to change direction quickly and accurately, combining speed, balance, power and coordination.
- Balance**

Balance is the ability to retain centre of mass (gravity) above the base of support whilst stationary (static) or moving (dynamic).
- Coordination**

Coordination is the ability to use a combination of body parts and senses at the same time to produce smooth and efficient movements.
- Power**

Power is the combination of strength and speed of movement. To generate power you need good balance and coordination.
- Reaction Time**

Reaction Time is the time taken to react to a stimulus.



General Physical Skills

There are ten recognized general physical skills. They are cardiovascular/respiratory endurance, stamina, strength, flexibility, power, coordination, agility, speed, balance, and accuracy. You are as fit as you are competent in each of these ten skills.

Different components of fitness will receive more or less emphasis in a training program depending on the specific needs of each sport.

- **Cardiovascular/Respiratory Endurance** - The ability of body systems to gather, process, and deliver oxygen. This ability can be developed through regular practice of pranayamas and kapalbhathi.
- **Stamina** - The ability of body systems to process, deliver, store, and utilize energy. Stamina is an important component of sports performance, which can be gradually improved with the help of meditation, pranayamas and asanas.



- **Strength** - The ability of a muscular unit, or combination of muscular units, to apply force editions and pranayamas. Some asanas are there which is beneficial for the improvement of muscular strength. By performing asanas against gravity and with one's own body weight is helpful for development of strength.
- **Flexibility** - The ability to maximize the range of motion at a given joint. It is a highly trainable aspects and most of the bending and twisting asanas are very much helpful for the development of flexibility and rengo of motion (ROM).
- **Power** - The ability of a muscular unit, or combination of muscular units, to apply maximum force in minimum time.This component is related to strength, as strength is improved through asanas which may facilitate the improvement of power of an individual.
- **Coordination** - The ability to combine several distinct movement patterns into a singular distinct movement. As nerves and muscle are toned by asanas, the motor unit is more activated when required. The neuro-muscular co-ordination improve through regular practices of asanas which in turn improve the coordination ability of an athlete.
- **Agility** - The ability to minimize transition time from one movement pattern to another. By developing the activity ofthe motor unit and neuro-muscular coordination through asanas agility may be improve.
- **Speed** - The ability to minimize the time cycle of a repeated movement. Speed is although not so much related with asanas but neuromuscular coordination help to some extent for the improvement of the sprinting ability.
- **Balance** - The ability to control the placement of the body's center of gravity in relation to its support base. Balancing asanas are very much helpful for improvement of balance ability.
- **Accuracy** - The ability to control movement in a given direction or at a given intensity. By controlling our mind through meditation, the accuracy can be improved and it is highly required in target sports.

Other Benefits of Yogic Practises

Physical and Physiological benefits of yoga

1. Stable autonomic nervous system equilibrium
 2. Pulse rate decreases
 3. Respiratory rate decreases
 4. Blood pressure decreases.
 5. Galvanic skin response (GSR) increases
 6. EEG: alpha waves increase. Theta and delta waves also increase during various stages of meditation
 7. EMG activity decreases
 8. Cardiac efficiency increases
 9. Respiratory efficiency increases
 10. Gastrointestinal function normalizes
 11. Endocrine function normalizes
 12. Excretory functions improve
 13. Musculoskeletal flexibility and range of joint movements increase
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14. Breath-holding time increases
15. Grip strength increases
16. Eye-hand coordination improves
17. Dexterity skills improve
18. Reaction time improves
19. Posture improves
20. Strength and resilience increase
21. Endurance increases
22. Energy level increases
23. Weight normalizes
24. Sleep improves
25. Immunity increases
26. Pain decreases
27. Steadiness improves
28. Depth perception improves
29. Balance improves
30. Integrated functioning of body parts improves
31. Haemoglobin / hematocrit increase
32. Lymphocyte count increase

Psychological benefits of yoga

1. Somatic & kinesthetic awareness increases
2. Mood & subjective well-being improves
3. Self-acceptance and self - actualization increase
4. Social adjustment improves
5. Anxiety & depression decrease
6. Hostility decreases
7. Attention & concentration improve
8. Learning and memory improve
9. Symbol coding improves
10. Depth perception improves
11. Flicker fusion frequency improves

Biochemical benefits of yoga

1. Glucose and catecholamines decreases
2. Total cholesterol, LDL and VLDL cholesterol & triglycerides decrease while HDL cholesterol increases
3. Cholinesterase, ATPase, thyroxin and total serum proteins increase


RELAXATION: *The Basics*

HOW TO KNOW WHEN YOU'RE RELAXED

Attitude Shapes Your Mood

"Some things I can control, others I can't..."

"There is nothing either good or bad, but thinking makes it so..."



Clear thinking


Loose muscles

Deep, easy breathing


Slow, steady pulse

Warm fingers and toes


RELAXATION EXERCISES



Progressive muscle relaxation




Abdominal breathing




Guided visualizations


Day-to-day Reminders


- ✓ Meditation *"don't strive, don't stop, don't judge, don't rush"*
- ✓ Mindful movement *yoga, tai chi, qi gong*
- ✓ Simplify your life





How To Get The Most Out Of Your Relaxation Exercises



Release control



Get comfortable


Find a quiet space


Dedicate 20 mins


Have an empty stomach


Wear loose clothing


Be consistent

Spending Your Downtime: The "Three R's" of Relaxation

Rest **r**ecreation & **r**elationships


Take Ten And Then...

Take Some Downtime

activity 10 mins. activity 10 mins. activity 10 mins.

1 hour/day 1 day/week 1 week/quarter


DIET ÷ EXERCISE



Eat real food, mostly vegetables, not too much ...and ditch the caffeine

Do what feels right...

fight or flight



Moderation

Variety & Consistency

Compiled by: Chris Roberts, N.D.
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Relaxation: Most coaches understand that relaxation is important in order to get better. However, though coaches tell sports people to relax, they don't tell them how to do so. Maybe they don't know the answer themselves in the first place. Hatha yoga and jnana yoga relaxation practices help relax body, emotions and mind. Relaxation is a key element of any yoga therapy regimen and must not be forgotten at any cost.

Rehabilitation: Yoga as a physical therapy has a lot to offer injured sportsman. Many of the athletes of physiotherapy and other physical therapies have a lot in common with yoga function as well as range of movement, strength and endurance abilities. Balance and dexterity can also be improved by such combination therapy. The use of yoga can help those recovering from accidents and physical traumas to get back on their feet faster and with better functional ability.



Mental health: Let us first begin with the benefits of Yoga on mental health. After all, good mental health is of paramount importance of being healthy physically as well. As advised above, breathing technique forms an integral part of Yoga. Do I hear you asking ‘how?’ It really is very basic – by breathing deep and right, something that you would be doing when you practice Yoga, you are inhaling more oxygen and allowing the cells of your body to have access to that oxygen for a longer period of time. A common practice in yoga is to breathe only from one nostril at a time, while holding the other one closed to the tip of your finger. Medical research has shown that this boosts increased activity on the opposite side of the brain, leading to better cognitive performance and tasks associated with the other side of the brain. Regular yoga practice helps children with attention deficit disorder and people suffering from anxiety, depression and mood swings. It also helps keep the mind calm and reduce stress and thereby increase the general wellbeing of the person (13).

Conclusion

Overall, the studies comparing the effects of yoga and exercise seem to indicate that, in both healthy and diseased populations, yoga may be as effective or better than exercise at improving a variety of health-related outcome measures including mental aspects, to improve subjective measures of fatigue pain, and sleep in healthy and ill populations. In their effects on sports performance researcher find out that yoga in sports as important as other think it helps us in different ways and different levels in a sports men life. So, yoga can be used as supplements along with daily schedule of training for upliftment of performance. Furthermore, for relaxation after busy training schedule and building better mind and controlling emotions yoga can be used.

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APPRAISE THE FACTS OF ECO-TOURISM SUBSTANCES OF KEOLADEO NATIONAL PARK BHARATPUR: A GEOSPATIAL STUDY

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Abstract

Keoladeo National Park offers excellent opportunities for understanding nature. Live resource materials for visitors to learn about the different habitats associated with the life forms and to become aware of the environmental status and dwindling habitats for the wildlife are the strengths of KNP. For conservation to be achieved a sound understanding of the National Park is required and a comprehensive study aims at the same. Realizing the importance of correct interpretation for achieving long-term conservation many Indian or foreign institutions and agencies like- UNESCO, WWF-India, have developed Interpretation Programs and studies keeping in view the exclusive requirements of the park. In this pursuit a feasibility study for the effectiveness of the park was also conducted based on the results of which the previous studies were developed. The need of this topic is based upon the decline natural wealth of KNP and lesser ecological and touristic activities of surrounded region that should be managed through study or research and its research study continues on surrounded area, growing pollution problems, increasing urbanization nearby area, excessive population and its pressure on KNP, decreasing wet area and ecosystem, uncertain rainfall and climatic changes and the lack of proper action plan for reconstruction of its ecological environment i.e. the effect of socio economic substances around KNP.

Keywords: Congestion, Cost-Benefit Analysis, Geospatial, Ornithological, Over-Crowding.

Introduction

The study is based on judging the ecological, economic and social importance of Keoladeo national park on Bharatpur city region and today's need of its conservation of biodiversity, flora and fauna, and based on need to be retained as a natural habitat for the migratory birds and so called foreign creatures which has come to this wetland with their fix summer shelter place and nesting destination. The need of a topic is to study the decline nature of KNP and its surrounded area, growing pollution, increasing urbanization nearby area, excessive population and decreasing wet area, uncertain rainfall and lack of proper action plan for real reconstruction of its ecological environment. Ecotourism is extensively accepted as a strategy with the potential to provide ecological, economic, and social benefits at the local and national level. As we know that aggressive tourism activities without proper planning, effective policy and institutional framework have created serious environmental problems. As a result, it threatens the capacity of tourist attractions because of over-crowding, congestion, traffic snarls and environmental pollution. Finally, if tourism grows wisely and strategically, it might serve as a true care taker of the tangible social and ecological infrastructure



available at the tourist destinations. One of the ways for tourism to play this elevated role in our society is to promote ecotourism. Ecotourism is the development of tourism which can ensure and support ecosystem on the long term basis. This form of tourism serves both the inhabitants and the visitors of the unique eco assets and legacies at the tourism destination.

Hypotheses

- Keoladeo National Park being a Ramsar convention site is an eco-tourism site effects the environmental condition of surrounded region of city. There should be a cost-benefit analysis.
- Keoladeo National Park is useful for enhancing income patterns and economic structure. GIS can be an important tool to judge the rejuvenated area and developed area.

This study finds Bharatpur to be one such destination. The main objective of this study is to review the type of tourists arriving, seasonality in Bharatpur and, more specifically, to focus on environmental problems and suggest action plans in an eco-friendly way. There is need for unified efforts in this direction and to make Rajasthan an all-year-round attraction for the visitors as well as Bharatpur itself. The LohagarhBharatpur, the main center of tourism industry of geographically largest State of Rajasthan, is the central focus of this study. The Tools of Geospatial Technology 1. Remote Sensing 2. GIS (Geographic Information System) 3. GPS (Global Positioning System) 4. Numerical Cartography 5. Information based management system

Remote Sensing Data basically consists of wavelength intensity information acquired by collecting the electromagnetic radiation leaving the object at specific wavelength and measuring its intensity. Remote Sensing of earth's environment comprise measuring and recording of electromagnetic energy reflects from or emitted by the planet's surface and atmosphere from a vantage point above the surface, and relating of such measurements to the nature and distribution of surface materials and atmospheric condition. Sensor mounted on aircraft or satellite platforms measure the amounts of energy reflected from or emitted by the earth's surface. These measurement are made at a large number of points distributed either along a onedimensional profile on the ground below the platform or over a two-dimensional area on either side of the ground track platform. At present, CARTOSAT 1&2 data is currently used for better image interpretation because it provides high resolution both in mono and stereo mode. The resolution of CARTOSAT-2 is 80 cm. It is approximately similar to IKONOS (1meter), Quickbird (60cm) and Geoeye (41cm) satellite sensor resolution.

