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Editorial......

You will be happy to know that we have entered the fourth year of publication of IJMER, since its inception in April 2012. Focusing on many interdisciplinary subjects, the published papers are spreading the knowledge with fervent hope of upholding the holistic approach. With all my heart, I reiterate to echo my sincere feelings and express my profound thanks to each and every valued contributor. This journal continues to nurture and enhance the capabilities of one and all associated with it.

We as a team with relentless efforts are committed to inspire the readers and achieve further progress. Aim is to sustain the tempo and improve. We acknowledge with pleasure that our readers are enjoying the publications of Sucharita Publishers. We solicit to receive ideas and comments for future improvements in its content and quality. Editor-in-Chief explicitly conveys his gratitude to all the Editorial Board members. Your support is our motivation. Best wishes to everyone.

Dr.K.Victor Babu
Editor-in-Chief
Bali Tourism Image from WOM to E-WOM According to 4A Approach

Ni Gusti Ayu Dewi Paramita Arisandi  I Gede Putu Wirawan, Linawati
Udayana University  Udayana University
Bali, Indonesia  Bali, Indonesia

Introduction

Currently, social media seems to be the most effective way to promote tourism. This media type has many advantages compared to other traditional media. In the past, there was word of mouth media, which has a role in promoting Bali, but as time passed by, the media has changed the role of word of mouth into modern media such as television, radio, magazines, and the internet, which allows internet users to access a wealth of information and data through a series of web 2.0 or social media, where media is very easy to use and a lot of companies related to tourism in Bali have been using this web series to promote their products and services.

Social media, which Merriam-Webster defines as “forms of electronic communication (as Web sites for social networking and micro-blogging) Here the users enable to create online communities to share information, ideas, personal messages, and other content (“Social media,” 2011),” The potential growth during the past several years, especially in September 2005, 16% of 18-29-year-old internet users were social networking site-users; by May 2010, this number had grown to be 86%. Likewise, between September 2005 and May 2010, the number of 30-49-year-olds, 50-64-year-olds, and 65+ year-old internet users using social networking sites has risen from 12% to 61%, 7% to 47%, and 5% to 26% (Henrikson, 2011).

Bali’s tourism image is very important in the global economy, especially in the international market. The Internet revolution has been spreading rapidly throughout the world based on statistical data...
of the internet world (2013), which states that in the year 2000 there were about 360,985,492 internet users in the world, and in June 2012 this number increased to 2,405,518,376. This reflects a considerable increase of approximately 66% in just 12 years. This is an amazing result. There are many companies working in the tourism sector have managed to make a good contribution to Bali’s tourism industry.

It has also indirectly provided valuable support to the development of tourism in other parts of Indonesia. There are many types of media that have been used to promote Bali such as; in the past, we used mouth to mouth (WOM) to promote the image of Bali, this conventional way turned towards the modern media, including: television, radio, newspapers, and the most advanced technology today is the internet. Internet technology has brought a beneficial impact to create easier ways to make Bali popular through electronic word of mouth (e-WOM).

Research question raised here is to identify about what does the result can be drawn from the data taken from social media platform on the image of Bali tourism to represent the transformation of WOM to e-WOM. Word-of-mouth (WOM) is probably the oldest means of exchanging opinions on various goods and services offered by markets. At one time, word-of-mouth occurred mostly among neighbors exchanging news on what was being offered by neighborhood stores (Whyte, 1954). As early as 1955, Katz and Lazarsfeld believed that word-of-mouth was seven times more effective than newspaper, four times more effective than direct sales, and twice as effective as radio advertising.

Later, Day (1971) estimated that word-of-mouth was nine times more effective than advertising in changing consumer attitudes, where as Morin (1983) showed that “other people’s recommendations” were three times more effective in terms of stimulating purchases of over 60 different products than was advertising. According to Reicheld (1996),
these effects are amplified by a higher degree of customer loyalty and profitability. Today, many researchers continue to maintain that word-of-mouth constitutes one of the most effective ways of attracting and keeping customers (Duhan, Johnson, Wilcox, & Harrell, 1997).

Both WOM and e-WOM play a significant role in the consumer decision journey, acting as an amplifier of all marketing activities. Marketers need to account for the pathways through which word of mouth plays an intermediary step in the journey between marketing exposure and financial results. Analyzing the overall impact on marketing will help determine optimal budget allocations. A new research study quantifies the influence of word of mouth marketing (both WOM and e-WOM combined):

- 10 – 54% of the marketing impact of a brand is delivered through word of mouth, suggesting this is a key element of the consumer decision-making journey.
- Word of mouth can drive nearly as much organic search as traditional marketing activities on their own, when marketing activities are also present.
- A 10% increase in word of mouth resulted in sales lift of 0.2% – 1.5%. (https://mkhmarketing.wordpress.com/tag/ewom/)

Hennig-Thurau et al. (2004) conducted a study on the motives of e-WOM. In his analysis, Hennig-Thurau et al. (2004) found that the factors determine the primary motivation for consumers to spread e-WOM, is because of the social benefits, economic incentives, concern for others, as well as like self-enhancement/ extraversion, these four factors, social benefits have the greatest influence. Some research on the impacts of e-WOM, mostly analyzed the influence of e-WOM on the customer loyalty (Kim et al., 2004).
Research Methodology

Research methodology in this research is descriptive qualitative method, where all results will be described in the narrative. The location of the research was conducted on social media and some public places such as beaches, hotels, restaurants, shopping and tourist attractions. The data collected using the purposive random sampling and the type of the data being used is the primary data and secondary data. Technique for collecting the data has taken by purposive random sampling, this technique has the purpose to take a small number of samples from a big population and the researcher has decided the number of samples will be used in this research by certain considerations.

Primary data in this study is taken from social media. Media used in this research are the Facebook, the twitter, and homepage of tourism industries as well as TripAdvisor. To justify the data, the research is supported by the data taken from field research, where the data will be distributed in the form of a questionnaire to a hundreds visitor who came to Bali. The visitors who filled the questionnaire must be using social media as the part of their daily life, then the visitors have ever given the comments on social media such as Facebook, Twitter, or TripAdvisor about Bali. It has the function to know their point of view about Bali particularly on social media. In answering the research questions, the data was also analyzed through theory related to the research, such as the “effective theory” and the “hypodermic needle theory”.

Results and Discussion

There are about a hundred companies which are divided into fifty companies established on the Facebook and fifty companies on the Twitter. Firstly, the companies related to tourism were analyzed based on review comments on their Facebook and Twitter. The comments
were classified based on positive comments, negative comments, and unidentified comments. After all, the comments calculated to gain the first result from the Facebook and the Twitter to represent the users' point of view about Bali. Here are the number of comments has been made on the Facebook: 1200 comments (positive comments), 14 (negative comments), and 142 (unidentified comments).

**Figure 1 displays the comments on the Facebook.**

![Bar chart showing positive, negative, and unidentified comments on Facebook](image)

From the figure 1, the researcher enables to identify how positive the tourism image of Bali by comparing the positive, negative, and unidentified comments on the Facebook. The first conclusion can be drawn that on the Facebook the comments regarding tourism in Bali are still positive. Based on the data derived from the Twitter, there are about 936 positive comments has successfully collected, 7 negative comments, and 116 unidentified comments. Figure 2 shows results derived from Twitter. Those companies were analyzed using the 4A approach based on the grade point review on social media based on the classification on attraction, amenities, accessibility, and
ancillary. Those classifications have generated the diagram based on the total points in each of the classifications based on 4A approach such as:

<table>
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<th>Classification</th>
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<tr>
<td>Attraction</td>
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<tr>
<td>Amenities</td>
<td>225</td>
</tr>
<tr>
<td>Accessible</td>
<td>53</td>
</tr>
<tr>
<td>Ancillary</td>
<td>85</td>
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</tbody>
</table>

Figure 3 shows comments classification based on 4A approach. The data derived from the Facebook and analyzed using 4A approach shows that mostly the visitors are coming to Bali for the beauty of the attractions which is placed on the first rank. Then it is followed by amenities in the second place. In third place there is ancillary that can be one of the important elements in companies related to tourism. Every company related to tourism should provide special services to enable the tourists to get any specific information about Bali and it should reach the goals in relation to transportation. Transportation is very important in tourism. It is one of the most important aspects to help the running of tourism in Bali.
Fig. 3. Tourism Image of Bali on The Facebook based on 4A approach

On the other hand, there is the accumulation data on the Twitter which was derived from the analysis of 4A. This consists of attraction of 184, amenities of 170, accessibility of 146, and ancillary of 64. Those numbers were taken from the comments review on the Twitter regarding companies related to the tourism sector, such as hotels, villa, spas, travel agencies, airlines, tourist attraction management, money changers, and media. Figure 4 is the diagram showing the data provided on the Twitter which has shown that the attractions ranked first, followed by amenity in the second place, and in third place came accessibility, and finally, ancillary.

Based on the facts from the Twitter data, it can be seen that tourists who come to Bali have been influenced by the beauty of attractions in Bali and the environment in Bali. In the second place they have been influenced by facilities and services in Bali, which are commonly called amenities. Accessibility is one of the important things which are very important for the development of tourism in Bali, which is related to the access of transportation. Figure 4 is the diagram showing the results of data analysis based on 4A approach on the Twitter.
From figure 4, it can be seen that mostly, tourists like to come to Bali because Bali has nice panoramas, followed by great facilities for accommodation and also all other aspects of tourism. In addition to the research, it has been found that there are some companies related to tourism which have great points reviews based on the homepages of Agoda.com and TripAdvisor.

These companies were reviewed based on their homepages, and based on these reviews; the researcher may conclude that the grade classification points of “excellent, very good, good, average or poor” for the grade point evaluation services provided by company related to tourism in Bali. Here are the list of the companies related to tourism which has been reviewed on homepage Trip Advisor and Agoda.com.

The companies which has been reviewed on the homepage of Agoda.com and categorized in the grade of excellent is The Grand Mulia Hotel with a grade point about 9.3. Subsequently, the hotel review based on Agoda.com and categorized as very good are Intercontinental hotel with 8.3 point, Kartika Plaza Hotel with grade point of 8.4, Puri Santrian with a grade point of 8.3, Hard Rock Hotel Bali with a grade point 8.1, Harris Hotel Kuta received a grade point of about 8.3, Nusa Dua Hotel Bali grade point 8.5, and the SanurParadise Plaza Hotel with a grade point of 7.6, this hotel was included into category "Good."
The comment reviews are not only conducted on the homepage of Agoda.com but also Tripadvisor, and some companies were reviewed on Tripadvisor such as, Garuda Wisnu Kencana Cultural Park. Based on Trip Advisor, this place has a good panorama mostly the tourists adore the natural view and the magnificent statue of Lord Vishnu which has become the symbol of this place. On Trip Advisor this place has the category of “very good”. Then there is Bali Green Spa, one of the great spas in Bali which has an excellent rating review on Tripadvisor. In the restaurant category, Potato Head Restaurant and Lounge has become one of the favorite places to be visited by tourists to Bali. Based on the TripAdvisor review comments, this place has an “Excellent “rating.

Metis restaurant also has very positive comments which take this restaurant into the category of “Very Good” based on visitor reviews on TripAdvisor. Restaurants located in Ubud, Bali are: Bebek Tepi Sawah and Bebek Bengil Restaurant. These restaurants have good reviews on at TripAdvisor, that is why two of these restaurants have the “Excellent” score for its services, facilities, and as well as the views surrounding these areas. To generate strong data on this research, real data was collected in public areas by giving questionnaires to fifty international tourists who were having their holiday on this Island of the Gods.

Mostly, the tourists are foreigners and the questionnaire has questioned about the overall evaluation concerning the quality of accommodations, restaurants, SPAs, media, travel agencies, airlines, money changers, as well as tourist attractions in Bali. This research has been conducted to identify whether there is any concise data concerning the data which has taken by the virtual basis and the data which has taken via public places, in order to generate strong result for Bali’s tourism image. In the questionnaires, tourists identified and gave
a score on each qualification term such as 5 for excellent, 4 for very good, 3 for good, 2 for average and 1 for the poor.

The data taken for the identification of real facts was conducted by giving the questionnaire to the tourists and asking them to complete the questionnaire to evaluate the quality of companies related to tourism in Bali such as their accommodation (hotel, villa, inn, bungalow, and so on), restaurants, SPAs, media, airlines, travel agencies, money changers, and tourist attractions management. From the classification of the data which was taken from the tourists, the results from the answers to the questionnaires have been completed by the tourists.

Besides the analysis of social media there are also the supporting data to strengthen the point of indicator why does the tourist coming to Bali for their holiday, and here are some point classifications which have represented the basic review of visitor points of view about Bali such as excellent, very good, good, average, poor. Here are the data based on the questionnaire review of Bali

Excellent: 35
Very Good: 25
Good: 20
Average: 15
Poor: 5

Here is the chart showing the overall data about Bali’s tourism image from the results from the questionnaire completed by tourists (figure 5).
Figure 5 above is showing the review comments of the overall evaluation of the data from the tourists about the image of Bali’s tourism. It can be seen here that tourists were satisfied with the services given by the companies related to tourism such as accommodation (hotel, villa, bungalow, inn, and so on), restaurants, SPAs, airlines, money changers, travel agencies, media, and tourist attractions.

Looking at figure 5, it can be seen that the blue line representing the excellent quality for accommodations, restaurants, tourist attractions, and then followed by line for category very good which reflected the overall quality of SPAs, airlines, travel agencies, and the line categorized "Good" reflects on the overall quality of money changers and media.

The data above does not reflect any bad quality; comment reviews on overall quality of the services provided by the company related to tourism in Bali were all in the “Good” positions. These results show the image of Bali in social media. Bali has become one of the favorite destinations for tourists to visit for their holidays. Visitors really appreciated the services provided by the companies related to tourism in Bali. Most of them said they were willing to come back to Bali again for future tourism visits (and feel the sensation of tourism in Bali which is an unforgettable memory).

**Conclusion**

Based on the research conducted here, it has proven that
Technology has generated good results for the progress of transforming the word of mouth (WOM) to electronic word of mouth (e-WOM). Technology has generated a good result for the progress of transforming the word of mouth to electronic words of mouth. The results are also supported by factual data. The data was derived from the comments of tourists who came to Bali while on holiday. Factual data analysis has identified the results of Bali’s tourism image based on the points of view of tourists who came to Bali. It is no wonder that there are many tourists from all over the world who visit Bali and consider Bali as one of their favorite destinations for their holiday, because the results found on the social media, homepages and the factual data from this research shows a positive image for Bali. This fact will contribute to the increase of visitors to Bali in the future. Both from the Facebook and the Twitter showed mostly positive comments and based on the 4A approach shows that mostly the comments are for the beauty of the attractions which is placed on the first rank.

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AGRICULTURE: A NEW APPROACH TO SUSTAINABLE DEVELOPMENT

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Introduction:

Villages plays an important part in Indian life. From the prehistoric times, the village has been enjoying an important place as the unit of Indian social structure. India can rightly be called a land of villages. The bulk of her population lives in the villages and Agriculture is the sole occupation of the villages.

In the village land use distribution cannot fit for the new acquirement, the weak infrastructure in the villages, frequent power cuts and lack of proper telecommunication system, no gas supply and bad ventilation make the situation even worse, and there are many potential dangers in agriculture like lack of sufficient water source, low yields, shortage of labour and practice of subsistence agriculture. The demand for new scientific instruments of agriculture is increasing. The farmers have been taught new methods to raise their production. The rural cooperative societies have lessened the woes and miseries of the village people in getting seeds, fertilizers and credit.

But some villages overcome the problems of Agricultural practices and by more and more mechanized and agricultural practices and are fetching high prices which results villages to success and economically self-sustaining.

Objectives:

1. To Examine the Growth and Development of agriculture in the study area.
To know the various factors of village development.

**Study Area:** Ankapoor Village located in Armoor Mandal, Nizamabad District of Telangana State. The village is 400 years old and is located on eastern side of the National Highway 16 connecting Nizamabad with Jagdalpur (CHG) also near to the another National Highway (NH46) connecting Hyderabad and Nagpur. It lies 77 degrees 51 E longitude and 18 degrees 30 N latitude at an elevation of 404 meters above the level. The literacy rate of the village is 95%.

**Methodology:** Both primary and secondary data sources were used. Field visit to the village and informal interviews with village community conducted for the present study. The secondary data were further collected from journals and internet. The study was also dependent on the secondary as well as primary data regarding the growth and Development of agricultural and urban characteristics of the village.

**Result and Discussion:** The village development started in the year 1990 in the period of G. Rajanna sarpanch and slowly agricultural practices were shifted to mechanized from traditional practices, farm pond water management uniquely seen from 2000 onwards in this village. These farm ponds and seed processing units and strong NRI population added to this development of village and its Effective agricultural practices like drip irrigation and have made ankapoor self sufficient. The marketing for almost all the crops produce is done in the village itself. Usually, no crop produce is taken to their houses for storage. The village is having open market place constructed with zinc sheet, and the produce is transported to far off places from here. Dried turmeric is sent to Nizamabad regulated market in Lorries. Green maize cobs are sent to Nanded, Nagpur, Nizamabad, and Hyderabad. During one bumper harvest, farmers were said to have purchased many cars at a time with the remuneration from crops. There are 22 seed
processing units in the village. The red jowar seed developed here is exported to northern India. Seed companies like Pioneer, Pro-Agro, Ganga Kaveri, Kaveri, Tulasi and Nuziveedu have processing units in the village. These companies have mitigated the problem of unemployment to a large extent. Urban amenities like Pucca roads, Pucca sanitation, good transportation facilities, Mini water tanks for safe drinking and recently poly farms or green house farming is practiced in this village. The village has no thatched houses huts and it has Air conditioned function hall and houses are built like the one we find in Banjara hills of Hyderabad. Inhabited by 5,689 people (as per 2011 Census), the village has 1,520 households and over 2,000 acres of cultivable land. This could be one among a few villages which has a less number of white ration cards, according to Village Revenue Officer. The Village Development Community and village woman plays a pivotal role for the discipline and development of the village. Due to all the urban facilities in the village, it is also known as mini America.
Ankapoor: A Model Village

Conclusion:

The village has shifted from traditional to commercialization of agriculture through seed production with high cropping intensity and Green house farming. Maize, sorghum and bajra has major seed production centre and generated employment in the village. Commercial crops like turmeric, vegetables are also major source of income. No land is kept barren in the village. At the outset the village landowners became rich and built many larger buildings in the village. Building density is greater than 80%. While all these facilities emulate Ankapoor for its self sufficiency and model village for Indian villages.
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ESSENTIAL PRINCIPLES FOR QUALITY EDUCATION

T.Vijay Kumar Ratnam
Research Scholar
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Introduction:

Values are attributes that spring from the stability of soul. They are sentiments, like love, that involve mind, feeling, and will, which are strong, deep and enduring. They are like truth, reflections of reality that are not obstructed by any kind of prejudice. They are like beauty perfections in themselves in every sense of the term. They are like justice the moral constituents of a State that confer on everyone what is due to him. They are attitudes that confer on man humanism and peace. Values in short shape the moral personality of an individual. They enhance the finer side of his potential. They help him live harmoniously and harmoniously and graciously with his fellowmen. They act as the conscience of the community which when kindled with torch of learning would make him realise the responsibility he owes to the society. They are linked to the behaviour that exposes the inner life of a nation. Values are concepts that conserve life, that comfort life, that promote life and protect life. They foster peace, order, dignity, beauty, grace and delight. Values in one word are the divine side of man.

The changing profile of Indian society has necessitated changes in the system of Education. The demands of globalization, communal disharmony, problems of diminishing resources, competition to attain power and territory have exposed the child of today to conflicting value systems. The alternative models of living and being available today have made life decisions more complex and hence, life processes more
uncertain. Consequently, the system of education has to be more dynamic, to cope with the changes in the external world. It needs to provide an education which disciplines the mind, matures the heart and equips the child to act according to the dictums of his genuine understanding and true feelings. That is, an education that shapes the whole personality and builds the complete person is the need of the day.

**Significance of the Values:**

A value is a relationship between a person and an environmental situation which evokes an appreciative response in the individual. Moral values are inseparably related to values in general. Frequently values are divided into types, such as bodily values, economic values, social values, aesthetic values, religion values. While there are values which are primarily economic, aesthetic and so on, any human value may also be a moral value. To the extent that any activity increases or diminishes the worth of human life, it takes on amoral significance. Values are thus both individual and social.

It derives from a socio-philosophic tradition with roots deep in the past. Unlike the West, philosophy in India could not free itself completely from the hold of religion. Philosophy to the ancient Indians was not just a means of satisfying intellectual doubt (samsaya), but more, a practical endeavor that showed one the right way to attain spiritual liberation (Moksha), the summum bonum of life. Although there are four supreme ends of life (Purusharthas) – economic well-being (Artha), physical well being (Kama), righteous action(Dharma) and spiritual freedom (Moksha) – the secular values of artha and Kama rank inferior in status in the Indian hierarchy of values, to the spiritual values of dharma and Moksha. Even among the latter, Moksha is far higher than dharma. In fact it is the highest end of human life, it being freedom from the very notions of right and wrong and good and bad.
“Value” has been defined as a belief upon which man acts by preference. We live by certain values. They guide our behaviour and put meaning into our existence. We organize our desires and ambitions around our values. A person is known by the values that he or she keeps. According to T.A. Mathias, “What do we understand by values? The common understanding is that values are ideals, beliefs, moral or spiritual principles which are important to us and on which we base our living. In other words, values are not something theoretical but they influence our behaviour; they are practical norms. Consequently, the best way to understand a person’s values is to observe his habitual way of acting, rather than what he says. An anthropological definition of values is “a broad tendency to prefer certain states of affairs over other”. Obviously this definition can apply to moral and spiritual norms and principles, as also to aesthetic and other preferences”.

Misconceptual notion of modernity and rapid growth of science and technology and subsequent industrialization have caused a great threat and danger to our old morals and values. In the changed social set-up, our definitions of good morals stand questioned. Old values seem to be lost but new are yet to be evolved and brought into practice and as such we can term the present era as ‘transitional’ one. Will Durant has very aptly put forth this phenomenon. According to him, “These, then, are the varied causes of our moral change. It is in terms of their transit from farms and houses to factories and city streets that we must understand the generation which so boisterously replace us. Their lives and problems are new and different. The Industrial Revolution has them in its grip and transforms their customs; their garb, their work, their religion, and their conduct; to judge them in terms of the old code is as unfair and unhistorical as to force upon them the corsets and bustles, the beards and boots of our ancient days.”

Several scientific inventions have also their role in challenging our old and traditional, but very useful values to a great extent. It is
difficult to compile a list of changes brought about by these scientific inventions in our daily life. Similarly it is not easy to compile a comprehensive list of ‘good’ or bad actions of mankind- as moment after moment a man is confronted with new situations and problems. It is said that the actions, speech or thoughts which are motivated by or admixed with perverted emotions, called sex-lust, anger, greed, attachment, arrogance and sloth or lethargy (Kama, Krodha, Lobha, Moha, Mada and Matsar), called six sins, are enemies of a man (shadripu).

Teacher and Society:

Teachers’ role is very vital in moulding the future of a country and, as such, it is considered the noblest profession. Teachers are the ideals to their pupils. An educational institute should not be just confined to teaching and learning but it should be considered as a place where consciousness is aroused and illumined; soul is purified and strengthened. It is the place where the seeds of discipline, devotion and commitment are planted and fostered with deliberate efforts. A constructive companionship between teachers and students has to be developed. Gurus like Parshuram, Bhishma and Drona influenced their students by practicing what they preached. In a nutshell, a teacher in real sense is one who himself practices the human values. He should walk his talk to leave an ever lasting impression in the minds of students.

Value Education: Past and Present:

Values can be justified on two counts-absolute values (called categorical imperatives of Kant) having appeal to the Good and to the Right and comparative values having appear to the better of the alternatives. The educational institutions based on a philosophy of generic values, includes in their learning experiences ‘good’ and valuable values. The educational institutions based on a theory of
relative values concern themselves mainly with better values than are already existing, known and involved in a particular learning situation.

In ancient India, the Vedas, the Upanishads, the Epics manifested and upheld the values of Indian society. More importance was given to morality, honesty, duty, truth, friendship, brotherhood, etc. They were the themes of Indian culture and society. Imparting value education and reforming the society were the only aims and objectives of the teachers of ancient age. But in the present scenario, due to manifold changes in various aspects of our civilization such as population explosion, advancement in science and technology, knowledge expansion, rapid industrialization, urbanization, mobilization, IT revolution, liberalization, privatization & globalization as well as the influence of western culture, present society has become highly dynamic. Growing global poverty, pollution, hunger, disease, unemployment, unsociability, caste system, child labour, gender inequality, ill-treatment of women violence, disability, exploitation of natural resources and many such evils have caused value-crisis on the globe, adversely affecting the core human values such as honesty, sincerity, morality and humanity and, as such, there is a great transition in human society. To overcome the problems of the present era, inculcation of values among individuals and promotion of values in educational system, as well as society, is highly essential.

The Western Concept of Values

In the west, on the other hand, the traditional position claiming the inseparability of religion and values has almost been replaced by the view that knowledge in values is autonomous in the sense that it does not necessarily depend on religion, that an act is essentially a rational act and concept of a person with values as a rationally autonomous individual. It is not doing good or acting right but acting so for the right reasons that constitute the essence of morality. To say that an action is right or that some course ought to be followed is to
convey that the judgement is backed by reasons and it is further to invite discussion of such reasons.

**Need For Values in Education:**

Values are essential. They help humanity to live at peace and harmony. Without values, one floats like a piece of driftwood in the swirling waters of a river. The whole world cannot be a place worth living if there are no values to be realized.

The most suitable intervention to remedy the situation would be to inculcate values among our people. The process of inculcating values needs to start right from the primary education level. In other words, ‘Education in Human values’ needs to be incorporated as an integral component of the entire educational system. This aspect had gained the attention of various high-powered commission and committees in the Post-Independence period. Secondary Education Commission (1952-53) observed, ‘religious and moral instructions to play an important role in the growth of character’. Education Commission (1964-66) recommended that ‘conscious and organized attempts need to be made for imparting education in social, moral and spiritual values with the help where possible of the ethical teachings of great religions’. The National policy on Education (NPE), 1986 felt the need to make education a forceful tool for the cultivation of social and moral values.

The National policy on Education (NPE), 1986 further observed that at the stage of secondary education, ‘students should be provided a sense of history and national duties and rights as citizens. Conscious internalization of healthy work positive culture should be brought about through appropriately formulated curricula’. Acharya Rama Murti Committee reviewed NPA, 1986 and stresses that education must provide a climate for the nurture of values. The Parliamentary Standing Committee on human Resource Development (1999) observed, “It is disappointing that well concerned efforts made during
the last four decades have failed to achieve the desired results. Well chalked out plans and strategies for making our education value oriented still remain in paper”.

**Quality Teaching:**

Quality teaching has become an issue of importance as the landscape of higher education has been facing continuous changes. The student body has considerably expanded and diversified, both socially and geographically. New students call for new teaching methods. Modern technologies have entered the classroom, thus modifying the nature of the interactions between students and professors. The governments, the students and their families, the employers, the funds providers increasingly demand value for their money and desire more efficiency through teaching.

Quality teaching lacks of clear definitions and to some extent can’t be disconnected from debates on Quality or Quality culture in higher education that remain controversial terms. Some scholars regard quality primarily as an outcome, others as a property. Some consider teaching as the never ending process of reduction of defects and so Quality Teaching can never be totally grasped and appraised. In fact, conceptions of quality teaching happen to be stakeholder relative: students, teachers or evaluation agencies do not share the definition of what “good” teaching or “good” teachers is.

Values, such as democracy and human rights must be understood as basic fundamentals for quality education. Teachers must teach about values not just through the substantive content of their teaching, but also by using teaching methods, which will integrate democracy, interaction, equality, respect and co-operation as parts of the work in schools/institutions. In these areas teachers must be role models. This is only possible when teachers’ professional status is
recognised and when they are given the appropriate support to fulfil their tasks.

Quality education should not be regarded as a process of consumption, but as a process of interaction between teachers and students. Education must aim at giving the students opportunities for personal development and confidence to adapt to new situations as well as change these, when they find that necessary. Education can never be a neutral process; it will always be value based. The balance between objective “facts” and questioning these facts represents a great challenge to the professional teacher.

Teacher Education provides a platform to student-teachers to acquire the required knowledge, skill and develop positive attitude, values and beliefs. This can be done with the help of the provided curriculum. And the quality of teacher produced in any institution invariably depends on the curriculum offered to them during their training period.

**Role of Teacher Value in Development of Quality Education:**

It is very difficult to understand the word value. ‘Values’ have been given so many connotations by common people and by philosophers, theologians, psychologists, economists, and other specialists that is easy to get confused and lose interest in the whole thing. No wonder some find the whole business ‘terrible on, truth, reason. The meanings of these terms are complex and variable. It is possible to define them from a particular standpoint, but a comprehensive definition acceptable to academicians and, at the same time, intelligible to an ordinary Joe may be a near-impossibility.

Aristocracy of intellect has helped man land on moon, split atom, scratch ocean floors, revive collapsing heart and several other wonders but he needs sublimity of soul as well to live like brothers on this planet. Want of value-oriented education has made man money-
mad, power-mad, pleasure-mad and status-mad sitting on the tip of a volcano which may blow off at any time. It is said that we have passion, but no compassion. We have goods but not God. We have speed but no direction; we have production, but no equitable distribution; and we have religion but no spirituality. Swami Vivekananda had said if moral values had kept pace with advancement of science and technology, this earth would have been a paradise. If knowledge was wisdom, libraries and encyclopaedias would have been saints and savants. That is why they say that if you fly in the air you are a fly; if you walk on water, you are a straw; but if you win the heart of someone, you are something. Even such a rich country of cultural heritage as India, known for the gentleness of her mature mind and for reconciling the irreconcilable, has fallen a prey to all destructive forces. Resurgence of a country could come, not through the narrow gates of politics, and not even through the channels of science and technology, but only through the flood gates of value-oriented education. Great moments of history are not those when inventions and discoveries were made, but those when virtues prevailed in the society.

Conclusion:

Teachers need to re-conceptualize citizenship education in terms of human rights and approaches of critical pedagogy; emphasize environment and its protection, living in harmony within oneself and with natural and social environment; promote peace, democratic way of life, constitutional values of equality, justice, liberty, fraternity and secularism, and caring values. They need to be empowered to recognize and value what children learn from their home, social and cultural environment and to create opportunities for children to discover, learn and develop. Quality teaching has become an issue of importance as the landscape of higher education has been facing continuous changes: increased international competition, increasing social and geographical diversity of the student body, increasing demands of value for money,
introduction of information technologies, etc. The student teachers may also learn more about moral and value education, practice them to grown up the child as good citizens for better society.

Values are regarded enviable, imperative and are apprehended with high esteem by a particular society in which a person lives. Values give meaning and strength to an individual’s character by occupying a central place in his/her life. Values reflect one’s personal attitude and judgments, decisions and choices, behaviour and relationships, dreams and vision. These values influence our thoughts, feelings & actions and guide us to do the right things.

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LANGUAGING ISSUES IN BALI TOURISM: AN ECO-SOCIOLINGUISTIC APPROACH

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1. Introduction

Tourism has become a global industry and thus part of the discourse of modernity. People, culture, landscape, history, traditions, and other social and natural entities are chosen, offered, and experienced, and consequently talked and written about (Rázusová, 2008:198). Thus, tourism has become part of the global discourse in modern times. With the development of tourism, a new kind of language has evolved, namely language of tourism. This language consists of various features that reflects specific position in current society and deals among others of the image of services. Thus, Blue and Harun (2003, 74-75) show a particular pattern of language use in communication between stakeholders in tourism as hosts and tourists as guests. The pattern of language in tourism services is oriented toward values and norms of commerce. The image of tourism is also formed by linguistic features (Dann, 1996:2).

Regarding image-shaping, it is argued that language and tourism are two inseparable entities. Language can not be separated from the environment in which it is used by the speakers through language. Furthermore, the speakers form a speech community in a particular environment. The environment becomes a source of knowledge for the speakers of speech community. All aspects of tourist activities in a certain environment are reflected by the speakers in the form of language. In line of Chomsky, language and environment are interdependent. This hypothesis is also put forth by Sapir who argues
that nature and landscape play a significant role in the formation of a cultural discourse (Fill & Mühlhäusler, 2001:5).

Based on Sapir’s and Chomsky’s opinions, it is observed that environment issues in tourism are reflected by the language used. I agree with Haugen (1970) that the study of ecology, speakers, and the environment interrelate (closely connected). With respect to these issues, I am interested in analyzing how language deals with tourism as a global industry. First of all, I would like to describe the languaging paradigm in shaping the image of tourism. The term languaging is originally used by Potter (1971) and extended by Dann (1996) in his description of the superiority of an item over real (or fictitious) rival items, using impressive foreign words. In the case of tourism, the languaging paradigm is divided into linguascaping or representations of language or metadiscourse (i.e. Aussie Garden, naming of artshop in Bali in order to create australian gaze) and linguaculture that refers to languaging issues within a balinese culture which then become globalized (i.e. 'Bali for the world' slogan relates with recovery after Bali blast 2002). Secondly, I would like to make a dialectical approach based on ecolinguistics and sociolinguistics to which I refer to as ecological sociolinguistics or eco-sociolinguistics. I argue that languaging issues are related to ideology, sociology, and environment (biology) within the area where the language is spoken. Ecolinguistics

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1 Languaging refers to use of language in a expert talk (e.g. guided tours, explanations, instructions); service encounters (e.g. purchasing foodstuffs in shops or markets); phatic communion (e.g. exchanging greetings, thanking – often as part of a service encounter); naming and translating (e.g. providing labels for local concepts, artefacts or dishes, translating local place names). This term respect to The Uses and Representations of Local Languages in Tourist Destinations: A View from British TV Holiday Programmes (Jaworski, et al.: 2003:5) in Language Awareness, Vol. 12. No. 1. 2003.

2 Linguascape refers to term that is given by Jaworski (2002:1) in press Sociolinguistic Studies on Linguistic Landscapes on Postcards: Tourist Mediation and the Sociolinguistic Communities of Contact.
is concerned with the concept of a lexicon representing ideological, biological, and sociological diversity in language contexts. Therefore, I claim that eco-sociolinguistics constitutes a new method to study language and global ecology within the context of tourism. The reason is, that sociolinguistics has so far been limited with sociological variables (i.e. gender, age, education, rank, power, distance, etc.) and has not paid attention to ecological variables which are actually also part sociolinguistics.

2. Theoretical Background

Language is a reflection of the speakers’ environment. Sapir’s hypothesis (1912) argues that language reflects the physical and social environment in which it is used. It means that a certain environment is also reflected in the structure of the language, its sound system of language, and its lexical meaning of its words. Sapir stresses that the interrelationship of language and the environment in particular is reflected on the level of the lexicon. Proof is that vocabulary is the most visible reflection of the relationship between the physical environment, social environment, and the speakers. The vocabulary of a language is an inventory of all concepts within the speech community. Vocabulary is also a complete thesaurus of the characteristics of the physical environment and cultural characteristics of the speakers who use the vocabulary (Fill & Mühlhäusler, 2001: 2).

