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Contributions to books

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

Journal and other articles

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

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IMPACT OF MARKETING ACTIVITIES ON CONSUMER BASED BRAND EQUITY - A CASE STUDY OF PAKISTAN'S MOBILE SERVICE SECTOR

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ABSTRACT
This research seeks the relationship between Marketing Activities and customer based Brand Equity. It spells the impact of major marketing activities on consumers' mind and how these activities affect the perception of consumers for a particular brand. The study investigates the marketing efforts being practiced in a particular industry and how the market reacts to those measures. It takes into account, the brand equity determinants, and analyzes the effects of aggressive marketing on the end users' mind. A very vigilant telecommunication industry of Pakistan is the target of the study and it is further centralized to the mobile services sector. This sector has experienced immense growth in the last 5 years and can be termed as one of the best examples of brand wars with 'Marketing Activities' as major artillery. The design of the study follows the basic concepts of brand equity. It includes the examination of brand awareness, brand association, brand loyalty and perceived quality as the major determinants of Brand Equity. The research includes all the competitors of the industry and analyzes their brand strength in consumers' mind. It also investigates the marketing activities of the most powerful brand in the industry. The research concludes with results that points out at several activities that can be helpful for manager to formulate strategies for further brand wars. These conclusions are especially helpful for any new entrants in the telecommunication industry of Pakistan.

KEYWORDS
Brand management, Marketing, Products, Services, Telenor, Market share.

INTRODUCTION
World today is all about competition. Businesses are aggressively engaged in devising the communication policies in order to form a smooth relationship with consumers. Products/Services are in abundance, and a consumers' mind is being bombarded with a lot of ideas to buy. In such a fierce competition with a bag full of substitute products, *'Marketing'* is one of the most important tools that a firm can take up to create a fortune. Businesses nowadays are marketing their products aggressively. The Marketing activities, as one of the old definitions and as equally agreed by the modern organizations, are usually referred to as a cost incurred to start and maintain a healthy relationship with the customers (Webstar; 1992). It is the base of most of the organizations operating in today's competitive business environment and is termed as one of the very prime and integral part of an organization's success. The equation is formulated by focusing on the marketing activities to strengthen the brand and ultimately get the outcome in the form of pure profits and customers' satisfaction (Kottler and Keller; 2009).
The execution of Marketing activities usually includes those strategies which are aimed at attracting the customers and retaining them through provision of after sales or value added services. Pricing, product quality and attributes, promotion and Placement/ distribution/ product availability are the major functions that are counted as primary activities in marketing context (Pickton, Broderick; 2001). These activities make up the term marketing and cover the overview of the most important concepts of attracting customers, retaining them, increasing sales, stimulating market share, strengthening the brand and maintaining brand equity (Kamakura et al. ; 2005). A further subdivision amongst these activities is usually used. This division makes it more specific to refer to the promotional activities and general marketing activities. The general marketing activities are aimed at maintaining the overall profitability of the marketing efforts towards the product and brand development. Pricing and Product/ services (after sales, value added) attributes can be included in general marketing activities. On the other hand, the specialized marketing activities, which can be termed as customer specific marketing activities, are sales promotion (advertisement, public relation, sponsorship and personal selling) and distribution. Firms emphasizing on these activities are purely customer specific, and such emphasis impacts the brand and customer's perceived value related attributes of the product (Sander et al; 2009).
Businesses and manufacturers nowadays are looking for new and innovative ways to '*Brand*' their products. The cause of the introduction of this new trend is the increased competition in the market place. The competitive situation in several markets (e.g. beverage industry) is becoming dangerously aggressive (which is very healthy for the end users) due to which the possibility of brand differentiation based on traditional attributes such as price and quality is not advisable any more (Marı´n and Ruiz; 2007). There are special departments being made to address the issues regarding the successful transition of product information and attribute propagation to the consumers' mind. A special emphasis is being placed to improve and strengthen the brand through smooth integration of marketing efforts. Concepts like brand equity and brand loyalty are not alien any more. Firms have been setting up strategies and policies to reach the stature of promoting their product as a strong brand. These strategies are majorly focused at retaining customer and increasing their loyalty levels (Peter, Olson and Grunert; 1999). They use marketing research teams and analysts to measure the brand equity of their product and hence devise some bench marking strategies to improve. Brands need to be strong and should have certain associations which can make it retainable in the consumers' mind. It is necessary for businesses to promote their products and convert them into brands in a manner that their customers feel proud of their association with the brand (Bhattacharya and Sen, 2003).
The research discussion witnessed in the previous paragraphs is based on a various citations that emphasized the importance of the impact and relationship of marketing and branding. In order to discuss this subject in depth, a certain industry is being chosen to carry out further research and analyze the impact of marketing activities on brand equity. Pakistan's Mobile Services Sector can be termed as the perfect example to explain the relation between marketing activities and brand equity. The industry is being thoroughly developed and has ultimately been forced to emerge as one of the most successful and powerful industry in Pakistan. With a teledensity (the penetration rate of mobile/landline users) of more than 55%, the mobile sector contributes loads to the economy in the form of employment opportunities and Foreign Direct Investment (FDI). This industry is experiencing very rich marketing and branding activities, which is being implied by the industry participants. With five major competitors in the market, the sector show cases some excellent efforts being made to strengthen

the brands and capture the market shares. The firms are playing with prices while conducting heavy marketing activities including TV advertisements, public relations and distribution activities (Industry Analysis Report; 2008).

Researchers have been working on several aspects of Marketing and branding. A lot of emphasis has been put into exploring these vast subjects, but there seems a gap that exists in describing their relationship. In order to address this gap and bring to paper the immensely growing and very vigilant Mobile Services Sector of Pakistan, this research area is being chosen. The study undertakes and analyzes the impact of marketing activities on brand strength in reference to the Mobile services sector of Pakistan.

MARKETING ACTIVITIES AND IMPACT ON BRAND EQUITY

The integration of several components of the marketing mix is one of the major philosophies of a sound marketing strategy. Price, packaging, sales promotion, distribution, public relations and advertising are some of the main components that contribute towards the formulation of a marketing strategy for most of the businesses operating in the present competitive atmosphere. All these endeavors pointed at maintaining/increasing the sales, capturing the market share, propagating the idea of the product to the consumers and to develop a strong brand. Marketing in the modern business environment is described as on the most important component which can be treated as an executive strategy to get to the ultimate success (Jean-Noel Kapferer; 1995).Brand equity is one of the measure topics in marketing research in recent years. Businesses have witnessed the impact of a strong brand on the firm's strength indicators and it also carries a lot of advantages like extending a brand, introducing new products under the same brand and customer preferences in making the purchase. Brand like Coca-Cola, Pepsi, General Motors, Boeing, McDonald's, KFC, Microsoft, 3M and Apple etc. are in today's modern business environment, considered as strong brands. Not only there are many association linked to these brands but they have also been brought to a strong stature with different means and marketing efforts.

If we observe in a daily context, we can note our interaction with such strong brand several times a day. These interactions happen due to the environment being produced for these brands in a strong cover of marketing strategies. For example Coke exhibits a strong relation of marketing efforts with its brand strength. We see a lot of marketing campaigns, including television, radio and magazine advertisements for this particular product. It also practices activates like public relations to keep the brand remembered in the customer's mind. A recent example of public relations may be its latest interactive website for healthcare professionals (Press Center - Coca-Cola; 2009) http://presscentre.coca-cola.co.uk/).

The Mobile Services Sector of Pakistan describes and explores the concept and relationship of marketing activities and brand equity. Brands in this market have been heavily marketed and the efforts are being put in a way so that the brand equity of these industry participants flourishes. Marketing activities need to be devised very carefully in order to get good results. These brands are working as sponsor to every other television/radio programs, to welfare shows, to public relations activities, to concerts, to cricket matches and to anything or to any persuasive person that can catch the attention of the prospect market of round about 170 million consumers.

AREA OF STUDY – PAKISTAN'S MOBILE SERVICES SECTOR

The global mobile telecommunications industry is on its immense growing row for the past twenty years. The industry has been established to such an extent that the mobile sector has become a critical indicator of the economic development of a country (Kenny & Keremane; 2007). If we talk of Pakistan's perspective than we may say that the Mobile Services Sector is a part of a huge industry which is operating in the country. Since the independence of Pakistan there was only one organization which was providing the telecommunication services to the whole nation. This organization was basically a government department named as Telephone and Telegraph department. With growing number of customers the government converted this department into Pakistan Telecommunication Corporation Limited in 1990. This was the time when Mobile Services Sector was introduced in the market place. It was an era when mobile phone was a luxury rather than a necessity. At first only two mobile licenses were issued to two different companies who basically laid the foundation of Mobile Services Sector in Pakistan. With the passage of time this telecommunication sector started to grow in a rapid mode and in no time it was being given an industry status by the Government of Pakistan.