GIS is much more advanced than Computer Aided Design (CAD) or any other spatial data system. The basic output of GIS or spatial data analysis system is a map. The need to analysis maps to compare and contrast pattern of earth related phenomena, is confirmed by the long standing tradition of doing so with traditional maps. Many geographical phenomena are best described scientifically as field survey. Good example is topographic elevation, air temperature, and soil moisture content. A twodimensional field may be defined as any single valued function of location in a twodimensional space and discrete field, with nominal dependent variables. It appears that any geographical phenomena can be represented either as a field or as a collection of digital object. Field

can be digitally represented by vector approaches, but they are often represented by raster data structures. Some areas of study which are now dependent on GIS for right, exact and timely assessment reports and presents as a tool - 1. Geography 2. Cartography 3. Automated Cartography 4. Mathematics 5. Statistics 6. Photogrammetry 7. Digital Photogrammetry 8. Surveying 9. CAD, CAC, Computer 10. Remote Sensing Technology

The Physiographic Condition of Research Area

KEOLADEO national park is situated between (27°7'06" N – 27°12'02" N lat.) and the reserve area (29 sq. km) is locally known as Ghana, is a mosaic of dry grasslands, woodlands, woodland swamps, and wetlands. These diverse habitats are home to bird species, floral species, species of fish, species of snakes, species of lizards, amphibian species, turtle species, and a variety of other invertebrates. Every year thousands of migratory waterfowl visit the park for wintering breeding etc. The highlight of the park is that it is the only known wintering area of the highly endangered central population of Siberian Cranes. The Sanctuary is the richest bird area in the world. It is known for nesting of its resident birds and visiting migratory birds including water birds. The rarest Siberian cranes arrive here to winter. According to Sir Peter Scott Keoladeo Sanctuary is the world's best bird area. By virtue of being one of the best bird watching sites of Asia more than 100,000 visitors come to the park every year. The range of visitors varies from very serious birdwatchers to school children and general tourist of which nearly 45,000 foreign tourists. In addition the location of the park is such that tourist visiting Agra, Mathura and Jaipur invariably stop over at Bharatpur. One third of the KNP habitat is wetland systems with varying types of microhabitats having trees, mounds, dykes and open water with or without submerged or emergent plants.

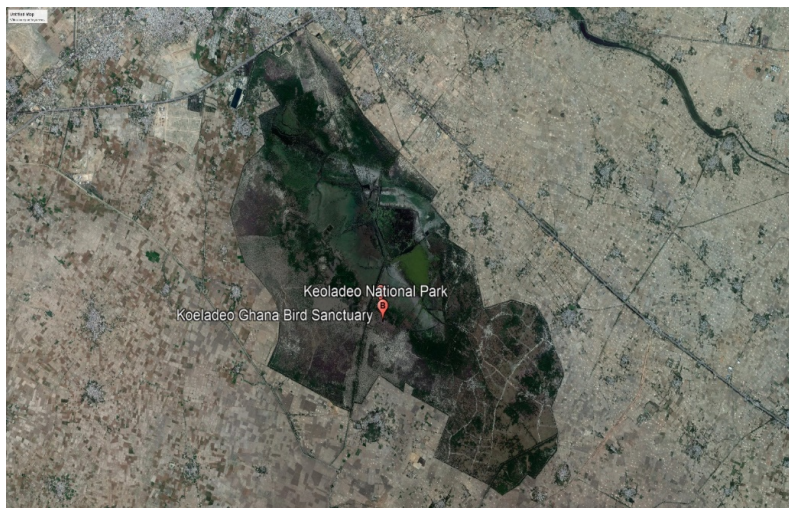


Figure- an USGS satellite image presenting the surrounded region populated or unclassified.



The Wetland is a part of the Indogangetic Great Plains. It is a fresh water swamp and is flooded during the monsoon. For most part of the year, effective wetland is only 10 sq. kms. The rest of the area remains dry. Dykes divide the wetland into tan units. Each unit has a system of sluice gates to control its water level. Depth of water ranges from 1 meter to 2 meter during rains (July, August and September). In subsequent months, October to January, the level gets lowered. The area starts drying from February. In May and June, the entire area dries. Water remains only in some depressions. This alternate wetting and drying helps to maintain the ecology of the fresh water swamp, ideal for water-fowl and resident water birds. Arrangement to pump water from deep tube wells to fill small depressions to save seeds, spores and other aquatic life also exist. They are also helpful in extreme years of drought. During the year 2007-2008 attempts have been made to eradicate *Prosopis Juliflora*/ *Cineraria* to rid the park of mono culture and enable natural vegetation to regenerate.

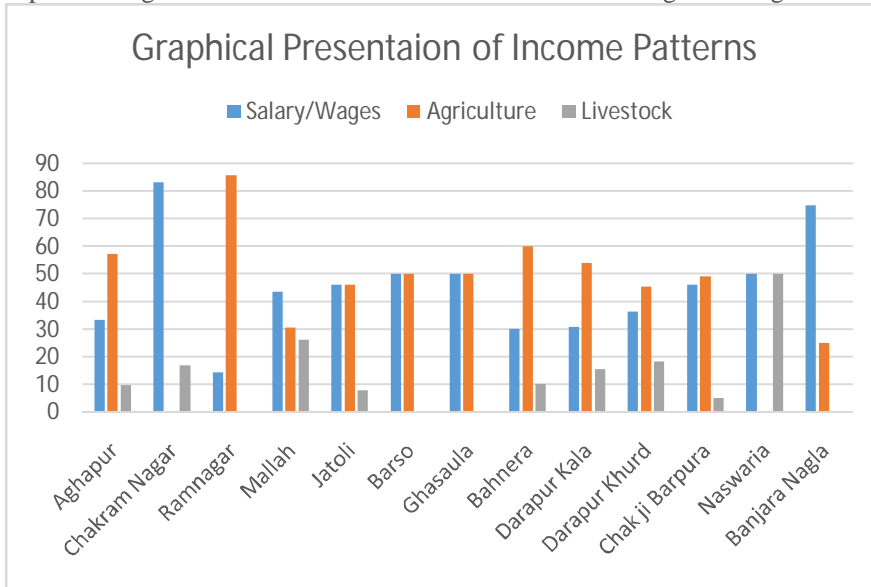
Study Area

Keoladeo National Park (KNP), Bharatpur, Rajasthan is a wetland of international importance designated under the Ramsar Convention as well as a World Heritage Site (UNESCO). It is situated at the confluence of Gambhir and Banganga rivers. One of the most enchanting and famous waterfowl refuges in the world, it supports enormous congregations of migratory waterfowl in winter, and massive colonies of breeding birds in the monsoon and autumn. Keoladeo is the only known wintering area of the highly endangered western population of the Siberian Crane. These features make the park very lucrative to visitors both from India and overseas. The name Keoladeo denotes Lord Shiva whose temple is located at the centre of the Park. KNP was originally a natural depression, believed to be part of a riverbed, probably river Yamuna. The area was subjected to seasonal flooding and was developed into a duck shoot reserve in 1899 by Prince Harbhamji of Morvi State in Gujarat, the then administrator of Bharatpur. It soon developed into a fine system of freshwater marshes, which began to attract large populations of migratory birds. The reserve while protecting Bharatpur from frequent floods also provided grazing grounds for village cattle but was primarily used as a waterfowl hunting reserve. In 1956 it was notified as a bird sanctuary and elevated to a National Park as late as in 1982. This 29 sq.km reserve locally known as Ghana is a mosaic of dry grasslands, woodlands swamps, and wetlands. One third of the area is wetland with varying types of micro-habitats having trees, mounds, dykes and opens water with or without submerged or emergent plants. These diverse habitats are home to 366 avian species, 379 floral species, 50 species of fish, 13 species of snakes, 5 species of lizards, 7 amphibian species, 7 turtle species, and a variety of other invertebrates. Every year thousands of migratory waterfowl visit the park for winter breeding. The highlight of the park is that it is the only known wintering area of the highly endangered Siberian Cranes.

This is one of the best bird watching sites of Asia and attracts more than 100,000 visitors every year. They range from very serious birdwatchers, school children and general tourists. Nearly 45,000 are foreign visitors. In addition, the location of the park is such that tourists visiting Agra, Mathura and Jaipur invariably stop over at Bharatpur. Because of its location, even tourists on low budget visit the park. All these

factors make the target group extremely diverse. It is also interesting to note that 11 villages surround the park offer a diverse group of the stakeholders which range from rickshaw pullers, guides, tour operators, tourists, park staff, the erstwhile royal family of Bharatpur and the local community.

Multiple bar diagram of Shift in the source of income of the villagers during 2002–2017



The main purpose of the study is to increase awareness and appreciation of KNP among key stakeholders leading to long-term conservation of the park. The research and study would address a varied audience ranging from serious bird watchers, ornithologists, local as well as overseas tourists, school children, guides, rickshaw pullers to the villagers living around the park. Since the target audiences are such a wide group, a very comprehensive and target specific Information and Awareness (I&A) programs are planned. This envisages addressing the tourists by means of audio-visual programs and guided trips, the local community and school children by means of the outreach programme; and the guides, rickshaw pullers by training them. Select park staff and project staff would be trained in interpretation and communication skills to enable them to handle the programme. The outreach programs are targeted at sensitizing the local community about the benefits of the programs to the park and eventually to them. An exclusive website on KNP is also planned for attracting international attention. Other than these programs, infrastructural inputs like a visitor center with exhibition hall and an auditorium are also planned. In addition to this guided and self-guided nature trails with shelters are also on the anvil. Exhibits and signage of different types are to be installed at select locations.

Objectives: The present study was attempted to accomplish the following objectives: -
1. To assess the impact of forest area on society and infrastructure; 2. To help preserve



ecosystems and natural areas (usually already within protected areas) with a high tourism potential; 3. To cultivate environmental consciousness among the local population by educating them about the dangers of overexploiting resources and unrestricted number of tourists; 4. To promote new economic incentives, e.g. selling of local (environmentally safe) products, crafts, and cultivated medicinal plants thereby create some entrepreneurial skills; 5. To ensure communal ownership and to evaluate the status of employment by the use of common land, in or outside the forest region. 6. To assess the impact of KNP on central, state and local government economy and individual income and to examine the impact of forestry on climate, agriculture area, water resources and livestock at near region. 7. The objective of the present study is to analysis the real situation of declining wetland of KNP, proper preview of present condition of surround area by using map the landuse/ landcover pattern of Keoladeo National Park, Bharatpur (Rajasthan) with the help of Erdas 9.1 for image georeferencing and ArcGIS 9.2 for onscreen digitization in Shape file along with statistical analysis of LU/LC categories. 8. Historical analysis of the information in view of the changing climate over time and anthropogenic pressures. 9. Proper and timely assessment of these topics with current scenario:

- Increased frequency of droughts,
- Prolonged water scarcity,
- Micro watersheds (desertification control etc.),
- Restricted flow of water in the catchment area,
- Differential inflow of agrochemicals to wetlands in the catchment area.