Thus, the basic concept of ecological linguistics is interaction and diversity. Interaction and diversity according to Sapir (1912) are the result of the interaction between the physical environment and the social environment and on the other hand are formed by the interaction

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Ecolinguistics refers to Haugen who himself wrote that “the name of the field is of little importance, but it seems that the term ‘ecology of language’ covers a broad range of interests within which linguists can cooperate significantly with all kinds of social scientists towards an understanding of the interaction of languages and their users” (Haugen, 1971: 21).
of language and culture. The diversity is reflected by the socio-cultural grammatical correlations embodied for example in the ways of counting or the concept of ownership and gender differences in grammar (Fill&Mühlhäusler, 2001:14-15). On the other side, the environment of tourism is exploited to fulfill the demands of tourism industry. In this case, vocabulary sets in the language of tourism represent how the ecology or environment is provided for tourism activity (i.e. Balinese renaming of hotels or villas, for instance Ayodya Hotel, which used to be called the Hilton hotel and Ayana Hotel which used to be called the Four Seasons Hotel) in which Ayodya and Ayana are the Balinese terminologies for ‘palace’ that are used in Ramayana Epoche. The environment of tourism provides its stock of vocabulary reflecting both physical and socio-cultural aspects (Fill&Mühlhäusler, 2001:17).

Languaging issues in tourism are mostly reflected not only spoken but also in written interactions between hosts and tourists. It can be found in holiday brochures, travel guides and newspaper travelogues, inflight magazines etc. (Thurlow & Jaworski, 2010:9). Hence, languaging issues deal with Dann’s view that tourism, in the act of promotion, has its own language (Dann, 1996: 2). Dann suggests that the verbal and visual elements in material promoting tourism activities contain a particular type of language, which differs from other forms of communication.

2.1 Languaging as Exoticism Issues in Bali Tourism

Languaging deals with something new and exotic which is reflected in the language of tourism, mainly in descriptions of places and people. When analyzing tourism promoting materials related to Bali, exoticized utterances can be found i.e. ‘Bali is my life’ and ‘Welcome to paradise’. According to Dann these utterances or lexical items contribute to the image of Bali as wonder that is offered as a destination (1996:16).
Regarding exoticism⁴, language deals with the ideology in tourism industry. Thus, I agree with Haugen (1970) who proposes studies of the interconnection of what language and where language is used. He argues that the language interacts with the environment where the language is spoken. In the context of tourism as ecology, I follow Haugen’s view that the ecological paradigm is understood as (1) ecological ‘wording’ transferred by the language in an environment where the language is spoken (i.e. naming of restaurant ‘Batan Poh’ in Balinese or mango tree in English) and (2) ecological ‘utterring’ understood as a biological environment (i.e. naming of hotel ‘Griya Santi’ in Balinese Griya means house and Santi means freedom (Fill & Mühlhäusler, 2001:43).

2.2 Languaging As Ecological Issues in Bali Tourism

Regarding the ecological languaging in Bali, there are Balinese naming of bars, cafés, and restaurants reflecting the traditions or the authenticity of environments (i.e. Bambu’s Bar, Banyan Café, and Tepi Sawah Restaurant). Bambu reflects the café that is surrounded by bamboo plantations. Banyan creates an image that the café is nearby the banyan tree as well as tepi sawah reminds that the café is in or nearby ricefield. In the case of Singapore, for instance, Jørgensen (2004:75) argues that languaging is yet another rhetorical strategy used to increase the authenticity and the traditional traits associated with the tourist destination. He adds that the main application of languaging is in the domain of gastronomy (i.e. naming of China Town).

As explained before, in case of tourism in Bali, I observe that language (particularly English) plays the main role in representing,

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⁴ Exoticism refers to Jaworski and Piller (2008) who write ‘...are also exocitized but to relative degree and through one linguistic practice only-the use of local terms for local cuisine, landmarks, and cultural events. Linguascaping Switzerland: Language ideologies in tourism in Locher and Strässler (2008) Standards and Norms in the English Language, page 302-318)
promoting, organizing, and reproducing the global discourse. The impact is, that since the 1990’s Bali has become one of the mass tourism destinations of the world. In the beginning, culture was the main commodity of tourism in Bali. But, nowadays it has changed due to the global market of tourism. Bali provides all kinds of non-cultural tourism industries such as diving, surfing, trekking, etc. Based on the concept of an ecological approach to language, I state that there are three dimensions of languaging of tourism in Bali as can be seen in the following table 1. This table represents just a part of the data used.

**Table 1 Languaging in Bali Tourism**

<table>
<thead>
<tr>
<th>Environments</th>
<th>Ideological</th>
<th>Dimensions of Context</th>
<th>Biological</th>
</tr>
</thead>
<tbody>
<tr>
<td>At the airport</td>
<td>Welcome to the island of Gods</td>
<td>Welcome home</td>
<td>We are green contractors</td>
</tr>
<tr>
<td></td>
<td>Bali for the world</td>
<td></td>
<td>Bali go green</td>
</tr>
<tr>
<td></td>
<td>Bali is my life</td>
<td></td>
<td></td>
</tr>
<tr>
<td>At the hotel</td>
<td>Stay with us in paradise</td>
<td>Free your mind and soul</td>
<td>Keep clean and green</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ubud Village Hotel</td>
<td>Tri Hita</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Keraton Bali Hotel</td>
<td>Karana’s Hotel Award</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Puri Santrian Hotel</td>
<td>Secret Mountain Hotel</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Villa Shanti</td>
<td>Villa Tepi sawah</td>
</tr>
<tr>
<td>At the restoran or café</td>
<td>Sushi Tei, Fukutaru, Fukusima Mamas, Nyoman Biergarten Trattoria, Massimo, Pizzeria Korean Food Canton Restaurant,</td>
<td>Ulam Segara Be Pasih Melasti</td>
<td></td>
</tr>
</tbody>
</table>
From table 1 above, I describe how languaging issues are focused on linguascaping and linguaculture\(^5\). These issues correspond

\(^5\) Linguaculture refers to not merely the local language which is glossed but also, we suggest, local culture more generally. Not unlike television holiday presenters, guidebook glossaries effectively commodify what Mike Agar (1994:38) calls the local ‘languaculture’ (or linguaculture)
to ideo-socio-biological concepts of the study of language and ecology. The issue of linguascaping intends to create the image of Bali as a global destination in the world. In the case of ‘Bali for the world’, this slogan was used to reinstall the image of safety in Bali after the Bali Blast 2002. At the same time, linguaculture issues focus on accommodating the local and global culture to upgrade the rank of tourism in the world. In the case of naming some restaurants, it shows that there is no sociocultural barrier to visit Bali. It makes the tourists feel as if it were at their own home. Some say that Bali is for Australians what Mallorca is for Europeans. Local linguaculture is seen by the naming of local restaurants and artshops. The phenomena of language also deals with translating. Tourist brochures are translated into many languages. In this case, the translation is focused on where the tourists come from. They can be found at the tourist information counters, tourist attractions, tourist objects, and artshops. It means that the language is used to form a ‘magical wording’ within the tourism industry in order to satisfy the tourists. In detail, it will be presented in the following.

(1) Ideological Languaging

From the table above, the ideological languaging is seen in words, utterances such as Welcome to the island of Gods, Bali for the world, Bali is my life, Stay with us in paradise representing the exoticism of authenticity opened for the international tourist. In the context of food and beverage services, naming of cafés or restaurants implies local to global (i.e. Be pasih, Melasti, Warung Made, Bali Coffee, Ngiring Ngewedang). Be Pasih creates the image of Balinese dishes, ‘be’ meaning dish and pasih meaning sea or ocean. So, it actually means seafood. Made in the name of Warung Made reflects the naming of a local foodcourt with Balinese name ‘Made’ as the owner. Made is a
term for the second born child. As well as in the name of Ngiring Ngewedang, it is a typical local name of a foodcourt. Ngiring means Let’s and Ngewedang means to drink. Thus, Ngiring Ngewedang means ‘Let’s drink’ in Balinese. Ideological languaging deals with using of global terms for local places (i.e. Sushi Tei, Fukutaru, Fukusima (Japan), Mamas, Nyoman Biergarten (Germany), Trattoria, Massimo, Pizzeria (Italy), Korean Food, Canton Restaurant, Hongkong Garden, Aussie garden, and Hawaii Bali. The naming of Japanese, German, Italian, Korean restaurants in Bali makes the tourists feel at home.

(2) Sociological Languaging

Languaging in a sociological context is found in using Balinese sociocultural variables, names, way of life, legend, folklore, etc. Ubud Village Hotel, Keraton Bali Hotel, Puri Santrian Hotel Villa Shanti and Bakas Rafting is related to sociocultural atmosphere and reflect the names of locations in Bali. For instance, welcome home, Free your mind and soul, refers to way of life. In Dewa Malen, Semar Kuning, Wayan Jiwa, Legong, Krisna Bali, Agung Bali deals with sociological exoticism in context of naming in the folklor. In the case of “welcome home’ makes the tourists to feel closed their own homeland. The utterance ‘free your mind and soul’ refers to conditions of freedom that the tourists may be able to enjoy during their holiday in Bali. The word ‘village’ creates an authentic and traditional situation at the hotel, whereas the Balinese word ‘shanti’ means peace that tourists may find at the hotel.

The atmosphere of being aristocratic is also implied by naming of ‘keraton’ and ‘puri’. The two Balinese words give the impression of staying at the palace ‘since ‘Keraton’ or ‘Puri’ means palace in Balinese. Omitting distances with the local people who have artshops is pointed out by the use of Balinese names like Dewa Malen, Semar Kuning, Wayan Jiwa, Legong, Krisna Bali, Agung Bali. The names are
related with local businessmen, so the tourists easily spend their money for shopping.

(3) Biological Languaging

Regarding biological languaging, are for instances we are ‘green contractors’ and Bali goes green, Keep Bali clean and green. Tri Hita Karana’s Hotel Award\(^6\) is given to hotels which are concerned to spend attention green environments and go beyond the pure global economic aspects. Then, tourism activities are also exoticed with the pseudo-naming (i.e. Bebek Bengil, Ulam Segara, Be Pasih, Melasti, Ayung Rafting, Island Explorer, Sail Sensation, Exploring the untouchable Bali, Experiencing Bali’s Life Sunset dinner, Batukaru Tour, Swimming with dolphins, Geotrek, Batur Trekking, Tebasari, and Segara Windu. This is biological languaging in order to hide the exploitation of physical environment or ecology in Bali that is profit-oriented for the global tourism.

In detail, ‘bebek bengil’ is Balinese register that means dirty duck in English. Similarly, Segara, Pasih, and Melasti refer to the ‘sea’ and deals with seafood. Some tourism activities like Ayung rafting implies that the activity takes place in Ayung river. Meanwhile Batur and Batukaru describe the activities respect to the mountain in Bali. Thus, the activities are called trekking and geotrek. Regarding agrotourism, I find registers of tebasari and segara windhu. In Balinese, tebasari means the yields of farming and segara windhu also refer to huge farming.

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\(^6\) Tri Hita Karana is a Balinese philosophy that underpins the three relationships in human life in which harmony must be maintained. These are: the relationship between human beings and the natural environment, the relationship among human beings, and the relationship between mankind and God. This concept is used by Astiti, etal. (2011) in the research of Tri Hita Karana and its implementation of Awig-Awig (traditional law) in Bali.
Then, the eco-sociolinguistic issues can be explained by the concepts of greenspeak that is used by Dann (1996) to observe the register of ecotourism. In case of Bali, I found greenspeak issues, i.e. in the slogan of ‘we are green contractors’. Greenspeak refers to wide coverage of environment or ecology that is concerned with ‘green’. In addition to Dann’s opinion, I find that eco-sociological issues in tourism also deal with greengrammar that deals with how words, phrases or utterances and sentences are coded syntactically i.e. naming of hotels or villa that regard to the green nature, such as Ubud Village, Hanging Garden Hotel, etc. Thus, I argue that greenspeak and greengrammar in tourism deals with aspects of eco-sociolinguial languaging issues, i.e. wording practices and ecological registers or sentences that are implied by the language used.

Hence, language practices in tourism can be seen as aspects of individuality against intrarelation, interrelation, and extrarelation of each individual, group, word, text, and other utterances. Intrarelation is the relation of individual itself in the environment. Interrelation is the relation of the individual with other individuals in the environment. Extrarelation is intended as a relation of the individual with other individuals who are in a different environment (Lindo & Bundsgaard, 2000:17). The register of eco-sociolinguial issues can be seen in table 2 as follow.

<table>
<thead>
<tr>
<th>Context of Environment</th>
<th>Intrarelation</th>
<th>Interrelation</th>
<th>Extrarelation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airport</td>
<td>Welcome to Ngurah Rai Airport</td>
<td>Welcome to Bali</td>
<td>Welcome to the island of gods</td>
</tr>
<tr>
<td>Hotels</td>
<td>Lumbung Bali, Bali Tropic, All Seasons,</td>
<td>All Seasons,</td>
<td></td>
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</tbody>
</table>

7 I use term greenspeak to accommodate languaging issues toward spoken language (i.e. slogan). And greengrammar refers to particular grammaticalization of registers.
<table>
<thead>
<tr>
<th>Restaurants/Cafes</th>
<th>Kupu-Kupu Barong, Bali Taman, Puri Bambu</th>
<th>Bali Reef, Jimbaran Hill</th>
<th>Clubmed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melasti, Warung Made</td>
<td>Bali Arena Café, Bali Buddha Cafe</td>
<td>Bali Veg</td>
<td></td>
</tr>
<tr>
<td>Turttle Island tour, Dolphin Tour, Elephant riding</td>
<td>Bali Watersport, Bali Hai Cruise</td>
<td>Waterboom, Greenpark, Safari and Marine Park Bali Zoo Bali Reptile Park, Bali Bird Park</td>
<td></td>
</tr>
<tr>
<td>Nusa Dua Bali Tour, Bali Tour, Bali Prima, Nuansa Bali Tour,</td>
<td>Indobali Tour, Go Vacation Indonesia</td>
<td>Pacific Tour, Asian Trails, Pacific World, Tauch Terminal</td>
<td></td>
</tr>
</tbody>
</table>

From the table 2 above, we can see that the eco-sosiolingual register refers to ideo-socio-and biological concept of tourism activities or objects. I argue that words, utterance, or sentence are constitutive with the intra-inter-extrarelations with the environments of the tourist destinations (i.e. objects, attractions and activities).

(1) At the airport

The utterance ‘welcome’ as register is realized into different eco-sociological relationship (i.e. welcome to Ngurah Rai Airport’ shows the intrarelationship within the surrounding of the airport). Then, ‘welcome to Bali’ relates to the physical environment of the island of Bali. And, ‘welcome to the island of gods’ deals with the extrarelation between Bali and the international image that Bali has thousands of tempels.
(2) Hotels

It is found that hotels’ names used Balinese lexicon (i.e. Lumbung means rice storage and Kupu-Kupu Barong refers to a particular kind of butterfly in Bali and also Taman means garden). Thus, these names represent the intrarelational within the biological environment in Bali. Interrelational contexts are also reflected by naming of Bali Tropic, Bali Reef, Jimbaran Hill. It shows the interrelation between Bali and its surroundings. And then, naming of All Seasons and Clubmed deals with the extrarelation between Bali and the world.

(3) Restaurants/Cafés

The restaurants or cafés which provide local meals and drinks can be seen by the local naming (i.e. Melasti Café and Warung Made, that warung means local food court in Balinese language). Then, the names of Bali Arena Café and Bali Buddha Café represent the interrelations between Bali and other cultures that is combined. They provide international meals and drinks as well as local ones. As the extrarelation, the name of Bali Veg shows world-wide vegetarian restaurant both local or international items.

(4) Tourist Objects/Attractions

Intrarelations in the tourist objects or attractions can be expressions as Turtle Island tour, Dolphin Tour, Elephant riding. Then, the naming of some tourism activities (i.e. Bali Watersport, Bali Hai Cruise) show the interrelations between tourism and the ecological environments in Bali. Moreover, the names of some tourist attractions (i.e. Waterbom, Greenpark, Safari and Marine Park, Bali Zoo, Bali Reptile Park, Bali Bird Park) show the extrarelations that are internationally well-known.
(5) Travel Agencies

There are three kinds of names for travel agencies in Bali. The names show us also the categories of the agencies (i.e. local or overseas agency). But, it is found that the local agencies deal with the intrarelation names (i.e. Nusa Dua Bali Tour, Bali Tour, Bali Prima, Nuansa Bali Tour). And the name of Indobali Tour and Go Vacation Indonesia deal with the interrelations in wider area of tourism services (i.e. in all parts of Indonesia). Then, the name of international agencies (i.e. Pacific Tour, Asian Trails, Pacific World, Tauch Terminal (german diving centre) show us that the agencies cover the international tourism activities.

From the explanations above, I argue that the register used in tourism is realized in greenspeak (i.e. relates to utterances) and greengrammar (i.e. relates to sentences or slogans). Semantically, greenspeak has an intrarelational meaning, syntactically has the interrelational meaning, and sosiologically, it has extrarelational meaning (that is contextual meaning). From the table above, we see Greenspeak is not merely words, texts, and utterances, but also sentences that are written in tourism brochures or used by the tour guides in Bali. I argue that greenspeak deals with particular tourists interested in land or nature and people with biodiversity domains (i.e. trekking, cycling, rafting, or other adventure tours). So far, I observe that the greenspeak is found in tour programs both in internet or printed media, mostly for European tourists (i.e. German and French).

3. Conclusions

Firstly, I conclude that languaging issue is the eco-sociolinguial paradigm to make global image of tourism. Languaging accommodates all of the business purposes in the tourism industry. Secondly, languaging issues deals with the concept of ecological approach to language. In this case, I found two phenomena, namely (1)
linguascaping refers to language used to make image in tourism and (2) linguaculture refers to language used to accommodate the local, glocal, and global culture of tourism image. **Thirdly,** I see that ‘exoticism’ leads to ego-centrism paradigm to exploit human nature for mere economic interests. I agree with the opinion of Haugen (1970), the representation language vocabulary is viewed as the interrelationship with the environment. Thus, tourism vocabulary set is a representation of the physical and social environment in the tourism itself.

**Fourthly,** the concept of image and even hyperbolism use lexical devices dominate language (discourse) to create a tourism tourist gaze\(^8\). Language for promotion, advertising, tour programs, either through printed and electronic media (internet) are used for languaging of all the "good side" of the physical environment and the social tourism. **Fifthly,** I argue that study of language and ecology of tourism allows to combine the dialectical approach between ecolinguistics and eco-sociolinguistics. Ecolinguistics investigates how the vocabulary becomes a representation of the concept of ideology and culture in which the tourism vocabulary also reflects the egocentrism in human behavior (anthropocentrism) to the tourism environment. And eco-sociolinguistics is concerned with how language is used in context of tourism practices (i.e. languaging, greenspeak, register use, etc.).

**References**


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\(^8\) Tourist gaze, which concerns itself with the way in which goods and services are consumed by tourists (Urry, 2002). The structuring of the tourist gaze (i.e. tourist patterns of consumption) is commonly acknowledged to be prefigured by a host of discursive (including linguistic and visual) practices.


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THE STUDY OF DEVIATIONS IN GRAMMAR AND SYNTACTIC STRUCTURES OF ENGLISH IN TELUGU-SPEAKING REGION

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Introduction:

Grammar is the branch of linguistic study that deals with the classes of words, their inflections or other means of indicating relation to each other, and their functions and relations in the sentence. Kohli,(1984:116) gives a beautiful analogy to use of knowledge of Grammar. “Imagine two car drivers. The first driver knows only driving and nothing about the working of the engine. He feels helpless whenever there is some trouble with the machinery. The second driver knows driving and also understands the working of the machinery. The person who knows grammar is like this second driver. In case he is doubtful about the correctness of a particular thing, his knowledge of grammar comes to his rescue” Grammar makes the users to use the language accurately.

Every language has its own grammatical principles and syntactic structures. When two languages are used in the same context, obviously, the first language (Telugu) grammar rules and syntactic structures influence the second language's(English) rules and vise-versa. Besides the regional language influence, the speakers’ efficiency in using language also becomes the reasons for the deviations.

There is a slight difference between ‘deviance’ and ‘deviation’. Deviance is a term (Crystal 1980) used in linguistic analysis to refer to
a sentence (or its units) which does not conform to the rules of Grammar i.e. it is ill-formed. On the other hand a Deviation is an institutionalized error which is widely accepted and it is an acceptable departure from the norm (LAWAL M. Olushola 2013). “Grammatical deviation is a deviation from accepted norms of grammar. Incorrect or bad grammar, inversion of accepted word order in a sentence, violation of ‘surface’ and ‘deep’ structures, wrong use of verb or verb forms (Saira Akhter, Mazhar Hayat 2012).

**Error and Mistake:** Norrish (1987:7) defines errors as “a systematic deviation, when learner has not learnt something and consistently gets its wrong” and Cunnigworth (1987:87) “Errors are systematic deviations from the norms of the language being learned” from these two definitions, it can be said ‘that deviation and error implies the same. But there is a difference between a mistake and an error. The difference between Error and Mistake was observed by Corder (1967) An Error is “a noticeable deviation from the adult grammar of a native speaker reflects the competence of the learner” while the mistake refers to “a performance error that is either random guess or a slip in that it is a failure to utilize a known system correctly” Another distinction between “error” and “mistake” from the Dictionary of Language Teaching and Applied Linguistics (1992) and by Richards and Schmidt (2002) “a learner makes mistakes when writing or speaking because of lack of attention, fatigue, carelessness, or some other aspects of performance. Thus, mistakes can be self corrected when attention is called”. Whereas, an error is defined as “the use of linguistic item in a way that a fluent or native speaker of the language regards it as showing faulty or incomplete learning”.

The present paper discusses some of the deviations in the English grammar and syntactic structures in the language of the final year engineering students. These deviations can be considered as the characteristics of Indian English.
Methodology: 20 students who are studying final year engineering in AU affiliated engineering colleges were selected and the questionnaire which has five questions was administered. The researcher asked these questions as if the Interviewer asked interviewee in the interview. Their answers are recorded in Sony digital audio recorder. Later, these audio files were transcribed into the manuscript by listening to them. After preparing the manuscript, the deviations from the native English have been identified in the written script. After identifying the deviations, those are analyzed by referring Oxford Advanced Learners Dictionary and Contemporary English Grammar, Structure and Grammar books.

The Observations:

The following observations are made based on the data collected from the students.

1. The use of Reflexive pronoun ‘myself’ as the subject

   *Myself* my name is K. Rajesh presently pursuing my B.Tech.

   *Myself* I am Ch. Lavanya studying B.Tech final year in Raghu Engineering college.

   *Myself* Sravan Kumar studying B.Tech from Sanketika Engineering College.

In order to express personal information starting with name, many of the respondents start with the first person reflexive pronoun “myself”. In English, the reflexive pronoun ‘myself’ occurs either in middle of the sentence or at the end. But in the above sentences, ‘myself’ occur in the beginning of the sentence. When the interviewer ask the question, “could you please tell me about yourself” the aspirants start the answer with ‘my self’. The same kind of expressions can be found when the speaker introduces himself in public meetings, gatherings. In Telugu there is a phrase ‘naa gurinchi cheppalante...’ (to say about myself) is
generally used when they address the meetings. The speakers may be influenced by same expression for such contexts. The right beginning can be ‘My name is…….’ or ‘I am …….’. These two beginnings are acceptable where as the beginning with myself is neither grammatically nor contextually accepted.

2. The use of ‘Me’ in subjective case:

When the first person singular ‘I’ is used as a subject in the sentence, it is observed that some deviation takes place. When there are more than two pronouns in the subject, often, the confusion takes place.

a. When Me and My brother argued with each other ………

b. Me my father and my mother visited the ooty which was so beautiful…..

c. Me and my friends celebrated his birthday in orphan home at Bhimili… I felt very happy for being the part of the celebrations.

d. My class teacher, me and my friends have visited Aruku valley when I was in my intermediate.

In all the above sentences except the iv, the subject begin with object form of the pronoun ‘me’. The first person singular pronoun ‘I’ is the subject form instead of this students use ‘me’ as the subject. There is also confusion in the sequence of the pronouns in these sentences. The sentence begins with ‘me’ which might be unacceptable. The right form the pronoun and sequence for the above sentences can be as follows:

My father, my mother and I visited ooty which was so beautiful.

My class teacher, my friends and I have visited Aruku valley when I was in my intermediate.

3. The omission of Possessive case:

My father name is …
My mother name is....

My college name is....

When the student is asked the question “What is your father name?”, the answer begins with “My father name is ...” These expressions are true translations of mother tongue, Telugu. In Telugu, to the question, ‘mee nanna perenti(What is your father name?)’, the common reply is maa nanna peru.....(my father name is......). Here the possessive’s’ is ignored and most of the speakers give their reply without using the ‘s’. The statement can be modified either by adding possessive ‘s’ to the noun or by changing the structure like ‘The name of my father is.../ my father’s name instead of ‘my father name’

4. Excessive use of Sir/Madam:

My favorite teacher is chiranjeevi sir who is the maths teacher in school-age.

Sir My role model is my grandfather sir......

My Favourate teacher Harinath sir.... He taught me maths...

Once I was caught by my Principal madam when I jump from the compound wall to have something to eat.

In the above statements, the use of words ‘sir/madam’ after the name of the person is redundant. This is the influence of the regional language, Telugu. It is the tradition in Telugu to use “ayya garu/ amma garu” together as a sign of respect when communicating with superiors. It is also the tradition to use the suffix ‘garu’ after names of elderly people as symbol of respect. Sir/Madam at the end of the word is treated as an equivalent to garu in English so that the users follow the same tradition of using sir after the names of the people and designations. Sometimes it is more frequent and it is observed in some interaction that the use of sir at the end of every sentence. Here one such example
is given from the observation “sir! Pavan sir came sir?” shows that people are highly influenced by the usage of the suffix garu. The term sir/madam at the beginning of the statement is because of 'ayya/amma' and after the name of the person because of 'garu' of Telugu language.

5. Use of Reduplication:
In all Indian languages, it is possible to repeat a particular word twice either fully or partly. This feature is known as reduplication, which indicates generally various shades of meaning like intensity, desirability, rarity and so on. This feature is unknown in English. However, under the influence of Telugu, most speakers of Indian English use reduplication to indicate certain shades of meaning.

   a. I don’t have any specific role model sir….. I took one one from one one persons sir
   b. He repeats the matter again and again.
   c. He concentrates more on small small things.
   d. The chips are crispy crispy and very tasty.

In Telugu language, okkokkarinunchi okkokkati thisukunnanu is translated as ‘I took one one from one one persons’ instead of the above expression, it should have been ‘I took one each from each person.

6. Use of the negative particle ‘na’ as the tag question.
In Telugu, there are two tag questions namely ‘avuna’ and ‘kadaa’ but they are not different in their meaning nor are they contextually different. On the other hand, in English, they are various types of tag questions, each used with a specific type of statement. Most Indian speakers are not aware of all these various types of tag questions. So the tendency is to generalize one tag question for all types of statements. But curiously, instead of Telugu tag question markers, the
corresponding Hindi negative particle ‘na’ is used as the tag question marker. It seems to be the impression in the minds of the speakers that the particle ‘na’ fits in English discourse better than the Telugu markers.

a. Hoping…yes..if we hope we cannot do na sir…. We must effort ourselves…work to be done in a proper time.

b. I don’t find the time. You are doing it na.

c. My school teacher used to encourage me na sir…….

7. **Generalization of one tag question**

In the native variety of English, there are several types of tag questions, each used subject to several conditions. The rules are so complex that many users of Indian English find it difficult to understand the rules and, consequently simplify the whole complexity by simply using the tag question ‘isn’t it?’

a. They attended the party, isn’t it?

b. You will complete the work, isn’t it?

c. She has submitted the assignment, isn’t it?

Another observation in this area is that people ask the questions without changing the structure of the sentence. Generally in English, the interrogative sentences starts with either ‘wh’ word, auxiliary/be form/modal or have question tag. But Telugu speakers of English have the following sentence structure in asking questions.

e.g. you are going to movie today?

He will be submitting his tomorrow?

They are attending the party?

All the above sentences are interrogative but don’t have the interrogative format. In Telugu, the interrogative sentences can be
formed by adding ‘aa’ to the end. ‘Vallu party ki attend avuthunnara?’
The same principle is applied in asking questions in English.

8. The use of ‘own’ and ‘cousin’ before the relations:
The use of ‘own’ and ‘cousin’ have become more common before the relations. In India it is quite common to address others as ‘anna or thammudu (brother)’ and ‘akka or chelli (sister)’. In order to distinguish between the own relation and distant relation, speakers use the adjectives such as ‘own’ and ‘cousin’. The following sentences are:

   a. I attended my own sister’s marriage in agra in the last month.

   b. She is my cousin sister but we are very close and discuss everything.

   c. He is not my own brother, he is my cousin brother but makes argument for all the reasons.

In the above sentences, the words such as ‘own’ and ‘cousin’ states the relation of the speaker with other. In order to emphasize the relation, the speaker used the adjectives ‘own’ and ‘cousin’. But the right use can be:

   a. I attended my sister’s marriage in agra in the last month.

   b. She is my cousin but we are very close and discuss everything.

   c. He is not my brother; he is my cousin but makes argument for all the reasons.

9. The use of “Coming to …” as a discourse beginner.

Many of the Indian speakers of English use the phrase ‘coming to’ in their language excessively.
a. Coming to my academics... I stood first in the last academic for the entire college

b. Coming to my strengths I have determination and will power in my hand

In Telugu, there are some expressions such as naa gurinch cheppalante..., naa studies ki vachesariki......, naa family gurinchi cheppalante....... In all these contexts, the Telugu speaker uses the phrases like ‘coming to my family, coming to my studies... when he expresses his personal feelings and experiences.

10. Mixing up of styles

As English is not the native language of the learners, they are not aware of the appropriate social contexts where a given utterance may be appropriate or inappropriate. Hence, they end up using a casual utterance even when speaking to their teachers in a formal situation.

a. ... hobby is stamp collection and my strength is punctuality and my negative point is short temper. That’s it.

b. I have completed my schooling from vignan vidyalayam and my intermediate is from Sri Chaitanya IIT JEE academy, gudavalli, Vijayawada. Aaa... aaa... for myself that’s it.

Another observation from the above statements is that the abrupt ending of the speech. ‘That’s it’ is grammatically acceptable phrase but contextually the phrase is not suitable. It does not express the politeness.

Conclusion: When a non-native English speaker learn English, it is natural that English becomes subject to the influence of the other language spoken in the society concerned. In the other words this is the localization of English in its grammatical structures along with the globalization of its functions. Richards (1979) talks about these
deviations in terms of interlingual interference and intralingual interference. While at one level, the localization of English brings it close to the non-native learners, at another level this highlights the need for identifying and remedying these local features so as to get ahead in one’s professional life.

**Appendix**

The questions in the questionnaire

1. Could you please introduce yourself?
2. Who is role model and can you give me the reason.
3. What is your opinion on Friendship/Love?
4. Can you please describe your hometown?
5. What is your dream in your life?

**References:**


PNEUMATIC OPERATED PIPE CUTTING MACHINE USING ABRASIVE DISC CUTTER

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Prof. Pankaj S. Chavan, Department of Mechanical Engineering, Deogiri Institute of Engg & Management Studies, Aurangabad, India

Introduction

Our wide range of tube and pipe cutting machines includes machines that can handle small or large diameter tubes and that can be equipped with power hacksaw. We supply pipe cutting machines for round, elliptic or conical pipes as well as fully automated equipment featuring integrated logistics, or simpler, mobile versions. Pipe cutting machines are popular in offshore, pipe processing, ship building, pressure vessel, structural and mechanical contracting manufacturing because of the complex cuts and profiles typical required in their respective industries. Pipe cutting, or pipe profiling, is a mechanized industrial process that removes material from pipe or tube to create a desired profile. Typical profiles include straight cuts, miter saw, saddles and midsection holes.

Review of Literature

Iman Hajizadeh and Chi-Guhn Lee (1992) studied ‘alternative configurations for cutting machines in a tube cutting mill’. In this paper stock material exists as a continuous stream. They formulated and solved the new type of cutting stock problem and demonstrated that significant savings is expected when the new configuration is employed. The paper conclude that by opening the end of the cutting machine they have shown numerically that the production time could be decreased by up to 44%. Such improvement would help production
managers in tube mills reduce various costs such as finished product inventory, labor cost and so forth [1].

Mazatul Matura Binti Muhammad Nazri (2014) focused on the ‘design and fabrication of motorized cutter for mechanical part’. In this paper a motorized cutter that operates at a motor speed and a control circuit that senses the motor speed and provides power to said motorized cutter at a level that corresponds to the motor speed, where in more power is provided to said motorized cutter with a decrease in the motor speed. The paper concludes that the motorized cutter design is according to the present market demand and to fulfill criteria customers needs. It should be designed to create a product in the make so that it was more quality and innovative [2].

Shinde Vaibhav Kailasingh (2014) focused on the ‘study of automatic pipe/rod slitting machine (Pneumatically Controlled)’. In this paper the main concern is to control the pressure according to requirement. The arrangement of the pneumatic valves used in this system is according to the circuit designed. The selection of cutter is based on the stress calculated considering the pipe or rod material. The material preferred in this system is a PVC (polyvinylchloride) pipe for demonstration. But mild steel rods and pipes also are worked out by using different cutters specifications. The paper concludes that working of pneumatic valves according to the circuit designed [3].

**Design**

Development of design needs considerable scientific & innovative design ability in order to modify existing design into a new idea by adopting new materials or methods of manufacture. In this case although the designer starts from existing design the final product may differ quite markedly from the original product.
In our attempt to design the ‘Continuous cutting off Machine’ we have adopted the following design approach, given by this ‘Design Flow Chart.’

The solution to the above problem is the development of a low cost automation based machine using a proximity sensor to sense the job feeding (for semi-automatic machine, job feeding is manual), further clamping, cutter feed, cutter retraction, de-clamp operations are automatic and fast.

![Constructive diagram](image)

**Fig. 1 “Constructive diagram”**

**Working**

The sequence of operation for the machine is as follows:

1. Feed job to length.
2. Proximity sensor senses the job circuit is ‘ON’
3. Clamp cylinder operates to clamp the job.
4. Cutter feed cylinder operates to feed cutter in downward direction to cut the job feed rate is adjusted using flow control valve.
5. Press ‘PUSH BUTTON’ Sensor is by-passed this makes circuit ‘OFF’

6. Clamp cylinder reverses stroke job is de-clamped

7. Cutter feed cylinder reverses return strokes are faster to save idle time.

8. Feed job & again continue steps 1 to 7 SHS

**Constructional features**

1. Abrasive disc cutter:

   Organic bond abrasive wheels can be manufactured in varying thickness, ranging from “0.005 (0.13mm) to 13/16” (20.64 mm) for cutting or parting operations. These thin wheels are capable of cutting off or parting materials with an economy of time and material that surpasses that of many other methods. The limitations the application of abrasive cutting off wheels to cut economically the hard tough alloy found in tool rooms and it was on this class of work that cutting-off wheels were first applied.

2. Linear slide and cutter feed arrangement:

   Linear slide comprises of two linear motion bearings on either side with guide bars and set of bushes. The feeding action is done by a double acting pneumatic cylinder speed of the piston in forward direction i.e., the cutter feed is controlled flow gradual cutting action using a flow control valve in circuit where as the return stroke is standard (fast action). Springs are provided for fast return of the cutter head to original position.

3. Job clamping and guide arrangement:

   Job is guided in the job guide where as the clamping is achieved using a set of clamps namely, the set- clamp (adjustable to accommodate different size of job) where as the movable jaw is connected to another
pneumatic cylinder which is operated in tandem to the cutter feed cylinder.

4. Job Feeding and sensing arrangement:

For the automatic version of the machine the feeding action is automatic i.e., the job is fed in the job guide using power screw and nut arrangement up to stopper

5. Proximity sensor and electrical circuit:

Proximity sensor and the electronic relay circuit is a simple electrical circuit used to sequence the operations in the circuit, it can also be replaced by an limit switch arrangement but sensor is more reliable the circuit decides the on/off of the 4/2 way direction control valve in the pneumatic circuit and thereby the cutting/return action. Inductive proximity sensors enable the detection, without contact, of metal objects at distances of up to 60 mm.