Mobile Services Sector is considered as the engine of the telecommunication industry of Pakistan. This sector has been a point of major attention for the foreign investors. Pakistan is a developing country with 170 million potential users and with the entire necessary infrastructure required to provide the mobile services. In accordance with a research being conducted by Pakistan Telecommunication Authority, Pakistan's Mobile Services Sector is adding about 2.1 million subscribers per month. The Sector of five competitors is flourishing and posing healthy competition by engaging in heavy marketing and brand building activities, that also includes low rate value added services and lower tariffs. The sector is growing at a declining rate. With a jump from 39 % to 55% in Mobile tele-density rate from 2007 to 2008 respectively, the sector is said to have a lot more potential which is yet to be addressed. Though the growth in revenues has declined a bit in 2008 but the growth rate of cellular subscribers in 2008 was still 40%. The revenue fall from 48% in 2007 to 35% in 2006 may be due to present economic conditions and high inflation rates (PTA; 2008).

Pakistan's Mobile industry consists of five industry participants, which are Ufone, Telenor, Mobilink, Zong and Warid. These companies are actively participating in the growth of the economy of Pakistan by regularly investing good amounts into the sector and creating employment opportunities (Ping Gao and Adnan Rafiq; 2009).

LITERATURE REVIEW

Marketing research carries great importance due to its role of supporting the decision making process in a business environment (Malhotra and Bricks; 2000). Firms have been studying to devise strategies to influence the consumer behaviors. According to many experts, the marketing mix elements play an important role in deriving the consumer based brand equity and perceived value of the product or offering. The product or offering alone cannot make a desirable impact in the market until it is being shaped by marketing efforts (Peter, Olson, and Grunert; 1999). In relation to this research and with respect to the marketing activities usually being carried out in the Telecommunication sector of Pakistan; advertising, sales promotion and price gambling are the major participants of the strategies executed there.

The following review will focus on the literature that has already been written in context of marketing activities and branding attributes. We will be looking at the relational aspects of different components of marketing mix and its correlation with branding.

IMPORTANCE OF MARKETING

"Marketing, more than any other business function, deals with the customers." (Kottler & Armstrong; 2001). The fulfillment of every possible requirement grid that is being maintained in the customer's mind can be termed as pure marketing. The process can sometimes prove to be a bit complex, but if planned properly and executed with proper supervision, it can attach some flourishing attributes to the product/service and the business. Marketing in today's competitive world has become very important. Businesses all over the global economy are reaching their customers with an integrated marketing approach. They believe that marketing is essentially necessary to generate sales and finances for the further advancement of the business (Kottler & Keller; 2009).

The Marketing department's influence in a firm is very essential and it directly affects the firm's performance. In response, all other departments should be integrated with the marketing team and generate a combination which makes the business stronger (Verhoef **&** Leeflang; 2009). Marketing personnel are now in the thought process of how to prove the Marketing department's significance to the firm's good will indicators. The ability to measure the marketing performance has an immensely constructive impact on the firm's performance and profitability. It directly affects the brand characteristics of the firm's and ultimately causes the market worth and revenues to get on an increasingly improving track (Don O'Sullivan & Andrew V. Abela; 2007).

THE MARKETING MIX

Marketing mix is a set of functions, which are usually practiced in several dimensions. Mr. Niel H. Bordon was the first to introduce the concept of marketing mix. He pointed out the elements that a marketer needs to mix in appropriate proportions, in order to get to the required segment of the market. The mix includes several dimensions in which marketers can reach their customers affectively. The aspects in a marketing mix need to be followed in generating the value of the product and developing the equity of its brand in the mind of customers (Bordon, 1984). The main participants of the modern marketing mix (in relevance to the research) are as follows.

- Price
- Product/Service
- Promotion
- Place / Distribution

All the mentioned functions carry an equal importance. They may be used in accordance to the need of the market place. It is a set of references to the marketing concerns of a firm, which they use, as required, in formulating and delivering the product quality and attributes to the customers (Palmer, 2004). Price is said to be one of the most important factors to generate profits and capture markets. Several firms go for a low price strategy to penetrate into the market and win the market share. On the other hand there are several other firms who introduce the products/services at higher prices to propagate the prestige of the product. They also extract high profit margin out of it. Product/Service plays a very important part when offered at well researched and balanced pricing strategy. The attributes and quality of the product are two main determinants which can push this function of marketing to work at its best. Promotion is the key to flourish all the functions of marketing. It is used by firms to communicate the benefits and features of their product or services to the customer. Its basic purpose is to raise the awareness of the product and make it stick to the minds of the consumer. Promotion is carried out through advertising, public relations, sales promotion and personnel selling.Place/Distribution contributes toward the improvement of the reach-ability of the product. The distribution channel should be very strong to guide the product through the right way and to the right destination (Adcock, Al Halborg & Ross; 2001).

BRAND

A brand is a name that is allocated to a product. According American Marketing Association, a Brand is a name, term, sign, symbol or design to create differentiation amongst the products (Kevin Lane Keller; 2nd edition).

The Brand name after getting attached to a particular product/service can then make the fortunes for the firm. Branding is a study which, if researched and developed appropriately, can add a lot to the firm's assets. Once being built as proper brand name, it defines the awareness, reputation and prominence of that product/service in the market place (Pelsmacker, Geuens, Bergh; 2004).

Branding is all about creating differences. It can be termed as one of the most important attributes of a product. It carries a massive value in an organization's success, both in terms of market capitalization and sales. Brands should be treated as one of the most valuable assets of a corporation. The power brand name strongly influences the consumer buying behaviors (Adcock, Al Halborg & Caroline Ross; 2001).

BRAND DEVELOPMENT

The concept of branding came into being in the late 1870's, when huge American Corporations started to introduce the branded products for consumers. The businesses opted for the following changes to initiate the process of brand development and management.

- Improvement of Communication strategies
- Improvement of production quantity and quality
- Dramatic improvement in packaging
- Serious growth in advertisement activities
- Rapid growth in advertisement budget
- Improving the retail networks

The innovators and initiators of brand building succeed in brand development and propagation of customer satisfaction to the consumer. Good brands carry a brand name that suggests quality, price, perception and satisfaction to the buyer (Low, George S.; 1994).

There are certain things that firms need to account for while executing the process of brand development. They need to focus certain element of a brand that may directly affect the brand strength and ultimately paying off in the form of increased sales, satisfied customers, and strong brand equity (Tim Ambler & Chris Styles; 1997).

Successful brand are those, for which customers are willing to spend money. Customers carry a very vital role in the development of a brand. Good and strong brand are developed on the basis of what customer perceive and think of it. They depend upon the firm's functional decisions to protect the reliability, that customer has on brand consistency. Marketers all around the world search for customer perceived values and structure the brand with respect to the expectation of the customer. Building an identity as a successful brand in an industry which may face both global and national competition is a very complex task. It requires intense and appropriate decisions and correct decision making (Scott M. davis; 2000).

BRAND EQUITY

The concept of brand equity emerged in the 1980's. The phenomenon is famous amongst the marketer's gentry of large multinational brands. These businesses are heavily dependent upon the perception, strength and other major elements of a brand.

Brand equity is the added value to the product or service, which may be reflected by consumer's thinking process. It depends heavily upon the feeling and satisfaction of the consumer. Strong Brand equity can lead to the firm control over raising the prices, reviving the market share, and increasing the profitability (Kotler and Keller; 2009).

The concept of brand equity is even more flourished when the manufacturers start to notice the positive response from the customers. Customers mean everything to a firm from a marketer's perspective. Several firms opt for customer-based branding and hence focus on forming a customer based brand equity. The ability to measure the brand equity can play a vital role in execution of marketing activities for several marketers. The importance of building brand equity is proven by the fact that, it provides the platform from which companies can seriously capitalize in terms of higher margins, opportunities to create brand extensions, improved customer communications, higher customer preferences and enhanced purchasing intentions. Once the brand is strong in the given market place, then the managers can also think of advancing into the international markets and assess the equity of brand. They have to be careful in respect to the perceptions about the brand that may vary country to country. The major cause of this variance can be cultural and infrastructure differences (Buil, Chernatony & Martinez; 2008).