Research Methodology

This present study has been developed using a range of different techniques. Firstly, a comprehensive literature review in the broad fields of biodiversity conservation, ecotourism and ecological economics was carried out. Lessons important for the study of ecotourism were also drawn from (sustainable) development theory, as well as biological and ecological journals and books. Secondly, a number of grey literature reports such as policy documents, NGO reports, student's dissertations, tourism publications, internet publications and the like about the area of study were carefully examined. Thirdly, a combination of qualitative and quantitative primary data were collected through structured and semi-structured interviews with stakeholders who could be considered as having firsthand experience of the situation in the Bharatpur. The primary data was collected through personal interviews according to the viewpoints of tourists. The present study relies on information from respondents, the validity of which depends on their own powers of recall, their honesty and fundamentally, their answers to the questions included in a questionnaire. Sample surveys on visitors were conducted during peak and off season to gather details on tourist profiles and attitudes towards the environment of Jaipur. To undertake a survey of 100 tourists (domestic and international), the researcher visited Bharatpur five times (April 2015-July 2017); on each occasion, twenty tourists were interviewed at random (It should be noted that total responses could be more than respondents because of multiple responses). Frequency distribution system has been used to reach conclusions. The secondary data has been collected from published as well as unpublished sources. The published data includes



information from various publications of Central and State Governments, books, journals and newspapers. The unpublished data has been collected from Bharatpur Nagar Nigam, Department of Transport, Rajasthan State Pollution Control Board, Department of Tourism and Civil Aviation and other non-government agencies.

Satellite data

For delineation and mapping of land use land cover, multi-temporal orthorectified IRS LISS-IV (5.8m) path and row 202-59 and date 19 Jan. 2017 and Cartosat PAN (2.5) path and row 528-272 and date 27 Jan. 2017 will be used.

Primary data

Primary data collected at the village level with the help of questionnaires, interviews of farmers and residences of villagers and for primary data; I'll use random sampling method.

Secondary Data

In the form secondary data, Survey of India (SOI) topographic sheets were used. These topographic sheets on 1: 50,000 scales are used for identification of the base feature. The toposheets falling in the study area, the area of KNP is covered in toposheet No. 54E/8 and 54E/12.

Software Used

Basically, five or more software were used for this study viz;

a. ArcView 3.2a – this will used for displaying and subsequent processing and enhancement of the image. It is also used for the carving out of Ilorin region from the whole Kwara State imagery using both the admin and local government maps. b. ArcGIS – This is also used to compliment the display and processing of the data. c. Erdas Imagine 9.1 for subset and Georeference. d. Microsoft word – will used basically for the presentation of the research. e. Microsoft Excel will used in producing the bar graph.

Review of Literature and Research

Much has done and much will be done on ecological survey of KNP. Many in number works and reports have published on Keoladeo National Park. There are so many institutions which sponsored their per year annual report on environmental assessment on green regions such as KNP. But there is always new and fresh information in a next research work, that's why this work is on present scenario and based upon newly framed reports.

Some works are listed below:

Review of state of environment in Keoladeo National Park, Bharatpur, Rajasthan and its catchment area: a historical analysis....Sponsored by Socio-Economic Research Division, Planning Commission, Government of India...Conducted by Environmental Impact Assessment Division Sálím Ali Centre for Ornithology and Natural History Coimbatore, Tamil Nadu. In this report, the message is- Macro invertebrates such as worms, insects and mollusks, though more abundant in variety and numbers than any other group of organisms, are present mostly in aquatic habitats. They



are food for many fish and birds, as well as some animal species, and hence, constitute a major link in the food chain and functioning of the ecosystem. Land insects are in abundance and have a positive effect on the breeding of land birds. The idea about Climate- During 1988, mean maximum temperature ranged from 20.9° Celsius (C) in January to 47.8°C in May, while the mean temperature varied from 6.8°C in December to 26.5°C in June. The diurnal temperature variation ranged from 5°C in January to 50°C in May. Mean relative humidity varied from 62% in March to 83.3% in December. The mean annual precipitation is 662 millimeters (mm), with rain falling on an average of 36 days per year. During 1988 only 395mm of rain fall during 32 wet humidity. About Flora and Fauna-A semi-arid biotype, the park is the only area with significant vegetation, hence the term 'Ghana' meaning 'thicket'. The principal vegetation types are tropical dry deciduous forest, intermixed with dry grassland in areas where forest has been degraded. Apart from the artificially managed marshes; much of the area is covered by medium-sized trees and shrubs.

Kusler (1991) believes that ecotourism must have a strong “people element”. For example, the travelers should learn about the forest and its people. They should also learn the causes of destruction of the rainforests.

There may be so many inspired programs on this topic and study area but this assessment is slightly different that providing environmental assessment report of KNP till 2018 and future perspective outlook. As already told that there is always hope of a good work and this is the work that also fulfils this target.

Results and Need of Assessment

There is a need for protection of the natural resource areas including biodiversity areas, forests areas etc. and ecosystem service areas. While areas such as National Parks, Biosphere Reserves etc. are clearly demarcated due to existing legal provisions, the “Eco Sensitive Zones” being identified around them are at present at the discretion of the agencies involved. It has to be ensured that reasonable extents of areas around the environmentally sensitive/fragile areas are demarcated and land use is planned properly. There is also a need to regulate and control land uses in such ‘Eco Sensitive Zones’ so as to avoid conflicts or negative environmental impacts. However, several land use conflicts and environmental problems originate from urban area.

Evaluation is the part of development and it should be time bound process or in regular intervals. With the help of these assessments:

- A researcher can achieve its goal,
- A programmer can make proper execute plan for development,
- A government body can issue maximum budget for the development of that area,
- A proper assessment helps to execute proper resource analysis plan for future, and
- So many tremendous and fabulous jobs can be done through these works.

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ERASING BOUNDARIES OF THE HOME AND THE WORLD: A MOVE TOWARDS COSMOPOLITANISM

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Abstract :

Cosmopolitanism involves the state of being receptive of and tolerant to diverse forms of cultures with openness even while embedding the local affiliations. It is against narrow form of patriotism which homogenizes a particular community. The later part of the nineteenth century and the early part of the twentieth century saw the Indian intelligentsia engaging themselves in shaping the ideas of the nation. The past had to be reconstructed and redefined to give the nation a distinct identity. The process of valorization of the past foregrounded a Hindu militant nationalism which involved a “fierce self idolatory of nation worship.” Locating Rabindranath Tagore in this context of redefining the nation, it is a widely known fact that Tagore’s position is unique. Beginning with absolute sympathy with the Swadeshi Movement and becoming one of its leaders, Tagore soon lost his faith in the movement. He was disillusioned with the movement as it soon degenerated into violence in the wake of the Partition of Bengal in 1905. Tagore’s book *Nationalism*, in 1916, shows that Tagore was striving to achieve the ideals of universal humanity that is non-coercive and respectful of traditions but not blindly bounded by it. Set against the backdrop of the Swadeshi Movement, in *The Home and The World/Ghare Baire* (1916), Tagore tries to reconcile to some of these contradictions. In the two different characters of Nikhil and Sandip, Tagore presents two worlds-Sandip’s world and Nikhil’s world which are opposed to each other. Tagore shows that Nikhil’s cosmopolitanism becomes amorphous without the embeddedness of the local or tradition. Both Nikhil and Sandip fail to have an impact at the end of the novel. Tagore’s nationalism resembles the “new cosmopolitanism” which respects different traditions as well as believes in universal values that all countries should accept. Nikhil’s cosmopolitanism proves to be banal as it does not recognize the other. Cosmopolitanism is neither an accommodation between the self and the other nor does it involve a sense of resentment or condescension for the other. It requires a sense of respect and a sense of openness for the other and at the same time a minimal residue of difference with the other. A commonality of the self which erases difference of identity makes cosmopolitanism nonexistent or irrelevant. To become relevant a minimum boundary appears to be a pre condition for cosmopolitanism. In the discourse of colonialism, the boundaries between the self and the other are defined and strengthened to justify the colonial mission. In the context of cosmopolitanism the verb ‘selfing’ can be used as opposed to the verb ‘othering’ in the context of colonialism. By a total erasure of boundaries ‘selfing’ is not possible as negating the other makes the self nonexistent. Cosmopolitanism can be felt only in the presence of the other as there cannot be one single culture. The boundaries in cosmopolitanism cannot be erased or diluted, it needs to be there though porous and permeable as much as possible. My attempt in this paper is to show that Nikhil’s cosmopolitan ideals become amorphous and theoretical in the novel. His move towards cosmopolitanism that erases the boundaries between the ‘home’ and the ‘world’ are abstract and unrealistic. *The Home and the World* is not only a critic of Sandip’s destructive nationalism but also Nikhil’s amorphous cosmopolitanism.

Keyword: Boundaries, Cosmopolitanism



Introduction: Although Cosmopolitanism shares affinities with universalism, it is free from the idealism of Universalism which seeks to justify an ideal concept of good higher than the other. Cosmopolitanism unlike universalism is by contrast “a willingness to engage with the other”; it attempts to create a space which is not antithetical to the other but attached to the other. (Hannerz, Ulf 1990:239) While universalism seeks to deny the claims of embeddedness and posits an ideal uniformity, “cosmopolitanism is aware of the inevitable pull of location embedded in particular cultures and contexts.” (Bhanu) It enjoins an attachment with local horizons yet transcends and goes beyond it. Superficially universalism may appear synonymous with cosmopolitanism as the terms ‘cosmos’ and ‘universe’ both stand for the universe, yet they are completely opposed to each other. “With its universalistic reference- the call to shed the constraining shackles of particularist commitments to locality, ethnicity, and nation and to develop a sense of allegiance to humankind, cosmopolitanism may be read through the same lens” (Spasic, Ivana:277) Universalism is a monolithic structure while cosmopolitanism accommodates variety. Cosmopolitanism involves the state of being receptive of and tolerant to diverse forms of cultures with openness even while embedding the local affiliations. It is against narrow form of patriotism which homogenizes a particular community or lays claim of moral obligation only to small groups. Most generally speaking “cosmopolitanism” appears positive than its oppositional terms ‘localism’ ‘nationalism’ ‘xenophobia’. “It is associated with a stance of openness to the world, especially to the Other; with an ethical commitment to universal values and obligation to humanity as a whole rather than ones kith and compatriots ; a willingness to engage in conversation across boundaries of identity, seeking points of connection and sharing; a receptivity towards divergent cultural experiences.” (Spasic, Ivana:2015:272)

Rabindranath Tagore struggled with some of the differences that emerged in the Brahma Samaj around the ideas of universalism and nationalism. The new developments within the Brahma Samaj in Bengal questioned the older values and traditions of universalism advocated by Keshab Chandra Sen. The conservatives under Debendranath Tagore and his successor, Rajnarain Bose, opened a new phase of aggressiveness in cultural nationalism which marked a sharp break from Keshab Chandra Sen’s universalism. Tagore involved himself in the “Hindu Mela” popularized by his family and also participated in the Swadeshi Movement but as the movement degenerated into violence, he soon lost sympathy in it. Tagore’s outlook of tolerance “was shaped by Keshab Chandra Sen’s universalism” (Kopf:1996:290) He grappled with some of the basic contradictions between universalism and nationalism and tried to reconcile with the extremes of the two positions by seeking a balance.



Tagore's book *Nationalism*, in 1916, shows that Tagore was striving to achieve the ideals of universal humanity that is non-coercive and respectful of traditions but not blindly bounded by it. Set against the backdrop of the Swadeshi Movement, in *The Home and The World/Ghare Baire* (1916), Tagore tries to reconcile to some of these contradictions. In the two different characters of Nikhil and Sandip, Tagore presents two worlds-Sandip's world and Nikhil's world which are opposed to each other. Both the characters contest to possess the nation represented in the character of Bimla but both fail in their attempts, though Nikhil's failure does not appear obvious.