Prototype CAD Designs Using PRO-E 5

Fig.2 “3D View of “Pneumatic Operated Pipe Cutting Machine Using Abrasive Disc Cutter”

Fabricated View
Results and Discussions

<table>
<thead>
<tr>
<th>Material</th>
<th>Size</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC</td>
<td>1 inch</td>
<td>60 sec</td>
</tr>
<tr>
<td></td>
<td>2 inch</td>
<td>90 sec</td>
</tr>
<tr>
<td>G.I.</td>
<td>1 inch</td>
<td>120 sec</td>
</tr>
<tr>
<td></td>
<td>2 inch</td>
<td>120 sec</td>
</tr>
</tbody>
</table>

Pipe cut by manually

Pipe cut by power hack saw

<table>
<thead>
<tr>
<th>Material</th>
<th>Size</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC</td>
<td>1 inch</td>
<td>15 sec</td>
</tr>
<tr>
<td></td>
<td>2 inch</td>
<td>18 sec</td>
</tr>
<tr>
<td>G.I.</td>
<td>1 inch</td>
<td>30 sec</td>
</tr>
<tr>
<td></td>
<td>2 inch</td>
<td>20 sec</td>
</tr>
</tbody>
</table>
Pipe cut by abrasive disc cutter

<table>
<thead>
<tr>
<th>Material</th>
<th>Size</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC</td>
<td>1 inch</td>
<td>1 sec</td>
</tr>
<tr>
<td>PVC</td>
<td>2 inch</td>
<td>3 sec</td>
</tr>
<tr>
<td>G.I.</td>
<td>1 inch</td>
<td>4 sec</td>
</tr>
<tr>
<td>G.I.</td>
<td>2 inch</td>
<td>sec</td>
</tr>
</tbody>
</table>

From above observation it is found that time required for cutting PVC and GI by using abrasive disc cutter is less.

Graph 1 “Comparison between pipe cut by manually operated, power hacksaw and abrasive disc cutter”

Conclusions

An investigation was carried out to compare time required for pipe cutting with respect to different sizes. Three types of various methods are taken for comparison.
Based on this study, the following conclusions can be drawn for the pipe cutting:

1. The time required for pipe cut by abrasive disc cutter is less as compared to manually operated and power hacksaw.
2. In this machine we use automatic bar feeding mechanism for avoid human contact & injury.
3. Minimal human intervention only limited to replacing the pipe stock on to the machine.
4. To reality new machine and techniques are being developed continuously to manufacture various products at the cheaper rates and high quality.

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MARGINALIZATION OF HINDU FEMALE EMPLOYEES AT FIVE STAR HOTELS IN BALI (A CASE STUDY)

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Denpasar, Bali, Indonesia

I. INTRODUCTION

Historically, the progress in tourism in Bali cannot be separated from the roles played by the Hindu Balinese women. In the tourism industry and social, ritual and art activities, they are exploited. In addition, according to Anshori (2007), the beauty of their bodies is used as the productive object. Pitana (1998: 22) stated that the things which had inspired tourists to come to Bali were the beauty of the nature, the culture and the Hindu women. However, the current progress in the tourism industry does not necessarily mean that it allows the Hindu women to have the managerial position; in fact, those who are employed at five star hotels have become marginalized. Such a phenomenon can be seen from the organizational charts at the five star hotels located in Sanur area, Bali. None has been appointed a General Manager. From the six departments, namely, the Housekeeping Department, the Security Department, the Personnel Department, the Food & Beverage Department, the Department of Front Office, and the Department of Sales/Marketing, some Hindu women are appointed the lower managers; none has been appointed the top manager.

In relation to the phenomenon described above, the problems of the present study are formulated in two research questions; they are: what factors had caused the Hindu women employed at five star hotels in Bali to be marginalized; and why, as the employees employed at Five Star Hotels in Bali, they were marginalized. This present study was intended to find the solution to the problems mentioned above. As a
result, the Hindu women, especially those employed at five star hotels in Bali, will not be marginalized any longer.

II. The Factors Causing the Hindu Women Employed at Five Star Hotels in Bali to Be Marginalized

According to the research conducted in 2011, 1243 employees were employed at the Five Star Hotels located in Sanur Area; 1036 (83%) were male and the rest, that is, 207 (16.65%) were female. Out of 207 female employees, 169 (81.64%) were Hindus, and the rest, that is, 38 (18.36%) were non Hindus. Among the Hindu female employees, who were employed at three star hotels in Sanur area, only one who was in charge of the personnel department, meaning that the rest, that is, 184 were common employees. What was surprising was that among the 38 non Hindus, 6 were department heads, and that none of the Hindus was appointed the general manager or operational manager. This showed that the Hindu women had been marginalized.

The internal and external factors had caused the Hindu women employed at Five Star Hotel located in Sanur area to be marginalized.

2.1 The Internal Factor

a. Being Less Skilled and Professional

Skill and professionalism, which can be acquired through formal education, training and experience, are needed by someone who wants to be a hotel general manager. 1.62 % of the women living in Sanur area were graduates of the diploma program and 3.99% were graduates of the undergraduate program. Based on the data quoted above, several women should have been in the managerial position (Kecamatan Denpasar Selatan dalam Angka, 2011). The Hindu women who were employed at five star hotels were common employees. The study conducted at three star hotels located in Sanur area showed that no Hindu woman was in the managerial position, resulting from being less
skilled and professional (Karmini, 2011). Such a phenomenon shows that skill and professionalism, which can certainly be acquired through formal education and training are needed in order to be in the managerial position.

However, traditional and cultural activities did not allow them to acquire the skill and professionalism needed to be in the managerial position. They were too busy with their religious, traditional and cultural activities to improve their skill and professionalism, and this was implied by the customary regulations (awig), meaning that, structurally, they were not free to improve their skill and professionalism. In addition, they were also made to be busy with religious rituals and mutual assistance such as ngayahang and ngopin (forms of mutual assistance).

Professionalism can be obtained through education, as stated by Driyakara (1980) that education is an attempt made to humanize man (2007: 13). They can also improve their skill and professionalism through workshops and the other trainings which are relevant to tourism. Those who are employed at five star hotels need skill, professionalism, and being punctual. Ms. Ruscitawati (34 years old), the personnel manager of the Inna Grand Bali Beach, stated as follows:

…”untuk mengisi posisi manajer di hotel berbintang lima, tidak cukup memiliki ketrampilan dan pendidikan tinggi saja, yang menjadikan pertimbangan pertama adalah kepofesionalisme, juga ketersediaan waktu (Wawancara, 17 September 2014)

[...”skill and higher education are not enough for someone who would like to be in the managerial position; the first consideration is professionalism as well as availability of time (Interview, 17 September 2014).
What was stated above shows that time management is highly essential if someone would like to be employed at a five star hotel. The Bali Hindus, who were employed at five star hotels, could not concentrate on their jobs as they were also involved in the traditional and cultural activities. Being not professional and being not able to focus on their jobs did not allow them to be in the managerial position.

b. Being Bound to Families

Internally, the Bali Hindu women were also bound to their families. The Balinese people adhere to the patriarchal culture, which have been inherited from generation to generation. The patriarchal culture refers to the system in which men control the matters pertaining to families. Such a cultural inheritance should be used as a model by a small family (Parimartha, 2006: 6). The Hindu Balinese women who were employed at five star hotels still appreciate the patriarchal culture.

c. Being Bound to Tradition

The result of the study conducted by Karmini (2011) showed that none of the Hindu women was appointed the general manager of a five star hotel. The traditional factor was responsible for that. In Bali the traditional activities are organized by the traditional village (desa adat) or the smaller neighborhood under the traditional village (banjar). Thus, the traditional village is a socio-religious organization which can independently organize itself in order to achieve its objective (Windia, 2008: 92).

It can be stated, therefore, that being bound to the tradition was also responsible for the fact that it was possible for the Hindu women to be in the managerial position. Tradition (adat) is a social organization which contains regulations, norms and religious values written in the form of what is called awig (the customary law) as the umbrella which is inspired by Hinduism. The binding tradition also
caused the Balinese women, especially those who were employed at five star hotels, to be marginalized.

2.2 The External Factor

a. Limited Relation

Relation is the most important part in management; whether tourism business will be successful or fail is highly dependent on the network of relation which is built. The cultural factor and the fact that much time was spent on domestic affairs restricted the Hindu women to build the network of relation. Being a manager needs a wider relation in the tourism industry. As they were close and submitted, it was difficult for them to build relation with owners.

b. Limited Nurturing and Training Programs

The fact that only a few Hindu Balinese women became the top managers at the Five Star Hotels could not be separated from the limited nurturing and training programs which they could attend. The reason was that the nurturing and training provided by the Department of tourism could have improved their skill and professionalism. Ni Wayan Rasmini (aged 33), a staff member of the Sanur Beach Hotel, stated as follows.

“Untuk pembinaan terkait dengan kepariwisataan oleh lembaga pernah pernah diikuti, dan sebatas pada bagaimana etika dalam memberikan pelayanan kepada wisatawan, misalnya dalam sikap dan komunikasi. Pembinaan dan pelatihan dianggap sangat penting, tetapi itu sangat jarang”. Kemampuan dalam komunikasi dan ketrampilan dalam usaha didapatkan hanya mengandalkan feeling dan mengikuti yang sudah ada di lingkungan saya bekerja (Wawancara, 2 J uni 2014).
The nurturing program in tourism provided by a governmental institution has ever been attended; however, the material was only limited to how to serve tourists, meaning that the material only included how to behave (ethics) and how to communicate (communication). Nurturing program and training is considered the most important, but it has been occasionally provided”. The ability in communication and the skill needed in hospitality is only dependent on feeling and following what has been available in the environment where I am employed (Interview, 2 June 2014).

The Hindu women who were employed at five star hotels could occasionally attend the nurturing and training programs provided due to the internal and external factors mentioned above. The related institutions had found it difficult to invite the Hindu women to attend such programs as they were busy with traditional activities. Their less understanding and being closed were also responsible for the less nurturing program they were supposed to attend.

### III. Freeing the Hindu Women from Being Marginalized

The external and internal factors caused the Hindu Balinese women to be marginalized. The internal factors included limited skill and professionalism, being bound to families and tradition which shackled their public role. They should be freed from what traditionally and culturally shackled them to support them in the public domain. Therefore, the awig (the customary law) should be made so flexible that it would not prevent the Hindu women from being employed at five star hotels. Their families should make them independent so that they can play their public role optimally.

It is necessary for the stakeholders to give opportunity to the Hindu female employees to develop their social relation. Their relation will be globalized if opportunity is given to them to develop their social
relation. It is necessary for the government to determine in the form of a policy the number of women who should be in the top managerial position at five star hotels. In addition, it is also necessary for the Department of Tourism to increase the frequency of nurturing and training programs as needed by five star hotels through related institutions.

IV. Closing

The internal and external factors caused the Hindu women employed at five star hotels to be marginalized. They should be able to reduce what had internally and externally shackled them so that they would be able to maximize their career. It is also necessary for tradition to support the status of and the roles played by the Hindu women, as they are also entitled to the top managerial position at the hotels where they are employed.

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INTRODUCTION

Knowledge is power and access to knowledge is the epitome of civilization. Communication of knowledge is a dynamic process. It is hidden and transmitted through information contained in documents that include data, resources, records, related files, which ultimately takes the shape of competitive intelligence from a wide range of sources.

Technologies affect and influence the way we seek, locate, access and use information. Changes in technology in recent years have dramatically altered the manner in which information is accessed, stored, and disseminated. The driving force behind this rapid growth of information is due to the impact of the Internet.

Libraries function as an essential integral component in higher education systems. Without a proper information and knowledge infrastructure, no education system can sustain and achieve its laid down goals and objectives. Librarians are making low budget and appropriate purchase decisions, balancing both individual and institutional needs. The information scenario is changing at a faster speed. The reasons for this change are many. Library users increasingly demand resources in Electronic format because of its associated advantages. More and more library staff is now at ease with ICT and is happy and is ready to explore the functionalities of the software/hardware to the maximum extent starting from the lower level, thanks to the rising rate of computer literacy. Colleges and other places of higher learning are slowly developing institutional repositories where the information generated by its members is archived, using appropriate software and made freely available worldwide D-Space, as far as possible.

Emergence of Information and Communication Technology

The term information and communication technology was first used in 1997 in a report by Dennis Stevenson to the United Kingdom government. It has been used as an extended synonym for information technology. Information and communication technology consists of all technical means used to handle information and aid communication including computer and network hardware. Some of the well noted definitions regarding ICT have evolved over the years to describe the concept of ICT.
In the modern information society there is a sea change in information generation, distribution and access. Rapid developments in the field of Super Highway Technology in recent years paved the way for revolutionary changes in different sectors. In addition, computer networks play a crucial part in digital communication. It is one of the fastest growing technological areas that have brought many benefits virtually to every country in the world. With the interconnection of computer networks to the Internet the world truly became a global village.

Information resources

According to Ikoja-Odongo (2002), over a long period of time human beings have been able to record their memories, ideas and discoveries into forms that are classifiable such that information organizers have been able to produce certain categories of information resources. He asserts that information can be classified by content matter or by the physical format by which information is kept. The information resources classified by physical format include: written sources, databases, technical reports, grey literature and electronic resources, among others.

Electronic Information Resources

According to Shuling (2007), electronic information has gradually become a major resource in every university library. The emergence of electronic information resources, simply referred to as electronic resources, has tremendously transformed information handling and management in academic environments and in University libraries in particular. Ellis and Oldman (2005) note that through the use of electronic resources, researchers and students; now have access to global information resources, particularly the Internet for their scholarly intercourse.

E-resources

An electronic resource is defined as a resource which requires computer access or any electronic product that delivers a collection of data, be it text referring to full text bases, electronic journals, image collections, other multimedia products and numerical, graphical or time based, as a commercially available title that has been published with an aim to being marketed. These may be delivered on CD ROM, on tape, via internet and soon. Over the past few years, a numbers of techniques and related standards have been developed which allow documents to be created and distributed in electric form.

Definitions

Various authors and organizations have defined E-resources as follows:
AACR-2 defined e-resources as “a material (data/ program) encoded for manipulation by computerized devices. Thus material may require the use of a peripheral directly connected to a computerized device (e.g. CD-ROM) or a connection to a computer network (e.g. Internet)”. On similar lines C. Tenopir (2000) has defined e-resources “as those electronic information resources and services that user accesses electronically via a computer network from inside the library or remote to library”. International Coalition of Library Consortia (1998) defines electronic resources as “a broad term that encompasses abstracting and indexing services, electronic journals and other full text materials, the offering of information aggregators, article delivery services, etc. Electronic resources can be accessed through remote networks from information providers or locally mounted by a consortium or one of its member libraries.

According to IFLA/FAIFE (2007) these are “materials that are computer controlled, including materials that required the use of a peripheral (a CD ROM player) attached to a computer; the items may or may not be used in the interactive mode.”

Electronic Resources Concept and Characteristics

The importance of electronic information resources in academic institutions is ever growing. Their primary motto is to provide access rather than ownership. The initiatives like consortia approaches and e-resources in university libraries are expanding and gaining momentum for e.g. Use of UGC INFONET, NPTEL Courseware. University libraries must move with minimal disruption from a library model directed primarily at ownership of materials to one in which access and delivery play a more central role (R.M. Michalko& Hughes, 1991).

Evolution of e-resources in Libraries and Information Centers

The evolution of electronic resources can be reviewed from the advent of computers in 1950’s. ‘It was not until the early 1960’s that the electronic information was first introduced in libraries in the form of electronic bibliographic indexes’ (R.D.Gennaro, 1973). These bibliographic records occupied large amount of disks space.

Each technological development during the 20th century gradually led to the development of online catalogues. One of the major developments was Machine Readable Catalogue (MARC). In 1967 the Ohio College Association established the Ohio College Library Centre which is the world’s first computerized library network. In 1971 OCLC introduced shared cataloguing database. It supported 54 academic libraries in Ohio. This online cataloguing allowed libraries to share bibliographic records. During 1980’s library card catalogues were replaced with online catalogues. ‘Meanwhile, the advent of hard disks and
random-access memories in microcomputers prompted the development of number of commercial products for handling bibliographic records and similar material'. (J. L.Mac Lean, 1987)

The emergence of Internet and WWW in early 1990’s provided many opportunities for the academic and scholarly communication and increasing popularity of the web on the Internet along with the support of multimedia became rampant. Information from various sources could be accessed at anytime from anywhere. It enabled easy transfer of multimedia information across the globe without any barriers of space and time leading to the emergence of e-resources.

Types of Electronic Resources

There are many approaches of categorization of e-resources such as by distribution medium (online, CD ROM, Web) or by content (bibliographic, full text) or by type of format (e-book, e-journal, database). For this study the approach of categorization of e-resources is based on type of classification used for print media which is most established and popular method of categorization, i.e. primary and secondary sources.

Primary sources: E-books, E-journals, Electronic Thesis and Dissertations (ETD).

Secondary sources: E-Course material, Indexing and abstracting databases, E-Reference databases.

Primary Sources

E Books

E-books are electronic versions of printed books. ‘Electronic book’ is a term coined by Van Dam of Brown University during 1960. The first E-book was published in 1985 in Germany.

The Association of American Publishers has defined “An e-book is a literary work in the form of a digital object consisting of one or more unique identifiers, metadata and a monographic body of content, intended to be published and accessed electronically.” According to Davis (1997) an e-book is a written work readable on a computer screen, downloaded to a personal computer or digital assistant or placed on a reader designed for that purpose for professionally produced and edited text in an electronic format. Similar opinion was expressed by J. Mouw (1998) that an e-book is usually a collection of several digital objects or documents which in turn are packaged and formatted with the intention of being displayed on a hand held device or read by a speech generating application.
E-Journals

With the advent of the Internet, researchers and academics have recognized the capabilities of the information and communication technologies as efficient means to share results and to get around barriers by full transfer of intellectual property rights from the author to the publisher. Electronic journals relatively provide efficient access to information and, thus, they are easy to distribute to library patrons than traditional print; in the financial stringent environment of higher education system, electronic journals have become a medium which is cheaper than the traditional printed journals (Ellis and Oldman, 2005). According to Rowley (2006) electronic journals take two different forms: journals that are published in print form, available in digital form and electronic journals which do not necessarily need a publisher, and which can be managed by an editor and the scholarly community.

Database

A database is an organized collection of data. The data are typically organized to model relevant aspects of reality in a way that supports processes requiring this information. For example, modeling the availability of rooms in hotels in a way that supports finding a hotel with vacancies. Database management systems (DBMS) are specially designed applications that interact with the user, other applications, and the database itself to capture and analyze data. A general-purpose database management system (DBMS) is a software system designed to allow the definition, creation, querying, update, and administration of databases. Well-known DBMSs include MySQL, Maria DB, PostgreSQL, SQLite, Microsoft SQL Server, Oracle, SAP, dbase, FoxPro, IBM DB2, Libre Office Base and FileMaker Pro. A database is not generally portable across different DBMS, but different DBMSs can interoperate by using standards such as SQL and ODBC or JDBC to allow a single application to work with more than one database.

Online Databases

The most effective way to provide access to electronic books/journals in University libraries is through subscription to online databases which can be accessed through the internet. Online databases are a collection of electronic information sources (e-journals/e-books) by publishers from various fields and disciplines, (Afolabi, 2007). Some of these databases are provided free of charge to libraries in developing countries by their publishers or vendors. Some of these include NARI, http://www.healthinnternationalnetwork.org/scipub.php AGORA: http://www.aginternationalnetwork.org/en/. Others require subscription fee such as emerald database, http://www.emeraldinsight.com and Blackwell-synergy: http://www.blackwellsynergy.com among others. Access to these databases provides researchers and
students with thousands of scholarly articles in their fields of specialization or research (Fatoki, 2004). For students to utilize the growing range of electronic resources they must acquire and practice the skills necessary to exploit them (OkelloObura 2010).

E-Journals Through Consortia

Today more and more journals are available in e-format. The full text e-journals available on web have become the most accepted source for locating information by academic and research community. The transformation of journals from print to e-format has added a number of new features but the pattern of their price rise has broadly remained the same when viewed in the light of relatively stable or even decreasing library budgets. It becomes very difficult for the libraries to increase their e-resource base. A new solution has emerged in recent years in the form of consortium. The collective bargaining in consortium has led to large number of e-journals being made available to a large number of institutions at relatively quite low cost. That is why new consortia are frequently emerging in different scholarly fields. The two most successful consortia in Indian scenario are UGC INFONET and INDEST Consortium. The UGC INFONET is providing of 8000 e-journals and 9 Bibliographic Databases to 319 members (182 Universities + 118 Associated Institutions +5 IUCs + 14 National Law Universities) whereas INDEST provide 10,000 plus e-sources and 16 databases to 57 MHRD funded Institutes + 60 AICTE funded Colleges+ 1233 self supported members. Other significant consortia are CSIR Consortium, FORSA Consortium, IIMs Consortium, and IGCAR Consortium.

Electronic Theses and Dissertations

An Electronic Thesis and Dissertations (ETD) are expressed in a form simultaneously suitable for machine archives and worldwide retrieval as well as its paper predecessor. It provides a technological advanced medium by any word processor for expressing ideas with less expensive, small space, easy handling, high longevity and never collects dust. At user’s choice they can be available to anyone who can browse World Wide Web.

There are databases of ETDs that caters to academic and scientific community. Eg:

- Vidhyanidhi.org
- DSPACE

DSpace

DSpace (http://www.dspace.org) is a digital repository platform jointly developed by Hewlett-Packard and MIT Libraries collaborating over two years.
DSpace provides the basic functionality required to operate an institutional digital repository, and is intended to serve as a base for future development to address long term preservation and access issues. On November 2002, the system was launched as a live service hosted by MIT Libraries, and the source code made publicly available according to the terms of the BSD open source license, with the intention of encouraging the formation of an open source community around DSpace. Initial developments in this area have been very promising. The software download, system documentation, installation, configuration and customization guide is available at ‘http://dspace.org/technology/system-docs/install.html’.

Secondary Sources

A good number of databases are available that provide access to reference/bibliographic/numerical and statistical information. For example, many dictionaries, directories, almanacs, encyclopedias and other reference sources are available online in full text and also in CD-ROM formats. There are a number of reference sources available freely online. LISA, Pub Med, Dialog, OCLC First Search, Cambridge Scientific Abstracts, Ovid, EBSCO, World of Knowledge, Scopus are some of the useful indexing/abstracting databases. There are databases that provide economic and statistical data. E.g. Census databases, Data base on Indian Economy, Asian Development Bank, Reserve Bank of India, Medical databases and GISTINIC.

Electronic newspapers

Many feel that newspaper publishing is undergoing an evolution that will likely change the form of what is currently considered a newspaper. A new medium has been born—the electronic newspaper—one that presents a new challenge for librarians. Cataloging-newspapers, like cataloging any type of Internet publication, is continuously evolving to keep pace with the resources. Fields with special applications for e-newspapers are explained below. A short list of World Wide Web resources for electronic newspapers is also included (CCM).

Email

Electronic mail, most commonly referred to as email or e-mail since ca. 1993, is a method of exchanging digital messages from an author to one or more recipients. Modern email operates across the Internet or other computer networks. Some early email systems required that the author and the recipient both be online at the sometime, in common with instant messaging. Today's email systems are based on a store and-forward model. Email servers accept, forward, deliver, and store messages. Neither the users nor their computers are required to be online simultaneously; they need connect only briefly, typically to a mail server, for as long as it takes to send or receive messages.
Digital Libraries

Digital Libraries (DL) are now emerging as a crucial component of global information infrastructure, adopting the latest information and communication technology. Digital Libraries are networked collections of digital texts, documents, images, sounds, data, software, and many more that are the core of today’s Internet and tomorrow’s universally accessible digital repositories of all human knowledge. According to the Digital Library Federation (DLF, USA - http://www.dlf.org), "Digital libraries are organizations that provide the resources, including the specialized staff, to select, structure, offer intellectual access to, interpret, distribute, preserve the integrity of, and ensure the persistence over time of collections of digital works so that they are readily and economically available for use by a defined community or set of communities".

Impact of Information Communication Technologies on Libraries

Recognizing the fact that the use of information communication technologies opened new avenues for better services in the new digital environment, libraries in higher educational institutions have adopted new technologies. Many organizations like IFLA, Global Libraries Initiatives, Technology and Social Change believe that the library and information communication technologies are at a point in their evolution where each is able to provide significant value to the other. Both share an interest in the use of technology to achieve their ultimate goals. (H. Billings, 1996)

The process of information retrieval, for both librarians and library users is both simple and more complex than ever before. It is simple due to the speed and simplicity of the search mechanisms that return key word matches in seconds. On the other hand it is more complex due to the staggering size of the Internet and lack of organization that is found in online information’ (IFLA/UNESCO, 2006).

CD-ROM databases

CD-ROM databases allow users access to relevant databases without robust Internet connectivity in libraries. It is therefore cost effective than online databases as information could be accessed off-line without paying for telecommunications fee (Afolabi, 2007). Besides, CD-ROM databases are of immense value over print if the system is networked, as patrons at their terminals could access information without coming to the library. CD-ROM databases are important tools for identifying the bibliographic details of potentially useful documents and ensure easy access to large volumes of literature for research. Majid and Tan (2002) emphasize that the amazing technological advancements have opened new horizons for information creation, duplication, storage, access, distribution and presentation
Internet

According to Jensen’s Report (2007), 54 countries in Africa had Internet connectivity. By the year 2009 however, Internet penetration as a percentage of the total population of Africa was still 1.4% compared to the world average penetration of 12.7% (Internet Worldstats.com2009). Gakibayo (2001) carried out a study on Internet usage by students and staff at Mbarara university of Science and Technology and the results of the study indicated low usage. Though the Internet has provided a wider access to global information resources such as online databases, e-journals, e-prints and other sources of digital information, these resources are not effectively utilized due to varying factors. According to Missen et al. (2005), the Internet poses African Universities to gain equal footing with their sister institutions in the more developed countries. It is imperative that African Universities be connected if they are not to be rendered irrelevant in the modern academic world. The Internet is very useful as a communications tool in the Universities among librarians and library clientele. It is the most efficient means of electronic document delivery (AlFadhli and Johnson, 2006).

Websites

Web resources are extremely diverse, not only along every conceivable topical and non-topical dimension, but also in terms of the access interface that they present to users. Current search engines ignore crucial non-topical dimensions of web resources that could be used to improve the quality of query results. As an important initial step to exploit such dimensions for web search, we have focused on geographical relevance. For example, we can map every web page to a location based on where its hosting site resides. Then, we can consider the location of all the pages that point to, say, the Stanford Daily homepage. By examining the distribution of these pointers, we can conclude that the Stanford Daily is of interest mainly to residents of the Stanford area, while The Wall Street Journal is of nation-wide interest. Similar conclusions can be drawn for other resources by analyzing the geographical locations that are mentioned in their pages.

Scope of e-resources

The e-resources cover free internet resources and electronic resources purchased or licensed by the libraries from commercial sources, nonprofit organizations, professional organizations or any external institutions.

Electronic resources allow easy access to information. The features of 21 century electronic media are high compact storage, ease of production, multiplication, manipulation of contents from one media to another, ease of transmission, communication and storage. The nature of e-resources is to serve as a supplement to the print collection. It strives to satisfy the
information needs of the user with greater speed, accuracy and efficiency (P.VenkataRamana, 2000).

The scope of e-resources includes the following features:

- Electronic resources are not localized.
- They can be used from anywhere by the user and need not know where it is geographically located.
- It can be used simultaneously by many users at the same time.
- It is easy to copy and download them in user file.
- It reduces the distance between the user and the librarian.
- It creates global marketing environment.
- They are less bulky, very flexible, easy to revise, rearrange, reformat and Combine with other documents (Prabha Chandra, 2007).

**Advantages of Electronic Resources**

Electronic resources offer a number of advantages not only to libraries but also to users, authors, editors, publishers and archivists. An electronic resource offers many advantages like:

- They save enormous time by providing easy and instantaneous access without wasting time for processing, allows interactive facility and allows interaction between author, publisher and user.
- Facilitate easy duplication into new media, saves library storage space, provides hyperlinks to additional resources, allows remote access from anywhere at any time, enables simultaneous access to large number of users and eco-friendly.
- Facilitate easy search options, provides powerful search and retrieval capabilities.

**Indian Library Consortia Scenario for e-resources**

Library consortium is a group of two or more libraries which have agreed to co-operate with one another in order to fulfill certain similar needs, usually resource sharing. It usually, refers to co-operation, Co-ordination and collaboration between, and amongst libraries for the purpose of sharing information. Consortia are basically, evolving a form of cooperation among the libraries which come together to share resources electronically. It has gained momentum even in developing countries like India. Some of the successful library consortia setup so far in India is:
UGC-INFONET E-Journal consortium.  
http://www.ugc.ac.in/new_initiatives/infonet.html


**All India Council for Technical Education (AICTE)**

The All India Council for Technical Education (AICTE) is the statutory body and a National-level council for technical education, under the department of Higher Education, Ministry of Human Resource Development. Established in November, 1945 first as an advisory body and later on in 1987 it has given statutory status by an Act of Parliament. AICTE is responsible for proper planning and co-ordinate development of the technical education and management education system in India.

- Mission and goals of the institution
- Course objectives
- Student details
- Alliance of the institution
- Industry - Institution interaction
- Evaluation of human resources

**Higher Education System in India**

The history of education in India is very rich and interesting. Ancient India education system involved sages and scholars who are imparted education orally, but after the development of letters, it took the form of writing. Palm leaves and barks of trees were used for education, and this in turn helped to spread the written literature. Temples and community centers often took the role of schools. When Buddhism spread in India, education became available to everyone and this led to the establishment of some world famous educational institutions Nalanda, Vikramshila and Takshashila. These educational institutes in fact arose from the monasteries. History has taken special care to give Nalanda University, which flourished from the fifth to 13th century AD, full credit for its excellence. This university had around 10,000 resident students and teachers on its roll at one time. These students included Chinese, Sri Lankan, Korean and other international scholars.

**Higher Education System in Tamilnadu**

**Role of College Libraries**

Colleges form the integral part of higher education, and libraries in colleges are the primary source for learning process. With the shift of emphasis from
teaching to learning, libraries must play their role effectively. A landmark in the development of college libraries was the appointment of library committee of the University Grants Commission and publication of its Report in 1965. Some of the important recommendations of the Committee relate to the financial support of college libraries by UGC (India) and State Government include staff strength and qualifications; book selection and collection, measures to promote reading habit proposal for library building, etc. The National Education Commission 1964-66 (popularly known as Kothari Commission) recognized the importance of libraries in colleges and stated that no new college or department should be started without adequate provision for its library.

A college library plays pivotal role in ensuring the success of higher education and research. The college libraries are the real heart of Indian academic system. In order to cater the need of undergraduate, Post graduate and research students as well as faculty members of the college libraries, it is extremely important to satisfy their individual need.

**Resource Sharing and Networking of College Libraries**

The tremendous advancement of information technology offers many alternative and opportunities for networking and resource sharing among the geographically dispersed or remotely located libraries. The advent of Internet has been a boost in resource sharing. The pressing need for resource sharing has prompted several national level projects of library networking. Efforts have been already made for networking of the libraries of all the universities and major research libraries of the country through the Information and Library Network (INFLIBNET), program of the University Grant Commission (UGC). The Education and Research Network (ERNET) has been developed to link major academic institutions of the country. In addition to these, a number of other local, regional and national networking schemes in science, technology and other area are being developed.

**Role of INFLIBNET in Modernization of Libraries**

Information and Library Network (INFLIBNET centre is an autonomous Interuniversity Centre of UGC (University Grants Commission) under the ministry of Human Resource Development, Government of India. It is national institute in the area of library and information science for promoting library automation, resource sharing and cooperative development among the academic libraries and other R & D libraries in India. The centre is directed towards modernization of libraries and information centers with aims at establishing a mechanism for information transfer and access to scholarship, learning and academic pursuits.
The objective of the centre is to establish a national network of libraries and information centers including universities, institutions of higher learning, research and development, sharing and its utilization at national level. It is basically a cooperative endeavors in resource development, sharing and its utilization at national level. Over the years, the programme has progressed steadily and since May 1996 it is an independent autonomous Inter-University Centre under University Grants Commission (UGC).

Online Public Access Catalogues (OPACs)

The ALA Glossary defines online public access catalogue as ‘a computer based and supported library catalogue (bibliographic database) designed to be accessed via terminals so that library users may directly and effectively search for and retrieve bibliographic records without the assistance of a human intermediary such as a specially trained member of the library staff’. Online catalogues were developed in the late 1970s and since then have become widely accepted as the contemporary form of catalogue in the developed world.

Library Network

An information network is a set of interrelated information systems associated with communication facilities, which are cooperating through more or less formal agreements and institutional agreements, in order to jointly implement information handling operation, with a view to pooling their resources and to offer services to the user. They generally follow identical or compatible rules and procedures. A library network consists of six major components:

- Information resources.
- Reader of users of information.
- Schemes for intellectual organization of data/documents.
- Methods for the delivery of information to user- the output.
- Formal organization - cooperation, whether voluntary or obligatory, in information exchange and utilization.
- Bidirectional communication links

Based on these components, the essential requirements of INFLIBNET can be identified as:

University Grants Commission (India)

The University Grants Commission (UGC) of India is statutory organization set up by the Union government in 1956, charged with coordination, determination and maintenance of standards of university education. It provides recognition to universities in India, and disburses funds to such
recognized universities and colleges. Prof. VedPrakash, a noted academician and education administrator, is the incumbent Chairman of UGC, India. Its headquarters are in New Delhi and six regional centres in Pune, Bhopal, Kolkata, Hyderabad, Guwahati and Bangalore.

**History**

UGC was recommended in 1945 and formed in 1946 to oversee the work of the three Central Universities of Aligarh, Banaras and, Delhi. In 1947, the Committee was entrusted with the responsibility of dealing with all the then existing Universities. After independence, the University Education Commission was set up in 1948 under the Chairmanship of S. Radhakrishnan and it recommended that the UGC be reconstituted on the general model of the University Grants Commission of the United Kingdom. UGC was formally inaugurated by Abul Kalam Azad, the Minister of Education, Natural Resources and Scientific Research on 28 December 1953. The UGC was however, formally established in November 1956, by an Act of Parliament as a statutory body of the Government of India. In order to ensure effective region-wise coverage throughout the country, the UGC has decentralized its operations by setting up six regional centers’ at Pune, Hyderabad, Kolkata, Bhopal, Guwahati and Bangalore. The head office of the UGC is located at Bahadur Shah Zafar Marg in New Delhi, with two additional bureaus operating from 35, Feroze Shah Road and the South Campus of University of Delhi as well. UGC Act 1956.

**Professional councils**

UGC, along with CSIR currently conducts NET for appointments of teachers in colleges and universities. It has made NET qualification mandatory for teaching at Graduation level and at Post Graduation level since July 2009. However, those with Ph.D are given five percent relaxation. Accreditation for higher learning over Universities under the aegis of University Grants Commission is overseen by following sixteen autonomous statutory institutions:

- All India Council for Technical Education (AICTE)
- Distance Education Council (DEC)
- Indian Council of Agricultural Research (ICAR)
- Bar Council of India (BCI)
- National Council for Teacher Education (NCTE)
- Rehabilitation Council of India (RCI)
- Medical Council of India (MCI)
Pharmacy Council of India (PCI)  
Indian Nursing Council (INC)

University Libraries in India

According to University Handbook (31st ed.) we have 279 University-level institutions (AIU Member) including 60 deemed Universities, 188 are conventional Universities including 32 institution for specialized studies in various disciplines, 37 institutions provide education in agriculture, 38 engineering and technical institutions, one journalism, four law, 16 health science and 10 are Open Universities. In addition, there are more than 13,150 affiliated colleges, 88.21 lakhs students and 4.27 lakhs teachers; it is really a great challenge to ensure effective coordination and communication.