According to Aaker 1991, there are 4 major determinants of brand equity.

- Brand Loyalty
- Brand Awareness
- Brand Association
- Perceived Quality

Many firms follow these determinants to get to the customers mind and in turn improve their firm's performance.

BRAND MANAGEMENT

Formation of a brand's equity is heavily dependent upon the concept of brand management. It implies the concept of delivering and maintaining an excellent strategy to form strong brand equity and maintain the meaning of brand. Brand managers have to keep in view the need of developing the perception of the brand in the customer's mind and improving the standards of its perceived value. They need to be very critical in decision making and perceiving the action of the competitor in respect to the development of the brand. Brand management is a quiet complex process and it requires expertise and analytical approach toward thinking for the solution of the problem. Brand Managers have to think constructively regarding the customer needs and expectations form the brand and their satisfaction levels. Brand Management can be posed with sever challenges if the time comes to through the brand in the global market. Brand managers have to act real sharp and take quick and preventive decisions in order to make the correct position for the brand while entering an international market (Shocker, Allan D.; 1994).

Brand Management can be viewed in several different aspects. Many firms place different impotence levels to different functions, but as revealed from several studies, that the relation between marketing function and its effect on brand perception is the most important concept that firms needs to follow. Installing and aligning the marketing functions of a firm, towards the goal of achieving the brand oriented status can prove to be a right track to follow. Firms that lead to brand orientation create a very strong and positive relationship with brand performance. The concept of brand orientation in the firm's marketing policy also targets to create brand distinctiveness, and in turn making it completely different from competitors' (Ho Yin Wong & Bill Merrilees; 2008).

IMPACT OF MARKETING ACTIVITIES ON BRAND PERFORMANCE

Marketing is very broad field, and the businesses today are immensely dependent on it. If viewed from customer's point of view, its importance can be evaluated by the fact that customers all over the world can get to know their desired product just by looking into the news paper (news paper advertisement) or television (television Marketing) etc. In view of its importance from the business's point of view it is even more significant. Businesses propagate their products to the consumers through different forms of marketing and promotional activities. Advertising can be termed as one of the most important tool to brand and market a product.

The impact of the functions of marketing is very prominent in a firm's performance. If compared to other major aspects and function of a firm's operations, such as R&D and HR etc., the Marketing Mix can prove to be the major determinant which may affect a firm's recital (Krasnikov & Jayachandran, 2008).

These marketing functions carry a lot of importance with respect to sales and brand awareness. A study shows that change in the distribution pattern of a firm may create some positive effects. The impact can be magnified by restructuring the distribution channels and increasing the reach of the customer. This way firms can increase the customer satisfaction and ultimately increasing the sales (Shang, Yildirim, Tadikamalla, Mittal & Brown; 2009).

The function of sales promotion also carries an important role in the marketing mix of a firm's strategy. At times firms focuses on customer-focus sales campaign, which helps them to maintain an excellent relationship with the customer. Practicing such functions in a firm's marketing mix stimulates the increment of brand loyalty and brand strength and ultimately causing the company to boost its revenues (Kumar, Venkatesan & Reinartz; 2008).

Sales promotion works even more efficiently when it is blended with appropriate advertising campaign. At times firms allocate higher budgets to advertising in relation to sales promotion, and as a result these firms achieve more favorable outcomes, like positive consumer attitudes, strong brand equity, higher market share, and increased profits. A very relevant example can be seen as the long term impact of advertising that was being done on Coca-Cola several years back and is still paying off. This example explains the power of branding, which is ultimately formed through appropriate marketing effort that mainly enlists advertising (George S. Low & Jakki J. Mohr; 2000).

A study shows that the impact of advertising is prominent and has a huge impact on brand perceptions if done correctly. In the long run, these activities have a direct effect on brand, and consumers get more attracted by price cuts and sales promotions because the advertising efforts are being cut down (Mela, Gupta & Lehmann; 1997).

The mentioned marketing functions are widely used and are considered to be very affective in building up a brand (Park, Jaworski, Maclnnis; 1986).

THE MOBILE SERVICES SECTOR – PAKISTAN

Mobile communication is one of the recently added necessities in today's rapidly modernizing world. Over the past few years, mobile industries all over the world have been experiencing speedy growth. This swift development of the sector has proven to be very effective and is believed to play a critical role in the economic development of a country (Kenny & Keremane; 2007). As this industry requires comparatively low investment, hence it is known to be an opportunity and healthy source of foreign investment for the developing countries (Thompson & Garbacz; 2007). Despite of the economy boosting nature of mobile telecommunication industry, not many developing countries have taken advantage of it. On the contrary the penetration rate of mobile telecommunication industry in the developed world is much higher (Europe – 94%) (ITU; 2007). This fact can be supported by a study which states that mobile market growth can be boosted by the increased competition, income growth and enhanced education. The mentioned factors for mobile market growth are not found in abundance in the developing world and hence needs improvement (Garbacz & Thompson; 2007).

Pakistan is a developing country. With a population of over 170 million, the market portrays an ideal environment for new businesses. Pakistan's mobile services sector is on a boom for the last couple of years. The reason of this speedy development in the sector is the low cost and ideal infrastructure. According to Muriethi 2003, alterations in the regulatory framework are vital for the improvement of mobile services provision and infrastructure. In case of the market acting in Pakistan, Pakistan Telecommunication Authority (PTA) is the prime regulatory authority that works in the country. Due to the changes made by PTA in the licensing systems and regulations, the telecommunication sector of Pakistan experienced a boom and the teledensity of Pakistan reached up to 52% which is far better than the other regional economies. PTA awarded 5 new licenses which enhanced the competition and caused a healthy brand war to commence (Industry Analysis Report – PTA; 2008). Though, enhanced competition alone may impact penetration negatively (Muriethi 2003), but Pakistan's mobile services sector displayed a different picture and is making its way towards benefiting the economy of the country by providing job opportunities and cheap services.

The telecommunications industry's success and its ability towards attracting the foreign investment can be constructively affected by the liberalization and restructuring process. Foreign investment usually triggers the inflow of foreign operators which gives birth to healthy competition and rapid growth (Curwen and Whalley; 2008). There are four foreign companies amongst five, which are operating in the mobile services sector of Pakistan. This purely indicates describes the healthy structuring and booming velocity of the industry.

Developing countries like Pakistan with large markets and high technological levels deploys the infrastructure with precision and promotes the market competition through provision of healthy business environment (Rouvinen; 2006).

ANALYSIS

Data analysis is the most important part of research. The following chapter analyzes the conceptual frame-work (In Chapter 3) thoroughly and draws out important analysis regarding the consumer based brand equity of the brands participating in a healthy competitive environment of Pakistan's mobile service sector. As witnessed in chapter 3, the conceptual frame work is prepared in the light of proper references and studies conducted by prominent researchers of this field. The frame work includes all the essential components of consumer based brand equity, such as brand awareness, perceived quality, brand loyalty and brand associations (brand personality, perceived value).

Consumer based brand equity is one of the most important function in marketing. Brands with powerful brand equity enjoy several advantages like higher returns and strong communication effectiveness. Consumers prefer to buy such brands and carry out repeat transactions in this regard **(Keller, 1993)**. Keeping in view the importance of brand equity, this chapter separately analyzes the questions structured in the frame-work and draw conclusions. It also analyses the case study of the brand that carries that highest consumer based brand equity. Results are being driven through the thorough examination of consumer based brand equity determinants.

ANALYSIS OF CONCEPTUAL FRAME-WORK

According to Keller, "Consumer based brand equity is defined as the differential effect that brand knowledge has on consumer response to the marketing of that brand." The way the brand is marketed affects the consumer based brand equity to a huge extent (Keller, 2nd edition). The conceptual framework for this research is also being structured in manner that it incorporates the investigation of the impact of marketing activities in the building of consumer based brand equity. The questionnaire is targeted to gather information from the consumer base in Pakistan's mobile services sector.

Following tables represents the respondent count and their behavior of choice (choice of brand) in regard to the questions included in the questionnaire. These tables represent the brand strength of the participating brands in each area of the conceptual frame-work which is being designed to evaluate the consumer based brand equity.