Cosmopolitanism includes both universalism and diversity.(Appiah,2007:151)Nikhil is 'openminded', ethically superior to Sandip and has an obligation to the poor peasants living in his area. But his humanism and liberal views do not make him a cosmopolitan. "Cosmopolitanism is an embedded notion which always functions within a definable social

context."(Spasic,Ivana:274)Though Nikhil with his ethical values appear to be a cosmopolitan, he fails to notice the local or 'ghare'/home. Tagore shows that Nikhil's cosmopolitanism becomes amorphous without the embeddedness of the local or tradition. Both Nikhil and Sandip fail to have an impact at the end of the novel. Nikhil dies when he goes to stop a muslim riot provoked by Sandip's Swadeshi and the latter escapes to save himself from a riot he had incited. In his essay "Nationalism in the West", Tagore declares that "neither the colourless vagueness of cosmopolitanism nor the fierce idolatory of nation worship is the goal of human history(Nationalism in the West). His nationalism resembles the "new cosmopolitanism" which respects different traditions as well as believes in universal values that all countries should accept. He espouses:

...that the real tradition of India is to work for the adjustment of races to acknowledge real difference between them and yet seek some basis of unity. It is this solution of differences that India has to offer to the world. (Nationalism)



Tagore advocates a “new cosmopolitanism,” not singular but plural, involving a coexistence with variety, which includes appreciating, acknowledging and embracing difference. Nikhil’s cosmopolitanism proves to be banal as it does not recognize the other. Cosmopolitanism is neither an accommodation between the self and the other nor does it involve a sense of resentment or condescension for the other. It requires a sense of respect and a sense of openness for the other and at the same time a minimal residue of difference with the other. A commonality of the self which erases difference of identity makes cosmopolitanism nonexistent or irrelevant. To become relevant a minimum boundary appears to be a pre condition for cosmopolitanism. In the discourse of colonialism, the boundaries between the self and the other are defined and strengthened to justify the colonial mission. In the context of cosmopolitanism the verb ‘selfing’ can be used as opposed to the verb ‘othering’ in the context of colonialism. By a total erasure of boundaries ‘selfing’ is not possible as negating the other makes the self nonexistent. Cosmopolitanism can be felt only in the presence of the other as there cannot be one single culture. The boundaries in cosmopolitanism cannot be erased or diluted, it needs to be there though porous and permeable as much as possible. Nikhil’s attempt in bringing the world to the home collapses the home, the home and the world are mutually complementary but different. With Nikhil boundaries disappear and with Sandip boundaries are asserted.

My attempt in this paper is to show that Nikhil’s cosmopolitan ideals become amorphous and theoretical in the novel. His move towards cosmopolitanism that erases the boundaries between the ‘home’ and the ‘world’ are abstract and unrealistic. Trying to erase them, he himself

gets entangled, he revolves around both without achieving anything. *The Home and the World* is not only a critic of Sandip’s destructive nationalism but also Nikhil’s amorphous cosmopolitanism. Although Nikhil thinks himself to be cosmopolitan, he is more oriented towards universalism.

The novel revolves around three characters Bimala , the wife of Nikhilesh an English-educated zamindar with liberal humanist, cosmopolitan views and Nikhilesh’s friend Sandip, a militant nationalist activist. Bimala becomes infatuated with him as he is everything that her benign and introspective husband is not. Articulate, firebrand and aggressive, Sandip charms her as the personification of an imminent nationhood. The narrative unfolds as Bimala’s story, Nikhil’s story and Sandip’s story in alternative sequences where the three principal characters independently reveal their selves from their own perspectives. The ‘Home’ in the novel represents the private spaces of the inner apartments of the house where women are at the centre stage and the world



consists of the outer apartments where the discussions on the Nationalist movement take place. There is also the bigger world of the actual happenings of Swadeshi Movement as reported to Bimala by Sandip. The 'world' also expands to include the hardships of peasants living in Nikhil's Zamindari, their lives intervened by the Swadeshi upheaval.

Nikhil considers himself a global citizen with his liberal humanist cosmopolitan views. His obsession to achieve "the complete unadorned truth" is utopian. In one of his monologues after losing Bimala he says,

I used to pride myself about my strength to endure the complete and unadorned truths. Today that is being put to test.

Nikhil's cosmopolitanism is idealistic, it can only be posited by moving towards the ideal, but not fully attainable. Nikhil's obsession to reach the complete truth is abstract, he can only endeavour to move closer to it but cannot achieve it. Blinded by his idealism, in his move towards commonality, he fails to see the realism of Sandip's world. Cosmopolitanism is aware of the inevitable pull of location embedded in particular culture. It cannot deny the claims of embeddedness that require a certain amount of rootedness or local to reach an ideal uniformity. To know how a particular person will behave in cosmopolitanism, the identity of a person as to 'who he is' and 'what he is,' are equally essential. The link with the particular cannot be annihilated. Cosmopolitanism is a kind of local and particular moving towards the ideal. Erasing or diluting the boundaries cannot be a move towards cosmopolitanism as is not a monolithic space, it is a space where there is a coexistence amongst different identities. This spirit of coexistence is missing in both Nikhil and Sandip. Nikhil erases or dilutes the boundaries while Sandip asserts and defines them.

Nikhil's ethical values prove to be fallible as they contradict his 'broadmindedness.' His ideals of emancipation, hospitality, tolerance, secularism and humanity are not without lapses. His letting his wife access to the outer quarters of the home, providing her with English education and appointing Miss Gilby as her instructor contradicts his position as an upholder of women's empowerment. His selfishness of becoming a global citizen is rather manifested in his actions. He feels that confining his wife in the inside space of the 'andermahal' would be a threat to his image as a global citizen. He believes that Bimala's coming out to the 'world' would strengthen his position:

"Our love for each other will be worthwhile only if our relationship is confirmed by the reality outside."(16)

Nikhil strives to liberate only his wife Bimala, he is unconcerned with the education of his sister-



in laws or any of the women who serve the household.

Nikhil's philosophical idioms and cosmopolitan ideals do not romanticize him in the novel. His idealism and abstract concepts fail to attract Bimala. Nikhil wants her to come to the outside world but she does not feel the immediacy for it. In contrast, Sandip's speech as a fiery orator in the Swadeshi movement immediately attracts Bimala's attention making her to push aside the boundaries of the inner quarters of the home:

That day too I did not overstep its parameters. I stood over the edge and suddenly heard a call from the distant horizon that was not totally intelligible to me, but nonetheless made me restless.(21)

This time she cannot resist Nikhil's idea of crossing the threshold and puts her steps on the world. She requests Nikhil to invite Sandip for dinner at home. Sandip appears to her to be closer to the

real which she can understand. He pedestalizes her as the icon of the nation as mother and she in turn is overwhelmed by her glorified position that the world offers her. It is as though she had "undergone a transformation in her relationship with the world at large."(62) She feels important to be at the centre stage of the nation:

Sandip babu gave to understand that the whole country needed me. And I did not hesitate to believe that I was able and could accomplish anything. I had never hitherto experienced such divine strength in myself.

In contrast, Nikhil's idea of taking Bimala to the outside world fails to ignite her passion as much as the abstract concepts in the books. She recounts:

I have read in books that we are like birds in a cage; I do not claim to know about others, but my world was so full even within that cage that the entire universe could not have held so much for me. At least that is what I believed at the time.

Nikhil's inability to demarcate the spaces of the 'home' and the 'world' leads to the destruction of his home. He laments at losing Bimala to Sandip. His openness as a citizen of the world collides with his claims of being a householder. His liberal outlook gives Bimala the freedom to be her own self and have her own choice. Eventually his home is destroyed. He fails to see his position as a householder where certain borders and boundaries are necessary to sustain relationships. Without this rootedness cosmopolitanism becomes amorphous. Nikhil's breaching the boundaries of the home and the world, to become a global citizen, makes him unrealistic. The world citizen cannot emerge out of the virtual destruction of the home.



Nikhil cosmopolitan ideas prove to be impractical as he struggles with two opposite forces, the centripetal force of the home and centrifugal force of the world. He is entangled by both these pulls which leave him nowhere. His comic sentimentality is revealed in the narrative as he struggles between his love for Bimala and his duties to the world. He is in conflict between his cosmopolitan self which reaches out to the world and his private self as the husband and lover of Bimala. He is pulled by two opposite forces: at one moment he feels the monsoon months leave him morose and pining for his love, "A cloud –laden Bhadra – / Yet vacant lies my shrine" and the next moment he convinces himself:

"I will not lose faith." His faith in his own position is unsteady as he cannot come out of the conflicting positions, "Will I use power or coercion? Whatever for? Can power compete with truth."(53)

Nikhil's humanism makes him empathic to the struggles of Ponchu and the other peasants. He buys Ponchu's piece of land, makes him his tenant and also tries to make his both ends meet.

However, his elitist position cannot fully reach out to them as he does not have the practical understanding of the common people as his teacher, Mastermoshai. It is only with Mastermoshai's initiatives that Ponchu's is rehabilitated. Nikhil takes a firm step in opposing the ban of foreign goods in his market. But he cannot hold back the destructions of the Swadeshi movement in his locality. In spite of knowing that the followers of Sandip had been propagating violence in his locality, he cannot do anything to send Sandip packing. Ponchu and the other peasants are forced to burn the foreign clothes, their buying and selling, which was their only means of livelihood. Nikhil's humanism fails to achieve anything at the end. The local youths acknowledge Sandip as their leader. His effigy is burnt as he refuses to buy a share of the cloth mill on grounds that it would throw many of the poor peasants from employment. Nikhil dies as he goes to quell a muslim



riot incited by Sandip's version of swadeshi. Nikhil realizes that he had failed to impart his ideology to anybody else, he is left alone at the end.

Nikhil's cosmopolitanism is formless and sounds utopian, his liberal ideals are unrealistic. The different narratives of Bimala and Sandip also prove the impracticality of his idealistic philosophy. Bimala recounts in one of her narratives that Nikhil had opened a bank to enable peasants to get easy loans but the high rate of interest which inspired the people to save money also made the bank go bankrupt.

My husband donated endlessly. Anybody who tried to manufacture a weaving loom or husking machine would get generous help from him to the point of failure. Competing with foreign companies, Indian companies came up with boats for travelling to Puri, but not a single boat took to the waters. In the process, however, my husband lost heavily. (23)

She also recalls in the beginning of her narrative before meeting Sandip that Nikhil had been financially supporting Sandip much against her wishes. Sandip's narratives also critique Nikhil's formless idealism. He recounts that in creating the myth of the nation he creates a form but "Nikhil talks in metaphors." Sandip justifies to Nikhil that deification of the nation is necessary to give it a form:

The talented people of today must make it come to life and give it a form. Such talents do not argue but create. I will give a real shape to whatever the nation is thinking of right now.

He comments that Nikhil sees truth only as "an objective fact" while he can "conjure truth from falsehood." Sandip's emphasis on the form of nation as mother makes him popular with the common masses; they cannot visualize or worship a "Nirakar Brahma" as advocated by the Vedanta Philosophy, as a form or 'aakar' can only bring them closer to the concepts. In contrast, Nikhil's idealism being theoretical and incoherent fails to attract the masses. Sandip's thoughts, real, clear and coherent, draw the masses to his side. He states with confidence:

I am realism itself. Today stark reality is breaking out of the goal of abstract thoughts into the light of day, with each step my joy grows." (71)

Bimala is the voice of the common masses, symbolizing Bengal, who is shown confronting two forms of patriotism- liberal humanism on one hand and aggressive nationalism on the other. Both Sandip and Nikhil vie with each other to attract her attention. They think that their worlds are inclusive and struggle to win her over. Nikhil's philosophical idioms fail to attract the common masses for its vagueness. Tagore shows that "the colourless vagueness of cosmopolitanism" is



ineffective to inspire the masses. At the same time, he presents the dangers of militant nationalism. Sandip's version of nationalism incites large scale violence and a riot between the Hindus and Muslims. Nikhil dies in the riot instigated by Sandip's nationalism and Amulya, an idealistic young student who works with Sandip, also loses his life in the violence let loose by Swadeshi. These destructions echo Tagore's anxiety about the dangers of militant nationalism. He was equally disturbed by an amorphous cosmopolitanism as represented in Nikhil.