These all have library systems to support education, learning and research and meet information needs of their academic and research community. These are the hub for information storage and dissemination.

UGC-INFONET

UGC-INFONET E-Journals consortium initiative was undertaken by the UGC to facilitate free access to scholarly e-journals and databases in all fields and disciplines by the research and academic community across the country through joint partnership of UGC, INFLIBNET and ERNET. This includes interlinking Universities and Colleges in the country electronically with a view to achieving maximum efficiency through Internet enabled teaching, learning and governance. All universities and colleges who are under the purview of UGC have been provided UGC-INFONET Connectivity and access to scholarly e-Journals and Databases. More than 4,500 full text e-journals are available now. As of May 2006, 122 universities are accessing resources from the programme. The access is based on IP range. This effort has had a noticeable impact on the research and academic community.

INDEST- AICTE Consortium

The “Indian National Digital Library in Engineering Sciences and Technology (INDEST) Consortium” was set-up in 2003 by The Ministry of Human Resources Development (MHRD). 38 centrally funded Govt. institutions including IITs, Sc, NITs and some other institutions are the core members of the INDEST-AICTE Consortium. The Ministry provides funds required for providing access to electronic resources to the core members through the consortium headquarters set-up at the IIT Delhi. The total no. of members through the consortium has now grown to 483 (including 38 IIT’S, IISC, NIT’S and other institutes; 63 members from AICTE; 99 self supported Engineering colleges and institutes and 285 institutions have recently joined under the new
scheme). The consortium subscribes to over 6500 electronic journals from a number of publishers and aggregators.

**Conclusion**

The study basically based its self on examining how student perceive the digital library services and how the students make effective use of it. The study went further to examine the means through to which search and used the digital resources provided by the digital library. These all have library systems to support education, learning and research and meet information needs of their academic and research community. These are the hub for information storage and dissemination.

**References**


THE SIGNIFICANCE OF SUFFERING ACCORDING TO SOME OF THE MAJOR EXISTENTIALIST THINKERS

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“Suffering as a feature of the worldly life is a universal, inseparable and subjective experience in human being.” Suffering is one of the most important features of human life. It is a very common experience of our day today life. It can be said that suffering is a universal phenomena that happens to everyone. But, is it a meaningfull part of our life? Or, is it a important part of our life? Generally, we always try to avoid suffering. But, why? That means it is not an important part of our life. Is it really so? In order to answer this question we have to analyse the concept of suffering in details.

The Stanford Encyclopedia of Philosophy define the meaning of suffering as follows- “Suffering, or pain in a broad sense, is an experience of unpleasantness and aversion associated with harm or threat of harm in an individual.” It is to be noteworthy that suffering, being a mental state, is a personal experience. The statement that suffering is a personal experience can be understood in two senses. In one sense, it simply articulates the logical fact that the notion of mental state is such that a mental state can be identified at all only by reference to the particular person whose state it is. Taken into another way, it is a specific statement about the notion of suffering. That suffering is a selfish state means when we suffer we are full of ourselves and want other people to think of us pity and kindness.

On the other hand, in the second sense that suffering is personal identifies a person’s complex organic unity, afflictions which cannot be apart from the person’s total experience. It can be said that, “Just as there is no error apart from wrong thinking, there is no misery apart
from the kind of functioning of the organism which leads either to physical or to mental pain.” Therefore, any specific case of suffering therefore must be estimated in its relation to the total situation.

We must be clear in our minds about the fact that suffering is always experienced by an individual organism, not by any species. The image of the totality of world-suffering in the animal creation is a product of human sentimentality. Even, it is not clear that we can ascribe suffering to particular animals. But human being, the most complex of all creatures, have a quality called reason appears whereby he is enabled to foresee his own pain which henceforth is preceded with acute mental suffering. Animals lack the awareness that anticipates suffering and death. That means animals, even though they are capable of pain, but they do not have the problem of pain. It is only for man that the problem of suffering exists and as long as man thinks of animals as self-conscious creatures, the problem will be generated for them as well. For a better understanding of the nature of suffering, it is very necessary to give a clear description of the concept of suffering and pain.

As mere sensation, pain is not about anything while suffering is always about something. A toothache has a cause but it is not about anything though it might be both a cause and an object of suffering. But suffering of any relatives’ death is about the loss of someone. It can be said that “Suffering always has an object whether or not it has a cause as well.” The notion of suffering involves a particular belief towards its object, namely, the belief that the object of suffering ought not in some sense, to exist. Suffering may be reasonable or unreasonable, because the belief involved in a particular case of suffering may be reasonable or unreasonable. Suffering may also be justified or unjustified, while pains are neither justifiable nor unjustifiable. If someone says, ‘I feel a pain in my toe’, it would be meaningless to ask whether it is reasonable or unreasonable pain.
The problem of suffering is as old as human existence. It is an undeniable truth of our life that nobody can escape from it. It is a kind of truth which cannot be apprehending objectively. Because it is not an abstract idea, it is purely subjective idea. The suffering that does not touch us is not really suffering. To come to real grips with suffering, we must examine it existentially, that is, as something that involves us. Then we really see suffering in a way which makes us conscious of the mystery of its existence or of the mystery of existence itself. Existentialism is a philosophical movement which seeks to define the individual and tries to find out his independent existence. It involves the idea that first a person exists in the universe, and after that he seeks to define himself in order to appreciate the nature of life and humanity. The whole philosophy of existentialism is concerned with being rather than existing. According to existentialism, the individual has fully responsible for creating the meaning of his life and, this can cause suffering and angst which eventually lead an individual being to discover the true nature of his essence. In this paper, an attempt has been made to explicate the concept of the meaning of suffering in general and its relevance in the philosophy of existentialism as well as the views on suffering according to some of the major existentialist thinkers.

**Significance of Suffering in Existentialism:**

Existentialism’s concern about man arises out of specifically modern conditions. Among these conditions is the loss of the individual mass culture and technology, the consequent alienation of the human person from himself as well as from his production and the loss of meaning in life through the divisions within the human spirit. The result of these conditions is what is frequently called the ‘existential experience’. According to many writers, artists as well as philosophers, it is an experience of the decomposition of our phenomenal world, first of all, of all rational concepts, next, of objects, then, of time and history.
until finally all coherence is gone to the point where one faces only nothing and experiences only despair. An experience of this nature found in Camus’ The Myth of Sisyphus that “Getting up, train, four hours of work, meal, sleep and Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, in the same routine,” and then suddenly the setting collapses and we find ourselves in a state of hopeless lucidity. The existential experience usually arises in times of social or personal catastrophe. When the extraordinary, in the guise of disease or death, suddenly grasp the structure of our daily life, it unsettles the round of ordinary life, which was taken for granted, disturbing its routines. The life which had appeared till the last moment so interesting and colorful suddenly begins to fade, to become wearisome and bleak. The disorder awakens the anxiety of ‘being’ threatened by non-being. With this threat it is not only the power of being but also the meaning of being which is at stake. Why is there being at all, why not rather nothing?

The anxiety of death and fate is added the anxiety of meaninglessness and emptiness. In Kierkegaard’s ‘Sickness unto Death’, we found that our being suffers a two-fold despair which may be defined as a despair of despair. In describing and analyzing the experience of despair, Kierkegaard finds this tension to be the result of the fact that man is a spiritual being; the he is a synthesis of the temporal and the eternal, the finite and the infinite. “Man is a synthesis, but simply as synthesis, he is not a self. Despair arises because man is synthesis- that is over self itself. Despair reveals that simply as given, the self with all finite things is meaningless.”

With the awareness of the interdependence between death and meaninglessness, suffering enters our consciousness as the despair of despair. This suffering maintains an everchanging balance between death and the meaning moment. It requires some concentration of mind to realize that this suffering is an inwardness of our self. In the
ordinary sense, for instance, when we say, I suffer from such and such a thing the ‘I’ as the subject of suffering is presupposed as a being. But here in the despair of despair suffering is presupposed as the whole of our being, as the complete from of our self-consciousness. Suffering is not only the centre of ‘I’ but it is also the source of all being.

Suffering is very common fact of our life and Existentialists are extremely occupied with finding meaning in human existence. Meaning of life fulfils a central role for individuals and may be found in all human experiences, including unavoidable experiences that involve suffering. Questions raised by existentialism relate to 'Who am I?' and 'What gives meaning to my life?' Or, as Nietzsche wrote, 'He, who has the way to live, can bear with almost any how'. Nietzsche (1973) noted that it is not suffering that is impossible to bear, but rather meaningless suffering. Similarly, Frankl (1965) claimed that suffering has meaning if it generates change in the sufferer, as opposed to despair, which is meaningless suffering.

**Views of different existentialists thinkers on the concept of suffering:**

It is to be noteworthy that existentialism focused on individual human lives and the poignant inevitability of suffering and choice for each individual. At the beginning of the 20th century, after the world war, a kind of despair took possession of the human mind. The common people never find any proper solution either from idealism or from intellectualism. The destructive weapons of science filled him with the dread and despair. At this stage, philosophy tried to rediscover man as an individual and in doing so, it came to discover the philosophy of Kierkegaard.

**Kierkegaard:**

The 19th century Danish philosopher Søren Kierkegaard is generally considered to be the father of existentialism. According to
him, every individual being is solely responsible for giving his or her life meaning. He maintained that there are many existential obstacles and distractions including despair, angst, absurdity, alienation and boredom. These obstacles bring suffering in an individual’s life.

According to Kierkegaard, suffering is the highest subjective truth. It is already noteworthy that for Kierkegaard, truth is subjective. Truth always lies in subjectivity, not objectivity. Subjectivity is an inward process of knowing oneself. According to Kierkegaard, subjectivity means the real or inner nature of man through which he commits himself before God. This inner nature of man is free. He can freely choose anything. The concept of freedom is co-related with the concept of subjectivity. If we are not free in ourselves then, we cannot understood or realized ourselves. As a free human being, we can choose and act and also responsible for this act and the result of this act. This self-consciousness of an individual makes him aware of his separation from God. Because of which he realizes his guilt and has suffered for this. And only by the grace of God, man frees himself from this suffering and attains his highest aim. Kierkegaard divided the life of an individual into three stages- aesthetic, ethical and religious. According to Kierkegaard, we can overcome from this suffering only in religious stage which is the highest stage. And suffering as a highest subjective truth can be understood or realized only in this highest stage. For him, only religious person can grasp the highest subjective truth that is suffering. A religious person is able to understand that suffering is an essential aspect of his or her existence. Kierkegaard pointed out that a subjective individual can attain eternal happiness if and only if he is able to understand the meaning of suffering. In the process of discovering this subjective truth, the individual becomes more aware of his or her own objective uncertainty.
Nietzsche:

Nietzsche describes suffering as ‘to live is to suffer’. This thinking is controversial if we thereby mean that to live is only to suffer. Moreover, if we say that suffering pervades life, then that also need not mean that there are no pleasures in life. It is true that suffering is a very undeniable, inevitable truth of our life. Here a question raised- is it true that for every individual, life will involve suffering? The answer is surely going to be yes for those who are born and die quick, painless death etc. However, before we rightly answer whether life automatically means suffering, we should find the answer for what is meant by suffering.

According to Nietzsche, suffering is to be regarded as a genus in which psychological and physical suffering are its species. It is easy to think of examples of both kinds. Under mental suffering we find depression, anxiety, fear, unsatisfied desires, loneliness, anguish, distress, rejection, failure, hopelessness, boredom and so on. While all of the above admit to degrees, one could argue that any degree of any of them constitutes suffering. On the other hand, physical suffering presents more of a variety of clear and unclear cases of suffering due to degrees. James Scott Johnston and Carol Johnston in his book “Nietzsche and the Dilemma of Suffering”; states that “there is pain—really the paradigm of physical suffering—in its various degrees”. This can be understood with some suitable example. For example, “hunger”, which can range from mild discomfort to actual pain, “itching” in its various degrees, degrees of being “too hot or too cold”, and so on.

As we have seen that there many kinds of psychological and physical suffering. With these two kinds of suffering Nietzsche added another, that is, the suffering we experience due to our suffering. For an example- not being able to walk around because of the pain from a
sprained ankle. Such complications and additional suffering are significant. However, according to Nietzsche, the most pressing problem is the way we feel when we cannot find a purpose or meaning for our suffering. Nietzsche wrote that man’s problem was not suffering itself but the problem consists in the question ‘why do I suffer?’ “The meaninglessness of suffering, not suffering itself, was the curse that lay over mankind so far—”. Indeed, Viktor E. Frankl in Man’s Search For Meaning writes, “In some way, suffering ceases to be suffering at the moment it finds a meaning, such as the meaning of sacrifice...That is why man is even ready to suffer, on the condition, to be sure, that his suffering has a meaning.” For Nietzsche, lack of such meaning creates a suffocative void which leads to nothingness or nihilism.

Nietzsche has always been given central importance to the meaning of suffering. For him, it is the meaning of suffering that has been the problem, not suffering itself the problem. When we see his writings, we found that there are two possibilities for giving meaning to our suffering. The first possibility concerns a religious ethic. According to Nietzsche, religious ethic views suffering as undesirable which ultimately uses dishonest and harmful means to provide a meaning for human suffering. On the other hand, the second possibility concerns with the affirmation of all aspects of life as a sheer act of will. It also involves giving meaning to suffering through acknowledging its necessary role in human growth, flourishing and greatness.

For Nietzsche, avoidance of suffering is not the proper attitude. We always look for the possibility of desiring the abolishment or minimizing of suffering. There may be various ways that might try to do away with or avoid suffering. In Buddhism, we find direct expression of the notion of abolishing suffering. Buddha put forwarded the four noble truths that “life is suffering, that ignorance is the cause of suffering, that suffering can be eliminated, and that the Eightfold Path
is the way to eliminate suffering. "Buddhism supposedly offers a way to achieve a freedom from suffering which is ultimately to be found in enlightenment and the cessation of the cycle of births and deaths. However, Buddhism also tries to cultivate happiness and the cessation of suffering caused by such things as sickness and death even before enlightenment occurs and Nirvana is found. For Nietzsche, every individual is responsible for his own suffering. He believes that every sufferer naturally seeks the cause of his suffering and the sufferer seeks a guilty other upon whom the sufferer can vent herself in an attempt to relieve the suffering. According to him, “Quite so, my sheep! Someone must be to blame for it: but you yourself are this someone, you alone are to blame for it- you alone are to blame for yourself”.  

Sartre:

According to the philosophy existentialism, man is struggling to understand his life and also want to make sense of his existence to understand the true nature of his being. A pioneer of existentialism, Jean Paul Sartre wrote in his work, Existentialism and Humanism that “Man first of all exists, encounters himself, surges up in the world and defines himself afterwards”. Man is struggling to define himself after encountering his existence in the world. According to Sartre, human being is not only the being by whom negations are disclosed in the world. Moreover, he is also a being who can take negative attitude towards himself. In this regard, Sartre introduces the concept of nothingness that is not produced by human being in itself. It has to be given at the heart of being so that we can apprehend that particular type of reality. Sartre says, “Man is the being through whom nothingness comes to the world”. According to him, a man in anguish can best experience nothingness. Anguish is a state of confusion that arises when an individual in his pursuit of being becomes aware of his responsibility and also of his inability to shoulder the responsibility. Thus, anguish is the mode of freedom. For sartre, if we do anything or
become anything it is fundamentally not because we have to, but because we want to. This is a harsh thought and in the face of it we suffer anguish. It is the agony of knowing that everything is up to us.

Sartre is the most systematic existentialist who gives much importance to freedom and the individuality of man. For him, man is absolutely free and therefore he has to face the risks and responsibilities of his decisions. As a free human being, man can choose and also responsible for his own choice. There is none to help him in making his own essence and situation. Therefore, due to risks which is involved in his choice he is anguished. Because of this mental state he continuously suffers from a tremendous ethical anxiety.

**Heidegger:**

On the other hand, Martin Heidegger is not concerned with man and his personal and ethical interests. He is basically concerned with the problem of Being. But being of entities is not an an entity. So, being must be exhibited in its own way. Such a way is essentially different from the way in which entities are discovered. The question is- in which entities the meaning of Being to be discerned? Heidegger thinks that such an entity is ‘Dasien’. The concept of Dasien literally means ‘being there’. Heidegger introduces the concept of Dasien to explain the mode of existence of human being. Dasien may be described as the ‘Being-in-the-world’, a being that has been in the world as inseparable from it. It is the essence of dasein. “Thus, the essence of dasein is its existence”. Here, existence implies characteristics of objects. It is called by Heidegger as Being-present at hand. It means human reality is not something which is just given. In its very Being, dasein can choose itself and win itself. By its choice, dasein had necessarily opted for one possibility and ruled out others. Here Heidegger introduces another concept that is care. He characterized Dasein as ‘Care’. The inner, moral struggle of the dasein is the expression of the existential ‘care’ or
concern which constitutes dasein’s inner being. Actually, care is the structure of the mode of existence of one who exists with the expectations, such as what he will be in a world. Authenticity and inauthenticity are the modes of existence of Dasein which refers to man’s relationship to himself. An authentic man is he who has an adequate understanding of himself, i.e., who he is. But, an inauthentic man is he who refuses to see himself and act blindly. But these are the possibilities of dasein.

Here he introduces another concept that is called dread. Dread is such a concept which brings to human being its proper freedom. It is such a mental state which has got no definite object for its source. So, a person in dread can think nothing definite because of which he has to suffer.

Emmanuel Levinas:

Emmanuel Levinas is one of the few modern philosophers who do not only take the question of suffering into consideration, but also makes it central in his philosophy. Levinas proposes the provocative theory of the uselessness of suffering. For him, suffering makes no sense, has no intrinsic teleology, has no justification, suffering is of no use. However, in quite another context, levinas tries to describe the subjectivity of the subject as a vulnerability. That means as being open to the wound, as an exposition of the other, as a substitution of the other’s suffering, as being a hostage for the sake of the other. It is to be noteworthy that being a subject means being ready to suffer for the other. Suffering is as it were at the core of human subjectivity. Question is- how could this be understood if suffering is in itself of no use? Does this mean that useless suffering could be useful ‘in the end’? indeed, levinas is of the opinion that ‘suffering in the other’ is useless and senseless, but ‘suffering in me’ means my suffering for the sake of other person’s suffering is useful and makes sense. If it is true then- is
there really no sense and no meaning in my suffering apart from its relation to the other? Most of the cases of finding any meaning in suffering are usually of our own suffering that contribute nothing to the other. Is there any reason for levinas to neglect this act? According to levinas, suffering is intrinsically meaningless. But it can take on meaning in my suffering for the suffering of the other person.

Conclusion:

From above discussion it becomes clear that different existentialist philosophers have given different views about suffering. But, they all agree about the view that suffering is an inalienable part of our life. This truth has already been established long before by Gautama Budhha that ‘Life is full of suffering’ that nobody can escape from it. Thus, suffering is an important part of our life. Nobody can deny it. Kierkegaard regarded suffering as a subjective truth through which human being can see within or understand oneself. According him, to know something do not simply means understand this thing but rather it means realization within oneself. By subjective truth he does not mean that a belief is true simply because one believes to be true. Instead, he is referring to the subjective experience of being or living within truth. Suffering is an existential truth that can be realized only in inwardness. It is an existential mode of human beings. To deny suffering is to deny our own existence. In other words, we can say that ‘I suffer, therefore I exist’. So, suffering has a very significant import in our life.

Notes and References:

ii Stanford Encyclopedia of Philosophy.
viii Ibid,192.

viii Ibid,192.


xvi Kang, Y.A.,(1997), Levinas on Suffering and Solidarity, Tijdschrift voor Filosofie, 59ste Jaarg, Nr.3, September, p.485.
1. Introduction

The Tibia bone fraction is the most common in human body. It is one of the longest and heaviest bones which carry half of the body weight. Orthopedics mostly plants the intramedullary rod during the fracture of tibia bone. Tibia fracture to occur, either a large force must be applied or something is wrong with the bone. In patients with normal bone strength, the most common causes of tibia fractures include: accidents, Falls from a height. The treatment of a tibia shaft facture is almost always with surgery. The most common procedure is to insert a metal rod down the center of the tibia bone. This procedure reconnects the two ends of the bone, and the rod is secured in place with screws both above and below the fracture. It is surgical process to implant the intramedullary rod in patient body [5].

The intramedullary rod is generally fixed for life long or for a period in patient body. This can remove after recovery of fracture bone, but it’s a very painful to the patient. Material of implant plays very crucial role in plantation procedure. Various factors of material affect during the selection of implant such as wearing, corrosion and all due to improper material selection.
Before implantation of implants in a human body it is extremely critical that insert material properties should be analyzed.

The Stainless-steel and Titanium material are widely used for intramedullary locking rod in India. These implants are not investigated in terms of mechanical property and its affect on human body in India. In this report we investigated the comparison of Stainless steel and Titanium implants and their mechanical properties.

2. Review of Literature

In this project basically biocompatible material has been focused and their relative mechanical strength has been studied. The purpose of this work is to investigate the alternative materials for human Orthopedic Implants which is Bio-Compatible. These implants are expected to be Bio-Compatible & they should not cause inflammation or rejection. An improved understanding of the mechanical parameters on different alternative materials used for implants and comparing obtained results with existing medical reports. Best alternate material for human orthopedic implants will be suggested. Since Ti- 6Al-4V
material cost more, Titanium coat over the S.S can be used as an alternative for femur implant locking plate [1].

2.1 Implants

An object made from non living material that is deliberately inserted by a surgeon into the human body where it is intended to remain for a significant period of time in order to perform a specific function is called Implant. Fig 1 shows the anatomical locations of Tibia bone. Despite great number of metals and alloys known to man, remarkably few warrant Preliminary consideration for use as implant materials. The relatively corrosive environment combined with the poor tolerance of the body to even minute concentrations of most metallic corrosion products eliminates from discussion most metallic materials. Of the possible metallic candidates, tantalum and the noble metals do not have suitable mechanical properties for the construction of most orthopedic tools and implants, while zirconium is in general too expensive [1].

Today, titanium, cobalt chrome, zirconium and stainless steel 316 are the most frequently used biomaterials for internal fixation devices because of a favorable combination of mechanical properties corrosion resistance and cost effectiveness [2] when compared to other metallic implant materials [1].

2.3 Intramedullary Locking Rod

The history of intramedullary nailing for the treatment of long bone fractures and nonunions is long and storied. From the earliest recorded examples in 16th century Mexico to the current procedures of today, there has been an evolution of design, materials, and basic science principles, which has resulted in a well accepted and successful technique for the past several decades. Interestingly, throughout the early history of intramedullary nailing, these advances in method, principle, and design appear to parallel advances in anesthetic and aseptic techniques, allowing for routine operative care of fractures to
emerge. Although intramedullary nailing is now the standard of care for the treatment of most diaphyseal lower extremity fractures, introduction of the technique was met with a great deal of skepticism in both Europe and North America during the first half of the 20th century. In the latter half of the 20th century, intramedullary nailing of long bone fractures revolutionized the care of the multiply injured patient [6].

3. Problem Formulation

The Tibia bone fracture is most common failure occurred during in accidental cases as well as low bone density disorder. For joining the fractured bone, intramedullary rod has been used to lock the bone properly.

In this work our objective to examine the replacement as a bio-compatible material for human orthopedic implants. This bio-compatible material is to be tolerable to the human body. Normally, Stainless steel and Titanium alloys are the best suitable materials for human body and both are bio-compatible materials. An improved understanding of the mechanical parameters on different alternative materials used for implants and comparing obtained results with existing medical reports. Best alternate material for human orthopedic implants will be suggested. Since Ti- 6Al-4V material cost more, Titanium coat over the S.S can be used as an alternative for tibia implant intramedullary locking plate.

Comprehensive preventive and treatment systems of fat embolism, which was developed in our clinic, reduced the incidence of fat embolism cases by 10% and severe fat embolism by 5% in patients with severe associated trauma, at the same time mortality rates among this group of patients decreased by 1-2 %. closed blocking intramedullary osteosynthesis of diaphyseal fractures of the femur and tibia, performed according to strict indications with a static blocking of...
main fragments, restored support ability of extremity. The correct choice of technique and technical equipment of the operation (electro optical converter, orthopedic table, special instrumentation) as well as proper management of the patient in post-operative period avoided complications, such as poor fixation of bone fragments, locking screws break, etc. Needless of additional external immobilization in application of the method made possible the early activation of joints and shortening of hospital treatment. The results received by us testify the high efficiency of this method and further development the concept of early osteosynthesis in treatment of diaphyseal fractures of long bones in patients with a multiple trauma.

(1) AISI 316L stainless steel (SS) is widely used in orthopaedic implantology, although biological complications may result from its insufficient mechanical and tribological properties. In order to improve the wear and corrosion resistance as well as the hardness of 316L SS, three surface treatments, derived from those applied in mechanical engineering industries, were investigated: (1) glow discharge nitrogen implantation, (2) carbon-doped stainless steel coating sputtering and (3) low temperature plasma nitriding. Surface characterization according to the different heat treatments showed that corrosion and wear resistance were strongly improved, especially by ion implantation or carbon-doped SS coating sputtering. In the same way, micro-hardness was significantly increased after the three treatments. The effect of such treatments on the biocompatibility of 316L SS was studied with human osteoblast and fibroblast cultures. Basic and specific features of the cells showed that ion-implanted and carbon-doped stainless steels were biocompatible, whereas dramatic cellular reactions were noted when contacted with nitried stainless steel. A hypothesis is given to explain this observation but further experiments are needed to optimize the nitriding process. Nitrogen implantation and carbon-doped layer deposition could be efficient means for
improving the physical properties of stainless steel without affecting its biocompatibility. Such surface treatments may have relevance for increasing the life time of 316L biomedical devices.

3. Virtual Experimentation

The Virtual experimentation of intramedullary rod has been done in analysis software i.e. Ansys v11 version. In this project patient weight ranges have been considered 40-200 kg. For the experimentation intramedullary locking rod material is given in table 3.1

<table>
<thead>
<tr>
<th>Material</th>
<th>Density (kg/m³)</th>
<th>Young’s modulus ‘E’ (GPa)</th>
<th>Poisson’s ratio ‘γ’</th>
<th>Thermal Expansion</th>
<th>Tensile Strength (Mpa)</th>
<th>Compressive Strength (Mpa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.S316L (Stainless Steel)</td>
<td>8000</td>
<td>193</td>
<td>0.30</td>
<td>15.9*10^-6/K</td>
<td>485</td>
<td>570</td>
</tr>
<tr>
<td>Ti6Al4V (Titanium)</td>
<td>4430</td>
<td>895</td>
<td>0.342</td>
<td>8*10^-6/K</td>
<td>993</td>
<td>1086</td>
</tr>
</tbody>
</table>

Tibia bone is one of the longest bone in human body subjected to maximum compressive stresses and hence deformation. It’s important to find out the stress concentrations and deformation zones of implant of femur bone. So FEA using ANSYS is the best method for analysis of stresses and deformations for Ti-6Al-4V and S.S-316. Using this evaluation shown in fig 3.1 CAD Solid model of intramedullary implant, fig. 3.2 shows meshed model of intramedullary rod. we can find which
material has got more deformation to leave the implant for long period time in a human body [4].

Michael J. Gardner, MD Jason M. Evans, MD Robert P. Dunbar, MD, “Failure of Fracture Plate Fixation”.

Figure 3.1 Intramedullary Rod          Figure 3.2 Meshed model of intramedullary rod

Figure 3.3 Force applied on Implant Figure 3.4 Boundary conditions

Figure 3.3 and 3.4 shows the force and constraints have been applied on intramedullary implant as per patient weight shown in table no. 4.1.
4. Results & Discussion

In this project results have been out from ANSYS Analysis software, Fig. 3.5 shows the total deformations in SS implant which is obtained higher than Ti Implant in Fig. 3.6. Similarly SS material von-misses stress also greater than Ti implant shown in fig. 3.7 and 3.8.

Therefore the Ti and its alloy have become more wide spread as they possess high strength low modulus, lower density, and a good combination of mechanical and outstanding corrosion resistance than SS & its alloy material. The modulus of elasticity of titanium based alloys is such lower and closer to that of the bone when compared to Stainless Steel and hence they are more preferred for long term
applications. As of now, they are used as implants for joint replacements, bone fixation, dental implants, heart pacemakers, artificial heart valves, stents and components in high-speed blood centrifuges because of their high specific strength and chemical stability. However, these implants such as artificial joints and bone plates are likely to be damaged mostly due to fatigue and cyclic loading conditions.

4.1 Comparison Analysis of Stainless Steel 316L and Titanium Alloy 6A14V

By comparing the two results and properties, through this analysis, it is clear that the displacement and stress values are low for titanium and high in case of stainless steel shown in table 4.1, so Titanium is the best suitable material to be left inside the human body for a long term.

<table>
<thead>
<tr>
<th>Patient Weight (Kg)</th>
<th>Load (N)</th>
<th>Total Deformation (mm) (Max)</th>
<th>Equivalent (Von-Mises) Stress (N/mm²) (Max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>392.4</td>
<td>0.004888</td>
<td>46.566</td>
</tr>
<tr>
<td>50</td>
<td>490.5</td>
<td>0.006110</td>
<td>58.207</td>
</tr>
<tr>
<td>60</td>
<td>588.6</td>
<td>0.007384</td>
<td>69.884</td>
</tr>
<tr>
<td>70</td>
<td>686.7</td>
<td>0.008615</td>
<td>81.538</td>
</tr>
<tr>
<td>80</td>
<td>784.8</td>
<td>0.009847</td>
<td>93.193</td>
</tr>
<tr>
<td>90</td>
<td>882.9</td>
<td>0.011081</td>
<td>104.85</td>
</tr>
<tr>
<td>100</td>
<td>981</td>
<td>0.012312</td>
<td>116.51</td>
</tr>
<tr>
<td>110</td>
<td>1079.1</td>
<td>0.013545</td>
<td>128.17</td>
</tr>
<tr>
<td>120</td>
<td>1177.2</td>
<td>0.014778</td>
<td>139.83</td>
</tr>
<tr>
<td>130</td>
<td>1275.3</td>
<td>0.016011</td>
<td>151.50</td>
</tr>
<tr>
<td>140</td>
<td>1373.4</td>
<td>0.017240</td>
<td>163.16</td>
</tr>
<tr>
<td>150</td>
<td>1471.5</td>
<td>0.018400</td>
<td>174.83</td>
</tr>
<tr>
<td>160</td>
<td>1569.6</td>
<td>0.019713</td>
<td>186.50</td>
</tr>
<tr>
<td>170</td>
<td>1667.7</td>
<td>0.020940</td>
<td>198.17</td>
</tr>
<tr>
<td>180</td>
<td>1765.8</td>
<td>0.022183</td>
<td>209.84</td>
</tr>
<tr>
<td>190</td>
<td>1863.9</td>
<td>0.023418</td>
<td>221.52</td>
</tr>
<tr>
<td>200</td>
<td>1962</td>
<td>0.024654</td>
<td>233.20</td>
</tr>
</tbody>
</table>
Table 4.1 Comparison of Stainless Steel 316L and Titanium Alloy 6A14V Material and its stress value

<table>
<thead>
<tr>
<th>Patient Weight (Kg)</th>
<th>Load (N)</th>
<th>Total Deformation (mm) (Max)</th>
<th>Equivalent (Von-Mises) Stress (N/mm²) (Max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>392.4</td>
<td>0.0010505</td>
<td>45.856</td>
</tr>
<tr>
<td>50</td>
<td>490.5</td>
<td>0.0013194</td>
<td>57.320</td>
</tr>
<tr>
<td>60</td>
<td>588.6</td>
<td>0.0015931</td>
<td>68.784</td>
</tr>
<tr>
<td>70</td>
<td>686.7</td>
<td>0.0018586</td>
<td>80.247</td>
</tr>
<tr>
<td>80</td>
<td>784.8</td>
<td>0.0023890</td>
<td>91.711</td>
</tr>
<tr>
<td>90</td>
<td>882.9</td>
<td>0.0026552</td>
<td>103.17</td>
</tr>
<tr>
<td>100</td>
<td>981</td>
<td>0.0026552</td>
<td>114.64</td>
</tr>
<tr>
<td>110</td>
<td>1079.1</td>
<td>0.0029207</td>
<td>126.10</td>
</tr>
<tr>
<td>120</td>
<td>1177.2</td>
<td>0.0031862</td>
<td>137.57</td>
</tr>
<tr>
<td>130</td>
<td>1275.3</td>
<td>0.0034828</td>
<td>149.03</td>
</tr>
<tr>
<td>140</td>
<td>1373.4</td>
<td>0.0037147</td>
<td>160.49</td>
</tr>
<tr>
<td>150</td>
<td>1471.5</td>
<td>0.0039828</td>
<td>171.96</td>
</tr>
<tr>
<td>160</td>
<td>1569.6</td>
<td>0.0042483</td>
<td>183.42</td>
</tr>
<tr>
<td>170</td>
<td>1667.7</td>
<td>0.0045138</td>
<td>194.88</td>
</tr>
<tr>
<td>180</td>
<td>1765.8</td>
<td>0.0047793</td>
<td>206.35</td>
</tr>
<tr>
<td>190</td>
<td>1863.9</td>
<td>0.0050448</td>
<td>217.81</td>
</tr>
<tr>
<td>200</td>
<td>1962</td>
<td>0.0053104</td>
<td>229.27</td>
</tr>
</tbody>
</table>

5. Conclusion

In this project, Selection of intramedullary locking rod material for surgical implants plays a very important role in tibia shaft fracture healing process. In surgical implants Stainless Steel and Titanium are mostly used material. During this static loading condition and material comparison analysis we have found out the Titanium Implant mechanical properties is better than Stainless Steel. Therefore it can be left in the human body for a long term. If Stainless Steel implant is left for a long term it may fail due to cyclic loading conditions. Since Ti-
6Al-4V material cost more, Titanium coat over the S.S can be used as an alternative for Re-Engineered Indian femur implant locking rod.

References

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2. Supakit Rooppakhun, Nattapon Chantarapanich, “Mechanical Evaluation of Stainless Steel and Titanium Dynamic Hip Screws for Trochanteric Fracture”.


4. Michael J. Gardner, MD Jason M. Evans, MD Robert P. Dunbar, MD, “Failure of Fracture Plate Fixation”.


SELF-HELP GROUP AND WOMEN EMPOWERMENT: A CASE STUDY OF HUGLI DISTRICT IN WEST BENGAL

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Introduction:

Self-Help Group (SHG) is an economically homogenous affinity group of rural people where poor and marginalised people come together to solve their individual problem. These people save small amounts regularly which are deposited in a common fund. This fund is raised to meet member’s emergency need and to provide collateral free loans decided by the group. The strata of rural families, handled through Self-Help Groups are capital scarce, labour surplus, and, by and large, bereft of proper knowledge as well as management skill. Given the financial support, together with appropriate knowledge and skill input, the poor people, in general, have the propensity to make better use of labour and capital. Thus, installation of income-generation activities and micro enterprises in the rural areas, in a way, helps promote first-generation micro entrepreneurs with resource mobilization on their own through their SHGs.