Q1 and Q2 are formed to collectively evaluate the effect of **brand awareness** in measuring the consumer based brand equity of the brands present in the mobile services sector of Pakistan.

Q1. When I think of Mobile Services, X is the Brand that comes into my mind.

Table 2.1

Brands	Responses
Telenor	24
Ufone	20
Mobilink	29
Warid	15
Zong	12

Q2. X is a Brand of Mobile Services that I am most familiar with.

Table 2.2

Brands	Responses
Telenor	28
Ufone	28
Mobilink	25
Warid	11
Zong	8

This set of questions represents the brand awareness of consumers regarding the listed brands. The analysis states that Telenor, Mobilink and Ufone are the top three brands that share rich brand awareness in the mobile services sector. Both the questions carry a similar tone that leads to the result of what consumer thinks of which brand and how much they are aware of these brands.

Q3 and Q4 is a collective measure of **perceived quality** of the brands. These questions dig out the consumer view regarding their perception of the quality of each of these brands.

Q3. Brand X offers very good quality.

Table 2.3

Brands	Responses
Telenor	33
Ufone	22
Mobilink	20
Warid	13
Zong	12

Q4. Brand X has excellent features, consistent quality and is reliable.

Table 2.4

Brands	Responses
Telenor	29
Ufone	26
Mobilink	18
Warid	13
Zong	14

The analysis suggests that Telenor is a brand that stands out amongst all the other participants. Consumers rate Telenor as the best provider of quality (services quality) and the excellent features. The frame work also targets the reliability of a brand in consumers' mind, which is also being conquered by Telenor.

Q5 and Q6 states the **brand loyalty** mind set of the consumers. It shows the power of the brands to attract the consumers and make them loyal to their products.

Q5. I am loyal to Brand X.

Table 2.5

Brands	Responses
Telenor	31
Ufone	29
Mobilink	22
Warid	12
Zong	6

Q6. Brand X would be my first choice, if I buy a mobile connection.

Table 2.6

Brands	Responses
Telenor	35
Ufone	29
Mobilink	22
Warid	8
Zong	6

The results predict that Telenor again is a brand with which the customers share their loyal feeling with. This loyalty is a result of the power of the brand which is being gained by the powerful marketing efforts (marketing efforts such as public relations activities, sponsoring public welfare events etc.) in this regard. **Q7, Q8, Q9, Q10 and Q11** are the questions which are targeted at gathering the information of perceived value of the enlisted brands in consumers' mind. Perceived value is a part of brand association that consumers carry in their minds when making buying decisions. Brand association of any brand is strongly connected to the marketing activities. The way these activities are executed reflects the brands association of a brand (Keller, second edition).

Q7. Brand X is a good value for money and is a good buy.

Table 2.7

Brands	Responses
Telenor	33
Ufone	26
Mobilink	25
Warid	11
Zong	5

Q8. Brand X offers the best tariff rates.

Table 2.8

Brands	Responses
Telenor	27
Ufone	36
Mobilink	25
Warid	5
Zong	7

Q9. Brand X offers the best quality.

Table 2.9

Brands	Responses
Telenor	29
Ufone	27
Mobilink	24
Warid	12
Zong	8

10. Brand X offer the best value added services.

Table 2.10

Brands	Responses
Telenor	31
Ufone	35
Mobilink	26
Warid	4
Zong	4

Q11. Brand X makes the best blend of low tariff rates, variety of value added services and better quality.

Table 2.11

Brands	Responses
Telenor	30
Ufone	31
Mobilink	25
Warid	8
Zong	6

The analysis clearly predicts that Ufone and Telenor are the two brands which are best known for delivering the best perceived quality. Ufone, according to the consumers gives out the best tariff rates and Telenor on the other hand is believed to be the best combination of nominal tariff rates, with value for money and best quality with better value added services.

Q12 and Q13 is a collective measure to find out the **brand personality** that prevails in the consumers' mind. Brand personality is also a part of brand association that a brand possesses in a consumer's mind. These associations are majorly influenced by the advertising campaigns of the product.

Q12. I have a clear image of the type of person who would use Brand X and have a clear vision of the brand personality of the same.

Table 2.12

Brands	Responses
Telenor	32
Ufone	31
Mobilink	25
Warid	7
Zong	5

Q13. I trust Brand X and trust the company that makes it.

Table 2.13

Brands	Responses
Telenor	34
Ufone	31
Mobilink	33
Warid	1
Zong	1

The analysis reports that Telenor, Ufone and Mobilink are the brands which carry their clear personality and trust in the consumers' mind.

EVALUATION OF CONSUMER BASED BRAND EQUITY:

Measuring consumer based brand equity has become quiet important due to its significant role in guiding the establishment of marketing strategies (Ailawadi et al., 2003). Consumer based brand equity has proven itself as a major tool to establish the marketing frame-work for a firm. It has proven to be a very important determinant and indicator for marketing managers to establish a comprehensive marketing system. Due to its importance it has become quiet necessary for the managers to learn to measure consumer based brand equity and use it constructively (Ambler, 2003).

The following section presents the collected data, regarding consumer based brand equity determinants, in the form of graphs. The data collection is divided into five major parts and then summarized at the end to analyze the consumer based brand equity of the brands operating in the target sector. The analysis includes the questions and their responses witnessed in the prior part of this chapter.

ANALYSIS OF THE DETERMINANTS

Determinants of consumer based brand equity include Brand Awareness, Perceived Quality, Brand Loyalty, Perceived Value and Brand Personality. These determinants are driven through the help of the data shown in the Tables 2.1 – 2.13.

BRAND AWARENESS

Brand awareness is the recognition of brand with the help of significant brand knowledge present in the consumer's mind. Pakistan's mobile services sector is operating in a fiercely competitive environment. All the brands in the industry are striving to get into the consumers through the usage of different marketing tactics. The following graph analyses the brand awareness of Pakistan's mobile services sector. The data used for this graph is being picked up from table 2.1 and 2.2.

Figure 1

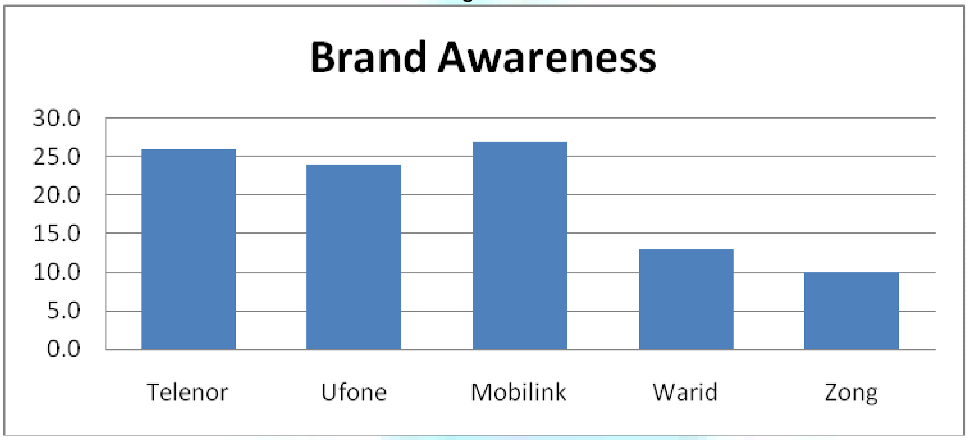


Figure 1 explains that the Mobilink and Telenor are the two major brands that share the most brand awareness amongst all the brands operating in the sector. Mobilink and Telenor with about 27% and 26% respectively stand at the top of the table.

PERCEIVED QUALITY

Perceived quality is one of the primary determinants of consumer based brand equity. It includes the quality, features and reliability parameters of the brands in question. The following summarizes the data being tabulated in tables 2.3 and 2.4.