Conclusion: The novel shows Tagore's deep ambivalence towards both Nikhil and Sandip. In Nikhil's loss and Sandip's destruction, Tagore was trying to show, the failure of both these extreme forms propounded by the two. Tagore problematizes Nikhil's cosmopolitanism. Without form and context it proves to be hollow. Tagore was himself baffled, finding it difficult to adhere to a formless ideal, by his own position as a Universalist. Troubled by the nature of violence,

incited by the Swadeshi movement, he could not reconcile to the menace of nationalism as well. *The Home and the World* gives expression to some of Tagore's inner conflicts as he struggles between liberal humanist views and the dangers of aggressive nationalism. Nikhil and Sandip represent Tagore's divided self. Tagore wanted to unravel the depths of cosmopolitanism by upholding a balance between the two extremes.

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विश्वबन्धुत्वभावनाविकासे वैदिकसाहित्य भूमिका

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उपोद्धातः

वेदाः प्राचीनेतिहासस्य, सामाजिकनियमानां, राष्ट्रियतायाः, धर्मस्य, सत्यस्य, संस्कृतेः ज्ञानस्य च एकमात्रसाधनं सन्ति। वेदा एव भारतीयदर्शनस्य जन्मदातारः सन्ति। वेदेषु न केवलं देवानां, मुनीनां, यजानां, सृष्टेः, आत्मनः, ईश्वरस्य च वर्णनं विद्यते अपि तु वेदाः व्यवहारिकदर्शनस्य निधयः सन्ति। मानवस्य मानवं, समाजं, राष्ट्रं तथा च समग्रविश्वस्य प्रति किं कर्तव्यमस्ति, इति ज्ञानमेव वेदस्य व्यवहारिकदर्शनमस्ति। व्यवहारिकदर्शनं समग्रसमाजे विचरणं करोति, मानवं मानवेन साकं, समाजं समाजेन साकं, राष्ट्रं राष्ट्रेण साकं संयोजयति। यदि विश्वस्य जनाः वैदिकदर्शनस्य ज्ञानं कुर्वन्तु तर्हि न केवलं प्राणिमात्रस्य अपि तु सकलविश्वस्य हिताय भविष्यति, विश्वशान्तेः च समस्यायाः समाधानमपि भवितुं शक्नोति।

वैदिकसाहित्ये विश्वबन्धुत्वभावना पदे पदे दृष्टिगोचरा भवति। वेदेषु स्वार्थस्य संकीर्णता नास्ति अपितु मानवस्य हितमेव विद्यते, वैदिकऋषयः न केवलं स्वदेशस्य वर्णस्य च वर्णनं कुर्वन्ति अपितु ते सकलवसुधामेव स्वकुटुम्बम् एव स्वीकुर्वन्ति। अस्मात् कारणात् एव वैदिकसाहित्ये विश्वबन्धुत्वस्य भावना परिपूर्णा विद्यते। यथा –

एकस्याः मातुः पुत्राः -

वेदस्य दृष्ट्या भूमिरेवास्माकं माता तथा च वयं सर्वे तस्याः पुत्राः। अतः अथर्ववेद प्रोक्तं - "माताभूमिः पुत्रोऽहं पृथिव्याः" इति। संसारस्य सर्वोऽपि जनः यदि वेदोक्तं वचनं पाथेयं कृत्वा जीवनं कुर्यात् तर्हि सर्वैः सह भ्रातृत्वभाव एव विकसेत्। परस्परं भ्रातृभावेन स्थातुम् अस्मान् प्रेरयति वेदोक्तिरेयम्। पुनश्च वेदः अस्मान् शिक्षयति यत् उच्चनीचादीन् भेदान् अपरिगन्ध्य सर्वैः सह भ्रातृत्वभावनया जीवनीयमिति। यथोक्तं ऋग्वेदेन-

"अजेष्टासो अकनिष्ठास एते सं भ्रातरो वावृधुः सौभगाय" इति। (ऋ. वे. - ५.६०.५)
अर्थववेदस्य भूमिसूक्ते वर्णितमस्ति यत् भूमिरियं सर्वान् विविधभाषिणः विविधमतानुयायिनः च जनान् स्वपरिवारसदस्यान् इव पालयति। यथोक्तमथर्वणे –

जनं विभ्रती बहुधा विवाचसं
नानाधर्माणं पृथिवी यथोकसम्।
सहस्रं धारा द्रविणस्य मे दुहां
ध्रुवेव धेनुरनपस्फुरन्ती॥

वेदे साम्मनस्यभावः -

वेदेषु बह्व्यः साम्मनस्यविषयकसुक्तयः समुपलभ्यन्ते, येन एषा प्रेरणा प्राप्यते यत् एकस्मिन् परिवारे, समाजे, राष्ट्रे, विश्वे च अस्माभिः परस्परां प्रीत्याः भाव्यम्। यथोल्लेखाः सन्ति-

"सं गच्छध्वं सं वदध्वं सं वो मनांसि जानताम्।

देवां भागं यथा पूर्वं संजनाना उपासते।।

समानी व आकृतिः समाना हृदयानि वः।

समानमस्तु वो मनो यथा वः सुसहासति।।" (ऋ.वे.- १०.१९१.२,४)

अत्र मन्त्रेऽस्मिन् मिलित्वा गमनाय, मिलित्वा वार्तालापकरणाय मनसां मेलनाय सर्वाण्यपि मिलित्वा कर्तुमुपदेशाः कृताः। अत्र देवानामुदाहरणं महत्प्रकृष्टं वर्तते। सर्वेषु क्षेत्रेषु देवाः परस्परं साम्मनस्यतया कार्याणि कुर्वन्ति। यदि प्रकृतौ सूर्यः, चन्द्रः, वायुः, पर्जन्यः, पृथिवी आदयः परस्परं सहयोगं परित्यजेयुः प्राकृतिकं सर्वमपि कार्यम् इतस्ततः भवेत्। तथैव शरीरस्य सर्वाणि अङ्गानि भवन्तु अथवा राष्ट्रस्य सर्वे नागरिकाः भवन्तु तैः सर्वैरपि परस्परं सहयोगेन सर्वाणि कार्याणि सम्पादनीयानि। अथर्ववेदस्य भगवतीश्रुतिः वदति-

"सहृदयं साम्मनस्यमद्वेषं कृणोमि वः।

अन्यो अन्यमभि ह्यनं वत्सं जातमिवान्ध्या।।

मा भ्राता भ्रातरं द्विक्षत्मा श्वसारमुतश्वसा।

सम्यञ्चः सव्रता भूत्वा वाचं वदनभद्रया।।" (अ.वे. - ३.३०.१/३)

वेदस्य अयमुपदेशः सामान्यपरिवारात् समग्रविश्वपरिवाराय अपि उद्दिष्टः वर्तते। वेदस्य कथनेन इदं स्पष्टं भवति यत् न केवलं परिचितैः साकं, अपि तु अपरिचितैः सहाभिः सौहार्दपूर्णः व्यवहारः करणीयः। अतः ते सौहार्दतया निवासाय देवं प्रार्थयन्ते स्म।

संज्ञानं नः स्वेभिः संज्ञानभरणेभिः।

संज्ञानमश्रिना युवमस्मासु नियच्छतम्॥

अथर्ववेदस्य उक्तिरियं स्पष्टयति। अत्र अश्रियुगलात् पारस्परिक-सहयोगस्य शिक्षा स्वीकार्या। यथा अश्रिदेवाः (सूर्य-चन्द्रौ, ह्य-पृथिव्यौ, प्राणपानौ आदयः) द्वेव स्तः। उभयोर्मध्ये परस्परसामञ्जस्यम् एतादृशं वर्तते येन ते सर्वाणि अपि महन्ति कार्याणि साधयन्ति। तथैवास्मासु मानवेषु पारस्परिकं सामञ्जस्यं भवत्विति प्रार्थना क्रियते।

सर्वभूतेषु मैत्रीभावः

न केवलं मनुष्येषु अपि तु सर्वेषु प्राणिषु भूतेषु च अस्माकं मैत्रीभावः भवेत्। अतः वैदिकाः प्रार्थयन्ति यत् - हे दृते ! सर्वमनोविद्वेषविदारक प्रभो, अद्याहं मैत्रीव्रतं गृह्यामि, तत्र सामर्थ्यसम्पादने मम सहयोगं करोतु इति। सर्वाणि भूतानि मां मित्रवदाचरेयुः, यतोहि अद्यारभ्याहं सर्वेषु भूतेषु मैत्र्याचरणं करिष्यामि। विषयेऽस्मिन् यजुर्वेदे वर्णितमस्ति-

दृते दृहमा, मित्रस्य मा चक्षुषा सर्वाणि भूतानि समीक्षन्ताम्।

मित्रस्याहं चक्षुषा सर्वाणि भूतानि समीक्षे।

मित्रस्य चक्षुषा समीक्षामहे॥

एवं प्रकारेण सौहार्दस्य बन्धुत्वभावनायाः उपायान् वदन्ति वेदाः। परिणामः भवेत् समग्रविश्वं मैत्रीसूत्रेण ग्रथितं भविष्यति। तदा विश्वबन्धुत्वकल्पना सहकारी भविष्यति। वेदस्य आदर्शानुसारं सर्वाः दिशः अस्मन्मित्राणि भवन्तु, कुत्रापि कोऽपि शत्रुः न स्यात्।

अथर्ववेदे उक्तम् – "सर्वा आशा मम मित्रं भवन्तु"। (अ.वे. - १९.१५.६)

पुनश्चोक्तम् – "अनमित्रं नो अधराद् अनमित्रं न उत्तरात्।

इन्द्रानमित्रं न पश्चाद् अनमित्रं परस्कृधि।" (अ. वे. - ६.४०.३)

अस्यार्थं भवति – दक्षिणस्यां दिशि अमित्रं न भवतु, उत्तरस्याम् अमित्रं न भवतु, पश्चाद्विदिशि अमित्रं न भवतु, पूर्वस्यां दिश्यपि अमित्रं न भवतु इति। वेदाः सर्वान् प्रति प्रीत्या व्यवहाराय शिक्षां प्रयच्छन्ति। यथा –

अपक्रामन् पौरुषेयाद् पृणानो दैव्यं वचः।

प्रणीतीरभ्यावर्तस्व विश्वेभिः सखिभिः सह॥ (अ.वे.- ७.१०५.१)

वेदेषु द्वेषराहित्यम् –

यदि दौर्भाग्यवशात् केनचित् कस्मैचिदपि विद्वेषः आचर्यते, केनचित् राष्ट्रेण अनस्मै राष्ट्राय विद्वेषः आचर्यते तदा वेदवर्णितः उपदेशः निश्चयेन स्मर्तव्यः –

"इदमुच्छ्रेयोऽवसानमागां, शिवे मे द्यावा पृथिवी अभूताम्।

असपत्नाः प्रदिशो मे भवन्तु, न वै त्वा द्विष्मो अभयं नो अस्तु॥"

(अ.वे. - १९.१४.१)

आयात, अद्य वयं परस्परमालिङ्गाम, अद्य यावत् इष्या, द्वेषः, कलहः, विध्वंसः इत्यादीनि आचरणानि कृतानि तानि सर्वाण्यपि विस्मरेम। मनसि स्थितान् भवसन्देहादिभावात् दूरीकृत्य द्वेषराहित्यं जीवनं यापयेम इति भावार्थः। अस्माकं मनस्सु स्थितान् द्वेषादीन् दुर्भावान् परिहरेम, द्युपृथिव्यादयः अस्माकं मङ्गलकारिण्यः भवन्तु। सर्वा दिशः अस्मभ्यं शत्रुरहिताः सन्तु। अथर्ववेदे प्रोक्तम् –

"अवज्यामिव धन्वनो मन्युं तनोमि ते हृदः।

यथा सम्पन्नसौ भूत्वा सखायाविव सचावहे।।

सखायाविव सचावहा अव मन्यु तनोमि ते।

अधस्त अश्मनो मन्युमुपास्यामसि यो गुरुः॥ (अ.वे. - ६.४२.१/२)