The basic principles of SHGs are:

i. Group approach and mutual trust

ii. Organization of small and manageable groups

iii. Group Cohesiveness and spirit of thrift

iv. Demand based collateral free lending and women friendly loan

Social Role of SHGs:

➢ Involvement in local politics and decision making.
Maintaining social harmony

Ensuring social justice

Organizing community action

In India, SHGs became popular since 1991-92 and the movement of SHG and micro finance based economic activities has emerged in a big way in the district of Hugli of West Bengal. In recent years the district witnessed unprecedented interest in micro credit and micro-finance in the form of group lending. There are more than 3 thousand SHGs in the district covering about 70,000 women under NABARD scheme exclusively with cooperative banking.

Objectives:

The main objectives of the paper are:

➢ To analyse the present pattern of distribution and nature of SHGs in Hugli District.

➢ To examine the social benefits derived by the women members.

➢ To understand the impact of SHGs in women empowerment.

➢ To identify the problems of the SHGs.

Methodology and Data Sources:

For the purpose of the study, data were collected mainly from different secondary sources like District Statistical Handbooks, Primary Census Abstracts, Economic Surveys and related websites. The author also visited Block Development Offices, Municipalities, Gram Panchayats and local NGOs to collect the relevant information for the study. Added to this, primary survey was carried out in selected blocks through questionnaire survey. The data were then analysed and interpreted.
Self-Help Groups of Hugli District:

The blockwise concentration of SHGs and % of their female members in Hugli district is enumerated in the following Table 1:

Table 1: Self-Help Groups, Hugli District, 2009

<table>
<thead>
<tr>
<th>Block</th>
<th>No. of SHG</th>
<th>% of Female Members</th>
<th>Block</th>
<th>No. of SHG</th>
<th>% of Female Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goghat I</td>
<td>124</td>
<td>85</td>
<td>Polba-Dadpur</td>
<td>82</td>
<td>72.2</td>
</tr>
<tr>
<td>Goghat II</td>
<td>284</td>
<td>61.5</td>
<td>Haripal</td>
<td>86</td>
<td>70.3</td>
</tr>
<tr>
<td>Arambag</td>
<td>427</td>
<td>80.5</td>
<td>Singur</td>
<td>222</td>
<td>84.1</td>
</tr>
<tr>
<td>Pursurah</td>
<td>163</td>
<td>82.8</td>
<td>Serampur-Uttarpara</td>
<td>143</td>
<td>87.7</td>
</tr>
<tr>
<td>Tarakeshwar</td>
<td>106</td>
<td>71.4</td>
<td>Chanditala I</td>
<td>269</td>
<td>89.9</td>
</tr>
<tr>
<td>Dhaniakhali</td>
<td>155</td>
<td>93.4</td>
<td>Chanditala II</td>
<td>175</td>
<td>90.7</td>
</tr>
<tr>
<td>Pandua</td>
<td>180</td>
<td>82.7</td>
<td>J angipara</td>
<td>134</td>
<td>94.1</td>
</tr>
<tr>
<td>Balagarh</td>
<td>97</td>
<td>89.6</td>
<td>Khanakul I</td>
<td>203</td>
<td>77.7</td>
</tr>
<tr>
<td>Chinsurah-Mogra</td>
<td>44</td>
<td>83.2</td>
<td>Khanakul II</td>
<td>137</td>
<td>88.6</td>
</tr>
</tbody>
</table>

Source: DRDC, Hugli, 2009

Thus there are 3031 SHGs in Hugli with the maximum number being at Arambag. Most of them are run by women (82.3%). This is a very promising picture from the point of view of women empowerment. In 3 blocks, the % of female members is more than 90%.

The main types of economic activities of these SHGs are as follows:
Table 2: Types of Economic Activities of SHGs, Hugli District

<table>
<thead>
<tr>
<th>Types of Economic Activities</th>
<th>Number of SHGs</th>
<th>Types of Economic Activities</th>
<th>Number of SHGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handicraft</td>
<td>128</td>
<td>Poultry</td>
<td>125</td>
</tr>
<tr>
<td>Business</td>
<td>23</td>
<td>Garments</td>
<td>55</td>
</tr>
<tr>
<td>Food Processing/Agro Industries</td>
<td>117</td>
<td>Cultivation</td>
<td>59</td>
</tr>
</tbody>
</table>

Source: Compiled by the author

*Data not available for remaining SHGs

Role of the Lead Bank in the Promotion of Self-Help Groups:

UCO Bank, the lead bank of Hugli District pay a pivotal role in strengthening the performances of the SHGs especially under Swarnajayanti Gram SwarojgarYojona. As on 31.03.2012., the total amount disbursed is Rs. 5080.5 lakh. The recovery is nearly 98%. NGOs have also come up to form SHGs having credit linkage with nationalised banks. The initiatives taken by the Lead Bank for the promotion of SHGs in the district are as follows:

- Formation of Clusters and Sub-Clusters of SHGs
- Kitchen Garden Training
- Poultry Training
- Gram Panchayat Level Training
- Nursing Aid and Computer Training
Self-Help Groups and Women Empowerment: Observations from Primary Survey

To analyse the role of SHGs in Women Empowerment, a primary survey was carried out among 130 women of SC and ST categories in the Dhaniakhali block of the district in 2012. The major findings of the study can be summarised as follows:

- **Participation in Decision Making:** Decision making is a very important aspect of Women empowerment and the response of the surveyed people in this aspect is summarised below:

**Table 3: Change in Decision Making of Surveyed Population:**

<table>
<thead>
<tr>
<th>Types of Decision</th>
<th>Status in Decision Making</th>
<th>Response of SC Category (%)</th>
<th>Response of ST Category (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education of Children</td>
<td>Increased</td>
<td>67</td>
<td>71.84</td>
</tr>
<tr>
<td></td>
<td>No Change</td>
<td>33</td>
<td>28.16</td>
</tr>
<tr>
<td>Financial Affairs</td>
<td>Increased</td>
<td>70.37</td>
<td>66.99</td>
</tr>
<tr>
<td></td>
<td>No Change</td>
<td>29.63</td>
<td>33.01</td>
</tr>
<tr>
<td>Health Care</td>
<td>Increased</td>
<td>62.96</td>
<td>82.52</td>
</tr>
<tr>
<td></td>
<td>No Change</td>
<td>37.04</td>
<td>17.58</td>
</tr>
<tr>
<td>Mobility</td>
<td>Increased</td>
<td>81.48</td>
<td>77.67</td>
</tr>
<tr>
<td></td>
<td>No Change</td>
<td>18.52</td>
<td>22.33</td>
</tr>
</tbody>
</table>

*Source: Field Survey, 2012*
Knowledge about Legal Rights: SHGs in the district have helped women to create knowledge base about their legal rights and the finding from the survey in this regard is as follows:

Table 4: Status of Knowledge about Legal Rights

<table>
<thead>
<tr>
<th>Statement</th>
<th>Known %</th>
<th>Source of Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right to Education</td>
<td>74.62</td>
<td>43.29</td>
</tr>
<tr>
<td>Equal Wage for Equal Work</td>
<td>86.15</td>
<td>91.07</td>
</tr>
<tr>
<td>Trafficking of Women and Girls is Legally Punishable</td>
<td>63.08</td>
<td>60.97</td>
</tr>
<tr>
<td>Dowry Giving and Acceptance are Prohibited</td>
<td>68.46</td>
<td>69.66</td>
</tr>
<tr>
<td>Legal Marriage Age for Boys and Girls</td>
<td>83.85</td>
<td>71.56</td>
</tr>
<tr>
<td>Remarriage of Widows and Divorced Women</td>
<td>75.38</td>
<td>48.91</td>
</tr>
<tr>
<td>Property Inheritance Rights</td>
<td>70.77</td>
<td>48.91</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2012

On an average, 73.75% of the respondents has awareness on legal rights relating to women and children and among them, 63.86% came to know about these from the SHGs.

Information about Government Programmes and Schemes: The following table shows the knowledge of the respondents about government programme:
Table 5: Status of Knowledge about Government Programmes

<table>
<thead>
<tr>
<th>Statement</th>
<th>Known %</th>
<th>Source of Information</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SHG</td>
<td>Others</td>
<td></td>
</tr>
<tr>
<td>Development Programmes</td>
<td>43.08</td>
<td>60.71</td>
<td>39.29</td>
<td></td>
</tr>
<tr>
<td>National Rural Employment</td>
<td>32.31</td>
<td>54.76</td>
<td>45.24</td>
<td></td>
</tr>
<tr>
<td>Guarantee Act</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated Child Development</td>
<td>44.62</td>
<td>48.27</td>
<td>51.73</td>
<td></td>
</tr>
<tr>
<td>Schemes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sampurna Gram SwarojgarYojona</td>
<td>53.08</td>
<td>76.81</td>
<td>23.19</td>
<td></td>
</tr>
<tr>
<td>Prime Minister RojgarYojona</td>
<td>46.92</td>
<td>72.13</td>
<td>27.87</td>
<td></td>
</tr>
</tbody>
</table>

Source: Field Survey, 2012

Thus, on an average, only 43.99% of the women are aware of the selected governmental schemes. Thus awareness should be increased in this regard.

- **Participation in Political Affairs:** About 80% of the respondents participated in the village political affairs after joining the SHGs. The participation of the ST community was much higher than the SC community. Around 20% of the women did not participate and they provided time constraint, uncomfortable sitting arrangement and unsatisfactory discussion mode of the Gram Sabha as the main reasons for this.

- **Dependency on Credit Sources:** From the survey it was clear that the dependency on the traditional money lenders was reduced to a significant level after joining the SHGs, which in turn became the major source of credit to the rural poor. Still 10.76% of the respondents still depended on the traditional
money lenders for their credit needs. This was mainly due to the fact that they could not avail sufficient amount of credit from the SHGs in times of need.

SHGs and Capacity Building: The SHGs in Hugli District have played a very prominent role in capacity building of the women belonging to the weaker section of the society. Through various training and skill development programmes, they have uplifted the quality of the female members of the SHGs in the following aspects:

- Speaking in public meetings
- Presenting programmes in public meeting
- Taking leadership position in different organizations
- Keeping account of SHGs and writing minutes of meetings
- Operating bank transactions
- Going to government offices and speaking to government officials

Impediments in the Functioning of SHGs:

- Lack of involvement of bankers and small amount of bank finances
- Low percentage of line department’s cooperation
- Mixing of poor and non-poor among the members
- Improper and insufficient selection of key activities
- Insufficient involvement of representatives of Gram Panchayat
- Involvement of professionals and money lenders
- Irregular attendance in training by female members
- Over-involvement of women in family affairs
- Non-cooperation among members

However, on a concluding note it can be said that the members of SHGs have received various training programmes in the fields of agriculture, poultry and goatery, organic farming, watershed management, aquaculture etc. to enhance their capabilities. The SHGs have created several spread effects. Besides, these have also reduced male domination and improved the status of health care, education and employment among the women. Thus it can surely be said that the SHGs of the district has brought significant changes in the life of women belonging to the weaker sections of the society.

References:

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INTEGRATIONAL AGRICULTURE AND SUSTAINABLE DEVELOPMENT IN IPR (INTELLECTUAL PROPERTY RIGHTS) REGIME

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INTRODUCTION

Introduction of Intellectual Property Rights in Indian agriculture brought a dramatic change in the process of management of agriculture. The influx of Multinational Companies (MNCs) affected the traditional pattern of agricultural system which was mostly based on free exchange of knowledge and on public sector involvement. Various questions have been raised about the aftermath of this changed pattern of agro-environment. The MNCs who are solely geared with profit maximization intention—what can India achieve from them in the long run? The transfer of technology and boost to agricultural research is some of the benefits India can obtain but what India will lose at the cost of these benefits. There has been a countrywide debate involving policy makers, scientists, NGOs and other stakeholders on the issue of intellectual Property Rights. They are working to find out a solution, which would benefit both the researcher as well as farmers. There is a consensus on the need of legislating an act of farmers for using the material from the harvest, which was traditionally used, by the farmer from the beginning.
IPR AND AGRICULTURAL TECHNOLOGY

The onset of new IPR regime will determine the future agricultural technology development paradigm. Three situations are likely to emerge, viz. IPR driven technology development, IPR necessitated technology development and technologies that influences the IPR regime. IPR regime will determine the contours agricultural research and development in the millennium. The impacts of IPR related technology could be categorized as social, economic and ecological. The technology relating to the production will play a predominant role in this context.

Contrary to the popular perception, the consequences of according to protection are not simple and straightforward. Their manifestations are multitudinous and intricate. The manifestations of interplay IPRs and agricultural technology are: Technology development facilitated by IPRs (incentives for present efforts); technology development driven by IPRs (requirements of IPR regime) and technologies that influence IPRs. The technology development facilitated by IPRs would be the development in the research sectors of agriculture especially, in producing the hybrid varieties. Large number of private companies would be interested to invest their money to develop the new varieties of crops of high production. Besides investment in technology, the transfer of inputs like vaccines and pesticides will witness the technological development. The patent regime and the role of public sector will decide the pace of private research and investment in the agricultural sectors.¹

The technology development driven by IPRs (compulsions of IPR regime) will develop the new technologies for regulation, monitoring and dispute settlement. If large amount of investment takes place in

¹ Ravishankar A. and Sunil Archak, 'Intellectual Property Rights and Agricultural Technology-Interplay and Implications for India, Economic and Political Weekly, July1, 2000,p.2447
the Indian agricultural sectors then there would be a mad race to acquire the new patents. In this context, in order to settle the dispute, India has to follow the new technology like genetic mapping and fingerprinting etc. The new IPR regime will influence investment decisions in two ways. First, private firms will be compelled to increase outlays for research, which may lead to the innovation. Second, increase technology transfer through joint venture and or mergers or acquisitions between domestic and foreign firms.\(^2\)

The technologies that influence IPRs are the technologies that are developed to overcome the operational difficulties in seeking protection. Technologies relating to the varietal development will receive maximum boost among all agricultural technologies once the protection regime implemented. Such technologies are collectively called as Genetic Use Restriction Technologies (GURT). A number of patents have been issued for such technologies.

**Special and Differential Provisions Under TRIPs**

There are various provisions relating to the transfer of technology under WTO agreement to help the developing countries. Provisions under TRIPs Agreement particularly Article 7 and 8.2 underline the need for transfer of technology. For example, Article 7 states “transfer and dissemination of technology to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare and to a balance of rights and obligations. Similarly, Article 8.2 underlines the need for appropriate measures to prevent the abuse of intellectual property rights through transfer of technology. Again Article 40 and 67 stress the need for the transfer of technology.

There is crying necessity for the transfer of technology in the developing countries. But the developed countries are not bound by

\(^2\) Ibid

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WTO rule to transfer the technology and the transfer of technology is only taking place through MNCs. North-South technology transfer remains an unrealized objective.

ROLE OF MNCs IN TRANSFER OF TECHNOLOGY

Technological know-how is increasingly becoming a key determinant of market share in modern trade. The MNCs are spending millions of dollars for research and development of technology. The advanced technology determines the quality and demand of the products in the international markets. Therefore, MNCs are interested to preserve their monopoly over state of the art technology. MNCs especially do not want to share their technological knowledge with the developing countries firms for fear of loosing the upper hand they enjoy over domestic firms due to their advanced technology. Global trade in the transfer of technology takes place among the MNCs in billion dollars. MNCs earn a lot of money out of the royalties.

The Ministerial Conferences in 1999, failed to finalize any agreement on the transfer of technology. Developing countries like India are pushing for incorporation of such provisions under WTO so as to ensure technology transfer on an equitable and effective manner. Their argument is that there is no meaning of WTO with a restriction on the transfer of technology. International technological trade regime is highly discriminatory and technology denial is a potent weapon in the hands of the developed countries to perpetuate rich-poor gap. In the Cold War era, India’s access to developed technology was restricted by the Western countries because its tilt towards Soviet Union led socialistic bloc. Transfer of technology is a costly matter for the poor countries and these countries cannot afford it.

Products of GURTs are the crop varieties with traits whose expression is under the external chemical control. The traits may be germination, viability of seeds, flowering, nutritional and flavour

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qualities, resistance to diseases and pests and herbicides, sterility and fertility restoration (for hybrid production) etc. Seeds in the possession of the farmer will be useless, if they do not buy the prescribed chemicals and use in the appropriate time. Thus producing the seeds every year on their own but compelled to buy the chemicals season after season. The underlying desire of the private innovator is to force the farmers to pay for their seeds for subsequent use.

The interplay of protection regime and R and D paradigm will improve the investment inflow. The dynamics of such interplay will necessitate considerable investment. Genome mapping that determines the linkage between a specific molecular marker and strongly heritable trait represents a major advance in the field of plant breeding. Increasingly such techniques will widely be used for crop improvement and protection. Another example is the introduction of transgenic crops that are engineered to express a Bacillus thuringiensis (Bt) toxin that confers resistance to insect predation. This promising discovery has potential not only to pre-empt the colossal potential loss due to insect-pest attack but can also appropriate significant positive externalities to the ecology. Obviously the extent of technology transfer and imports of such advanced (but vital) techniques would depend on the degree of protection and on the general programme of economic liberalization.

IPR AND RESEARCH

The current debate on intellectual property rights raises a number of important questions on the strategy and policies for the building a more dynamic agricultural research system. It is very important to decide that what would be the role of private and public sectors; and the role of MNCs. At the moment the bulk of the research agricultural activity is in the public sector-specifically the network of research institutes forming a part of Indian Council of Agricultural Research (ICAR) and the agricultural universities. The private sector only accounts 15
percent of the total research work expenditure. But private sectors play a major role in the developed countries like, USA, Japan, UK and Germany. In these countries, the private sectors research activity is mainly confined in technologies ‘embedded’ in fertilizers and pesticides seeds and other inputs. These techniques are seen to have immense potential in the markets of the developing countries and it also provides heavy profits. Realizing these several MNCs are involved to exploit the potential in the long-term basis. This puts the whole process under the control of private companies and they produce the trans genetic products, which will provide them a rich dividend. These MNCs are also vigorously pursuing to expand their activities in developing countries, which offer a vast, and as yet untapped, potential market.

The MNC agribusiness played a leading part in lobbying for such a regime during the Uruguay Round Negotiations. Their argument was incentives are necessary for the innovations. Therefore, inventor must be provided the opportunity to patent his invention for a certain period. With the influence of their governments they became successful to pass the TRIPS.

The current debate in India on TRIPs is whether the patent protection would benefit India in the long run. Some scholars give their opinion in the favour of this while others give against this. Those are in favor of this they say that the research of MNCs will bring new technology to India by which we can our problems like, hunger, malnutrition and food insecurity. In other countries these MNCs dominate over this research and they have patented a lot of things. If they would not be permitted to enter into India, they will not cooperate.

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India and our research work would be hampered without their cooperation.⁴

Those who are against this policy they put their arguments that the entry of MNCs in this sector would hamper the traditional interests of the peasants. It will create a dependency syndrome among the farmers on private sectors who will take the advantage of this situation. Again the genetically engineered products may increase the vulnerability of agriculture to the outbreak of pests and diseases. Again it may reduce the agro-diversity and may invite the monoculture in the existence. Taking these views into the account must of the developing countries are not infavour of the entry of the private sectors.

Recognizing these risks involved in the biotechnology, US, Europe, Japan and other countries have regulations to access the possible adverse impacts. Claims of likely benefits are screened rigorously before patent is given. That India lacks a regulatory system to oversee these aspects cannot be seen but expected. Under these conditions the risks of allowing MNCs to operate freely in this sphere are highly risky. These apprehensions are far from fanciful is amply demonstrated by way the field trials of transgenic cotton have been conducted by Monasanto in India.⁵ That means, the poor peasants cannot take the benefit of this private research system. Again, these private sectors are taking the advantage of the loopholes of existing IPR system. They are again and again patenting the same system with a little modification by which they can control their monopoly over these products. At the international level, the genetic engineering industry is today heavily concentrated in the hands of few private companies or firms that hold a substantial number of key patents on germplasm and control

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⁵ Shiva Vandana et al, ‘Globalisation and threat to food security: case of Transgenic cotton trials in India,’ Economic and Political Weekly, 2001, March, 6-13
significant seed distribution networks. One of the consequence is that this is making the setting up and growth of new firms in this field much more difficult. Further this implies that the private or public sectors interested to work in these fields, they have to have an alliance with these firms, and otherwise they cannot accomplish their work.

We need to remind ourselves that the improved varieties are themselves are not sufficient for sustained growth of agriculture. In our own experience, some of the early HYV (High Yielding Varieties) of rice and wheat were found susceptible to widespread of attack of pests. Further, research is necessary to sort out this problem. A question may be raised here that who would bear the losses out of this practice. The private companies are financially so much powerful that any individual cannot expect the justice against them. Again they can influence the policy of government by the use of their financial power. So in this case, it would be difficult on the part of the individual farmer to bear the losses and may create more traumatic condition.\(^6\)

The other important lesson of the HYV experience is that the realization of full potential of these varieties is contingent on a significant improvement in the quality if soil and water management. The more sophisticated the varieties, the higher the required level of skill and sophistication of other elements of agricultural technique. It has to be accompanied by significant improvement of soil moisture of rain fed agriculture and management of water in irrigated tracts. Even in a state like, Punjab, where the farmers are quick to learn and absorb the technology but they are also unable to tap off all the potential of these HYV. All the states of India have not provided the adequate irrigation facility to their farmers. In this case, how the Indian farmers can take the full advantage of this situation. Therefore

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\(^6\) Vaidyanathan A., ‘Research for Agriculture’, Economic and political Weekly, Aug. 12, 2000, p. 2919
the impact of the Green Revolution has remained confined within a few states.\(^7\)

In this context, the role of Public sectors is immense powerful because the monetary benefits solely motivate the private companies. They produce the seeds which can be cultivated once and the seeds cannot be collected from that crops for further cultivation. That means a farmer will always depend upon the private company for his seeds and it creates a dependency syndrome. The traditional rights of the farmers to collect the seeds from the harvested crops are not getting fulfilled under the new TRIPs regime. The research of the public sectors in India would keep the interests of farmers as the primary motive behind the research. Therefore, it can be presumed that for Indian situation, the research of the public sectors would be proved conducive. But government should give special attention to this research if it is genuinely interested to bring the revolution in the agricultural sectors and to take the fullest advantage of genetic engineering. More funds should be earmarked to the development in the agricultural research.

The aim of research being to improve the yields and reduces the costs by more efficient use of inputs, it would seem that the trend in maximum yield of individual crop and crop combinations achieved in research institutions, along with the quantum of inputs used per unit of output, could be one companies index of performance. The combined with surveys of the extent which farmers actually adopt the practices recommended by the researchers and the performance of selected varieties or practices on farmers fields would give a better basis to assess the success of research. Independent evaluation is essential. Besides making information on the overall indicators, periodic reviews of the scientific aspect of the work and independent surveys to access farmers’ perceptions and responses to research recommendations need

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\(^7\) Ibid.
to be institutionalized. The review process and information base must also be made public in order to strengthen the pressure of greater accountability of the research system.

One final point is the tendency to equate the public sector with the government would be wrong notion. The public space is much more wider than the government departments and it includes cooperatives, universities public trusts, and a variety of non-governmental organizations. The non-governmental public institutions are as important as government per se. Giving greater autonomy to research organizations from government control and giving non-government public institutions the space and resources to play a larger, more effective role in the research, is therefore an issue of direct relevance in structuring the public research system.

**IPR AND AGRODIVERSITY**

India’s agro diversity is a most significant one in the world. This diversity is the result of thousand years of farmer’s selection, experimentation (even cross breeding) and propagation of desirable traits of desirable species in innumerable ways for their subsistence and cultural purposes. Over the years this unparallel diversity of various crops of India has been eroded. Replacement of land races (a crop cultivator that evolved with and has been genetically improved by traditional agriculturists, but has not been influenced by modern breeding practices) or TVs(traditional varieties)by MVs( modern Varieties)or HYVs (High Yielding Varieties) is one of the most important reasons. Breeders from many international agricultural research organizations and multinational companies accessed pure potential lines seeds of many traditional varieties and bred with other in order to achieve MVs. Most of MVs are protected by various Intellectual Property Rights. Genetically uniform MVs that are being cultivated from Kashmir to Kanyakumari have only eroded TVs but also damaged irreparably the diversified cultures, cultural expressions
and promoted the regional disparity. Promotion of genetic uniformity in the name of agricultural development (so called Green Revolution) cannot lead to the sustainable agriculture and it has devastating effect on food security of future generations.  

**Agrodiversity**

India is classified among the 12-mega diversity centers of the world, in relation to crops. As many as 167 species of crops, 320 species of wild crops and several species of domesticated animals have originated here. Some examples, Rice-50,000 varieties, Mango-1000 varieties, Sorghum-5000 varieties (based on the information of National Bureau of Plant Genetic Resources). India is the region of diversity of many major cultivated crops like, rice, wheat, maize, cotton, mango, pepper, sugarcane and groundnut etc. (source-FAO of the United Nations, Rome, 1997)

The Indian rice variety originated from Chhatisgarh, which is home to some rare rice varieties in the country. It has varieties with varying harvesting period from 60 days to 150 days from the time the seeds are sown. The largest rice variety (dokra-dokri); varieties that can grow under 10 feet of water (Natrgoidi); several varieties that are high in protein and have medicinal properties. These varieties did not come from the laboratories but were produced after years of hard work with ingenuity by generations of farmers of Chhatisgarh. The southern region of Orissa have been considered as a secondary center of origin of cultivated rice. Studies conducted by a project of MSSRF (M.S.Swaminathan Research Foundation in Cuttack, Orissa) have shown that the landraces (traditionally cultivated varieties) from this area could be the primary center of origin of Aus group of rice. The landraces of a primary center of origins are assumed to contain many

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8 Food and Agricultural Policy Organization (FAO), The state of world’s Plant Genetic Resources for food and agriculture, Rome, 1997.
valuable genes particularly for resistance/tolerance to various biotic and abiotic stresses and hence hold promise for their utilization in future plant breeding programme.

**Genetic Erosion of Agro Diversity in India**

Genetic erosion is the loss of genetic diversity including the loss of individual genes and the loss of particular combinations of genes (i.e. gene complexes) such as those manifested in locally adapted landraces. The term, ‘Genetic Erosion’ is sometimes used in a narrow sense, i.e. the loss of genes or alleles as well as more broadly, referring to the loss of varieties. The evidence regarding the genetic erosion can be presented in terms of the replacement of landraces and traditional varieties by MVs (Modern Varieties). MVs that has been developed under the programme of Green revolution (1966-67) in India and heralded the so called genetic erosion. MVs have wide adaptability in various environments and these seeds are genetically uniform.

A single (Green Revolution) wheat variety, Sonalika, covering half of the wheat growing area in North India replaced TVs. The adoption of the Green Revolution in rice in Andhra Pradesh led to the loss of 95 percent of TVs without their collection and documentation. Five decades ago, each region in the state of Chhatisgarh cultivated 19000 rice varieties, which were suitable to the soil and climate. But in the high yielding variety of rice which were insensitive to the local condition.

After Green revolution of 1960s in India, farmers in the hilly region of Tehri Gorhwal district of Uttranchal state of north India also started using high input sensitive techniques of farming to increase productivity. New improved seeds of high yielding varieties were introduced here, along with range of pesticides, fertilizers and other

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external inputs. In the race of modernization, the farmers began to rapidly lose their traditional system of sustainable agriculture. Several indigenous practices and seeds (rice and kidney beans) had already been lost in this area.

The Biodiversity strategy and Action Plan (BSAP) foe West Bengal based on a survey conducted in all 18 districts of the state, states in the post independence phase, it is the production of minor crops which are not considered economically important that has gone down. The BSAP mentions that the progenitor of the cultivated maize, which existed in Sikkim and Darjeeling Hills along with Assam, has been lost. Of the five minor millets such as ragi, cheena, kaon, gundli and sawon only two that is ragi and kaon have survived.

The genetic erosion may take place due to the population pressure, environmental degradation, legislation / policy, pests/weeds and diseases changing agricultural system and over exploitation of species etc. MV require to use chemical fertilizer, pesticides and other chemical hormones, antibiotics etc. a vicious circle exists among the breeders of MVs and multinational companies producing agrochemicals, fertilizers, farming implements in order to obtain IPR. With the introduction of HYVs in 1960,s the fertilizer (N-Nitrogen, P- Phosphorous, K-Potassium) consumption in the country increased from 65,000 tones in 1950-51, to 2,90,000 tones in 1960-61 and 11,000600 tones in 1966-67 and 19,30,6500 tones in 2000-01. Whereas the net area sown (total geographical area 328.73 million hectares) increased marginally from 41.8%(118.75 million hectares) in 1950-51 to 46.6%(142.60 million hectares) in 1998-99. Pesticide consumption also increased drastically from negligible amount in 1950’s to 43.58 thousand tones in 2000-01.(source-Department of Agriculture and Cooperation, New Delhi). However the homogenization of agriculture (monoculture) that is market oriented cultivation over past few decades present a not-so-pleasant picture in many parts of the country. While the overall fertility
of soil has gone down in some cases, in some other the promotion of rice and wheat has led to the decline of crops such as groundnut and millets.\textsuperscript{10}

The policy of government and needs of market sometimes compel the farmers to cultivate the MVs. It not only destroys the traditional varieties but also create a monoculture. By which India has destroyed various traditional crops. Excess use of chemicals and fertilizers will degrade the condition of the soil.

**MARKET STRATEGY OF MNCs:** These are not one-off instances, but have become the norm as seed MNCs go all out to increase their share in the Rs 8,000-crore seed market in India. Those fighting for a share of the pie include not just multi-million dollar MNCs such as Monsanto, DuPont, Cargill and Syngenta, but also some 500-odd private seed companies including JK Seeds, Namdhari Seeds, Nuziveedu Seeds and Nath Seeds. Private companies account for 90 per cent of the seeds distributed in India. The MNCs exert indirect control over the seed market as well. They supply the germ plasm to almost all Indian seed companies. As seed MNCs are out to increase their market share, public sector company National Seed Corporation (NSC), which has more than 250,000 outlets across the country, is already feeling the heat. “Indian private companies used to sell their seeds at our outlets, but now there is a new trend. They are approaching the farmers as private agents of MNCs,” says a senior director at NSC. Seeds from these agents go directly to farmers, he says. The MNCs have deep pockets to spend on agents. They give them training, salaries and incentives. As a result, many Indian seed companies are slowly becoming service agents’ of seed of MNCs.

At stake is not only the seed market but also the Rs 800-1,000 crore seed replacement market,

which is growing at 10-15 per cent (kharif and rabi season). This market is expected to boom in the coming years. “This is bound to go up in India as we are far behind the US, where seed replacement is 90 per cent,” says Ramesh Chand, director, National Centre for Agricultural Economics Policy. As the companies arm themselves for the battle to control ‘seed’, they are sharpening their research and development (R&D) efforts. An estimated $2-5 billion is likely to be invested in seed development infrastructure in India. Companies are planning to spend $400-500 million on soil survey and for local human resource deployment (that is, agents in villages) and another $10-12 million annually for promotion of seeds in India. R&D is undoubtedly the key to winning the seed war and the MNCs know this fully well.

“There is a need to develop ‘Made by India’ seeds and not ‘Made in India’ seeds. The company — MNC or Indian — that makes ‘Made by India’ seeds will rule the market,” says K.C. Bansal, coordinator, ICAR (Indian Council for Agriculture Research) Network on Transgenic Development, National Research Centre on Plant Biotechnology, ICAR, New Delhi.

‘Made by India’ seeds are produced in India and are best suited to Indian soil conditions, while being resistant to pests and viruses. In contrast, ‘made in India’ seeds are made from imported germ plasm and are less resistant to pests. Strengthening the R&D in India also has cost advantages. “The cost of developing a seed in India is about 30 per cent less,” says a senior scientist at the ICAR, who has been hired by a seed MNC, which plans to set up an R&D unit for rice at Karnal in Haryana. According to industry sources, Monsanto will invest $8-10 billion over the next decade globally, including in India, in seeds and trials. The company will develop vegetable, corn, sugarcane, potato and oil seeds at its facilities in Hyderabad and Bangalore. It will be supported by its seed research breeding stations in Abohar (Punjab), Aurangabad, Bangalore, Dharwad, Ghaziabad and Kallakal (Andhra Pradesh); seed processing facilities in Bellary (Karnataka), Hyderabad.
and Eluru (Andhra Pradesh); a Quality Assurance Laboratory in Hyderabad, and a chemistry plant in Silvassa (Dadra and Nagar Haveli). “We offer a holistic approach to seed in India and we have excelled globally to prove that,” says Amitabh Jaipuria, managing director of Monsanto India.

**Conclusion**

The regime of IPR to provide an incentive to the inventor is a really remarkable decision of the world community. This system will provide a boost to the R and D in various fields is obvious. Now a day, this IPR regime has spread its tentacles from agriculture to major technological innovations. When we try to make an analysis of the impact of the IPR in agriculture; both the positive and negative effects of this regime are crystal clear in front of us. The IPR regime in India will invite the private sectors to provide a helping hand in the development of research in the agricultural sectors. But it is obvious that there will be a fierce competition among the companies to trap the markets. The farmers will lose their traditional rights to protect the seeds and plants according to the environment. It may create a dependency syndrome among the framers, which will create a disastrous effect in the agriculture system. In conclusion, India has demonstrated that the private sector can contribute to improving agricultural productivity and food security through the research, development, and delivery of pearl millet and maize hybrids. A more conducive policy environment and an expanding technological frontier suggest that private-sector innovation can contribute even more.

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AN IMPLEMENTATION OF CLUSTER BASED CERTIFICATE REVOCATION WITH VINDICATION CAPABILITY FOR MANET

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INTRODUCTION

Mobile ad hoc networks (MANETs) are autonomous collection of mobile nodes which communicate over relatively bandwidth constrained wireless links [5]. MANETs differ from conventional wireless networks, such as cellular networks and IEEE 802.11 (infrastructure mode) networks, in that they are self-containing: the network nodes can communicate directly with each other without reliance on centralized infrastructures such as base stations. Additionally, MANETs are self organizing and adaptive [3]; they can therefore form and de-form on-the-fly without the need for any system administration.

These unique features make MANETs very attractive for scenarios which will require rapid network deployment, such as search and rescue operations. The decentralized nature of MANETs, particularly the absence of centralized entities, and hence the avoidance of single point of failures, makes these network paradigms also ideal for military and commercial applications that require high degree of robustness. There are however some challenging security issues which need to be addressed before MANETs are ready for widespread commercial or military deployment.

One of the core security issues is trust management. Trust is generally established and managed in wired and other wireless networks via centralized entities, such as CAs or key distribution center (KDC). The absence of centralized entities in MANETs makes
trust management security issue challenging task. The unavailability of trusted authorities also creates problem to perform necessary functions such as the revocation of DC. Another interesting MANET security problem is the issue of false accusation in the presence of malicious nodes, which will try to prove the legitimate node as malicious node due to which legitimate node get removed from the network. The malicious nodes can cause various communication problems such as window of opportunity problem.

The principal objective of this paper is to address the above-mentioned MANETs security issues such as implementing better trust management, Revoking certificate of malicious nodes only, solving false accusation and window of opportunity problem [1].

The wireless technology makes MANETs more vulnerable to security attacks and due to this the traditional security methods does not provide a novel solution to MANETs [5, 10]. A new protocol need to be developed to overcome the drawback in the traditional security methods such as DC, Symmetric key cryptography method which will require trusted third party and central repositories to maintain information about node whose certificate is get revoked but these traditional security methods are yet fail in providing the desired security in the case of wireless networks such as MANET’s. In other words, the scope of the traditional security methods is only limited to the wired networks and to some extent in the wireless networks because the number of security threats is greater in wireless networks compared to wired networks.