Figure 2

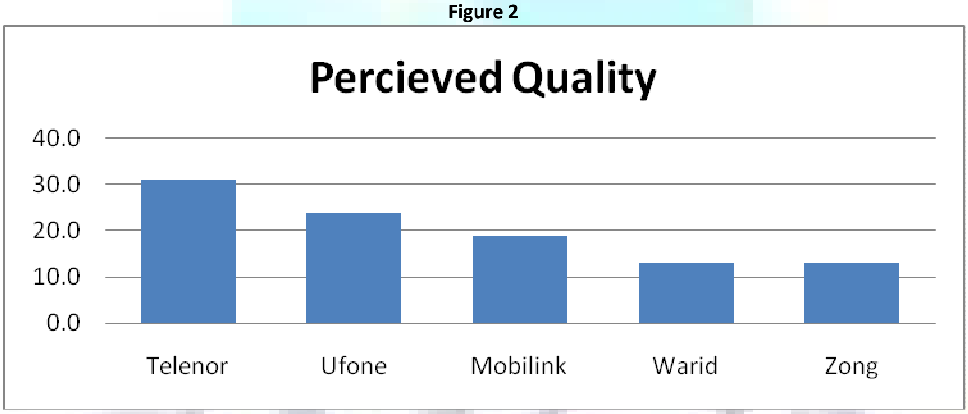
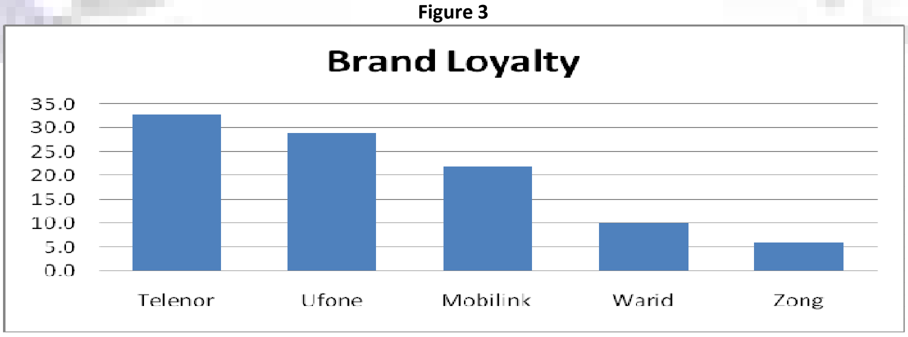


Figure 2 throws light on the consumer perception of quality and reliability of the brand operating in the sector. According to the data collected from the sample population, Telenor is the brand with highest perceived quality standing in consumers' minds. With about 31% positive responses Telenor rules the perceived quality scale while leaving behind Ufone (24%) and Mobilink (19%). Warid and Zong being the latest additions to the industry are still on a negative note regarding the consumer choice behaviors.

BRAND LOYALTY

Brand loyalty is the liking of brand by a consumer. The way people are patriotic to their country a consumer can be loyal to the brand its uses. Brand loyalty can be understood by the phenomenon of repeat purchasing behavior (Ehrenberg et al., 1990). The loyalty can also be based on a commitment which is based on some unique values or attributes associated with the brand (Chaudhuri and Holbrook, 2001).

Figure 3

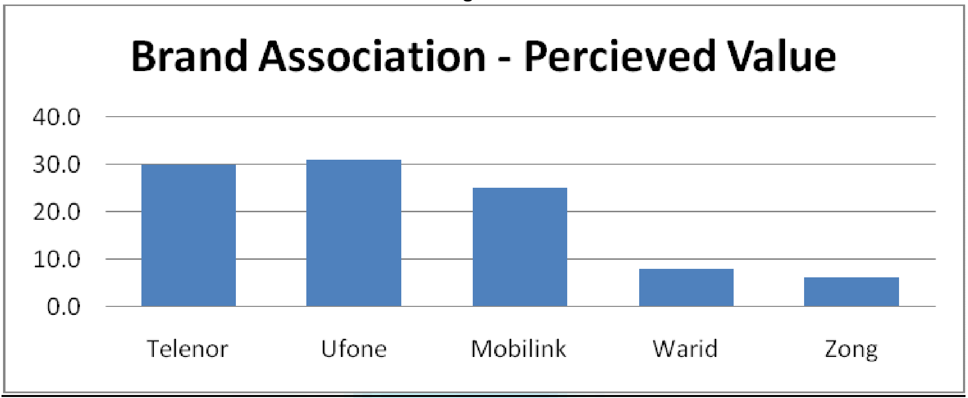


The analysis dictates that brand loyalty of Telenor is far better than that of other market giants such as Ufone and Mobilink. With approximately 33% positive responses Telenore beats its two major competitors i.e. Ufone (29%) and Mobilink (22%).

BRAND ASSOCIATION– PERCEIVED VALUE

Brand association is the memory of a consumer that has any hint of brand in its mind. Perceived value of a brand may prove to be wrathful to be used as a determinant to brand associations. People can easily associate a brand with good service quality with a blend of nominal tariff rates and excellent value added services. Figure 4 shows the brand association of the brand actors in the mobile services sector of Pakistan. It focuses on the perceived value segment of brand association and predicts results in the light of value for money, tariff rates, quality and value added services. The analysis uses the data of Table 2.7 – Table 2.11 to analyze the brand association with respect to perceived value.

Figure 4



The analysis shows that Ufone closely overcome the strengths of Telenor in this parameter of consumer based brand equity and hence stand at 31% which is slightly over Telenor's 30% positive response. Both the brands stay at a level of good quality with affordable tariff rates and innovative value added services in the consumers' minds.

BRAN ASSOCIATION– BRAND PERSONALITY

People associate Pepsi with a lot of famous celebrities such as Michael Jackson and Britney Spears etc. This is because Pepsi have used these celebrities in its advertisements and promotional programs to promote the Pepsi brand. Marketing and advertising tactics practiced in Pakistan's mobile services follows a similar trend as brands (operating in the sector) use several celebrities in their ads both on print and electronic media. The following figure explains perception of brand personality of the participating brands in the consumers' minds.

Figure 5

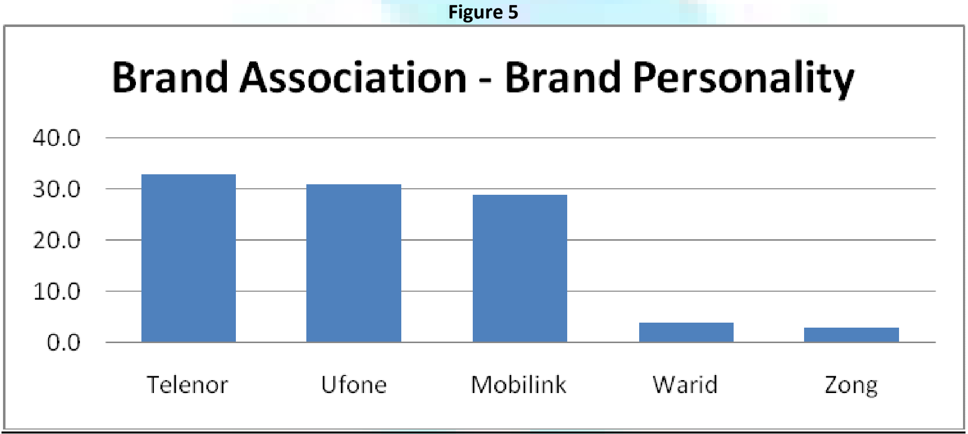
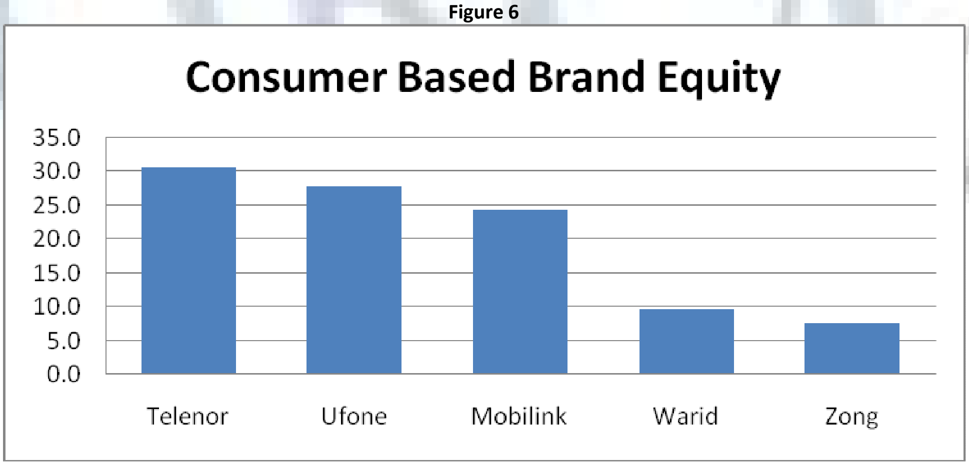


Figure 5 explains that the three ruling brands i.e. Ufone, Telenor and Mobilink uses associations of several personalities to connect to their brands. They do it in order to pour into the consumers' mind the clear personality of the brand that is being promoted. Telenor again stands at the top with approximately 33% positive responses, followed by Ufone (31%) and Mobilink (29%).