अस्यार्थं भवति – हे भ्रातः ! तव हृदये मां प्रति महान् क्रोधः अस्ति यथा धनुषि बाणः स्थापितः ! बाणेन यथा शत्रवः हन्यन्ते तथा त्वं मां स्वक्रोधबाणेन हन्तुं वाच्छतीति भाति। परन्तु

तव क्रोधम् अहं मम प्रेम्णा: द्वारा अपहरामि। येन आवां परस्पर प्रेम्णा व्यवहरेव इति।
द्वेषनिवारणोपदेशान् प्रददत्यः काश्चन प्रार्थनाः –

ऋग्वेदः (४.१.४) - "विश्वा द्वेषांसि प्रमुमुग्ध्यस्मत्।

ऋग्वेदः (२.२९.२) - "यूयं द्वेषांसि सनुतर्युयोता।"

अथर्ववेदे: (१२.२.३३) - "मा सो अस्मान् द्विक्षत मा वयं तम्।"

एवं रीत्या वैदिकवाङ्मयानि द्वेषं नैवाङ्गीकुर्वन्ति। सर्वे मानवाः द्वेषरहिता भवन्तु इति वेदाः मार्गं निर्दिशन्ति। द्वेषः एव न भवति चेत् परस्परवैरीभावः न भविष्यति। एतेन सर्वैः साकं मैत्रीभावः वर्धयिष्यते। विश्वबन्धुत्वभावनाऽपि विकसिता भविष्यति।

सर्वेषां समृद्धिः-

वेदे न केवलम् एकस्याः व्यक्तेः, एकस्य समाजस्य, एकस्य राष्ट्रस्य विकासः कान्तः अपितु समग्रस्य विश्वस्य समृद्धिः इष्टाः वेदे उक्तं यथा-

इमा याः पञ्च प्रदिशो मानवीः पञ्चकृष्टयः।

वृष्टे शापं नदीरिव इह स्फितिं समावहान्।।

अर्थात् पञ्च दिशः तत्रत्याः पञ्चमानवाः, एते सर्वेऽपि समृद्धाः सन्तु। यथा वृष्टौ सत्यां नद्यः जलौधम् आप्नुवन्ति तथैव समृद्धिऽपि प्रचुरताम् अप्रोतु इति।

सर्वेषां मङ्गलकामना –

वेदस्य स्रोतारः न केवलं स्वस्य मङ्गलाय प्रार्थनां कुर्वन्ति स्म अपितु समग्रस्य विश्वस्य सर्वेषां प्राणिनां मङ्गलकामनां विदधति स्म। न केवलं मानवानाम् अपितु पशुपक्षिणां मङ्गलं काम्यन्ते स्म। अथर्ववेदे प्रार्थना वर्तते। यथा-

"स्वस्ति मात्र उत पित्रे नो अस्तु

स्वस्ति गोभ्यो जगते पुरुषेभ्यः।।" (अ.वे.- १.३१.४)

यस्यार्थः भवति – मातृणां मङ्गलं भवतु, पितृणां मङ्गलं भवतु, पुरुषाणां मङ्गलम् अस्तु, गौः इत्यादीनां सर्वेषाम् अपि मङ्गलम् अस्तु इति। पुनश्च ऋग्वेदे प्रोक्तम् –

"अस्माकं देवा उभयाय जन्मने

शर्म यच्छत द्विपदे चतुष्पदे।

अदत् पिबदूर्जयमानमाशितं

तदस्मै शैयोररपो दधातन ।।" (ऋ. वे. - १०.३७.११)

अत्र प्रार्थना कृता अस्ति यत् – द्विपदतन्नाम मानवः, चतुष्पदो नाम पशुः हे देवो एतेषां सर्वेषां मङ्गलं करोतु। अस्मभ्यं सर्वेभ्यः सुखम् आरोग्यं च प्रददातु येन बलं प्राप्य वयं सर्वाणि कार्याणि कुर्याम। अयं वैदिकः विचारः वैश्विकः वर्तते। एतादृशः विचारः यदि सर्वेषां मनस्तु भवति तर्हि समग्रे संसारे न कोऽपि दुःखी भवेत्। सर्वेषां भ्रातृत्वभावः वर्धते। अतः विश्वमङ्गलाय विश्वभ्रातृत्वभावनायै च वैदिकविचाराः श्रेष्ठाः।

परोपकारस्य आदर्शः

वेदेषु विश्वबन्धुत्वभावनायाः अस्तित्वस्य प्रकृष्टम् उदाहरणानि वर्तन्ते वेदस्थाः परोपकारसंबलिताः दानबोधका मन्त्राः। ऋग्वेदे दानस्तुतयः बह्व्यः उपलभ्यन्ते। सङ्कटापन्नानां जनानां सहायताकरणम् अस्माकं प्रथमं कर्तव्यमिति वेदमन्त्राः उपदिशन्ति। दानस्य भावनां जागरयितुं वेदस्य सूक्तयः वदन्ति – भविष्यति यदि त्वं निर्धनो भवेः तर्हि अन्येभ्यः साहाय्यं स्वीकरणीयं भवेत्। सम्पत्तिः रथस्य चक्रवत् परिवर्तते। अतः यावत् धनम् अस्ति तावत् पर्यन्तं दानं करणीयम्। यथा ऋग्वेदे प्रोक्तम् –

"पृणीयादिन्नाधमानाय तव्यान्

द्राघीयांसमनुपश्येत पन्थाम।

ओ हि वर्तते रथ्येव चक्रा –

अन्यमन्यमुपतिष्ठन्त रायः ॥ (ऋ.वे. १०.११७.५)

वेदस्य कथनम् अस्ति यत् एकाकी यः खादति स पापभागः भवति। यथा –

"केवलाघो भवति केवलादी"

(ऋ. वे. - १०.११७.६)

पुनश्च वेदे प्रोक्तम् "अदित्सन्तं चिदावृणे पूषन् दानाय चोदय।

पणेश्चिद् वि भ्रादा मनः॥"

(ऋ. वे. - ६.५३.३)

हे प्रभो पुषन् ! यस्य दानस्य प्रवृत्तिः नास्ति, तं दानाय प्रेरयतु । कृपणस्य कठिनं मनः मृदुत्वं करोतु, येन ते दुःखिनां दुःखम् अवगच्छेयुः इति।
वेदेषु शान्तिप्रियता

साम्प्रतिकयुगे जनानां सर्वविधसुखसाधनेषु सत्सु अपि एकस्याः अभावः नितरां परिलक्ष्यते। शान्तेः अभावः समाजे दृश्यते। महान्तः धनिकाः अपि शान्त्या जीवनयापयितुं न समर्थाः। वैदिकं वाङ्मयं शान्तिप्रियं वर्तते। तदर्थं वेदे शान्तिसूक्तमिति स्वतन्त्रं सूक्तं वर्तते। तत्रोक्तम्

"शं नः सूर्य उरुचक्षा उदेतु

शं नश्चतस्रः प्रदिशो भवन्तु।"

शं नः पर्वता ध्रुवयो भवन्तु।

शं नः सिन्धवः शमु सन्त्वापः॥"

"(ऋ. वे. - ७.३५.८) (अ.वे. - १७.१०.८)

एषः गोलाकारः सूर्यः अस्माभ्यां शान्तिं वहन् उदेतु। चतस्रः दिशोऽपि अस्मकृते शान्तं प्रसारयन्तु। एते अचलाः पर्वताः अस्माकं कृते शान्तेः सन्देशं श्रावयतु। नद्यः समुद्रश्चापि अस्मान् शान्तेः पाठं पाठयन्तु इति अत्र प्रार्थितम् अस्ति। अधुना अत्र या चर्चा प्रचलन्ती अस्ति, तस्याः विश्वबन्धुत्वभावनाया इत्याख्यायाः चर्चायाः परमं लक्ष्यम् अस्ति शान्तिः। बन्धुत्वभावनाया समग्रेऽस्मिन् विश्वे शान्तेः वातावरणं द्रक्ष्यते। अतः अथर्ववेदे प्रोक्तम् –

"शान्ता द्यौः शान्ता पृथिवी शान्तमिदमुर्वन्तरिक्षम्।

शान्ता उदन्वतीरापः शान्ताः न सन्त्वोषधीः॥

(अ. वे. - १९.९.१)



तेजोमयः द्युलोकः अस्मन्निमित्तं शान्तेः वाहकः भवतु। विस्तृतमिदम् अन्तरिक्षं शान्तेः प्रेरणां यच्छतु। समुद्रस्य ऊर्मयः शान्तेर्गानं श्रावयन्तु। फलिताः वृक्षाः वनस्पतयश्च शान्तेः रागं गायन्तु इति प्रार्थना विहिता उपरोक्तोक्तौ तन्नाम वैदिकाः सर्वदा शान्तिप्रियाः एव आसन्।

एयावत् यत् किञ्चिदपि वर्णितं सर्वमपि वैदिकवाङ्मयस्य विश्वबन्धुत्वभावनामेव प्रकटयति। परन्तु सन्देहोऽपि वर्तते। यदि वेदेषु विश्वबन्धुत्वं सार्वजनिकहितं च समर्थितं तर्हि तत्र पुनः प्रतिपदं युद्धं, शत्रुवधः, आत्मविजयः इत्यादीनां वर्णनं कुतः इति। अस्योत्तरमपि अतिसरलं वर्तते यथा वेदेषु वर्णितेषु युद्धेषु देवतानां राक्षासानाञ्च युद्धं वर्णितं न तु देवानां युद्धं देवैः साकम्। सत्प्रकृतेः दुष्टप्रकृत्या सह युद्धम्। साम्प्रतं विज्ञानस्य युगोऽस्मिन् प्रपञ्चस्य चतुर्पार्श्वे प्रतिदिनं कोलाहलं वरीवर्ति, अत्र जनानां मनसि विश्वबन्धुत्वभावना विकसति चेत् अस्माकं देशः जगतसभायां श्रेष्ठस्थानमलंकर्तुं शक्यते यत् वैदिककाले आसीत्।

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भारतीय दर्शन में रस की अवधारणा

चन्द्र किशोर

असि० प्रोफेसर

संस्कृत – विभाग, ब्रह्मावर्त पी०जी० कालेज

मन्धना, कानपुर नगर, उ०प्र०।

सारांश

जिस प्रकार काव्यशास्त्र के क्षेत्र में यह कहा गया है कि नाटक के सभी तत्त्वों का निरूपण 'काव्य-रस' की प्राप्ति के उद्देश्य से हुआ है, बिना 'रस' के कोई भी अर्थ उपस्थित नहीं हो सकता—'नहि रसादृते कश्चिदर्थः प्रवर्तते'। उसी प्रकार दर्शन में 'रस' प्राप्ति अथवा 'ब्रह्म' प्राप्ति को दृष्टि में रखकर दर्शन के सभी प्रमुख तत्त्वों का प्रतिपादन हुआ है। दर्शन के 'आस्वाद्य' अर्थ में 'रस' के प्रयोग भी काव्यशास्त्र में प्राप्त होते हैं—'रस इति कः पदार्थः उच्यते आस्वाद्यत्वात्।' जिस प्रकार 'प्रज्ञानघन' ज्ञान रूप होता है, जिसको अनुभव भी कहते हैं, उसी प्रकार काव्यार्थ के आस्वादानात्मक अनुभव को ही 'रस' कहते हैं—'आस्वादानात्मानुभवो रसः काव्यार्थ उच्यते।'।

प्रस्तावना

भारतीय आस्तिक दर्शनों की पृष्ठभूमि प्रस्थानत्रयी में सिद्धान्त रूप से आत्मा का श्रेष्ठतत्त्व तथा महत्त्व प्रतिपादित हुआ है। 'रस-निष्पत्ति संस्कृत-काव्यशास्त्र का अत्यन्त महत्त्वपूर्ण विषय है। 'रस' जैसे विषय का इतिहास-परिभाषा अथवा स्वरूप से प्रारम्भ न होकर रस निष्पत्ति से प्रारम्भ होता है। इस विषय में प्रबल प्रमाण आचार्य भरत कृत 'नाट्यशास्त्र' है—'विभावानुभावव्यभिचारिसंयोगाद्रसनिष्पत्तिः।' आचार्य भरत के 'रस-सूत्र' में प्रयुक्त संयोग तथा निष्पत्ति शब्दों की भारतीय दर्शन के अनुरूप व्याख्या की जा सकती है।