LITERATURE REVIEW AND RELATED WORK

A Survey of Routing Attacks and Security Measures in Mobile Ad-Hoc Networks

In this paper we have attempted to present an overview of the routing protocols, the known routing attacks and the proposed
countermeasures to these attacks in various works. MANETs is an emerging technological field and hence is an active area of research. Because of ease of deployment and defined infrastructure less feature these networks find applications in a variety of scenarios ranging from emergency operations and disaster relief to military service and task forces. Providing security in such scenarios is critical. The primary limitation of the MANETs is the limited resource capability: bandwidth, power back up and computational capacity. Absence of infrastructure, changing topology makes the security of MANETs particularly difficult. Also no centralized authority is present to monitor the networking operations. Therefore, existing security schemes for wire networks cannot be applied directly to a MANETs, which makes them much more vulnerable to security attacks.

Certificate-Based Encryption and the Certificate Revocation Problem Craig Gentry DoCoMo USA Lab cgentry@docomolabs-usa.com

We introduce the notion of certificate-based encryption. In this model, a certificate – or, more generally, a signature – acts not only as a certificate but also as a decryption key. To decrypt a message, a keyholder needs both its secret key and an up-to-date certificate from its CA (or a signature from an authorizer). Certificate-based encryption combines the best aspects of identity-based encryption (implicit certification) and public key encryption (no escrow). We demonstrate how certificate-based encryption can be used to construct an efficient PKI requiring fewer infrastructures than previous proposals, including Micali’s Novomodo, Naor-Nissim and Aiello-Lodha-Ostrovsky.

Securing Ad Hoc Networks

This paper focuses on how to secure routing and how to establish a secure key management service in an ad hoc networking environment. These two issues are essential to achieving our security
goals. Besides the standard security mechanisms, we take advantage of the redundancies in ad hoc network topology and use diversity coding on multiple routes to tolerate both benign and Byzantine failures. To build a highly available and highly secure key management service, we propose to use threshold cryptography to distribute trust among a set of servers. Furthermore, our key management service employs share refreshing to achieve proactive security and to adapt to changes in the network in a scalable way.

**A Localized Certificate Revocation Scheme for Mobile Ad Hoc Networks.**

The issue of certificate revocation in mobile ad hoc networks (MANETs) where there are no on-line access to trusted authorities is a challenging problem. In wired network environments, when certificates are to be revoked, certificate authorities (CAs) add the information regarding the certificates in question to certificate revocation lists (CRLs) and post the CRLs on accessible repositories or distribute them to relevant entities. In purely ad hoc networks, there are typically no access to centralized repositories or trusted authorities; therefore the conventional method of certificate revocation is not applicable. In this paper, we present a decentralized certificate revocation scheme that allows the nodes within a MANET to revoke the certificates of malicious entities. The scheme is fully contained and it does not rely on inputs from centralized or external entities.

**Throughput and delay in random wireless networks with restricted mobility.**

This paper studies the delay scaling at throughput for a random network with restricted mobility. First, a variant of the scheme presented by Diggavi, Grossglauser and Tse is presented and it is shown to achieve throughput using different (and perhaps simpler) techniques. The exact order of delay scaling for this scheme is
determined, somewhat surprisingly, to be of \( n \log n \), which is the same as that without the mobility restriction. Thus, this particular mobility restriction does not affect either the maximal throughput scaling or the corresponding delay scaling of the network. This happens because under this 1-D restriction, each node is in the proximity of every other node in essentially the same manner as without this restriction.

Disadvantages of Existing Scheme

- In any ad hoc networks, there may neither be network connection to centralized CAs nor central repositories where CRLs can be retrieved, or centralized servers running certificate validation protocol. Thus, as whether certificate of the node is revoked or not is a challenging task in ad hoc networks environments.

- To-date, the security schemes utilizing digital certificates, proposed for ad hoc networks, either do not explicitly address the issue of certificate revocation.

- Certificate revocation is too important and challenging issue in MANET so if adequate safeguards are not built into the process of determining when a certificate should be revoked, then malicious nodes can wrongfully accuse other nodes of misbehavior and because the certificates of good, uncompromised nodes to be revoked [2].

- The absence of centralized entities for performing critical key management tasks such as certificate revocation.

The Envisioned Scheme

Before delving into details of our envisioned scheme, it is worth noting a fundamental assumption. Nodes are assumed to be able to detect an attacker within their transmission range, e.g., in case of ad
hoc flooding attacks [7], black hole attacks [8], worm hole attacks [9], and so forth.

A. Node reliability

In the proposed scheme, nodes are differentiated according to their reliability, i.e., normal nodes have a high reliability, warned nodes are suspected as potential attackers, and attacker nodes have been accused by a normal node. When nodes join the network, they are assumed to be normal nodes. Warned nodes and attacker nodes are listed in the Warning List (WL) and Black List (BL), respectively. The certificates of the nodes listed in BL are revoked whereby they are removed from the network. While the nodes included in WL can communicate with other nodes in the same way as normal nodes, there are a few restrictions placed on their behavior, i.e., unable to become a cluster head and not allowed to make any accusation as described later in detail. WL and BL are maintained by a CA which broadcasts all certificate information including WL and BL to the whole network upon the renewal of WL or BL.

B. Node clustering

By classifying nodes into clusters, the proposed scheme allows each Cluster Head (CH) to detect false accusation by a Cluster Member (CM) within the cluster. Node clustering provides a means to mitigate false accusations. CHs always monitors their CMs and watch for false accusations by means of the algorithm which will be discussed in Section 3.C.2). Fig. 1 shows an example of how clusters are constructed in the proposed scheme. While each cluster consists of one CH and
CMs lying within the CH’s transmission range, some nodes within the transmission area of the CH might not be the member of the cluster and can be the CM of another cluster.

For example, in Fig. 1, node B does not belong to the cluster headed by node A while it is located within the transmission area of node A. Only normal nodes having high reliability are allowed to become a CH. Nodes except CHs join the two different clusters of which CHs exist in the transmission range of them. By constructing such clusters, each CH can be aware of false accusations against any CMs since each CH knows which CM executes attacks or not, because all of the attacks by a CM can be detected by any node, of course including the CH, within the transmission range of the CM. The reason why each node except CH belongs to two different clusters is to decrease the risk of having no CH due to dynamic node movement. To maintain clusters, CH and CMs frequently confirm their existence by exchanging messages, i.e., the CH periodically broadcasts CH Hello packets to the CMs within its transmission range, and each CM replies to the CH with
the CM Hello packet. Fig. 2 shows the node join algorithm which is carried out by newly joining nodes that enter the network. A newly joining node becomes CH at a constant rate. A node, which has decided not to become a CH itself, will look for other CH nodes in the area. If there are more than two CHs near the node, it will attempt to join two of these clusters by randomly selecting two of their CHs and sending each of them a CM Hello packet. Otherwise, the joining node declares itself as a CH and broadcasts CH Hello packets. When a CM leaves the cluster, it needs to invoke a similar procedure to find out new CHs. If the CM receives no CH Hello packet from its CH for a certain period of time, the CM considers itself having departed from the cluster, and tries to find and join a new cluster. On the other hand, if the CH cannot receive any CM Hello packets for a while, this implies that no CM is in the cluster, it then inspects the number of neighboring CHs and becomes the CM for those clusters if at least two CHs are found. By implementing the above procedures, the proposed scheme is able to maintain clusters regardless of the node movements, thus enabling it to detect false accusations. Also, since nodes in the WL cannot become CHs, in the case where CMs lose their CH because the CH has been put into the WL, they can find and join a new cluster by executing the necessary procedures as described above.

**Result and Evaluation**

There are 6 modules to be implemented in the system. They are:

A. **Cluster Construction**

Nodes cooperate to form clusters, and each cluster consists of a CH along with some Cluster Members (CMs) located within the transmission range of their CH. Before nodes can join the network, they have to acquire valid certificates from the CA, which is responsible
for distributing and managing certificates of all nodes, so that nodes can communicate with each other unrestrainedly in a MANET.

In this model, if a node proclaims itself as a CH, it propagates a CH Hello Packet (CHP) to notify neighboring nodes periodically. The nodes that are in this CH’s transmission range can accept the packet to participate in this cluster as cluster members. On the other hand, when a node is deemed to be a CM, it has to wait for CHP. Upon receiving CHP, the CM replies with a CM Hello Packet (CMP) to set up connection with the CH. Afterward, the CM will join this cluster; meanwhile, CH and CM keep in touch with each other by sending CHP and CMP in the time period $T_u$.

B. Certification Authority (Ca)

To enable each mobile node must preload the certificate. The CA is also in charge of updating two lists, WL and Blacklist, which is used to hold the accusing and accused nodes’ information. The BL is responsible for holding the node accused as an attacker, while the WL is used to hold the corresponding accusing node. The CA updates each list according to received control packets. Note that each neighbor is allowed to accuse a given node only once.

C. Communication between CH and Ca

If a node is in warned list of certificate authority, it may move towards another cluster. At that time, Cluster Head must communicate with certification authority to request the history of the new node. If it was in Warned list, the CH eliminates that node. The false accusation of a malicious node against a legitimate node to the CA, will degrade the accuracy and robustness of our scheme. To address this problem, one of the aims of constructing clusters is to enable the CH to detect false accusation and restore the falsely accused node within its cluster. Since each CH can detect all attacks from its CMs, requests for the CA to recover the certificate of the falsely accused node can be
accomplished by its CHs by sending Recovery Packets (RPs) (see the format of recovery packet to the CA. Upon receiving the recovery packet from the CH, the CA can remove the falsely accused node from the BL to restore its legal identity. The sequence of handling false accusation is described hereafter.

First of all, the CA disseminates the information of the WL and BL to all the nodes in the network, and the nodes update their BL and WL from the CA even if there is a false accusation. Since the CH does not detect any attacks from a particular accused member enlisted in the BL from the CA, the CH becomes aware of the occurrence of false accusation against its CM.

D. Node Classification

Three types of nodes are classified according to their behaviors:

1. Legitimate,
2. Malicious, and
3. Attacker nodes.

Legitimate node

It is deemed to secure communications with other nodes. It is able to correctly detect attacks from malicious attacker nodes and accuse them positively, and to revoke their certificates in order to guarantee network security.

A malicious node

It does not execute protocols to identify misbehavior, vote honestly, and revoke malicious attackers. It is able to falsely accuse a legitimate node to revoke its certificate successfully.
An attacker node

It is defined as a special malicious node which can launch attacks on its neighbors to disrupt secure communications in the network.

E. Certificate Revocation

To revoke a malicious attacker’s certificate, we need to consider three stages: accusing, verifying, and notifying. The revocation procedure begins at detecting the presence of attacks from the attacker node. Then, the neighboring node checks the local list BL to match whether this attacker has been found or not. If not, the neighboring node casts the Accusation Packet (AP) to the CA, which the format of accusation packet. Note that each legitimate neighbor promises to take part in the revocation process, providing revocation request against the detected node. After that, once receiving the first arrived accusation packet, the CA verifies the certificate validation of the accusing node: if valid, the accused node is deemed as a malicious attacker to be put into the BL. Meanwhile, the accusing node is held in the WL. Finally, by broadcasting the revocation message including the WL and BL through the whole network by the CA, nodes that are in the BL are successfully revoked from the network.

F. QOS

With the help of quality of service path first routing Protocol (QOSPF), the QOS metrics such as throughput, delay, Packet delivery ratio, Lifetime are to be increased. Other service models/parameters can/should be added Provides information for QOS routing calculation. Using the CCRVC scheme reduce the communication overhead, warned nodes and revocation time.
Applications

The original applications of ad-hoc networks were of a military kind. Vehicles on a battlefield are certainly mobile and move around in unpredictable manners. This is the original scene from where the very idea of ad-hoc networking was born. Other applications are in rescue operations where ad-hoc networks could be used by both police and firefighters. Search and rescue missions are also suitable applications. Possible commercial purposes could be for taxi communication, on boast, aircrafts and in sports stadiums. Personal uses are for laptops and notebook computers. Ad-hoc networking has even reached the entertainment business with Sony play station portable which uses this for multiplayer gaming.

Conclusion

We have addressed a major issue to ensure secure communications for mobile ad-hoc networks, namely, certificate revocation of attacker nodes. In contrast to existing algorithms, we propose a cluster-based certificate revocation with vindication capability scheme combined with the merits of both voting-based and non-voting-based mechanisms to revoke malicious certificate and solve the problem of false accusation. The scheme can revoke an accused node based on a single node's accusation, and reduce the revocation time as compared to the voting-based mechanism. In addition, we have adopted the cluster-based model to restore falsely accused nodes by the CH, thus improving the accuracy as compared to the non-voting-based mechanism. Particularly, we have proposed a new incentive method to release and restore the legitimate nodes, and to improve the number of available normal nodes in the network. In doing so, we have sufficient nodes to ensure the efficiency of quick revocation.
The extensive results have demonstrated that, in comparison with the existing methods, our proposed CCRVC scheme is more effective and efficient in revoking certificates of malicious attacker nodes, reducing revocation time, and improving the accuracy and reliability of certificate revocation.

References


QUALITY EDUCATION – THE ROLE OF TEACHERS

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Introduction:

Education is a powerful instrument of national development-social, economic and natural. Education should consist of both quality and values for the overall development of the student and for the benefit of the nation and society. The highest priority should therefore be accorded to the development of national system of education which will accelerate transformation of the existing social system into a new one based on the principle of justice, equality, liberty and dignity of the individual, enshrined in the constitution of India; provide adequate and equal opportunity to every child and help him to develop his personality to its fullest; make the coming generation conscious of the fundamental unity of the country in the midst of her rich diversity, proud of her cultural heritage and confident of her great future. The roots of present day educational system are deeply embedded in the past. The future of it is also dependent on it. Fact is that, it makes history, present makes its phenomena and future makes it a utopia; a palace of ideals.

We are entering into the 21st century in very near future. Our past and our present are busy to give a radical shape to its future. Our future is closely related to our ancient ideals, faiths and myths. Our educational structure has been shrunken because of the explosion of population and fast growing knowledge and its expansion through media-culture. There will be no place in schools in future and the number of learners will be growing very rapidly. We have to make
balance between them to restructure our education on the basic of knowledge and skills.

The aim of education is inter- alia to be helpful and useful to society, patriotic to nation, dutiful to family and to help lead a happy and peaceful life without unduly getting disturbed under trying circumstances. While one may get rich by understanding education with quality, only education with values can turn out students who care for the society, nation, elders and needy. A man who might have received quality education but is devoid of values may well be a demon for he may misuse the education in the absence of discrimination. In order to ensure quality education in teacher education, there is a need for the system to be accredited so that the society is aware of accredited and no accredited institutions of teacher education. Quality teacher education is the backbone of the students.

**Quality Education:**

Quality is the keyword today. Everybody demands quality. On the quality of teachers depends the quality of education, Kothari Commission (1964-66) unequivocally held that the quality, competence and character of teachers to be the most significant factors, influencing the quality of education and its contribution to national development.

Quality is regarded as a prime requisite to develop human skill in the Knowledge era. The human capital involved with an individual and its rate of return. Quality life is the outcome of quality education. The quality of life has to be measured in terms of health nutrition, security, income, the leisure one is spending, the values the individual holds, social interaction and the conviviality. The quality of life reflects

1 Shobha Rao C (2008) Quality and Values: Obverse and reverse of the Modern Education coin, EDUTRACKS, vol. 7 No. 8.,p.20
in the individuals thought and action in every sphere home, society interaction and in job too².

Education, as we know is instrumental in ensuring that the future generation is well informed and competent. Unfortunately, because the quality and accessibility of education varies so greatly between regions, the school system of our country often fails to deliver the level of education necessary to ensure such competency.

Quality has become a dynamic concept that has to constantly adapt to a world understanding profound social and economical transformation. Quality education, should equip people, children, women and men to be fully participating members of their own communities and also citizens of the world.

Education widens the mental horizon, enables an individual to enjoy the good things of life and raise standard of living, and thus helps in the economic development of a nation by creating human resource for it. Hence, Education is regarded as the most effective instrument of national development and national reconstruction. Education (quality education), is the most effective tool of economic and social transformation.

Role of Teachers in Quality Education:

Teacher education provides a platform to student teachers to acquire the required knowledge, skill and develop positive attitude, values and benefits. This can be done with the help of the provided curriculum³. Teacher is considered to be the architect of the nation. In other words, the future of the nation lies in the hands of teacher. Teacher education, in general of course with honorable exceptions, lack

initiative enterprise and innovativeness, there is a felt need to raise the level of the competence of teacher to make them comparable with professionals of other technical and professional institutions. This shows the importance of teacher. One can realize how important education is which makes one a teacher.

1. Teachers have to play a pivotal role in reforming education at all levels. In order that they can play this role they should be inspired by creative idealism and feel pride in their profession. Suitable steps should be taken to improve professional competence of teachers at all levels. The academic freedom of teachers to conduct research and make experiments and innovations will be assured.

2. The teaching community should become increasingly aware of the crucial importance of their role in moulding the lives and character of the future citizens of the country. They should themselves be model citizens, committed to the task of national and social reconstruction.

3. The curriculum of teacher-education at the elementary and secondary stage will be suitably changed in order to enable the teachers to play their proper role in reforming education. Pedagogical and professional preparation for teachers in higher education should also be provided. Facilities for in service training will be expanded. Centers for developing curricular materials and teaching aids will be established, especially for the benefit of teachers in rural areas and for both formal and non-formal systems of education.

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Teacher Empowerment

Teachers’ role is very vital in molding the future of a country and, as such, it is considered the noblest profession. Information and Communication Technology (ICT) has become one of the basic building blocks of modern society. The role of teacher education as a process of nation building is universally recognized. Teachers serve education, which is an effective instrument of man making. Improve all aspects of the quality of education to achieve recognised and measurable learning outcomes for all especially in literacy, numeracy and essential life skills. Teacher empowerment is described as the opportunities a person has for power, choice, autonomy and responsibility. Teacher empowerment should never be a goal in itself but always a means to an end. The end would be an effective education for all students, by which it implies high outcomes in knowledge, skills and constructive attitudes among all students irrespective of their gender, their socioeconomic background or the ethnic origin. The goal of teacher empowerment is to ensure that the right teachers have the knowledge, skills, motivation, and environmental support to their jobs more effectively and efficiently. It depends upon institution’s motivational system, institutional climate, and performance appraisal system through student-ratings.6

Teacher empowerment supports increasing teacher involvement in decisions that affect the institution as a whole as well as the classroom; creating organizational arrangements that involve teachers in decision making; and establishing a sense of autonomy for teachers for teachers. Teacher empowerment has had a demonstrated effect on the following: enhanced teacher self-esteem; increased teacher knowledge of subject matter and pedagogy; enhanced cooperative relationship of colleagues; improved curriculum and instruction; and higher student achievement. Teacher empowerment is the primary


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component of institutional effectiveness, which depends heavily on human performance technology as its foundation. Improving institutional effectiveness and management are essential to development of human resource initiatives.

**Quality Improvement of Teachers’ Education:**

The responsibility for the growth and development of the nation is thrust upon the shoulders of teachers, and to a certain, extent, this is an undeniable fact. The training of the future generation is undoubtedly in the teachers’ hands. It is, therefore, obvious that if the education of teachers does not improve qualitatively, the results for the future generations may well prove to be disastrous. The basic mission of teacher education system should be viewed in terms of the indispensable demands of the society characterized by the democratic values, high demands for learning, and felt needs of the society for new knowledge and new occupations and flexibility to cope with the inevitable socio-economic changes.

The teachers create awareness to protect national heritage, monuments, cultural heritage and so on. Improving teacher and quality education:

1. Attract the best and brightest’ entrants to teaching
2. Place quality teachers
3. Train our future teachers through world class pre-service education
4. Develop teachers skill/ knowledge through ongoing professional learning

**Role of ICT in Quality Education:**

Teacher education in India has to change drastically if it has to serve the needs of the emerging 21st century society. The teacher education system empowered by Information Communication
technology (ICT) drive infrastructure can have a great opportunity to come up to the centre stage and ensure academic excellence, quality instruction and leadership in knowledge based a society. Rapid changes in technology will ensure that ICT will proliferate in the classroom. It is predicted that there will be many benefits for both the learner and the teacher, including the promotion of shared working space and resources, better access to information, the promotion of collaborative learning and radical new ways of teaching learning⁷.

ICT can give learners access to concepts that they previously could not grasp⁸. The acquisition of ICT skills in educational institutions helps knowledge sharing, thereby multiplying educational opportunities. Integrating ICT literacy will be crucial as it means harnessing technology to perform learning skills. It must encompass the use of ICT to manage complexity and solve problems by thinking critically, creatively, and systematically towards the goal of acquiring thinking and problem-solving skills⁹. For the students, this can be used for making assignments, collecting data, documentation, and conducting research. It can be a medium for teaching and learning.

**Conclusion:**

In the past, the role of education was largely confined to the transfer of established culture to the new generation in the new generation in the relative stability of social and cultural life. Quality education should be developed promotion and improvement of basic

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education, reorientation programmes at all level to address sustainable development, developing public awareness and understanding for sustainability, providing training, involving higher education, and management.

The existing education should be improved according to the needs of the time. It has to fulfill the demands of one’s own country and the changing scenario of the world. It must be competitive and cooperative. Looking into these factors the education needs to be improved from time to time, to transform the capacity of the people’s vision for society. The society needs skilled students; students who can serve as models before others, go to the villages and teach them what is right and what it wrong so that overall development takes place. Education is linked with development in developing countries. A number of areas like environmental education, agriculture, social service, health and family welfare, problems of economy need to be taught efficiently to the students.
SAMKARA ON JIVA-ISVARA AND SAKS. IN

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Introduction:

Though Gauḍapāda’s writing represents the early literature of Advaita Vedanta, Saṃkara in his comments on the Brahmansutra and the Upaniṣads as also in so many independent works nicely formulates the advaita theory of non-dualism. So he is recognized as the propagator of the theory of nirguṇādvaita. In his adhyāsabhaṣya, a celebrated introduction to the commentary on the Brahmaṣuttra, he starts his philosophy with the categories of ātman and anātman, the comprehender and the comprehended. In this philosophy, dṛk and dṛṣya are the names given to the subject and the object. The subject which comprehends the object is the centre of Consciousness, while the object is what is known (dṛṣya). The subject or atman exists and reveals the object, but the object or anātman exists only in a lower level of reality. The subject or atman has both existence (sat) and consciousness (cit), but the object in only existence (sat). Thus, Saṃkara maintains that the subject belongs to a higher level of reality than the objects or the known. While explaining the concept of dṛk, he makes a distinction between suddhacaitanya and the saksin. He includes the concepts of God (iśvara), the individual self (jīva), and the world (jagat) to the category of dṛṣya.

Analysis:

In Saṃkara’s philosophy, the individual self or jīva is not a manifestation of Brahman nor a portion of it, only Brahman in
empirical dress. It is Brahman or spirit conditioned by maya. Brahman can have no direct cognition of the external world except through the apparatus of mind (antahkarana), a sense-organ or the body. This apparatus and the small world which become the object of cognition are spoken of as the adjuncts or upadhi-s Brahman. Each jiva has its own knowing apparatus and moves in a small world of its own. The jiva has its own joys and sorrows, its own individual existence. It is a complex of spirit and matter.

The jiva, Samkara holds, rules the body, the senses, and it connected with the fruits of actions. It is external and unchanging. The jiva does neither nor undergo destruction. The Upanisadic texts announce that the individual self has its self in Brahman. It only appears to be different from Brahman owing to its limiting adjuncts such as the mind and so on, just like the ether appears to be different by its connection with the jars and like. Samkara clarifies that the scriptural texts which speak of the jiva’s production and dissolution must be interpreted on account of the jiva’s connection with its limiting adjuncts. Actually speaking, when the adjuncts i.e. body, mind etc. are produced or dissolved, the jiva is also said to be produced or dissolved. Thus, on the authority of the scriptures, Samkara holds the opinion that the jiva is eternal – it has no origin and it is unchanging.

Samkara further asserts that the jiva has no beginning, and is not subject to destruction, inasmuch as, only it can be connected with the results of actions as declared by the scriptural texts. If the jiva were perished after the disappearance of the body, there would be no sense in the religious injunction and prohibition referring to the enjoyment and avoidance of pleasant and unpleasant things in the next birth. So the body dies, but not the individual self. Samkara in his comment on the Brahmasutra points out that ordinary language speaks of the birth and death of the individual self. Truly speaking, the words ‘birth’ and ‘death’ have reference to the bodies of moving and non-
moving beings in primary sense. But the terms ‘birth’ and ‘death’ when applied to the jīva have to be taken in a secondary sense7. As moving and non-moving begins come into existence and cease to exist, the terms ‘birth’ and ‘death’ apply to them in their primary sense. But they are used metaphorically only with reference to the jīva dwelling in the bodies. Nobody observes a jīva being born or dying apart from its connection with the body8. One may fall into the error or thinking that some ceremonies like jātakarman support the birth and the death of the jīva. Sāmkara answers that the jata ceremony refers to the manifestation of the body only, since the jīva is never manifested9.

Sāmkara admits of the non-difference of the individual self and Brahman. As consciousness constitutes the essential nature of Brahman, the jīva also possesses the nature of eternal consciousness. Eternal consciousness appears as the individual self owing to contact with its limiting adjuncts10. Just as light and heat constitute the nature of fire, similarly eternal consciousness constitutes the jīva’s essential nature21. From the jīva’s essential nature being intelligence, he does not follow that the sense-organs have nothing to do. The sense-organs serve the purpose of determining the special objects of each cognition. The cognitions caused by the sense-organs such as ‘I know this’, ‘I know this’, corroborate the jīva’s essential nature of eternal consciousness12. In deep sleep, Sāmkara affirms, the nature of the jīva does not cease to exist. The sleeping person does not cognize anything in deep sleep, because of the absence of object of cognition other than itself. Just as the light pervading space is not manifest owing to the nature; similarly the appearance of the absence of awareness in deep sleep is due to the absence of object of cognition, but not due to the absence of consciousness13. Thus, Sāmkara asserts that the jīva is eternal consciousness by its very nature.

While commenting on the BrahmaSūtra tadgunasāratvatvatu tadvyapadesāh prajnavat14 Sāmkara considers the jīva to be all-per-
vasive. Since Brahman embraces all existent animate and inanimate objects and since the jīva is not different from all-pervading Brahman it must be of the same extent as Brahman\textsuperscript{15}. It is not of atomic size, otherwise it could not experience sensation extending over the whole body\textsuperscript{16}. A question may be raised here that owing to jīva’s connection with the same of touch (tvak), atomic jīva’s sensation extending over the whole body is possible. Sāmkara replies that when treading on a thorn one experiences a sensation in the sole of the foot only, not a sensation extending over the whole body\textsuperscript{17}.

Sāmkara further says that the individual self ever free which neither acts nor enjoys, but is spoken of as doer and enjoyer owing to its connection with the intellect or buddhi, its limiting adjunct. So transmigration is not its natural property, but an imposed one. The individuality of the jīva continues so long as its connection with the buddhi lasts\textsuperscript{18}. The connection of the individual soul with its adjunct does not come to an end until and unless the realization of Brahman being the all-pervasive Supreme Self dawns. In reality, the jīva has no independent existence apart from its fictitious connection with its limiting adjuncts.

The jīva, according to Sāmkara, is an agent. If it were not so, the Upaniṣadic texts such as ‘He should pursue’, ‘He should make an oblation to the fire’ would be purportless\textsuperscript{19}. As the jīva wanders about in the state of deep sleep (sūṣupti), the property of being an agent is to be activated to the jīva\textsuperscript{20}. Sāmkara Points out that the sacred Upaniṣad speaks of the agency of the jīva in all ritual and secular actions\textsuperscript{21}. The word vijnāna occurring in the śruti passage vijnānam yajñam tanute\textsuperscript{22} etc. refers to the jīva only, not the buddhi. If the jīva were not meant to be designated, there would be a change in the designation, i.e., the śruti passage would run vijnānena yajñam tanute. The jīva perceives both what is desirable and what is undesirable in a non-uniform manner. It is free with regard to perception. It depends on the sense-organs merely
to present the objects to the individual self. But in the act of perception it does not depend on anything else. It is true that the jīva is not absolutely independent so far as purposive actions are concerned. But its agentship (kartr̄tya) does not cease as it requires assistance. A cook remains agent in the action of cooking, though it requires fuel, water and like. The presence of a plurality of co-operative factors, Sāmkara claims, is not opposed to the activity of the jīva extending to actions that give rise to pleasant and unpleasant results. He holds that the buddhi cannot be taken as an agent, otherwise there would take place a reversal of power, i.e. the instrumental power which belongs to the buddhi would have to be set aside and to be replaced by the power of an agent. Sāmkara asserts that the jīva is an agent, but its agentship cannot be founded on its innate nature. If being an agent were its innate nature final release would be impossible. If kartr̄tva belongs to the jīva’s nature, it can never free itself from it. The jīva who has not freed himself from activity, which is essentially painful, cannot obtain the highest end of man.

According to Sāmkara, God (iśvara) is consciousness having ajñāna as limiting adjunct. Brahman is called God when viewed in relation to the objective world. Pure Consciousness is Brahman as-It-is-in-Itself. But iśvara is Brahman as It-is-in-relation to the objective world.

Sāmkara says that iśvara is a casual agent in all activity. He is an omniscient, omnipotent and omnipresent intelligent Being. He is the creator, sustainer and destroyer of the external world, whereas the individual self is the creator of the inner world. The jīva is an agent (kartr̄) and enjoyer (bhoktr̄); but iśvara is only agent, not enjoyer. The samsāra-state in which jīva appears as agent and enjoyer is brought about through the permission of iśvara. Sāmkara says that the agentship of jīva is dependent on God. He is a casual agent (hetukartr̄) in all activity. He makes the jīva whom he wishes to lead up from
these worlds, do a good deed, and He makes the jīva whom he wishes to lead down from this world, do a bad deed. Although God brings about an unequal creation, Śāmkara says, he should not be reproached with inequality of dispensation and cruelty. The circumstances of the creation being unequal is due to the merit and demerit of the living creatures. So this is not a fault for which God is to blame. Śāmkara considers the individual self as a part of God, just as a spark is a part of the fire. God being not composed of parts cannot have parts in the literal sense. By ‘part’ (aṁśa) Śāmkara means ‘a part as it were’. He resides in all individual selves, supervises their actions and donates the results of actions. God who rules the objective world, and who knows the differences of place and time, affords the fruits of action in accordance with the merit and demerit of the individual self. The final release (mokṣa) also is affected through the knowledge caused by the grace of God.

It is to be noted here that Mundaka Upaniṣad declares a passive conscious principle as an internal part of personality. The seer of the Upaniṣad speaks of a tree on which two birds are sited. One of them tastes the sweet fruits of the tree and the other does not eat, but looks on. The two birds constitute the two aspects of an individual self—one aspect gets involved in all activities and the other aspect plays the role of an onlooker. The former aspect represents the active aspect of the mind and the latter aspect i.e. the seer aspect, is called śākṣin.

The Upaniṣadic text and Gauḍapāda’s concept of sarvadarśa inspire Śāmkara to introduce the concept of śākṣin in his scheme. According to Śāmkara, Absolute Brahman is never reduced to the created elements. It remains the same (kutāsthā) although It manifests itself in Consciousness with the jīva and iśvara. It is the principle of awareness present in the individual self or jīva. It observes all our experiences, yet remains unaffected by them. Śāmkara speaks of the self in two different senses – the finite empirical individual self and principle of
consciousness present in every individual self. The former is the agent of all activities. He knows the world of name and form, He is the knower, enjoyer and the doer. He has cognitive, emotive and conative experiences. He is the referent of ahampratyaya. The latter self observes all the changing experiences without getting itself involved in it. The seer self is saksin.

Sāmkara present the self (atman) and (anatman) as two fundamental categories of experiences, as opposed to each other like light and darkness\(^37\). He maintains that the things can be known either as a subject (viṣayin) or as an object (viṣaya). All the contents which we experience should be categorised under two heads. Our experiences involve a beginningless natural confusion of the two. In everyday life we cannot understand the difference between the two categories. Sometimes we extend our sense of oneness to our son, wife etc. sometimes we feel identified with our body, sense or mind\(^38\). All these aspects, Sāmkara says, come to our mind as objective contents of experience. So they are different from the real Self. Behind all our experiences there is the Witnessing Self who is different from the individual self. Sāmkara recognizes the individual self as ahampratyaya, which is referred to by ‘I’. But he speaks of Witnessing Self as pratyagatman or self-manifesting witness (asēṣasavapracara saksin\(^39\)). Unlike ordinary cognitions, saksin is self-established. All cognitions need a basis (adhisthāna) and that basis is the unchanging seer. The mind registers manifestations arising from the senses. The apparent change is caused by the intellect. Saksin or the inner self is the constant knower of the intellect and is itself the basis of perception. It deserves special mention her that Sāmkara in his Vakyasudha, an independent treatise, does not draw a line of demarcation between the individual self (jīva) and the Witnessing Consciousness (saksin). Actually speaking, he includes the saksin to the jīva category. While explaining the import of the maha Vakya tattvamasi, Sāmkara takes the
term tvam in the sense of transcendental self (paramarthika jīva). In the Vākyasudha Saṃkara speaks of three kinds of self-transcendental self (paramarthika), empirical (vyavahārika) and apparent (pratibhāsika) 40. The transcendental self (paramarthika jīva) is Brahman conditioned by nescience (avidyā). It has no separate existence apart from Brahman. While Brahman or Pure Consciousness is unconditioned (avacchedya), the transcendental self is conditioned (avacchinna), and superimposed on the former due to avidyā. The empirical self (vyavahārika jīva), on the other hand, is the reflection of cit in the intellect (buddhi). It is caused by the primordial nescience (māya) which abides in Brahman. The empirical self is doer and享受er41. It is called vyavahārika as it starts from the time immemorial and lasts till the salvation occurs42. In dram like the dream-object the self is apparent43. The apparent self and the world which it experiences are caused by ignorance (nidra) that rests on the mind of the empirical self (cidabhāsa)44. While the apparent self considers the inner world to be real, the empirical self sees it to be unreal45. The external world seems to be real to the empirical self, but the transcendental self experiences it to be unreal46. It is the transcendental self alone that realizes its identity with Pure Consciousness (suddhacatitanya)47. On close study it reveals that the transcendental self holds the upper terminating point in jīva series. It is the constant innermost seer, which is known as sākṣin in later Advaita literature. So sākṣin is the field of Consciousness within which the cogniser/cognizing/cognized distinctions arise.

References:
1. astyatma jivakhyah sarirendriya panjaradhyaaksi karmaphalasam bandhi. Brahmasutra 2.3.17, Samkarabhaṣya, p.601, line 1, Ananta Krishna Sastri, Nirmaya Sagar Press, Bombay (1938)
2. tasmannaivatmopadhyate praviliyate ceti op.cit, p.603, lines 8-9
3. buddhya^dyupadhinimittam tvasya pravibhagapratibhahnamaka^sa^syevaghatadisambhandhanimittam.
   - op.cit, p. 602, lines 17-18

4. yadapi kvacidasyotpattipralayavravanam, tadapyata evopadhisambhandhanetavyam. upadhyutpattisyotpattistatpralayena ca pralaya iti.
   - op.cit, pp. 602-3

5. na jivasyotpattipralayau stah, sastraphalasambhandhopapatteh.
   - Brahmasutra 2.3.16; samkarabh^asya, p. 600, lines 4-5 ibid.