ANALYSIS OF CONSUMER BASED BRAND EQUITY

This section provides the summary of all the data collected through the conceptual frame-work analyzed in the prior sections of this chapter. It combines the five parameters of consumer based brand equity on the basis of the number of responses collected from the sample population. The results (presented in figure 6) suggest that Telenor is the brand with highest consumer based brand equity.

Figure 6



The results clearly show the reason of Telenor's increasing popularity amongst the consumers. According to the latest data being published on PTA's (Pakistan Telecommunication Authority) website, Telenor now carries 21% market share which is just second to Mobilink who is the oldest played in the sector. The analysis suggests that Telenor's Marketing activities (as explored in the conceptual frame-work) are being executed in the right direction due to which it stood first on the consumer based brand equity scale.

CASE STUDY ANALYSIS – TELENOR PAKISTAN

As per the results, Telenor is the brand with the top consumer based brand equity in the sector; hence the emphasis of this research will now fall upon exploring the case study of Telenor Pakistan. The case study focuses and analyzes the information regarding the marketing activities of Telenor Pakistan and how has it supported towards the consumer based brand equity of Telenor to get boosted.

Telenor group is world renowned supplier of high quality tele and media communication services. It has a strong hold in telecommunication services provision in about 13 regions world-wide. Telenor with approximately 165 million subscribers is one of the largest mobile services providers in the world. Telenor Pakistan is a part of Telenor ASA and was established in Pakistan in the year 2005. With a huge investment in Pakistan's telecom sector, Telenor in just 4 years made its way through the top by creating a proper infrastructure and becoming the fastest growing mobile service of Pakistan with the coverage reach arriving deep into the remotest areas of the country (Source: www.telenor.com.pk; www.pta.gov.pk). With a 21% market share (just 2nd to mobilink with 30%) Telenor Pakistan dictates a strong relationship of its marketing activities with its rising consumer based brand equity. The following section takes into account a thorough analysis of Telenor's marketing activities and how they make an impact on the consumer based brand equity determinants included in the conceptual frame work. The section is supported by the information gathered from an interview with Telenor's marketing head. This information in itself describes the importance of marketing mix in building up a band.

Price, Product and Promotion are the major determinants in a marketing mix and will be discussed in the following sec

PRICE

Pakistan's mobile services sector is going under severe price competition hence the brands are striving for the market share and are playing with prices to attract customers. Price is the most unusual element of marketing mix. According to Telenor's marketing head Mr. Ahsan, "Mostly the price based offerings are tactical in nature, which are there to support our standing in competitive clutter and to attain business objectives. No brand can be built on price positioning alone and that's the case with Telenor too."

Responding to another question of how they can justify the price positioning of Telenor, Mr. Ahsan compared the post paid packages of Telenor with two other services provider (namely Ufone and Mobilink; which stands 2nd and 3rd on our consumer based brand equity scale). Following is the chart which shows the prices of selected packages of the three firms.

Table 3.1

Company	Mobilink	Telenor	Ufone
Package Name	400	Persona Simple	U Night
Billing Pulse	60-sec	30-sec	30-sec
Line Rent	400	500	499
On-net * Tariffs	1.00	1.00	1 (P) & free (O)
Off-net *** Tariffs for Fixed line	1.50	1.50	2.40(p) &1.40 (O)
Off-net Tariffs-Mobile	1.50	1.50	2.80(P) & 1.80(O)
week end on net	N/A	N/A	N/A
Friends & Family Nos	N/A	5	5
Friends & Family Tariffs	N/A		.80(P) & Free (O)
Free minutes	400	500	N/A
SMS			
On-net	0.75	0.75	0.5
Off-net	0.75	0.75	1

(Source: www.pta.gov.pk)

The chart clearly depicts that with 30 seconds billing pulse and with lowest off net tariffs for fixed line, Telenor offers the best prices. It also offers 500 free minutes and 5 friends and family numbers on which customers can talk at the lowest possible rates.According to marketing head of Telenor Pakistan, "We believe in providing a best blend of quality and innovative services with a nominal price."

Price have made significant impact on the consumer based brand equity by approaching the consumer base with a blend of better and innovative services with nominal prices and billing pulse.

PRODUCT

Product quality and innovative features is also one of the main components of marketing mix that impact on the consumer based brand equity. As table 2.3 and 2.4 shows that Telenor have gained the top position with respect to product quality and innovative services. Figure 2 clearly portrays the impact on the perceived quality parameter of consumer base brand equity scale. Telenor Pakistan offers a lot of innovative products which are targeted to cater the needs of its customer base. Following are some of the innovative services which are not being introduced by any other mobile service provider in Pakistan as yet.

PRODUCT INNOVATION

There some very innovative services being advertised by Telenor Pakistan. Following are some services which are not yet introduced by any other subscriber and thus provide evidence regarding the innovative approach of Telenor.

Pic Share – Shares pictures online through the usage of largest data network of Pakistan.

Akhbaar – Get the latest news in local languages.

Music Box – Dial with your Telenor and listen to music on air. A huge music database including songs from singers all over the world.

Auto Location – You can always know in which area of Pakistan you are as Telenor shows on your handset the name of the area in which you enter, and all of this is automatic.

USB EDGE stick – USB EGDE stick with exciting data packages. Fast internet at your finger tips (Source: www.telenro.com.pk)

DISTRIBUTION

Distribution of the product is also an essential determinant which affects the brand awareness of the brand. Telenor emphasizes on the coverage of its network and supplement it through the sale of connections on counter. With over thousand of cities in its coverage range, it reaches all the four provinces of Pakistan. It covers up the most remote highways and villages.

NATION WIDE COVERAGE

Telenor's Coverage knows no limits with its reach deep into many of the remotest areas of Pakistan; it provides services to the previously unconnected people of the hilly northern areas to the sprawling deserts in the south.

INTERNATIONAL COVERAGE

Telenor is the provider of roaming services to about 170 international destinations. This figure proves Telenor to be the most comprehensive worldwide coverage provider in Pakistan. According to Mr. Ahsan, in order to reach the Telenor's prospective customer base for both SMEs and corporate sector, the firm has a B2B sales force responsible for selling, relationship/account management and arranging engagement activities for the clientele.

PROMOTION

According to the Marketing Head of Telenor, there are two major promotional activities that Telenor have been practicing in its struggle to become the top service provider of Pakistan. Following section throws light on the advertising and public relations activities of Telenor.

ADVERTISING

Telenor's promotional activities have played a significant role in deriving its market share to a higher stature. Telenor have been engaged in delivering ads on television which carries emotional values and carries an image of a family atmosphere. According to Mr. Ahsan, Telenor have positioned its brand (thorough advertisements) in an emotional zone and has extended its reach to the customers by launching ads for different occasions (religious festivals, sporting events, and patriotic moments). This emotional positioning is due to the fact that Pakistan is an impulsive nation with a lot of emotions towards their family, religion and country (include patriotic events and sporting events specially cricket events, as nation love the game of cricket).

The advertisement campaigns have definitely altered the brand awareness of Telenor in a positive manner and will continue to do so if they capture the right pulse. Following are some of the web links that shows Telenor Pakistan's advertisements.

www.telenor.com.pk

http://takescare.com/134/telenor-commercial/ (complete range of telenor advertisements, includes ads made for advertising Telenor's newly added services.)

http://www.youtube.com/watch?v=4qEcVUMzbhY (excellent ad with subtitles, propagating Telenor news service)

http://www.youtube.com/watch?v=TTsyUdsfzYU&NR=1 (propagating a blend of literate and villagers' class of the country, explaining the massive coverage that Telenor covers.)

http://www.youtube.com/watch?v=3oBK8sPHLAY&feature=related

These ads also add a multiplier effect to the brand association of the brand. The singer Ali Zafar who has starred in the ads of Telenor is a renowned figure of the country and with him as a brand ambassador of Telenor the brand association should result in a positive manner. As witnessed in figure 4 and figure 5, Telenor's brand association is amongst the top services providers and it may continue to flourish if the advertising campaign continues to improve.