भारतीय दर्शन-ग्रन्थों में दो पृथक रह सकने वाले दृव्यों के सम्बन्ध को 'संयोग' कहते हैं। 'कारण-कार्य' का सम्बन्ध 'संयोग' नहीं है, क्योंकि इनका पृथक अस्तित्व सम्भव नहीं है। आचार्य भरत के 'रस-सूत्र' में निष्पत्ति का अर्थ—'उत्पत्ति' है। भारतीय दर्शनों में 'कारण' से कार्य की उत्पत्ति बताई गई है, जिसमें कारण का कार्य से अन्यथासिद्ध नियतपूर्ववृत्ति का सम्बन्ध है— 'अन्यथासिद्धशून्यस्य नियतपूर्ववर्तिता। कारणत्वं भवेत्।' किन्तु आचार्य भरत के 'रस-सूत्र' में प्रयुक्त 'संयोग' शब्द, दर्शन के संयोग से सर्वथा भिन्न है, क्योंकि—'विभावानुभावव्यभिचारिभाव' पदार्थ ही नहीं है।

मुख्य शब्द

ज्ञातृनिरपेक्षवस्तुमात्र, ब्रह्मप्राप्ति, आस्वादानात्मक, रस-निष्पत्ति, अन्यथासिद्धि, नियतपूर्ववृत्ति, अखण्ड, स्वतः प्रकाशवाला, आनन्दमय, चिन्मय।

अध्ययन का उद्देश्य

भारतीय दर्शन में 'रस' की अवधारणा का निर्धारण।

रस की सांख्यवादी अवधारणा के अनुसार— 'सत्कार्यवाद' सांख्य-दर्शन का प्रमुख सिद्धान्त है। संसार के अन्य सभी पदार्थों की भाँति त्रिगुणात्मक होने के कारण 'रस' भी सुखदुःखमोहात्मक होता है। उस सामग्री में व्यंजना आदि के स्थान पर 'विभाव' और उसके संस्कार करने वाले — 'अनुभाव तथा व्यभिचारीभाव होते हैं और विभाव, अनुभाव तथा व्यभिचारीभाव आदि सामग्री से जन्य 'आन्तरिक सुखदुःखमोहरूप, स्थायीभाव रत्यादि होते हैं। इस प्रकार विभाव आदि ही अनुभाव और व्यभिचारीभाव से संस्कृत होकर— 'रस' बन जाते हैं। अतः यहाँ संयोग का अर्थ— विभाव आदि के साथ अनुभाव और व्यभिचारीभाव का संस्कार—सत्कार्यभाव सम्बन्ध है और 'निष्पत्ति' का अर्थ निर्मित, जो सांख्यदर्शन के 'सत्कार्यवाद' सिद्धान्त के अनुरूप पूर्वविद्यमान तत्त्वों की ही नवीन रूप में परिणति मात्र है। रस—सम्बन्धी इस अवधारणा का मुख्य आधार है— सांख्यदर्शन में वर्णित प्रकृति के तीन गुण— सत्व, रजस् और तमस् तथा इनका —सुखदुःखमोहात्मक स्वभाव—

सत्त्वं लघु प्रकाशमिष्टमुपष्टम्भकं चलं च रजः ।
गुरुवरणकमेव तमः प्रदीप्तवच्चार्थतो वृत्तिः ॥ ¹

'रस' की सांख्यवादी अवधारणा के सुचारुज्ञान हेतु, सांख्य के सत्कार्यवाद सिद्धान्त का ज्ञान भी अपेक्षित है। जिसके अनुसार कोई भी कार्य उत्पत्ति से पूर्व अपने कारण में विद्यमान रहता है और इन्हीं पूर्वविद्यमान तत्त्वों की अभिव्यक्ति ही 'उत्पत्ति' है। अतः सुखदुःखमोह उत्पन्न होने का अर्थ है — अन्तः करण के सुखदुःख आदि का बाह्य सामग्री के सम्पर्क में आकर अभिव्यक्त हो जाना—

असदकरणादुपादानग्रहणात् सर्वसम्भवाभावात् ।
शक्तस्य शक्यकरणात् कारणभावाच्च सत्कार्यम् ॥ ²

'रस' की वेदान्तवादी अवधारणा के अनुसार—सत्त्वगुण के आधिक्य से अखण्ड, स्वतः प्रकाशवाला, आनन्दमय, चिन्मय अर्थात् ज्ञान स्वरूप, दूसरे वेद्यप्रदार्थ के सम्पर्क से रहित, ब्रह्म साक्षात्कार के सदृश्य अलौकिक, चमत्कार स्वरूप प्राणवाला 'रस' कुछ विद्वानों से अपने आकार के समान अभिन्नरूप से आस्वादन किया जाता है—

सत्त्वोद्रेकाखण्ड स्वप्रकाशानन्द चिन्मयः ।
वेद्यान्तरस्पर्शशून्यो ब्रह्मास्वादसहोदरः ॥
लोकोत्तरचमत्कारप्राणः कैश्चित् प्रमातृभिः ।
स्वकारावदभिन्तत्वेनायमास्वाद्यते रसः ॥ ³

वेदान्तसार में, 'अखण्ड' शब्द का प्रयोग सच्चिदानन्दब्रह्म के लिए हुआ है अर्थात् जो मन, वाणी से अगोचर तथा सब जीवों की अन्तरात्मा तथा सम्पूर्ण ब्रह्माण्ड के आधार हैं, उन्हीं अखण्ड सच्चिदानन्द ब्रह्म की शरण लेता हूँ—

अखण्डं सच्चिदानन्दम् अवाङ्मनसगोचरम् ।
आत्मानम् अखिलाधारम् आश्रयेअभीष्टसिद्धये ॥ ⁴

वेदान्तसार में कहा गया है कि चित्तवृत्ति का अखण्ड (ब्रह्म) वस्तु का आश्रय लिये बिना ही सविकल्पक—समाधि का आनन्द लेना अथवा निर्विकल्पक—समाधि आरम्भ होने पर भी सविकल्पक का आनन्द लेते रहना— रसास्वाद कहलाता है—

‘अखण्डवस्तु—अनवलम्बेन अपि चित्तवृत्तेः सविकल्पकः आनन्द—आस्वादनं रसास्वादः। समाधि—आरम्भ समये सविकल्पक आनन्द आस्वादनं वा।’⁵

अतः यह रसरूप आनन्द अन्तःकरण की वृत्तियों से युक्त चैतन्य स्वरूप नहीं, अपितु शुद्ध चैतन्य स्वरूप है अर्थात् रसात्मक आनन्द के अनुभव करते समय चित्तवृत्ति की आनन्द रूप में ही परिणति हो जाती है—

‘आनन्दो ह्ययं न लौकिकसुखान्तर साधारणः अनन्तकरण वृत्तिरूपत्वात्।’⁶

रसास्वाद में भी सुख का भान मानने पर प्रमाण है, श्रुति कहती है ‘रसो वै सः’ अर्थात् वह आत्मा रसरूप है और ‘रसं ह्येवायं लब्ध्वाऽऽनन्दी भवति’ अर्थात् रस को पाकर ही यह आनन्दरूप होता है। इस तरह से समाधि में सुखभान—प्रमाणक यदि गीता शब्द है। तो रसास्वाद में उसका प्रमाणक वेद शब्द है। रसास्वाद में तो सुख का मान होता है। इसमें तो सकल—हृदय समाज का हृदय भी प्रबलतम् दूसरा प्रमाण उपस्थित है। सभी सहृदय रसास्वाद में सुख का प्रत्यक्ष अनुभव करते हैं—

अस्त्रापि—‘रसो वै सः’ रसं ह्येवायं लब्ध्वाऽऽनन्दी भवति’ इत्यादि श्रुतिः, सकलसहृदयप्रत्यक्षं चेति प्रमाणद्वयम्।⁷

न्याय दर्शन में रसानुभूति का दिग्दर्शन अनुमान की प्रक्रिया के आधार पर किया जा सकता है। अनुमान में लिङ्गों के द्वारा लिङ्गी का ज्ञान होता है। काव्य के प्रसंग में ये लिङ्ग होंगे— ‘विभावानुभावव्यभिचारिभाव’ तथा लिङ्गी होगा अनुमेय—रस। इसलिए कारणरूप—विभावों, कार्यरूप—अनुभावों तथा सहकारीरूप—व्यभिचारिभावों के द्वारा कवि की शिक्षा और अभ्यास आदि प्रयत्न से अर्जित (उत्पन्न) होने के कारण कृत्रिम होने पर भी उसी प्रकार के कृत्रिम न प्रतीत होने वाले विभाव आदि के द्वारा अनुकर्ता—नट में स्थित होने से लिङ्ग (अनुमान) के सामर्थ्य से प्रतीयमान मुख्य अनुकार्य रामादि में विद्यमान रत्यादि स्थायीभाव का यह अनुकरण रूप होता है और अनुकरण रूप होने के कारण ही यह स्थायीभाव उससे भिन्न नाम से व्यवहृत होने वाला पदार्थ ‘रस’ कहलाता है—

तस्याद्धेतुभिर्विभावाख्यैः कार्यैश्चानुभावात्मभिः सहचारिरूपैश्च व्यभिचारिभिः प्रयत्नार्जिततया कृत्रिमैरपि तथानभिमन्यमनैरनुकर्तृस्थत्वेन लिङ्गवलयः प्रतीयमानः स्थायीभावो मुख्यरामादिगतस्थाय्य अनुकरणरूपः अनुकरणरूपत्वादेव च नामान्तरेण व्यपदिष्टो रसः।।⁸

वस्तुतः चार आर्यसत्यो का विशद विवेचन ही ‘बौद्ध—दर्शन है, जिसके माध्यम से आत्यन्तिक ‘दुःख—निवृत्ति’ होकर आत्मानन्द की प्राप्ति हो सकती है। रस अनुभूतिरूप ही है

और यह अनुभूति भी स्वाद तथा आनन्द रूप है। रस का ज्ञान स्वयं रस से होता है। रस में योगाचार का मत 'विज्ञानवाद' अपनाया जाता है। उसमें विषय और कुछ नहीं, ज्ञान का ही एक रूप है। वैसे ही 'रस' भी स्वानुभूति का एक स्वरूप है। यही रस की विज्ञानवादी या योगाचारी अवधारणा है।⁹

पाणिनीय-दर्शन के मत से स्फोटोत्पत्तिक निरवयव नित्य शब्द ही जगत् का आदि कारण रूप- परब्रह्म है। अनादि, अनन्त, अक्षर रूप शब्द-ब्रह्म से जगत् की सभी प्रक्रियाएँ अर्थरूप में परिवर्तित होती हैं। 'शब्द' के भेद हैं-नित्य और अनित्य। 'नित्य' शब्द स्फोटोत्पत्तिक ही हैं। सम्पूर्ण वर्णात्मक उच्चरित शब्द अनित्य हैं। अर्थबोधन सामर्थ्य केवल 'स्फोट' में है। 'वर्ण' उस स्फोट की अभिव्यक्ति के साधन मात्र हैं। इस स्फोट को ही 'शब्द-शास्त्रज्ञों' ने -'सच्चिदानन्दब्रह्म' माना है। अतः शब्दशास्त्र की आलोचना करते-करते क्रमशः अविद्या का नाश होकर मुक्ति प्राप्त होती है। यही 'रस' की स्फोटवादी अवधारणा है।