6. sarir^anuvinasini hi jive sarirantaragtestanistapraptipariharrathau Vidhipratisedhavanarthakau syatam. sruyate ca - jivapetam vada kiledam mriyate na jivo mriyate, iti.
   - op.cit, p. 600, lines 5-7

7. nanu laukiko janmamarana vyapadeso jivasya dar^sitah. Satyam dar^sitah. bhaktastvesa jivasya janmamaranavyapadesah.
   - op.cit, p. 600, lines 7-8

8. sarir^apradurbhavatirobhavayor hi satorijanmamaranasabdau bhavato nasatoh. na hi sarirasambhandhadanyatra jivo jato mrtvovacchate.
   - Op.cit, p. 600, lines 11-12

9. jatakarmadivhanamapi dehapradurbhavapek^samanavdrastavyam.
   - Op.cit, p. 600, lines 14-15

10. Janityacaitanyo^yamatma/'ta eva, yasmapdeva notpadyate parameva brahma^vikrttamupadhisamparkajivabhabenavi^state
    - op.cit, p. 604, lines 3-4
11. tasmajjīvasyāpi
nityacaitanyasvarūpapatvamagnyausṇyaprakaśavaditi gamyate.

   – Ibid, lines 6-7

12. sarvaiḥ karaṇadvāraairidāṁ vedeṇīm vedeṇīm
vijñānena anusamdhānattadṛṣṭapatvāsiddhiḥ

   – Ibid, lines 10-11

13. Visayabhāva vidyamacetayamanatā, na caitanyabhāvaditi. yathā
viyadāśrayasya prakaśasya prakaśyabhāvadānabhivyaktirna
svarūpabhavattādvat.

   – Ibid, lines 15-16

14. tadgūṇasaṁratvattu tadvyapadesāḥ praṇāvavat.

   – Brahmasūtra 2.3.29

15. paramēva cedbrahma jīvastasmādyāvatparam brahma tāvaneva jīvo
bhavitumarhati. parasya ca brahmano vibhutvamāmīntam.
tasmādvibhur jīvaḥ.

   – Brahmasūtra 2.3.29, Samkarabhāṣya, p.609, lines 2-3, ed.
   Ananta Krishna Sastri, Nirmaya Sagar Press, Bombay (1938)

16. na cānōrjīvasya sakalaśāriḥragataḥ vedanopapadyate.

   – Ibid, lines 5-6

17. na; kaṇṭakatodane'pi sakalaśāriḥragataiva vedanaḥ prasajyeta.

   – Ibid, lines 6-7

18. tadutkṛṣṭayadibhiṣcāṣyotkṛṣṭayadivyapadeso na svataḥ.

   – Ibid, p. 610, lines 8-9

19. śāstrarthavattvat. evam ca ‘yajeta’ ‘J uhuyat’ ‘dadyat’
eyeyam vi dhāmī vidhiśāstramarthavadbhavati. anyathā tadanarthakam
syat.

20. itaska jīvasya kartrtvam, yajjivaprakriyayām samdhyes thāne viharamupadisesa
   - ‘sa iyeemrto yatra kāmam’ iti, ‘sve sāri’re yathākāmam parivartate’ ca.
   - Brahmasutra 2.3.34. Samkarabhāṣya, p.613, lines 1-2, ibid.

21. itaska jīvasya kartrtvam, yadasya laukikisu vaidikisu ca kriyasu kartrtvam vyapadisesa sāstram.
   - Brahmasutra 2.3.36. Samkarabhāṣya pp. 613-614, ibid.

22. Taittiriya Upaniṣad 2.5.1

   - Brahmasutra 2.3.36, Samkarabhāṣya, p.614, lines 3-4, ibid.

24. na ca sahayapeksasya kartuḥ kartrtvam nivartate bhavati hyēḥdakādyapekṣasyaīpi patkuḥ patkrtvam.
   - Brahmasutra 2.3.37, Samkarabhāṣya, p. 614, line 15, ibid.

25. yadi punarvijnanaśabdavacayuddhireva kartr syattataḥ saktiviparyayaḥ syat. karanaśaktiḥ buddherhiyeta kartrsaktiocāpadyeta.
   - Brahmasutra 2.3.38, Samkarabhāṣya, p. 615, lines 2-3, ibid.

26. na svabhavikam kartrtvamatmanah sambhavati, anirmokaprasangat.
   - Brahmansutra 2.3.40, Samkarabhāṣya, p. 616, line 1, ibid.

27. asya jagath namarupabhyam byakrtasya anekakartrbhoktr samyuktasya pratiniyatadesakalena mrittakriyaphalasṛṣyasya nanasapi
achintyarachana rupasya janmasthitibhangam yatah sarvajnat sarvasakteh karaanat bhabati, tat Brahman.

- Brahmasutra 1.1.2. Samkarbhasya, p. 101, lines 3-4, ibid.

28. avidyavasthayam karyakaranasamghata vivekadarsinah jivasya avidyatimirandhasya satah parasmat atmanah karmmadhyaksat sarvabhuntadhibasat saksinah chetayituh isvarat tadanujnaya kartttrtva bhoktrtvalaksanasya samasrasya siddhih.

- Brahmansutra, 2.3.41, Samkarabhasya, p. 681, lines 2-5, ibid.

29. Sarvvasa eva pravrttiyu isvraha hetukartta iti sruteh abasiyate

- Brahmansutra 2.3.41, Samkarabhasya, p. 680, lines 8-9, ibid.

30. esah hi eva sadhu karma karayati tam yam ebhaya lokebhyah unninisate, esah hi eva asadhu karma karayati tam yam adhah niniyate.

- Brahmasutra 2.3.41, Samkarabhasya, pp 680-681, ibid.

31. vaisyamanairghrnyena isvarasya prasajyete

- Brahmastura 2.1.34, Samkarabhasya, p. 195, line 3, ibid.

32. kim apeksate iti chet? dharmmadharmmo apeksate iti badama. atah sriyamanapranidharmmadharmmaapeksa bismata srstiti iti na ayam isvarasya aparadhah.

- Brahmastura 2.1.34, Samkarabhasya, p. 195, lines 7-9, ibid.

33. jivah isvarasya amsha bhabitum arhati, yatha agneh bisphulingah amsha eva amash, nahi nirabayabasya mukhya amsha sambhabati

- Brahmastura 2.343, Samkarabhasya, p. 690. Lines 2-4, ibid.

34. sah hi sarvavadhyaksh srstisthitisamharan bichitra bidadhat desakalabi sabhijnatvat kamminam karmmanurupam phalam sampadayati
iti upapadyate.

- Brahmasutra 3.2.38. Samkarabhāṣya p. 209, lines 6-8, ibid.

35. tadanugrahahetukena eva cha vijnānena mokṣasiddhiḥ bhabitum arhati

- Brahmasutra. 2.341, Samkarabhāṣya, p. 680, lines 5-6, ibid.

36. dvaśuparnaśayujā sakāhya samānāṁ brksam pariśasvajatē/
tayoranyāḥ pīpalamī khādyatti ananaśānmannayo abhīcakasiti //


37. yusmadasmatpratyayagocarayarvisayavisayinostamah
prakāśavadvīruddhasva bhavayoh...

- Brahmasutra 1.1.1, Samkarabhāṣya, Adhyāsabhāṣya, p. 6, line 1, ed. Ananta Krishna Sastri, Nirmaya Sagar Press, Bombay (1938)

38. putrabhāryaḍīśu vikāleṣu sakāleṣu va ahameva vikālaḥ sakalo veti vāhyadharmanātmanyadhyasyati

- Ibid, p. 44, lines 3-4

39. eva mahampratyayin māsesasvapracāra sāksini
pratyagatmanyadhyasya, tami ca pratyagatmanam sarvasāksīṇam
tadviṃparīayenaṇaṭhakaranādiśvadhyasyati.

- Ibid, pp. 44-45

40. avacchinnaścidabhiṣastṛtiyaḥ svapnakalpitaḥ /
Vijnēyastrividho jīvaḥ..............................//

- Vakyasudhā 32, Samkara’s works, Vol.3, Basumati Sahitya Mandir,

41. adyah paramarthikah // avacchedah kalpitaḥ syadavacchedyam tu vāstavam / tasmin jīvatvamāropād brahmātvam tu svabhavataḥ //
   - Ibid 32-33

42. j ivo dhīsthaścidabhāso bhaved bhoktaḥ hi karmakṛt /
   - Ibid - 36

43. anādi kalamaśrabhya moksatpurvam idam dvayam /
   vyavahāre sthitam tasmaadubhayam vyavahārikam //
   - Ibid 37

44. pratiti kālæavaiete sthitatvat pratibhāsike /
   na hi svapnaprabuddhasya punah svapne sthitistayoh //
   - Ibid 39

45. pratibhāsikajīvo yastaj jagat pratibhāsikam /
   vāstavam manyate anyastu mithyeta vyavahārikah //
   - Ibid 40

46. vyavahārikajīvo yastaj jagad vyavaharikam /
   satyam pratyeti mithyeta manyate pāramārthikah //
   - Ibid 41

47. avacchinnasya jīvasya pūrṇena brahmaṇaikatam /
   Tattvamsyādivakyani jagurhetarajīvayoḥ //
   - Ibid 34
PERFORMANCE EVALUATION OF SBI MAGNUM EQUITY FUND

Dr.G.Gangaiah
Lecturer in Commerce
Government Degree College
Tuni, East Godavari District

Introduction

Mutual fund is one of the fastest growing products of the financial service industry. It has emerged as a main vehicle of investment and important source of return for small investors on their investments. The volatility in the capital market and reduction of interest rates on deposits diverted a large number of small investors towards mutual funds. Mutual fund is which accepts savings from investors and invests the same in diversified financial instruments. It is a process of pooling large funds from small investors and return back with handful dividend or with appreciated value of units. According to Securities and Exchange Board of India (mutual fund)n Regulations,1996 a mutual fund means a fund established in the form of trust to raise money through the sale of units to the public or a section of the public under one or more schemes for investing in securities, including money market instruments, Amitabh(2002). The concept of mutual fund in India was introduces int eh sixtees. Unit Trust of India its entry into mutual fund business in 1964 with Unit Schemes 64, popularly known as Us 64. The domination of the UTI was over when Government opened mutual fund business to public sector banks in 1987 and further to private sector in 1993. The fund mobilized through various schemes by UTI, public sector banks and private sector mutual fund companies brought about a significant contribution in the Indian mutual fund industry.
Objectives of the study
The present study aims to evaluate the performance of mutual fund schemes through risk return analysis. Investors their fund in mutual fund schemes with an objective of earning higher income through either better dividend or capital appropriation. Thus it is essential to identify whether the mutual fund schemes results better earning on portfolio as compared to benchmark market return.

Methodology

*RISK MEASURES;*

1. Standard Deviation:
The total risk (market risk, security-specific risk and portfolio risk) of a mutual fund is measured by ‘Standard Deviation’ (SD). In mutual funds, the standard deviation tells us how much the return on a fund is deviating from the expected returns based on its historical performance. In other words can be said it evaluates the volatility of the fund. The standard deviation of a fund measures this risk by measuring the degree to which the fund fluctuates in relation to its average return of a fund over a period of time.

The following steps are involved in calculating variance or standard deviation of returns of assets or securities using historical returns:

- Calculate the average rate of return using equation

  \[
  \text{Average Return (\bar{R})} = \frac{\sum R}{n}
  \]

- Calculate the deviation of individual rates of return from the average rate of return and square it. i.e.,

  \[(R-\bar{R})^2\]
• Calculate the sum of the squares of the deviations as determined in the preceding step and divide it by the number of periods (or observations) less one to obtain variance

\[ \text{Variance (V)} = \frac{\sum (R - \bar{R})^2}{n} \]

• Calculate the square root of the variance to determine the standard deviation

\[ \text{Standard Deviation (S.D)} = \sqrt{V} \]

2. Beta:

Beta is a measure of the volatility of a particular fund in comparison to the market as a whole, that is, the extent to which the fund's return is impacted by market factors. Beta is calculated using a statistical tool called ‘regression analysis.

By definition, the market benchmark index of Sensex and Nifty has a beta of 1.0.

Let us consider 3 possible scenarios in interpreting beta numbers:

[Sensex is assumed as benchmark index].

1. A beta of 1.0 indicates that the fund NAV will move in same direction as

2. that of benchmark index. The fund will move up and down in tandem with the movement of the markets (as indicated by the benchmark)

3. A beta of less than 1.0 indicates that the fund NAV will be less volatile than the benchmark index.

4. A beta of more than 1.0 indicates that the investment will be more volatile than the benchmark index. It is an aggressive fund that will move up more than the benchmark, but the fall will also be steeper.
The following formula is used to calculate the funds beta value;

\[
\text{Beta (β)} = \frac{n \sum xy - \sum x \sum y}{\sum x^2 - (\sum x)^2}
\]

2. SBI MAGNUM EQUITY FUND

Table 3.3: STANDARD DEVIATION for SBI MAGNUM EQUITY FUND

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Fund Returns (R)</th>
<th>Average return (R)</th>
<th>(R-R ̅)</th>
<th>(R-R ̅)²</th>
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</tbody>
</table>
Q4  -4.965  3.392398  -8.35786  69.85375
2012-13Q1 -1.664  3.392398  -5.05682  25.57138
Q2  -10.42  3.392398  -13.8157  190.8736
Q3  -4.95  3.392398  -8.34213  69.59109
Q4   15.553  3.392398  12.16075  147.8839

\[ \sum R = 67.84795 \quad \sum (R - \bar{R})^2 = 5947.68 \]

\[ \bar{R} = \frac{\sum R}{n} = \frac{67.84795}{20} = 3.392398 \]

\[ \text{VARIANCE} = \frac{\sum (R - \bar{R})^2}{N} = 297.384 \]

\[ \text{STANDARD DEVIATION} = \sqrt{\text{VARIANCE}} = \sqrt{297.384} = 17.24482 \]

Inference:

The Average Return of SBI MAGNUM EQUITY FUND is 3.392398 per quarter and Standard Deviation of this Fund is 17.24482 for 5 years.

Table 3.4: Beta calculation for SBI MAGNUM EQUITY FUND

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Market Returns (x)</th>
<th>Fund Returns (y)</th>
<th>x²</th>
<th>Xy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4</td>
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<td>3.392398</td>
<td>-8.35786</td>
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</table>

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<th>Fund Returns (y)</th>
<th>x²</th>
<th>Xy</th>
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</thead>
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<tr>
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<td>46.3200</td>
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$$\sum X = 23.1019 \quad \sum Y = 67.84795 \quad \sum X^2 = 2278.828 \quad \sum XY = 2321.341$$

$$\beta = \frac{n \sum xy - \sum x \sum y}{n \sum x^2 - (\sum x)^2}$$

$$\beta = \frac{20(2321.341) - (23.1019)(67.84795)}{20(2278.828) - (23.1019)^2}$$

$$\beta = \frac{46426.82 - 1567.417}{45576.56 - 533.6978}$$

$$\beta = \frac{44859.4}{45042.86}$$

$$\beta = 0.995927$$
Inference:

The Beta of SBI MAGNUM EQUITY FUND is less than the Bench Mark i.e., 0.995927<1. The Fund returns are greater than the Bench Mark for Five Years i.e., 1.155095<3.392398.

Sharpe Ratio calculation for SBI MAGNUM EQUITY FUND

\[
\text{Sharpe Ratio} = \frac{\bar{R}_p - R_f}{\sigma_p}
\]

STANDARD DEVIATION \( \sigma_p = 17.24482 \)

FUND AVERAGE RETURN \( \bar{R}_p = 3.392398 \)

RISK FREE RATE OF INVESTMENT \( R_f = 1.6 \)

SHARPE RATIO \( = \frac{\bar{R}_p - R_f}{\sigma_p} = \frac{3.392398 - 1.6}{17.24482} = \frac{1.792398}{17.24482} = 0.103938 \)

Treynor Ratio calculation for SBI MAGNUM EQUITY FUND

\[
\text{Treynor Ratio} = \frac{\bar{R}_p - R_f}{\beta_p}
\]

FUND BETA VALUE \( \beta_p = 0.995927 \)

FUND AVERAGE RETURN \( \bar{R}_p = 3.392398 \)

RISK FREE RATE OF INVESTMENT \( R_f = 1.6 \)

TREYNOR RATIO \( = \frac{\bar{R}_p - R_f}{\beta_p} = \frac{3.392398 - 1.6}{0.995927} = \frac{1.792398}{0.995927} = 1.799728 \)

Inference: The Sharpe ratio and Treynor ratio of SBI MAGNUM EQUITY FUND is 0.103938 and 1.799728.
Conclusion

The tremendous success the fund industry industry enjoy is due to the fact that it has done more than any other financial services industry to offer investors solid products tailored to meet real financial needs, and marketed those products responsibly. But it cannot be ignored that rapid changes and market pressures are challenging. It cannot be afforded to remain “pigeonholed” by outdated thinking or antiquated business practices. If the long term health of the industry investor protection maintained, the record success can be maintained in the future.

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PLATFORM AND LOCAL TRAIN TICKETS IN MOBILE BY USING ANDROID APPLICATION

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INTRODUCTION

Android is a Linux-based operating system designed primarily for touch screen mobile devices such as smart phones and tablet computers. Initially developed by Android, Inc., which Google backed financially and later purchased in 2005, Android was unveiled in 2007 along with the founding of the Open Handset Alliance: a consortium of hardware, software, and telecommunication companies devoted to advancing open standards for mobile devices. The first Android-powered phone was sold in October 2008.

Android is open source and Google releases the code under the Apache License. This open source code and permissive licensing allows the software to be freely modified and distributed by device manufacturers, wireless carriers and enthusiast developers. Additionally, Android has a large community of developers writing applications ("apps") that extend the functionality of devices, written primarily in a customized version of the Java programming language. In October 2012, there were approximately 700,000 apps available for Android, and the estimated number of applications downloaded from Google Play, Android's primary app store, was 25 billion.

Android application package file (.apk) is the file format used to distribute and install application software and middleware onto Google's android operating system.
ANDROID

Operating Systems have developed a lot in last 15 years. Starting from black and white phones to recent smart phones or mini computers, mobile OS has come far away. Especially for smart phones, Mobile OS has greatly evolved from Palm OS in 1996 to Windows pocket PC in 2000 then to Blackberry OS and Android.

One of the most widely used mobile OS these days is ANDROID. Android is a software bunch comprising not only operating system but also middleware and key applications. Android Inc was founded in Palo Alto of California, U.S. by Andy Rubin, Rich miner, Nick sears and Chris White in 2003. Later Android Inc. was acquired by Google in 2005. After original release there have been number of updates in the original version of Android.

I. THE FEATURES OF ANDROID

- Open source to explore and free for users to download
- Complete community support
- Wide media support
- Embedded web kit engine and
- High class developed environment.

II. SCOPE OF ANDROID APPLICATION

The Android has explored the future possibilities of mobile applications. By the use of API libraries and application connection the hardware is accessible with controlled manner. The Android has been gone ahead to iPhone in year 2012. The Android application is now
been used by many mobile phone and in future it will take over all other applications.

III. RELATED APPLICATION

There are some other android applications which are being used for Railways and these applications retrieves data with means of internet.

✓ PNR and Indian Rail Enquiry

Are you worried about constantly tracking your ticket details? Make use of this easy to use app by keying in the 10 digit pnr number to get the current status of your booked ticket. Offering a simple interface to the user, this app allows checking seat availability, fare enquiry, arrivals/departures and more. If you are one of those who need to frequently travel to and fro between two stations, this app also offers the ease of creating a favourite train list to make tracking even simpler.

✓ Indian rail info

Offering all information on the go, this app allows the traveller’s to check seat availability, status between major stations, pnr status, train running information, fare enquiry, finding new train numbers and the arrival/departure status of trains. With so many facilities encapsulated under its hood, this is a much wanted app for Indian railway commuters.

✓ Indian Railway Train Alarm

An application to make life simpler. This app turns on a buzz on your phone that alerts you of the train running status and also checks your pnr status and notifies you on your ticket confirmation. Moreover, users can even download train schedules for further reference.
✓ **IRCTC Mobile app**

Enjoy the convenience of IRCTC on your mobile. This app allows you to book both general and tatkal tickets from your phone. You can also check the pnr status of your booked ticket without even logging in.

✓ **m-Indicator**

Well, this application is solely for Mumbai people. Mumbai trains are truly the lifeline of the city and this app helps you have all your city travel information at your disposal. Check Mumbai train timetables, BEST route information, auto and taxi fares, picnic spots near Mumbai, Sunday railway mega blocks information, and current movie shows – all without GPRS.

**IV. OVERVIEW OF OUR APPLICATION**

According the Passengers Convenience, we mobilize the platform and local train tickets as mobile applications. That is we are getting the tickets in the form of text messages. In proposed system we have to take tickets in mobile that doesn’t need for the internet connections. The important feature is that we pay the ticket fare by means of service provider such as bsnl, airtel so on. That is we didn’t need to pay Railway authority directly, instead the service provider will pay to their transactions as spot or daily basis. This system will also give profit and attractive features to the Service Provider.

In the mobilized world, Instead of standing in along queue, we are taking tickets in mobile phones that reduce the time of people. The proposed mobile application is suitable for all kinds of handsets which is user friendly for the user. For the minimum of taking platform tickets we don’t want to give credit card details and secure pin and all. This may cause security issues. To avoid this we are going for a mobile application which doesn’t needs for secure details.
In this mobile application we are registering user by providing details. We can also many users for one mobile application to use the application. The proposed system will also have security login to use the application. The user applications are stored in client side process. And the request is sent to the service provider to take tickets. The service providers will first checks for the main balance has sufficient money to take ticket. If it satisfies it moves further to take tickets.

**Functional Diagram and Description**

![Functional Diagram](image)

**Fig.1. Functional Diagram**

Our android application which gets installed in the mobile phones first asks for the registration of the user that gathers user details with user id and password which is stored only in the application memory. After gets logged in the mobile application that uses to take platform and local train tickets. We have the user interface menus for platform and local train ticket. Click any one that we need and go through the options. If there is a main balance amount in the mobile phones it process further otherwise it return back the message that you are not having enough balance to use this options.
Service provider which gets the request from the user as parameters and process it by sending to the railway authority. Railway authority sends back tickets details according to the request of the user. And the payment must be done on daily basis or else to the favors of railways.

V. BENEFITS OF USING THIS APPLICATION

Our platform and local train ticket application that reduces queue in the railway station ticket counters. It also helps to keep the ticket in mobile as a single message that is which can't be lost. This application will also be an attractive feature for the service provider. It may also a reliable one to have tickets in mobile as a text messages.

The ticket must be in the form of text message in the mobile phones. Ticket in the text message contains the details about the ticket such as, our Reference Id, Ticket id, date, fare and the time of the ticket taken. If it's a platform ticket it may contain additional details about the validation time of the ticket. This will avoid false tickets.

VI. SUGGESTION & CONCLUSION

Hence this project recognizes the idea for taking platform or local train tickets in android mobile phones without internet connection. And also this project will help people to get their platform and local tickets in a single message. It also provides inter-connections between the mobile phones service provider and railways. And this android application reduces the pardon for both people and railways.

This system improves efficiency for the public who all are using local trains and to do tickets by standing a long queue. And this system doesn't need to use of credit or debit card transactions for paying bills for tickets. So it will be the system that reduces the time and also provides secure transactions of tickets.
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5. Ticket vending machine-South western Railways


7. Smart card details for platform tickets

1. INTRODUCTION

Rural entrepreneurship is now-a-days a major opportunity for the people who migrate from rural areas or semi-urban areas to urban areas. India is the second most populous country in the world and has about 73% of its population in villages. But, in recent years, the percentage of population migrating to urban areas has increased considerably. Various social, economic, political and ecological problems in rural areas in developing countries like India create challenges in employment and cause increasing migration towards cities, decreasing agricultural production and increasing food shortage.

The rural population constitutes a major segment in India. The livelihood strategies of this vast segment depend primarily on agriculture and allied activities. Growth in this agricultural sector has shown a declining trend during the last one decade. This has made a huge impact on the domestic production, employment, etc. These problems can be tackled, to a certain extent, by developing entrepreneurial skills in Rural India.

Entrepreneurs are playing a very important role in the development of the economy. They face various problems in running their business. As the thorns form an integral part of roses, similarly every flourishing business has its own set of problems. Some of the major problems faced by rural entrepreneurs are:

(i) Financial Problems (Paucity of Funds, Lack of Infrastructural Facilities, less risk bearing capacity)

(ii) Marketing Problems (competition from large scale organizations, intermediaries etc.)
(iii) Management Problems (Lack of Knowledge of I.T, insufficient information on Legal Formalities, Lack of Technical Knowledge)

(iv) Human Resources Problems (Lack of skilled Workers, Negative Attitude of employees towards work etc.,)

The majority of rural entrepreneurs are facing several problems due to lack of basic amenities in rural areas like, lack of education, financial problems, marketing hurdles, Management and human resource problems, insufficient technical and conceptual ability etc. discourage rural entrepreneurs to establish industries in the rural areas. The present study focuses on the major problems facing rural entrepreneurs. Special focus has been on technological problems (facilities for repairs of machinery, lack of technical know-how, non availability of technology in time, obsolete technology, technology gap between different Institutions and entrepreneurs, lack of specialized training to entrepreneurs and non availability of improved technology), Institutional Problems (lack of Govt. support and incentives, long and complicated procedures to avail Institutional help, lack of cooperation and coordination among different development agencies like eg. poor working of various industrial agencies such as DICs, SISIs, lack of training to workers, insufficient publicity for imparting training, training institutes give less attention to objectives, identification and proper selection of entrepreneur, trainers do not belong to relevant field, lack of communication between field Functionaries and entrepreneurs), Financial problems (lack of sufficient working capital, problems in procuring financial loans from different agencies, inadequate amount advanced through financing agencies, lack of funds for publicity and advertisement of the product, high rate of interest, difficulty in recovering receivables, problem of collaterals, high transaction cost) and lack of other basic amenities, i.e. availability of electricity, water supply, transport facilities and energy requirements etc.

2. RESEARCH METHODOLOGY

2.1 Statement of Problem:

India lives in its villages, nearly 73 % of the total population live in rural areas where agriculture and allied activities are the main stay of their
lives. The economic development of our country largely depends on the development of rural areas and the standard of living of its rural mass.

Rural entrepreneur is one of the most important inputs in the economic development of a country and of regions within the country. Rural entrepreneur uses the scarce resources in the most efficient manner thereby increasing profits and decreasing costs.

Due to lack of education, majority of rural people are unaware of technological development, marketing etc. Shortage of finance and raw materials are main problems face by rural enterprises. Most of the rural enterprises face peculiar problems like illiteracy, fear of risk, lack of training and experience, limited purchasing power and competition from urban entrepreneurs.

Promotion of rural entrepreneurship is a key to develop rural areas and backward towns. The phenomenon of entrepreneurship is comparatively new. The studies done of rural entrepreneurship in taking into consideration the cultural and the characteristics of rural enterprises. Problems and prospects or rural enterprises for the present study is an entrepreneur who has managed to procure capital to set up a small enterprise and is actively involved in running and managing the enterprise in all function all areas of management and earns a livelihood for him/herself and him/her family from the enterprise and belongs to low income group. Keeping in this view the researcher have specially touched upon the problems and prospects or rural enterprises with an empirical analysis.

2.2 Review of Literature:

Timmons, J.A., (1987)^20, Mali D.D., (1988)^11, Rastogi Shashi Ranjan, (1989)^14, and Kondaiah C., (1990)^9 highlighted the cultural and psychological factors influencing the entrepreneurship in rural areas. It is mentioned that most people in rural areas are engaged in the traditional occupations which are land-based and, therefore, had developed an orientation to think of their occupational life in term of interaction with land and whatever it can produce. Therefore, gradually an attempt has to be made to diversify large sections of the rural people who are guided by traditional culture in their occupational
choices to occupations in the non-traditional areas like small scale, cottage and household industries, etc.

Petrin (1994)\(^\text{13}\) in another article concluded that rural development is now being largely linked to entrepreneurship. It acts as a vehicle to improve the quality of life for individuals, families and communities in order to sustain a healthy economy and environment.

Ghosh Bishwanath, (1998)\(^\text{6}\), Khanka, S.S.,(1999)\(^\text{10}\) and Sarwade et al., (2000)\(^\text{15}\) found that the rural entrepreneurs started their enterprises as a part time activity in small villages while it is a main business in the large villages. The fathers of the most rural entrepreneurs were businessmen and they are engaged in the same line of business or allied line of business. Majority of the rural entrepreneurs purchase their materials once in a month. The major problem of the rural entrepreneur is credit sale because the demand characteristics for a product are closely connected with agricultural income.

Ashokan,( 2004)\(^\text{1}\), B.C Mitchell, (2004)\(^\text{3}\), Jayanta Kr. Gopal, (2004)\(^\text{6}\), Prabha Devi,(2005)\(^\text{5}\), stated that rurality defines a territorially specific entrepreneurial milieu with distinct physical, social and economic characteristics. Location, natural resources and the landscape, social capital, rural governance, business and social networks, as well as information and communication technologies, exert dynamic and complex influences on entrepreneurial activity in rural areas.

Sherief, (2005)\(^\text{16}\) Sukhjeet Kaur, Saini and Gill, (2006)\(^\text{17}\), Timothy G. Habbershon, (2007)\(^\text{21}\), Ganapathi and S. Sannasi, (2008)\(^\text{7}\) attempted to understand the determinants of rural entrepreneurship and the environment conducive to its development. Their study concluded that to accelerate economic development in rural areas, it is necessary to promote entrepreneurship.

Choudhary K. (2009) 4 , Anjali Ghosh, (2011) 2 , Dr.Kalpana P. Nandanwar ( 2011)\(^\text{12}\), and Venkatesh Babu, (2012)\(^\text{22}\) opinioned that rural entrepreneurship should not only set up enterprises in rural areas but should be also using rural produce as raw material and employing rural people in their production processes. Rural entrepreneurship is, in essence, that entrepreneurship which ensures value addition to rural resources in rural
areas engaging largely rural human resources. In other words, this means that finished products are produced in rural areas out of resources obtained in rural areas by largely rural people.

According to Satya pal (2013) and Sudipta Ghosh (2013) Rural entrepreneurship should not only set up enterprises in rural areas but should also be using rural produce as raw material and employing rural people in their production processes. Rural entrepreneurship is, in essence, that entrepreneurship which ensures value addition to rural resources in rural areas engaging largely rural human resources.

2.3 Research Gap:

Survey of the existing literature indicates that so far no specific study has been carried on to examine the problems and prospects of rural industrial entrepreneurs in Visakhapatnam District. Nor has any previous research examined the perception of rural industrial entrepreneur’s. The present study is an attempt in this direction and therefore, aims to enrich the problems and prospects of rural entrepreneurs in Visakhapatnam District. Further, the study is intended to employ different sophisticated statistical techniques, before qualifying any aspects of analysis for wider acceptability and appreciation. The present study is a humble attempt in this regard.

2.4 Objectives of the Study:

The chief purpose of the study is to identify the problems encountered by rural enterprises and to suggest such measures as would solve them. The detailed objectives to the study are as follows:

1. To enquire into the socio-economic background of rural entrepreneurs in Visakhapatnam District

2. To examine the problems of rural enterprises related to technological, institutional and financial problems in Visakhapatnam District

3. To give appropriate prospects to overcome the problems of rural enterprises in Visakhapatnam District.

2.5 Methodology of the Study
In order to accomplish the objectives, the present study is mainly based on both primary and secondary sources of information.

The primary data has been collected mainly from extensive field survey of the sample units. To obtain primary information, personal interview has been conducted through well designed questionnaires especially prepared in view of the objectives of the study.

The secondary data is mainly congregated from published and unpublished works on the related topics. Census reports, economic surveys, journals, news papers were major source for secondary information. Moreover, web resources also an important source of secondary information.

2.6 Sampling of the Study & Statistical Tools:

The sample selected for the study was a total of 242 respondents' comprise of 37 respondents from Manufacturing units, 39 respondents from Trading, units, 38 respondents from Processing units, 36 respondents from Services units, 38 respondents from Retail units, 39 respondents from Agricultural sector, 8 respondents from Construction industry and 7 respondents from Miscellaneous industrial units were taken for the present study. Initially the questionnaire used for the personal interviews focuses on biographical data of the respondent’s, such as gender, age group, line of business activity, marital status, level of education, monthly income and Entrepreneurial experience.

The subsequent analysis focused on problems and prospectus of rural entrepreneurs. Convenient sampling method is employed. Statistical analyses were performed by using Percentage method, Weighted Mean, Standard Deviation and Z score test analysis. SPSS version 17 was used to analyses the data.

3. PROFILE OF STUDY AREA

Visakhapatnam District is one of the North Eastren Coastal districts of Andhra Pradesh. It is the central hub for industry and education in the state of Andhra Pradesh. The district is famous for its natural harbour, Ship building unit, Steel plant, Oil refineries, Dolphin's Nose Hills, and Ramakrishna beach. Rushikonda beach. It is industrial city in Andhra

It had population of 4,288,113 of which male and female were 21,40,872 and 21,47,241 respectively. In 2001 census, Visakhapatnam had a population of 3,832,336 of which males were 1,930,197 and remaining 1,902,139 were females. Visakhapatnam District population constituted 5.07 percent of total Andhra Pradesh population. In 2001 census, this figure for Visakhapatnam District was at 5.03 percent of Andhra Pradesh population.

There was change of 11.96 percent in the population compared to population as per 2001. In the previous census of India 2001, Visakhapatnam District recorded increase of 16.66 percent to its population compared to 1991. The initial provisional data released by census India 2011, shows that density of Visakhapatnam district for 2011 is 384 people per sq. km. In 2001, Visakhapatnam district density was at 343 people per sq. km. Visakhapatnam district administers 11,161 square kilometers of areas.

Out of the total Visakhapatnam population for 2011 census, 47.45 percent lives in urban regions of district. In total 20,37,458 people lives in urban areas of which males are 10,27,235 and females are 10,10,223. As per 2011 census, 52.49 % population of Visakhapatnam districts lives in rural areas of villages. The total Visakhapatnam district population living in rural areas is 22,50,655 of which males and females are 11,13,637 and 11,37,018 respectively.

4. DATA ANALYSIS AND INTERPRETATION
4.1: Demographic characteristics of the respondent’s:
In order to provide a precise picture of the profile of the respondent’s selected for the study, six parameters were selected and analyzed. This includes Gender, age, line of business activity, marital status, educational background, monthly income and Entrepreneurial experience. Table 4.1 gives an overview of demographic profile of the respondents.

It is evident from the table 4.1, out of the total, 90.08 per cent are male and 9.92 per cent are female. 26.44 per cent of the respondents are in the age group of 35-45 years and 21.9 per cent belong to the age group of 25-35 years, 20.66 per cent of respondents are below 25 years age group and a smaller percentage i.e. 12.4 per cent of total respondents are above 55 years.

Besides, majority (64.88 per cent) of respondents is married and more than 80 per cent of the respondents are well educated and have either graduation or post graduation as their educational qualification.