With their several advertisement songs in the national language of Pakistan (Urdu), they propagate the concept that Telenor's coverage throughout Pakistan is outstanding and Telenor has brought these services only for its valued customers. This unique idea of inclusion of branded songs and inclusion of cultural value by casting local dress quotes is a unique idea and a perfect glocalization. With its blue colored leaf logo, it represents the voice of the nation as a light and easy propagator of their feeling to their loved ones.

PUBLIC RELATION

On PR front, Telenor have a strategic CSR program called Khudar Pakistan. Please refer to http://www.telenor.com.pk/about/khuddarPakistan.php. This program targets the disable people of the country and gives them a sense of owners by helping them to face the challenges they come across in their difficult lives. Telenor is striving to change the common mindset and to create awareness by introducing opportunities for these people to actively participate in the society. Telenor is the only company in Pakistan to offer formal disability advisors.

With this program on the PR front Telenor has become the company to offer so. This has significantly increased the brand loyalty of Telenor and it is also portrayed in figure 3.

CONCLUSION

The study concludes the importance of measuring the consumer based brand equity. These measures can also help managers to devise a comprehensive marketing strategy and ultimately capture a larger market share by the virtue of higher rating on the brand equity scale. The analysis sections concludes that Telenor is the brand, amongst all the brand operating in Pakistan mobile services sector, that has the highest consumer based brand equity. The conceptual frame-work for this research cover a vast span of parameters that makes up the consumer based brand equity in the minds of the consumers. It also points out at the strong and weak points that brands need to emphasize on in order to enhance their consumer based brand equity. With the separate analysis of questions, the scenario is made clear and the data is further used in the derivation of consumer based brand equity.

Analysis of frame-work concludes the significance of marketing activities that can make a major impact on the consumer choice behaviors (i.e. provision of good quality at a nominal price or creating brand association through advertisements). The frame work suggest the brand awareness and perceived value are the two major areas of consumer based brand equity in which Telenor Pakistan needs to emphasize. They should make their ads campaign more effective in order to increase the brand awareness. On the other hand they should also lower their tariff rates to make a best blend of innovative services.

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UNDERSTANDING THE RELATIONSHIPS OF CORPORATE IMAGE, EMOTION, VALUE, SATISFACTION, AND LOYALTY AMONG AIR PASSENGERS: A CONCEPTUAL MODEL AND EMPIRICAL EVIDENCE

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ABSTRACT

This study developed and tested an integrative model to examine the relationships between air passengers' perceptions of corporate image, emotion, value, and satisfaction and to investigate the impacts these variables on their loyalty. Analysis of surveyed data from 730 air passengers reveals that emotion directly influences both value and satisfaction, and indirectly influences loyalty. As hypothesized, corporate image had a significant and direct influence on value, satisfaction and loyalty. The results show that value directly influences satisfaction and loyalty, that satisfaction indirectly influences loyalty. We also found the model to be invariant between female and male air passengers.

KEYWORDS

corporate image, emotion, value, satisfaction, loyalty.

INTRODUCTION

In a greatly competitive environment, airlines compete sternly for new air passengers. Over time and with the escalation competition, airlines have come to apprehend their performance can get better by concentrating more on preserving air passengers than frequently proceeding in a conquest approach. In fact, loyalty has been commonly documented as a crucial advantage in competitive markets (Reinartz and Kumar, 2002). Investment in loyalty management is particularly imperative if consumers face low switching costs, since they are not confined by a contract (Kumar and Shah, 2004). The final objective of any company is profit and loyalty is one of the means to accomplish that aim (Reichheld, 1996). Researchers assert that growing customer retention is a primordial means to generate returns for a firm (Zeithaml et al., 1996), so it will become highly crucial for airlines to identify the factors that drive the retention of air passengers.

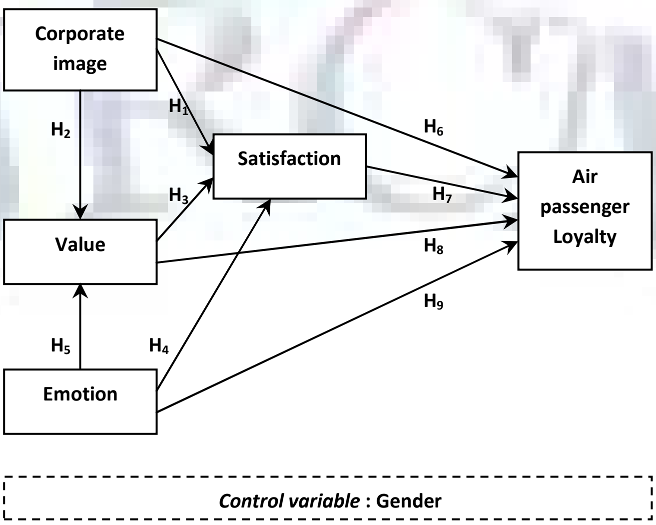
In spite of its significance, there are noticeable gaps in our knowledge of the drivers for loyalty as well as it has not been well investigated in airline service context. In fact, the majority of the researchers considered only the connection between service quality, satisfaction and behavioural intentions (Chen, 2008; Park et al., 2004). Moreover, when modeling passengers' decision process, the key constructs generally considered include perceived value, perceived performance, service expectation, behavioural intentions, satisfaction (Chen, 2008; Park et al., 2004). Although scholars have advanced the understanding of service oriented constructs in transport management setting, there continue to be a require to advance the theories and methodologies by integrating new concepts and modified models in order to improve the prognostic power of these frameworks (Oh, 1999). Therefore, the initial thrust of this work is to offer an integrative model of air passenger loyalty based upon a documented connection between other constructs. Second, research exploring emotion, corporate image, value, and satisfaction focuses mainly on goods producing companies as well as on retail stores (Nguyen and LeBlanc, 1998; Bloemer and Ruyter, 1997; Dowling, 1988) and research has never simultaneously assessed the relative effect of these central variables on airline service encounter outcomes.

To recapitulate, the purpose of the current study is principally to empirically test a proposed framework to better appreciate air passengers' perception judgments and the effect of those judgments on their loyalty. It is worth noting that there exist no published researches that have studied simultaneously the relationship among value, corporate image, emotion, satisfaction, and loyalty. In order to give insights into the design and implementations of effective air passenger retention tactics, we categorize air passengers into two segments according to the gender.

THEORETICAL BACKGROUND AND RESEARCH HYPOTHESES

The conceptual model which guided development of the study's hypotheses is shown in Figure 1. Empirical support for hypotheses used to test each proposed relationship and literature related to the exploratory research question is provided in subsequent sections.

FIGURE 1: THE CONCEPTUAL MODEL



CORPORATE IMAGE, SATISFACTION, AND VALUE

A limited number of studies was conducted on customer's image evaluations of services. In addition, researchers have not included the role of corporate image into air passenger loyalty. Corporate image is a key variable in the global service assessment. In line with Keller (1993), we consider this construct as a perception of a firm held in consumer memory and manipulates like a strainer which affect the judgement of the action of the organization. Fazio (1989) asserts that service assessments are the most important source of corporate image. Researchers define image as a person's mental depiction of awareness, judgment, feeling, belief and overall impressions about a service (Pike and Ryan, 2004; Kim and Richardson, 2003; Baloglu and McCleary, 1999; Baloglu, 1999). The significance of this construct is recognized while it influences user behavior (Telisman-Kosuta, 1994). Unluckily, no study has been carried out on the effect that corporate image of an airline has on the air passenger loyalty development. The role of this construct in the creation of perceived value, satisfaction and loyalty is investigated in the present study.

The assessment of services is complicated, essentially because of its intangibility. Hence, satisfaction with the service encounter would be significantly influenced by the preconceived image the user has of the firm (Kristensen et al., 1999; Andreassen and Lindestad, 1998). According to Joppe et al. (2001), the complicatedness for persons to assess their experiences and the confidence in their images of the service, could validate the thought that image is an antecedent of satisfaction. Researchers hypothesize that corporate image, via a halo effect, influences an individual's appraisal of value as well as satisfaction (Andreassen and Lindestad, 1998). In this investigation, a cumulative measure reproducing a user's global feeling and mental schema of the organization reflects corporate image (Zimmer and Golden, 1988). Air passengers who develop a favourable mental representation of an airline service will tend towards superior level of satisfaction throughout a halo effect. Thus, the following hypothesis is offered:

H1: Corporate image has a significant, positive effect on air passenger satisfaction.