रस की आयुर्वेदिक अवधारणा के अनुसार- 'रसेश्वर-दर्शन में 'जीवन-मुक्ति के लिए 'रस' अर्थात् पारद-रस का प्रयोग अनिवार्य माना गया है। पारद-रस से शरीर को अजर-अमर बना देते हैं, बिना वैसा किये 'जीवन-मुक्ति नहीं मिल सकती। जीवन-मुक्ति वही है, जिसमें 'आत्म-तत्त्व' का साक्षात्कार हो जाय। अभ्यास के आधिक्य से मिथ्याज्ञान का विनाश हो जाय, किन्तु 'प्रारब्ध-कर्म' को भोगने के लिए 'जीवन-धारण' किया जाय। इसे 'अपरमुक्ति' भी कहते हैं।

संसार के कष्टों से बचाकर 'मोक्ष' दिलाने के कारण ही 'रस' को पारद=पार+द, अर्थात् मोक्ष देने वाला कहते हैं। कहा भी है, जो संसार (पुनर्जन्म) के दूसरे पार अर्थात् मोक्ष की ओर पहुँचा दे, वही 'पारद' कहलाता है-

'संसारस्य परं पारं दत्तेऽसौ पारदः स्मृतः।'¹⁰

निष्कर्षतः कह सकते हैं कि उपनिषदों के साथ ही 'रस' संज्ञा का प्रवेश दर्शन-शास्त्र के अन्तर्गत हुआ है। न्याय तथा वैशेषिक दर्शन विधाओं ने रस का गुणमान किया है-

गन्धरसरूपस्पर्शशब्दाः पृथिव्यादिगुणस्तदर्थः। -न्याय सूत्र 1/1/14

रूपरसगन्धस्पर्शाः संख्याः परिमाणानि पृथिकत्वं संयोग विभागौ परत्त्वपत्त्वे बुद्ध्यः सुखदुःखे इच्छाद्वेषौ प्रयत्नाश्च गुणाः। वैशेषिक सूत्र-1/1/6

सांख्यशास्त्र की विषय पद्धति में पंचमहाभूतों की प्रकृति पर विचार करते हुए 'ज्ञातृनिरपेक्षवस्तुमात्र' के लिए 'रस' संज्ञा का प्रयोग किया गया है। अतः सांख्यदर्शन में जो 'रस' का अर्थ-निर्दिष्ट है, वही मूल अर्थ है। अतएव 'सांख्य' में रस का तात्पर्य है- 'ज्ञातृनिरपेक्षवस्तुमात्र'।

वेदान्तवादी अवधारणा के अनुसार-यद्यपि काव्यार्थ विभावादि परिशीलन से अपने में आनन्द की उत्पत्ति को 'स्वाद' कहते हैं। ऐसी ही उक्ति के अनुसार-रस आस्वाद्य से



अतिरिक्त नहीं है अर्थात् आस्वाद्यरूप ही है। विज्ञानवादी अवधारणा के अनुसार जिसके माध्यम से आत्यन्तिक दुःखनिवृत्ति होकर आत्मानन्द की अनुभूति होती है, वह अनुभूतिरूप रस ही है। स्फोटवादी अवधारणा के अनुसार – 'स्फोट' ही सच्चिदानन्दब्रह्म अर्थात् रसरूप आनन्द है। आयुर्वेदिक अवधारणा के अनुसार जो संसार (पुनर्जन्म) के दूसरे पार अर्थात् मोक्ष की ओर पहुँचा दे, वही पारद अर्थात् 'रस' है।

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EFFECT OF CLIMATIC CHANGES ON SUSTAINABLE DEVELOPMENT OF SERICULTURE

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ABSTRACT

It is a well established fact that integrity of ecosystem and sustenance of various agro based cultivations including sericulture depends mostly upon climatic conditions prevailing in that region as its impact differs from place to place and also within a places it is not uniform. The raise in atmosphere temperature depends upon the intensity of green house gases like methane, carbon-dioxide and nitrous oxide etc. The other stumbling blocks for improving productive efficiency of lands are fast urbanization, deforestation, burning of fossil fuel, industrialization etc. This research paper is to be discussed Effects of climatic changes on sustainable development of Sericulture.

Key words: Climatic Conditions, Temperature, Sustainable Development, Sericulture.

INTRODUCTION

Sustainable development is the pathway to the future we want for all. It offers a framework to generate economic growth, achieve social justice, exercise environmental stewardship and strengthen governance.

Ban Ki-moon

A plethora of research studies have shown that the climatic changes imparts negative effect to a certain extent on sustainable development which is true in case of labour intensure agronomed like sericulture. Hence in rural areas steps are being undertaken not only for sustainable development but also for eradication of poverty alleviation around the country. Provision of minimum amenities and infrastructure facilities helps in better living conditions in an areas, where livelihood is a necessity. The strengths of sericulture are low investment, short gestations period and high returns, which improve their better living conditions.

India is a home to vast variety of silk secreting fauna including can amazing diversity of silk moths thus achieving a unique distinction for producing all five commercially traded species¹. It not only occupies second largest position next to China with 17 – 19% share in global raw silk production, but also provides employment to about 7.5 million people that include landless, small and marginal farmers and other weaker sections of the society. Out of the global share, raw silk production in India, mulberry



(79.1%) assumes a major contribution followed by Tasar (6.9%), Eri (13.5%) and muga (0.6%) respectively. Maximum production of quality silk is due to ancient techniques, modern innovations, a great contribution of scientists globally, while Asian countries consider it as a tradition and living culture. Therefore, if appropriate policies are initiated and implemented including Rythu Bandu schemes to silk worm rearers, there would be a sea change in the rural areas where sericulture is undertaken as the scheme would act as a harbinger of prosperity for all round sustainable development in our newly formed Telangana State.

From time immemorial, a plethora of research studies have been carried out globally including India, where climate changes pose significant challenges for production of quality silk leading to flourishing of silk industry²⁻⁷. Silk, the queen of textiles is preferred in comparison to other fibers due to its properties like scroop, heat resistance, water absorbency, cluster dyeing efficiency etc. Despite of wide fluctuations in climatic changes, most of the insects show a remarkable adaptations but mulberry silkworm is unable to survive under such conditions because of their domestication since 4500 years⁸⁻¹⁰.

ROLE OF TEMPERATURE

Biotic and abiotic factors are crucial but within a biotic, temperature plays a dominate sizeable role in the growth, development and commercial parameters of silk worm¹¹ silkworm body temperatures is adversely effected by fluctuating temperatures as seen in all instars.

Early instar larval are resistance to high temperature which influences their survival rate, growth and subsequently the cocoon characters while in late instars, it fastens larval growth, shortens larval duration vice versa due to their domestication since time immemorial. Based on several studies, quality multivoltine cocoons are produced at optimum temperature range of 22 - 27°C and above these levels their quality deteriorates¹²⁻¹⁵. Evaluation of researchers highlighted that there is a need to get a stable bivoltine cocoon crops that can withstand high temperatures prevailing in a tropical country like India so that their metabolic activities do not deterites at their temperature ranges¹⁶. It's a well established fact that out country plays a vital role at global markets next to China hence, there is a need for development of highly potential breeds tolerant to Indian conditions. In hot tropical regions of India, thermotolerant hybrids are evolved by crossing with Japanese commercial high breeds as a breeding resources material with better productive traits influenced by genetic and environmental factors¹⁷. It is found that the cross breeds developed in F₁ generation are more tolerant to high temperature but produce non graded silk. Hence, there is a need to develop thermotolerant bivoltine silkworm breeds with superior graded silk that can perform well even at grass root levels throughout the year^{18,19}. To obtain wide / wild genetic base that yield superior seggrants, the parent selection should be based on per se performance and genetic markers to evolve genetic lines suitable for our conditions. Hence, to get good supporting result and to maintain sustainable silkworm development,

not only identification of the genes, heat shocking protein number with varied expression patterns, the gene introduction into silk worm genome is a prerequisite^{20,21}.

Erratic and wide fluctuations in temperature are dangerous for silkworm growth as the physiological activities drastically change with climate changes. Silkworm rearing at high temperature accelerates larval growth and shortens larval duration. But with decline in temperature, the growth slows down with extended larval period^{22,23}. So it is proved that normal silkworm growth requires optimum temperature (23 - 28°C) for maximum productivity but if it exceeds 30°C or deceeds below 20°C it directly effects the physiological activity of silkworms making the worms weak and consequently making them prone to various diseases^{24,25}.

Table – 1
Reflects the quantum of required temperatures for rearing silkworms.

Instars	Temperature °C	Humidity %
Ist instars	28°C	85 – 90%
IInd instars	27°C	85%
IIIrd instars	26°C	80%
IVth instars	25°C	80%
Vth instars	24°C	70 – 75%
Spinning	25°C	70%

Source: *Suresh Kumar et al., 2011*

During winter and rainy season, room heater are required and particularly thermo regulators or fitted electrical heater which doesn't emit injurious gases²⁶. On other hand during summer season, all window are kept open with wet gunny cloths hung on doors and windows to maintain suitable optimum temperature conditions by the rearers²⁷. To rear bivoltine races in a tropical country like India with suitable cocoon crop even under high temperature environment with normal biological processes²⁸.

ROLE OF HUMIDITY

Humidity is a fundamental instrument that indirectly exerts its effect on silkworm is physiology, nutrient absorption, digestion, respiration and circulation. Silkworm is fragile highly sensitive towards environmental conditions including humidity which is one of the major pillar for successful cocoon crop continuously on commercial basis. In recent times due to continuous erratic fluctuations in an environmental conditions, prevalence of diseases²⁹, variation in genotypic expression in the form of phenotypic character needs management of both temperature and humidity for substantial enhancement of cocoon crop. Humidity not only shows direct effect on rearing performance but also indirectly strive the withering rate of feed and its consumption by larval leading to leaf wastage, retarded growth making the worms weak and susceptible



to diseases. When compared to late age worms, chawkie worms can withstand high humidity as predicted in Table – I. So it is advisable to regulate the conditions by using paraffin papers, wet foam pads or paper folds soaked in water, coolers and exhaust fans to raise the humidity to avoid leaf withering, nutritional efficiency and insect dehydration³⁰. Based upon the previous studies, it has been proved that humidity interacts with water content of the mulberry leaves thereby sequels the growth and development of silkworms³¹⁻³⁴.

Soil moisture percentage and relative humidity prevailing throughout the years effect the leaf quality to a very large extent which not only influences the silk gland development but also indirectly the cocoon crop production. Therefore, the moisture percentage is maintained in the leaves so as to helps in palatability, digestion, assimilation of nutrient components in the silkworm body.

LIGHT & AIR

Silkworm are photo sensitive, require either complete darkness nor day light. All the instars worms survive better in dim light of 15-20 lux for a duration of 16 hours of light and 8 hours of darkness respectively as it is an insect with short life spar with positive phototactism³⁵. Research studies have shown that light of different intensities not only effect larval weight but also its mortality and fecundity. If rearing is carried out in complete darkness Silkworms showed effect on the life cycle, with low commercial characters, maximum mortality and less fecundity under same conditions of temperature and humidity³⁶. Free flow of fresh air of 1.0 m/sec is required during rearing to bring down the amount of accumulated carbon monoxide, carbon-di-oxide sulphur di-oxide and ammonia in the rearing seat, which not only reduces larval mortality, improves rate of digestion, larval and cocoon characters^{37,38}.

SUMMING UP

In tropical country like India, introduction of robust tolerant races have showed high productivity and returns but later was not on par with other bivoltine hybrids productivity upto the expected levels at farmers levels. Hence, there was a need to develop suitable themotolerant strains with better productive traits than the existing strains. Continuous improvement programmes are to be carried out to evolve high yielding gene types with sustain productivity even under stress conditions by using genetic transformation techniques. The significant steps are to be taken in stepwise breeding stations for selection of thermotolerant parental resources by understanding, identifying the various heat shocking proteins at molecular levels in bivoltine races, locate the responsible genes and introduce the same into the silkworm genome.



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