### TABLE 4.1

<table>
<thead>
<tr>
<th>Personal Characteristics</th>
<th>Frequency</th>
<th>%</th>
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<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>218</td>
<td>90.08</td>
</tr>
<tr>
<td>Female</td>
<td>24</td>
<td>9.92</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>242</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 25</td>
<td>50</td>
<td>20.66</td>
</tr>
<tr>
<td>25-35</td>
<td>53</td>
<td>21.9</td>
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<tr>
<td>35-45</td>
<td>64</td>
<td>26.44</td>
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<tr>
<td>45-55</td>
<td>45</td>
<td>18.6</td>
</tr>
<tr>
<td>Above 55</td>
<td>30</td>
<td>12.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>242</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td>Line of Business Activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>37</td>
<td>15.29</td>
</tr>
<tr>
<td>Trading</td>
<td>39</td>
<td>16.12</td>
</tr>
<tr>
<td>Processing</td>
<td>38</td>
<td>15.7</td>
</tr>
<tr>
<td>Services</td>
<td>36</td>
<td>14.88</td>
</tr>
<tr>
<td>Retail</td>
<td>38</td>
<td>15.7</td>
</tr>
<tr>
<td>Agricultural</td>
<td>39</td>
<td>16.12</td>
</tr>
<tr>
<td>Construction</td>
<td>8</td>
<td>3.31</td>
</tr>
<tr>
<td>Any other</td>
<td>7</td>
<td>2.88</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>242</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td>Marital Status</td>
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<tr>
<td>Married</td>
<td>157</td>
<td>64.88</td>
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<tr>
<td>Single</td>
<td>68</td>
<td>28.10</td>
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<tr>
<td>Divorced</td>
<td>17</td>
<td>7.02</td>
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</tbody>
</table>
It is observed that majority (41.32 per cent) of rural entrepreneurs income is between Rs 10,000-Rs.20,000 and more than 20 per cent entrepreneurs income is between Rs 20,000-Rs.30,000 followed by 14.47 per cent of total respondents income is above Rs 30,000. Out of the total, majority (37.19 per cent) of rural entrepreneurs have an experience of 6 - 10 years and 24.79 per cent have 0-5 years experience, 18.18 per cent have 11 - 15 years experience, 13.22 per cent have 16 to 20 years experience and 6.62 per cent of have more than 20 years of experience.

The sample entrepreneurs include micro, small, medium and large industrial entrepreneurs. out of which, both trading and agriculture accounts 16.12 per cent each, Manufacturing 15.7 per cent, processing and retail 15.70 per cent each, services 14.88 per cent, construction 3.31 per cent and the remaining 2.88 per cent that includes other line of business activities.
Thus, the sample respondents are predominantly male, well educated, married, young or middle aged. Most of the respondents had around 6-10 years of experience. The majority of the entrepreneur’s line of business activity included trading and agriculture with experience predominantly 6-10 years. Most of the rural entrepreneurs do not belong to high income category.

4.2 Sources of capital rose for starting the business

Table 4.2 focuses on the sources of capital raised for starting the business, and the results reveal that majority of 29.75 per cent entrepreneurs raised their capital in the form of loans from financial institutions, 27.27 per cent entrepreneurs raised their own capital, 22.73 per cent entrepreneurs gathered their capital by selling their properties. However, the proportion of entrepreneurs who raised capital in the form of loans from friends and relatives is 16.12 per cent and 4.13 per cent from other sources.

It can be inferred from the above analysis that there is a dire need for the government to take initiatives in promoting rural entrepreneurship by providing easy access to loans from financial institutions. This action of government develops rural entrepreneurship which in turn leads to economic development of the nation as a whole.

**TABLE 4.2**

<table>
<thead>
<tr>
<th>Sources of Capital</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own Capital</td>
<td>66</td>
<td>27.27</td>
</tr>
<tr>
<td>Loans from Financial Institutions</td>
<td>72</td>
<td>29.75</td>
</tr>
<tr>
<td>Sale of properties</td>
<td>55</td>
<td>22.73</td>
</tr>
<tr>
<td>Loans from friends and relatives</td>
<td>39</td>
<td>16.12</td>
</tr>
<tr>
<td>Any other (Specify)</td>
<td>10</td>
<td>4.13</td>
</tr>
<tr>
<td>Total</td>
<td>242</td>
<td>100</td>
</tr>
</tbody>
</table>

Sources: Primary data

4.3 Technological Problems encountered by entrepreneurs:
The seriousness of the problems encountered by rural entrepreneurs was measured on a four point continuum rating scale ranging from very serious, serious and not so serious and a weightage of 4, 3, 2, 1 were assigned, respectively. Based on the responses obtained from entrepreneurs a total choice score for each problem was worked out and this total score was converted into weighted mean score. Finally, ‘Z’ score was worked out to assess the degree of seriousness of these problems and rank orders were given based on the ‘Z’ values.

A problem was considered highly serious with ‘Z’ score values of more than 1.5, serious with ‘Z’ score values 1 to 1.5, not highly serious with ‘Z’ score values 1 to -1 and not serious with ‘Z’ score values less than -1.

A study of the Table 4.3 revealed the technological gap among entrepreneurs was found to be highly serious technical problem encountered by rural entrepreneurs as their ‘Z’ score is 1.71. Perhaps, this technological gap is due to poor functioning of field functionaries, lack of means of communication, insufficient funds to use latest technology, and lack of specialized skills to use innovations in their units.

Therefore, it is needed to strengthen the field functionaries, making their receiving system more adaptive for communicating the technical know-how to the users, specially, for the export oriented units for their sustainability. Providing latest technology can improve the quality and help in getting higher price to the products. Therefore, it is necessary for one to keep himself abreast with latest technical know-how to survive in the competitive market and to decrease the cost of production and earn higher profit. The technology should be so simple that small-scale entrepreneurs can use it at their units.

The Table 4.3 further reveals that lack of specialized skill to the entrepreneurs, non-availability of improved technology, outdated technology, non-availability of technology in time were perceived as serious technological problems faced by entrepreneurs as their ‘Z’ scores are 1 to 1.5. These findings predicted that untrained workers and unskilled entrepreneurs in Visakhapatnam district cannot use the available technologies effectively and if
they were trained and induced skill into them, the outdated technology can create bottlenecks for economic growth of the units.

Latest technology is of no use if it is not communicated to the entrepreneurs in time. The transfer of improved technology can be done through a network of institutions concerned with entrepreneurship development programme. Hence, diffusion of technology in time to the skilled entrepreneurs can play a vital role. The study also revealed that facilities for maintenance and repair of the machinery, lack of technical know-how are not considered as not serious as their ‘Z’ scores are less than -1

**TABLE 4.3**

Technological Problems Encountered By Rural Entrepreneurs

<table>
<thead>
<tr>
<th>Nature of Technological Problem</th>
<th>Mean</th>
<th>S.D</th>
<th>Z-score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities for repairs of machinery</td>
<td>2.31</td>
<td>0.84</td>
<td>-1.56</td>
</tr>
<tr>
<td>Lack of technical know-how</td>
<td>2.38</td>
<td>0.87</td>
<td>-1.59</td>
</tr>
<tr>
<td>Non availability of technology in time</td>
<td>2.39</td>
<td>1.16</td>
<td>1.20</td>
</tr>
<tr>
<td>Outdated technology</td>
<td>2.44</td>
<td>1.18</td>
<td>1.22</td>
</tr>
<tr>
<td>Technology gap between different institutions &amp;</td>
<td>2.65</td>
<td>0.96</td>
<td>1.71</td>
</tr>
<tr>
<td>entrepreneurs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of specialized skills to entrepreneurs</td>
<td>2.32</td>
<td>1.04</td>
<td>1.27</td>
</tr>
<tr>
<td>Non availability of improved technology</td>
<td>2.48</td>
<td>1.11</td>
<td>1.33</td>
</tr>
</tbody>
</table>

**4.4 Institutional Problems encountered by entrepreneurs:**

A perusal of the Table 4.4 shows that lack of cooperation and coordination among different developmental agencies and poor working of various institutions related to entrepreneurship such as DICs, SISIs etc., are highly serious technological problems encountered by rural entrepreneurs as their ‘Z’ scores are more than 1.5.

Lack of Govt. support and incentives, long and complicated procedures to avail institutional help, lack of training to workers, insufficient publicity for imparting the training, training institute give less attention to the objectives, identification and selection of entrepreneurs, and trainers do not belong to the
relevant field thus lacking competence were encountered as serious institutional problems by rural entrepreneurs as their ‘Z’ scores are 1 to 1.5.

These findings indicate that Government agencies in rural areas are not providing sufficient support and incentives regarding finance, management, marketing and exports related to entrepreneurs which badly affects the economic viability of their units, further if there are provisions for support and incentives then the procedures are so complicated and time consuming, and ultimately entrepreneurs fail to avail these facilities. Again, not much of more publicity is given about organizing the entrepreneurial training programmes and entrepreneurs remain unaware about the scheduling of these training programmes organized by different institutes.

**TABLE 4.4**

Institutional Problems encountered by Rural Entrepreneurs

<table>
<thead>
<tr>
<th>Factors</th>
<th>Mean Score</th>
<th>S.D</th>
<th>Z-Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of Govt. support and incentives</td>
<td>2.60</td>
<td>1.25</td>
<td>1.28</td>
</tr>
<tr>
<td>Long and complicated procedures to avail Institutional help</td>
<td>2.36</td>
<td>0.99</td>
<td>1.38</td>
</tr>
<tr>
<td>Lack of cooperation and coordination Among different development agencies</td>
<td>2.64</td>
<td>0.97</td>
<td>1.69</td>
</tr>
<tr>
<td>Poor working of various industrial Agencies such as DICs, SISIs etc.</td>
<td>2.38</td>
<td>0.87</td>
<td>1.59</td>
</tr>
<tr>
<td>Lack of training to workers</td>
<td>2.46</td>
<td>1.43</td>
<td>1.02</td>
</tr>
<tr>
<td>Insufficient publicity for imparting training</td>
<td>2.49</td>
<td>1.03</td>
<td>1.44</td>
</tr>
<tr>
<td>Training institutes give less attention to Objectives, identification and proper selection of entrepreneur</td>
<td>2.64</td>
<td>1.27</td>
<td>1.29</td>
</tr>
<tr>
<td>Trainers do not belong to relevant field</td>
<td>2.77</td>
<td>1.43</td>
<td>1.24</td>
</tr>
<tr>
<td>Lack of communication between field Functionaries and entrepreneurs</td>
<td>2.57</td>
<td>1.07</td>
<td>1.47</td>
</tr>
</tbody>
</table>

It was also found that most of the training institutes are not concerned about the objective identification, selection of entrepreneurs and they only fulfill their formalities for training. Hence, before imparting training, the objectives, contents etc., should be highlighted to the participants and suitable rural entrepreneurs should be selected for the trainings after reviewing their project and objectives properly. It was also reported that resource persons for
imparting the training must be experienced and must have enough orientation to entrepreneurship development programmes.

4.5 Financial Problems encountered by entrepreneurs:

It is evident from the Table 4.5 that there is a problem in procuring finance as well as working capital from different agencies and lack of sufficient working capital constituted the entrepreneurs highly serious financial problems as their ‘Z’ scores are more than 1.5. whereas, inadequate amounts advanced through financial institutions, lack of funds for publicity and advertisement of the products, high rate of interest on procured finance, large security requirement and high transaction cost were found as serious financial problems perceived by rural entrepreneurs as their ‘Z’ scores are 1 to 1.5. Difficulty in getting money from buyers after sales was found as not so serious as their ‘Z’ scores are less than -1.

**TABLE 4.5**

Financial Problems encountered by Rural Entrepreneurs

<table>
<thead>
<tr>
<th>Factors</th>
<th>Mean Score</th>
<th>S.D</th>
<th>Z-Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of sufficient working capital</td>
<td>2.66</td>
<td>0.98</td>
<td>1.69</td>
</tr>
<tr>
<td>Problems in procuring financial loans from different agencies</td>
<td>2.62</td>
<td>0.97</td>
<td>1.67</td>
</tr>
<tr>
<td>Inadequate amount advanced through financing agencies</td>
<td>2.67</td>
<td>1.39</td>
<td>1.20</td>
</tr>
<tr>
<td>Lack of funds for publicity and advertisement of the product</td>
<td>2.25</td>
<td>0.87</td>
<td>1.40</td>
</tr>
<tr>
<td>High rate of interest</td>
<td>2.67</td>
<td>1.19</td>
<td>1.40</td>
</tr>
<tr>
<td>Difficulty in getting money from buyers after sales</td>
<td>2.96</td>
<td>1.10</td>
<td>-1.78</td>
</tr>
<tr>
<td>Large security requirement</td>
<td>2.44</td>
<td>1.01</td>
<td>1.42</td>
</tr>
<tr>
<td>High transaction cost</td>
<td>2.88</td>
<td>1.29</td>
<td>1.46</td>
</tr>
</tbody>
</table>

The researcher found that many of rural entrepreneurs were failing in getting the required assistance from different financial institutes because of their cumbersome procedures. On the other hand, entrepreneurs do not have sufficient capital, for day-to-day requirement in order to purchase raw material, transportation and communication liabilities. Further, if loan is
sanctioned then amount is too low to meet the necessary requirements and therefore, entrepreneurs have to take the money from the moneylender and private financial agencies on a high rate of interest and hence cost of production is increased. Due to lack of sufficient finances, they cannot adopt advertisement strategy for the product and so cannot increase their sales turn over. Some guarantees have also to be given for drawing the credit facilities, which is not possible for small entrepreneurs.

NABRD (National Agricultural Bank for Rural Development), a national bank was set up in 1982 to provide credit facilities for promotion of small cottage and rural industries. Also to meet the financial requirement of entrepreneurs, a separate bank SIDBI was also been set up whose main function is to provide refinance to the different financial network institutes such as State Financial Corporation’s (SFCs), National Small Industries Corporation (NSIC), State Small Industries Corporation (SSICs), commercial bank etc. There is a need to strengthen the network of these financial institutions to provide the credit facilities in time and in sufficient amount without any delay to the entrepreneurs.

5. CONCLUSION

Rural entrepreneur is a key figure in the economic progress of India. Rural entrepreneurship can be instrumental in converting a developing country into developed nation. Rural entrepreneurship is the answer to removal of rural poverty in India. Therefore, there should be more stress on integrated rural development programs. The problem being that most of the rural youth do not think of entrepreneurship as a career option. Therefore, the rural youth need to be motivated to take up entrepreneurship as a career, with training and sustaining support systems providing all necessary assistance. There should be an efficient regulated market and government should also lend its helping hand in this context. Grading and standardization should be promoted and promotional activities should be enhanced. NGO’s should be provided full support by government.

In order to make entrepreneurship development more effective during the next century it is imperative to revamp the existing setup. There is a need to change the thinking. As it is axiomatically said, everything has changed but
our thinking. Unless this change takes place, it will be difficult to pave way for creation of entrepreneurs to take on tomorrow. New means of communication and information should be adopted for the same. Time has come to review the entire gamut of entrepreneurship development in the light of globalization and the new economic policy. Entrepreneurship development should be an integral part of school education at plus-two level: the idea is to catch them young. The challenges now facing business and society are monumental as industries transform themselves or become obsolete. More than any other development in this century, information technology is providing fuel for the fire of innovation and changing the world. It is entrepreneurialism that takes this fuel and breathes new life into the fire.

The present study will help the planners and the decision makers who are involved in the development of rural entrepreneurship to review the existing policies and to make suitable suggestions to amend the provisions of the Act which governs rural entrepreneurship. The multifaceted problems of rural entrepreneurs should be dealt with by coordinating the efforts of the Government, supporting agencies and the rural entrepreneurs to scale new heights in future.

References

THE RELATIONSHIP BETWEEN SKILL AND FITNESS OF URBAN SOCCER PLAYERS OF WEST BENGAL

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INTRODUCTION

Soccer, commonly known as football is the most popular game of world. The game was originated in Europe by British people. The game soccer is played extensively in every country of the world. It is a game that is played at present day over 208 nations. Performance of this game depends on many factors which can be categorized in certain groups, such as fitness, technique, tactics, body structure, environment condition, including ground equipment and material readiness of the player. Some of the factors are controllable through well planned and organized training other is not controllable. Among different group influencing factors, fitness is one of the basic elements which influence performance of the game to a great extent. But the fitness is an ambiguous term including different meaning for different persons. In game and sports fitness indicates the ability to do some physical work. At present physical fitness is better understood as health related fitness and performance related fitness. Health related fitness may be defined as that state of wellbeing in which every individual would seek protection against disease, tackle problems of being obese (over weight), manage muscle and joint disorders, strive to mentally balanced, and socially well-adjusted. Health related fitness is the ability of an individual to maintain a good health and to perform day to day activities and to meet emergency situation without much difficulties. In modern competitive sports specifically football played by professional, the demand of the physical fitness status and skill is very high. A
Football player with minimum fitness level and poor skill will be deemed unsuitable to struggle in competitive games. In modern football game with ball and also without ball and to be performed during game. This is only possible when individual is very much physically fit and skillful. Skill is small part of total but fitness is not a small part but also total body ability. Skills is the basic factors for achieving excellence in performance.

Human being participates in some kind of physical exercise during the course of his life. Football is such a type of vigorous exercise. This exercise may assume different forms for different individual. In the field of sports a growing interest has been observed not only for excellence but also for fitness and good health. Regular Participation In Football Programme markedly influence physical, physiological and mental fitness of an individual various new skills are developing for the improvement of fitness specific to the sports and general health and well-being.

In West Bengal most of the football player came from Rural area but some player came from urban area also. The researcher was a physical education student and also a footballer.

In his personal experience, the researcher saw that there was a Relationship in performance related fitness and football skill of Urban footballers of West Bengal. So the researcher was interested to find out the relationship of performance related fitness and football skill of Urban footballers of West Bengal.

**PURPOSE OF THE STUDY**

a) To observe the relation between Performance Related Fitness and Football Skill of Urban footballers.
METHODOLOGY

THE SUBJECT

29 Urban footballers was selected randomly as the subject of this present study. The footballers were taken as a subject from 2 districts, Nadia and South 24 pgs. The subjects are Calcutta 1st division football players. The ages of the subjects were 18-26 years.

CRITERION MEASURE

Performance Related Physical Fitness parameters likes, Speed was tested by 50 m Dash, Explosive Power of Leg by Standing Board Jump, Agility was tested by 4×10 meter Shuttle Run, Reaction Time tested using Stork Stand Test.

Football Skill Performance parameters like Kicking for Distance with Strong foot, Throw-ins for Distance in Meter, Dribbling for Time, Shooting for Accuracy, Juggling for control and Coordination all these factors were the Measuring Criteria for the present study.

DESIGN OF THE STUDY

For conducting test 29 Urban footballers were selected randomly for the present study from South 24 Pgs and Nadia district. In the present study the subjects were gone through Performance Related Physical Fitness Test & Football Skill Test. The tests were conducted in conservative two days first day for Skill Test and second day for Fitness Test.

LEVEL OF SIGNIFICANCE

Considering, the nature of the study the Level of Significance was chosen at 0.05. This was used for testing the Co-efficient of Correlation between the parameters.
RESULT AND DISCUSSION

PRESENTATION OF THE DATA

The Data for different parameter and their Statistical Analysis have been presented in following section

Personal Data: The Personal Data of the subjects mainly Age, Height, Weight –their mean & S.D have been presented in table-1.

Table-1: Personal Data of Urban Footballers

<table>
<thead>
<tr>
<th>Variables</th>
<th>Age (yrs.)</th>
<th>Height (cm)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban footballers</td>
<td>Mean</td>
<td>21.93</td>
<td>165.24</td>
</tr>
<tr>
<td>(29)</td>
<td>S.D</td>
<td>2.99</td>
<td>2.69</td>
</tr>
</tbody>
</table>

From Table-1 the data presented in this table reveals that the mean Age was 21.93 years for Urban footballers. The mean Height of Urban group is 165.24. The mean Weight Urban footballers group is 59.34.

The co-efficient of correlation between Football Skill and Performance Related Fitness parameters of Urban group

Co-efficient of correlation between Football Skill and Performance Related Physical Fitness parameters of Urban group have been presented in Table no-2

<table>
<thead>
<tr>
<th>Character for Distance</th>
<th>50 m Dash</th>
<th>Sbj</th>
<th>Shuttle Run</th>
<th>React. Time</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kicking</td>
<td>-.173</td>
<td>.020</td>
<td>.100</td>
<td>-.114</td>
<td>-.185</td>
</tr>
<tr>
<td>Throw-ins</td>
<td>-.016</td>
<td>.277</td>
<td>-.175</td>
<td>-.149</td>
<td>-.001</td>
</tr>
</tbody>
</table>
Table-2 Co-efficient of Correlation between Football Skill and Performance Related Physical Fitness parameters of Urban group

* Correlation is significant at the 0.05 level and
**Correlation is significant at the 0.01 level

<table>
<thead>
<tr>
<th>Skill</th>
<th>Correlation Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dribbling for Time</td>
<td>.002</td>
</tr>
<tr>
<td>Shooting for Accuracy</td>
<td>.243</td>
</tr>
<tr>
<td>Juggling for Control and Coordination</td>
<td>-.026 **</td>
</tr>
</tbody>
</table>

From the Table -2 it is observed that the co-efficient of correlation between **Kicking for Distance** and 50 m Dash, Kicking for Distance & subj, kicking for Distance & Shuttle Run, Kicking for Distance & Reaction Time, Kicking for Distance and Balance were found to be -.173,.020,0.10,-.114 and-.185 respectively.

Comparing the ‘r’ values with the table values it was found that all the ‘r’ values were not significance at any level of confidence. Physical Fitness parameters are not directly related to the Kicking Football for Distance.

From the Table-2 it is observed that the co-efficient of correlation between **Throw-ins for Distance** and 50 m Dash, Throw-ins for Distance & subj, Throw-ins for Distance & Shuttle Run, Throw-ins for Distance & Reaction Time, Throw-ins for Distance and Balance were found to be -.016,.227,-.175,-.149and-.001 respectively.

Comparing the ‘r’ values with the table values it was found that all the ‘r’ values were not significance at any level of confidence.
Physical Fitness parameters are not directly related to the Throw-ins for Distance.

From the Table-2 it is observed that the co-efficient of correlation between **Dribbling for Time** and 50 m Dash, Dribbling for Time & sbj, Dribbling for Time & Shuttle Run, Dribbling for Time & Reaction Time, Dribbling for Time and Balance were found to be .002, -.073, .216, -.153 and -.118 respectively.

Comparing the ‘r’ values with the table values it was found that all the ‘r’ values were not significance at any level of confidence. Physical Fitness parameters are not directly related to the Dribbling for Time.

From the Table-2 it is observed that the co-efficient of correlation between **Shooting for Accuracy** and 50 m Dash, Shooting for Accuracy & sbj, Shooting for Accuracy & Shuttle Run, Shooting for Accuracy & Reaction time, Shooting for Accuracy and Balance were found to be .243, -.267, -.119, .175 and -.006 respectively.

Comparing the ‘r’ values with the table values it was found that all the ‘r’ values were not significance at any level of confidence. Physical Fitness parameters are not directly related to the Shooting for Accuracy.

From the Table-2 it is observed that the co-efficient of correlation between **Juggling for Control and Coordination** and 50 m Dash, Juggling for Control and Coordination & sbj, Juggling for Control and Coordination & Shuttle Run, Juggling for Control and Coordination & Reaction Time, juggling for Control and Coordination and Balance were found to be -.026, .664, -.349, -.092, and .081 respectively.

Comparing the ‘r’ values with the table values it was found that **Juggling for Control and Coordination and Explosive Power of Leg was significance** at 0.01 level. Juggling for Control
and Coordination and Explosive Power of Leg are directly related with each other. All the other relationship with Juggling for control and Coordination was not significant at any level of confidence.

RESULT

On the basis of Statistical Analysis of Data of the present study, the following Results were obtained.

(a) Explosive power of leg was positively correlated with Juggling for Control and Coordination for Urban footballers.

(b) Speed, Agility, Reaction Time, Balance was not positively related with Football Skill Performance for Urban group.

DISCUSSION OF RESULT

According to the Result obtained there was positively Significance correlation between Explosive Power of Leg and Football Skill Performance. Similar results have been reported by David (1977). This may due to the fact that to gain Football Skill Performance required high level of Performance Related Physical Fitness for better Performance.

This study also confirms that Static Balance did not exhibit significance correlation with Football performance. Similar results have been reported by Gokdemir (2012). This may be due to fact that football game requires dynamic balance more.

CONCLUSION

On the basis of results obtained out of statistical analysis of data and within the limitation of study following conclusions was drawn.

(a) Explosive power of leg was positively correlated with Juggling for Control and Coordination for Urban footballers.
(b) Speed, Agility, Reaction Time, Balance was not positively related with Football Skill Performance for Urban group.

**RECOMMENDATION**

On the basis of Result obtained and Conclusion drawn following Recommendations were made for future study and investigation.

(a) Similar studies can be conducted in future with female subjects.

(b) Similar study can be conducted with more number of subjects.

(c) Future studies may be taken up to analyze the movement activities using computer simulation technique.

(d) The similar study may also be conducted with high level football players as a subject.

(e) Same type of study may be conducted with the players of other games.

(f) Future studies can be paneled to analyze the Rural and Urban Footballers difference in Health related physical fitness.

**References**


CONTENT KNOWLEDGE AND PEDAGOGICAL CONTENT KNOWLEDGE IN THE SIXTH GRADE MATHEMATICS TEXTBOOK OF WEST BENGAL BOARD OF SECONDARY EDUCATION

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Introduction

Shulman (1987) defines seven categories to provide a framework for teacher knowledge which are:

1. Content knowledge
2. General pedagogical knowledge eg classroom control, using group work
3. Pedagogical content knowledge
4. Curriculum knowledge
5. Knowledge of learners and their characteristics
6. Knowledge of educational contexts eg schools and the wider community
7. Knowledge of educational ends purposes and values

Shulman (1987) identified seven domains of teacher knowledge, one of which is pedagogical content knowledge. He explained why he identified pedagogical content knowledge as a knowledge domain for teachers as follows:

Pedagogical content knowledge is of special interest because it identifies the distinctive bodies of knowledge for teaching. It represents the blending of content and pedagogy into an understanding of how
particular topics, problems, or issues are organized, represented and adapted to the diverse interests and abilities of learners, and presented for instruction.

Pedagogical content knowledge is the category most likely to distinguish the understanding of the content specialist from that of the pedagogue. (p. 8) Shulman claimed that pedagogical content knowledge is a distinct body of knowledge even though knowledge of content and knowledge of pedagogy contribute to it. He also noted that pedagogical content knowledge includes knowledge of learners, knowledge of educational context, and knowledge of instructional materials.

Tamir (1988) made a distinction between general pedagogical knowledge and subject-matter-specific pedagogical knowledge. He claimed that each type of knowledge is composed of four categories—namely, student, curriculum, instruction, and evaluation—but they have different meanings in each domain. He also identified teachers’ skills in diagnosing students’ conceptual difficulties in a given topic and their knowledge about effective use of instructional tools as subject-matter-specific pedagogical knowledge.

Ball and Bass (2000) identified teachers’ knowledge of students’ difficulties and appropriate teaching strategies to eliminate those difficulties as part of teachers’ pedagogical content knowledge. They defined pedagogical content knowledge as follows:

‘Pedagogical content knowledge is a special form of knowledge that bundles mathematical knowledge with knowledge of learners, learning, and pedagogy. These bundles offer a crucial resource for teaching mathematics, for they can help the teacher anticipate what students might have trouble learning, and have ready alternative models or explanations to mediate those difficulties (p. 88).’
Wang Wei Sönnerhed (2011) studied algebra textbook for CK and PCK and wrote ‘The primary aim of the study is to explore what pedagogical content knowledge regarding solving quadratic equations that is embedded in mathematics textbooks. The secondary aim is to analyze the algebra content related to solving quadratic equations from the perspective of mathematics as a discipline in relation to algebra history. It is about what one can find in the textbook rather than how the textbook is used in the classroom (p-5).’

**Methodology**

To explore the nature of Content Knowledge (CK) represented in the textbook and expected Pedagogical Content Knowledge (PCK) in the framework, it is necessary to discuss Van Dormolin’s (1986) classification of teaching perspectives and learning perspectives of Schmidt et al (1997).

Based on their classification and the CK-PCK overall framework one may consider the following criteria for analyzing algebra content textual presentation as follows:

1. Consistency and clearness of Mathematical content: A mathematical text should be consistent and clear to the reader. “There must be no errors, either of computation or of logic. Proofs might be incomplete, but not false. Conventions must be used consistently. […] the content must be clear to the intended reader.” (Van Dormolen, 1986, p. 151).

2. Mathematical theoretical aspects: This criterion concerns knowledge elements such as mathematical theorems, rules, definitions, methods and conventions. Such mathematical knowledge is called “kernels” (Van Dormolen, 1986, p. 146)
3. Mathematical content development and connections: This criterion is based on the classification of Schmidt et al. (1997). By means of this criterion, one may investigate how mathematical content topics relate to each other in the chapter of algebra. The aim is to explore the embedded teaching trajectory related to text.

4. Mathematical representations and applications: This category often reflects different views. A formalistic view regards mathematics as a set of concepts, rules, theorems and structures. Mathematics applications are often regarded as informal view. In an informal view students are encouraged to engage in activities like generalizing, classifying, formalizing, ordering, abstracting, exploring patterns and so on, and new ideas are encouraged (De Lange, 1996; Freudenthal, 1991; Goldin, 2008; Pepin et al., 2001; Van Dormolen, 1986; Vergnaud, 1987).

5. Language use: In which way are mathematical theorems, definitions, and rules explained and illustrated: formally in a mathematical language or pedagogically in combination with everyday language, in order to make sense for a student reader.

6. To analyze different kinds of mathematics exercises, activities and problems as well as tests in the textbook, it is important to analyzing mathematics tasks in the textbooks (Brändström, 2005). One may consider the following points:

A. Routine exercises refer to the kind of exercises that require students to use newly presented mathematical concepts, rules or algorithmic procedures illustrated in examples, in order to get familiar with the content. This kind of exercises is often at a basic level and requires simple and similar operations or reasoning to those just presented.

B. Exercises that require students to evaluate, analyze and reason mathematically instead of merely computing mechanically
Such exercises intend to encourage students to understand the integration of mathematics concepts and procedures (Hiebert & Carpenter, 2007; Hiebert & Lefevre, 1986).

C. Exercises that are related to real world contexts. Such exercises are often word problems (or called real world problems) and the pedagogical reason of using them is to bring reality into the mathematics classroom, to create occasions for learning and practicing the different aspects of applied problem solving without the practical contact with the real world situation (Chapman, 2006). They reflect the view of mathematics applications in real-life situations (De Lange, 1996; Freudenthal, 1991; Goldin, 2008; Pepin et al., 2001; Van Dormolen, 1986; Vergnaud, 1987).

**Results and Discussions**

Name of the sixth grade mathematics text book of West Bengal Board of Secondary Education is ‘Ganitprava (class VI)’. In this book, content of unit five (page 62 to 72) is concept of variable in algebra.

The concepts which are explored in this chapter are:

1. Concept of constant and variable.

2. Illustration of concept of indefinite numbers with the help of realistic examples i.e. 1, 2, ................. Wheel present in n number of cycles, stick necessary for 1, 2, ........ n number of triangle etc.

3. Representation of an unknown quantity by indefinite numbers.

4. Relationship of unknown numbers with the help of given conditions.
5. Use of more than one variables to represent the perimeter and representation of perimeter by the addition of more than one variables.

6. Commutative property for addition and multiplication in variables.

7. Multiplication is left distributive over addition.

8. Representation of algebraic expression with the help of language is illustrated.

9. Representing algebraically the statement expressed by language.

10. Making stories with the help of algebraic expression.

**The concepts which are suggested to explore are:**

1. Right distributive property of multiplication over addition with suitable example should be included.

2. In general \( x + 8 \neq 8x \) is shown with the help of suitable example but \( x - 8 \neq 8x \) only \( x \times 8 = 8 \times x = 8x \) should be illustrated similarly.

3. It should be explained that for \( x, y = y, x \) one may replace \( x \) or \( y \) by a constant say 7 and he/she can write \( x \times 7 = 7 \times x \) etc.

To analyze the mathematical exercise represented in this unit it is observed that

1. Routine exercises are included.

2. Exercises are arranged in such a way that can evaluate, analyze the concepts of the students. Also these exercises help to increase the power of mathematical reasoning of the learner.

3. Questions are represented according to the structure of the text and these are sequentially arranged.
4. Most of the problems are chosen from everyday life of the learner and common people.

But it is suggested that there should be more exercises on \(<,>,\leq,\geq\) etc as this concept quite different and new to the learners.

Let us consider Unit 16 (page 159 to 175): ‘Directed numbers and Number line related concepts’. The concepts which are explored in this chapter are:

1. Concept of ‘0’, ‘positive’ and ‘negative’ number realistic example viz. example of stair, Tiffin taking, different directions (East, West, North, South etc.).

2. Representation of those examples on the number line.

3. Preparation of a list of opposite words.

4. Representation of opposite words by putting one in the positive direction of number line and opposite word in the negative direction of number line.

5. Concept of increasing and decreasing nature of positive and negative numbers.

6. Fixation of position of algebraic number on the time line. i.e. if \(x>0\) then \(-x<0<x\) etc.

7. Sum of two opposite numbers is zero. i.e. \(6+(-6)=0\), \((-6)+6=0\), \(x+(-x)=0\), \((-x)+x=0\) etc.

8. Exploration of the concept of addition of (i) two positive numbers, (ii) one positive and one negative number (iii) two negative numbers with the help of colour cards.

9. Verification of commutative and associative properties of addition.

10. Concept about subtraction of numbers.
11. With the help of colour cards an attempt is made for subtraction by activity method.

12. Exploration of the concept ‘1\textsuperscript{st} number – 2\textsuperscript{nd} number = 1\textsuperscript{st} number + negative of 2\textsuperscript{nd} number’.

It seems that some of the concepts are ignored in this unit. They are:

1. Number line can be extended infinitely in both the directions is not discussed properly and what is the significance of arrow mark to both the extreme end of number line is not discussed.

2. A fraction can be also placed on number line is not discussed.

3. It is not verified that whether commutative and associative properties are hold for subtraction or not.

It is also important to place the rules of subtraction in box (page-172) which is done for rules of addition (page-170). Also the concept of integers should keep in box (page-174).

To analyze the mathematical exercise represented in this unit it is observed that

1. Routine exercises are included.

2. Exercises are arranged in such a way that can evaluate, analyze the concepts of the students. Also these exercises help to increase the power of mathematical reasoning of the learner.

3. Questions are represented according to the structure of the text and these are sequentially arranged.

4. There should be some problems which are chosen from everyday life of students and common people.

Other aspects which are mentioned in methodology may be discussed as
✓ Mathematical text used in the text book is clear to the reader but some spelling mistakes are found. It seems that the errors are typographical. It is also found that there is no computational error in the algebra text.

✓ Mathematical concepts are presented sequentially but some of the concepts like right distribution property, commutability of constant and variable is not discussed properly. Appropriate teaching learning methods are applicable but clearness of some definitions is required.

✓ Development of content of algebra is already discussed. Teaching learning processes for this unit starts with the help of activity based approach by counting wheel of a cycle or formation of triangle with the help of sticks after that analysis and synthesis takes very important role for abstract concept of variable. Problem solving method is also very much effective for solution of the problems given in this unit.

✓ Units are starting with informal view by engaging the students for generalizing, classifying, ordering etc. Together with formal view like set of concept, rule, theorem and structure etc.

✓ Language of the book is very simple, clear and deals with everyday life problems. Explanations are also very simple.

✓ Routine exercises are appropriate to the concept presented. But it is necessary to modify the exercises which will evaluate the students or will develop the power of analysis or strengthen mathematical reasoning. To bring the reality in the mathematics classroom real world problems are included in exercises of algebra.

Concluding remarks

It is mentioned in page number 296 of the text book that the book is written on the basis of NCF 2005 and learning will be activity
based. It is actually psychological to logical approach to relate mathematics to real world. Teachers are encouraged to help in constructing students knowledge (p-297). It seems that the algebra content of the text book demands slide modifications. Lastly it is suggested that there should be a concept summary listed at the end of the text and an exercise containing problems on every concept at the extreme end of the units discussed before for correlation and evaluation of concepts.

References