Positive image generates a consumption experience more enjoyable, therefore plateful customers experience satisfying social as well as affective advantages. Johar and Sirgy (1991) confirm that perceived value is generally influenced concurrently by utilitarian aspects and symbolic image. More recently, Petrick (2002) empirically shows that perceived value is considerably controlled by utilitarian, emotional, and symbolic factors. Consequently, we expect corporate image to directly influence air passenger perceived value:

H2: Corporate image has a significant, positive effect on perceived value.

Perceived value and satisfaction are constructs that are connected whereas dissimilar, both have been supposed as relative judgments (McDougall and Levesque, 2000) and outcome of a comparison between gains and costs (Woodruff, 1997). Nevertheless, they have points of divergence as well. While value takes place at different phases of the consumption experience, counting the pre and post use stage, satisfaction is commonly viewed as a post-consumption assessment. Butz and Goodstein (1996) announce that satisfaction is related to attitudes whereas value is more linked to behavior. Several scholars have established a significant and positive effect of value on satisfaction (Yang and Peterson, 2004; Eggert and Ulaga, 2002; McDougall and Levesque, 2000; Cronin et al., 2000). However, other researchers affirm that satisfaction is a driver of perceived value (Petrick et al., 2001; Bolton and Drew, 1991). The present study considers satisfaction as a response to an assessment process; more particularly, satisfaction is analysed as the consequence of the individual's appraisal of the value derived from the utilization experience. Thus:

H3: Perceived value has a significant, positive effect on air passenger satisfaction.

EMOTION

In defining emotions, Burns and Neisner (2006) refer to the origin of understanding emotions in the earlier nineteenth century work of James (1890), who considered them as being multifaceted, involving different patterns of arousal. More recently, Bagozzi et al. (1999) consider emotions as "a mental state of readiness that arises from cognitive appraisals of an events or thoughts; has a phenomenological tone; is accompanied by physiological processes; is often expressed physically; and may result in specific actions to affirm or cope with the emotion, depending on its nature and the person having it".

Individuals' emotions and their judgements have been demonstrated to be robustly linked and proficient to anticipate person behavior (Lois and López-Sáez, 2009; Barksy and Nash, 2002). Emotions exhibited throughout the use process are supposed to engender emotional trace in memory. According to Cohen and Areni (1991), these traces are accessible for persons to incorporate into their satisfaction states. Likewise, Bagozzi et al. (1999) assert that emotions play an important role in individuals' purchase intentions. Furthermore, many scholars have established a direct link between emotions and satisfaction (Lee et al., 2005; Van Dolen et al., 2004; Phillips and Baumgartner, 2002; Jun et al., 2001; Wirtz et al., 2000; Wirtz and Bateson, 1999). Therefore, we suggest the following hypothesis:

H4: Air passenger emotion has a significant, positive effect on their satisfaction.

A number of scholars as Shiv et al. (1997), Siemer and Reisenzein (1998), and Pham et al. (2001) asserts that emotions enhance task efficiency. They place emotion ahead of cognition as the first factor for influencing person behavior, contend that individuals have a general propensity, more or less, to seek out affective situations, like emotional stimuli, and show a preference to use emotion in interacting with the life world. According to this stream of scholars, if emotions ameliorate product perceptions, there is a better chance that product purchase will occur. Besides, several researchers stress that emotions affect perceived value positively (for instance Tsai, 2005). Thus, emotion is expected to influence air passenger perceived value positively.

H5: Air passenger emotion has a significant, positive effect on perceived value.

LOYALTY

The conceptualization and the measurement of loyalty has often remained limited (Zeithaml et al., 1996). Andreassen and Lindestad (1998) for instance focused on repurchase intentions, willingness to repurchase, and word-of-mouth communication, while Bloemer et al. (1999) empirically demonstrated, across four different types of service industries, that loyalty is indeed a multi-dimensional construct consisting of the loyalty to the company, the propensity to switch, the willingness to pay more, the external response to problem, and the internal response to problem. In line with Ibrahim and Najjar (2008b) we define loyalty as the biased behavioural reaction, expressed over time, by some decision making unit, with respect to one company out of a set of companies. Loyalty has been commonly acknowledged as an imperative advantage in competitive markets, moreover investments in loyalty management is particularly significant if consumers face low switching costs, since they are not cramped by a contract. Hart and Rosenberger (2004) examine the role of corporate image in the development of customer loyalty in service setting and show that image has a direct influence on customer loyalty and an indirect influence through satisfaction. These results corroborate the findings of previous studies. For instance, Andreassen and Lindestad (1998) found both a direct and indirect effect of image on loyalty. Consequently, a favourable corporate image appears to stimulate loyalty for an organization. Thus:

H6: Corporate image has a significant, positive effect on air passenger loyalty.

Satisfaction also is a significant predictor of loyalty (Palmatier et al., 2006; Yang and Peterson, 2004; Petrick and Backman, 2002; Kim and Cha, 2002; Brady and Robertson, 2001; Yu and Dean, 2001; Petrick et al., 2001; Cronin et al., 2000; McDougall and Levesque, 2000; Baker and Crompton 2000). For example, Cronin and Taylor (1992) maintained that satisfaction is considered to act as an antecedent to loyalty. Similarly, Oliva et al. (1992) suggested that the relationship between service satisfaction and loyalty is non-linear. These claims are consistent with the findings of Choi and Chu (2001). Thus, the seventh hypothesis is proposed:

H7: Air passenger satisfaction has a significant, positive effect on air passenger loyalty.

Furthermore, several scholars support the conception that value drives loyalty (Gallarza and Gil Saura, 2006; Brown et al., 2005; Ranaweera and Prabhu, 2003; Wirtz and Chew, 2002). For instance, in service setting Bolton and Drew (1991) affirm that value is a major deriver of repurchase intentions and word-of-mouth. As well, experimental support for this relationship is proved in various contexts (Petrick et al., 2001). Chang and Wildt (1994) explain that perceived value mediates the quality – loyalty relationship. Therefore the following hypothesis is advanced:

H8: Perceived value has a significant, positive effect on air passenger loyalty.

Emotions has been proved to influence different reactions such as motivation to purchase (Baker et al., 1992), approach behaviour (Hui et al., 1997), spending levels (Donovan and Rossiter, 1982), and several researchers have established significant connection between emotions and satisfaction (Yuksel and Yuksel, 2008; Machleit and Mantel, 2001; Oliver, 1993). However, there are limited enquiries concerning emotions and loyalty. The noted exceptions, Allen et al. (1992) found that emotions affect repeat donation behavior. Barsky and Nash's (2002) exhibit that emotions are positively related to willingness to pay and return. More recently, Pullman and Gross (2004) found that emotions play a crucial role in elucidating customer loyalty. This leads to the next hypothesis:

H9: Emotion has a significant, positive effect on air passenger loyalty.

GENDER DIFFERENCE

Scholars have demonstrated important divergences between women and men in their processing of information, feelings, affects, donation behaviours, and shopping (Grewal et al., 2003; Otnes and McGrath, 2001; Kempf et al., 1997; Brody and Hall, 1993; Meyers-Levy and Sternthal, 1991; Gould and Weil, 1991). To elucidate these dissimilarities, authors have either relied on sociological as well as biological justifications. Sociological elucidations take into account many theories for example the gender schema (Firat and Dholakia, 1998), personality analysis (Bem, 1974), and multi-factorial gender identity (Maccoby and Jacklin, 1974), while biological vindications include brain hemispheric motion and hormone differences (McGlone, 1980).

In spite of the fact that gender differences attested to be a rich field of investigation, exploration on gender differences in airline service is overlooked. Research on gender differences in consumption has shown remarkable dissimilarities between women and men consumers. For instance, Grewal et al. (2003) showed that female shoppers have a more favourable attitude towards shopping than male shoppers. Evans et al. (1996) found that women were considerably affected by social referents more than men. In addition, Hu and Jasper (2004) confirmed that men and women perform differ in numerous activities for example purchasing, time spent during the consumption experience, and the pleasure with the consumption experience. These results on gender differences associated to consumption deserve the exploration of the question: "Is the proposed model moderated by air passengers' gender?". Nevertheless, due to the lack of gender difference support in relation the specific interconnections that we suggest, we do not propose a formal hypothesis. As a substitute, we will merely investigate gender differences to help us better comprehend this phenomenon in hope to guide to future testing.

MATERIALS AND METHODS

SAMPLING AND DATA COLLECTION

The questionnaires were distributed and collected at three international airports in Tunisia (North Africa). Data collection covered all weekdays and day parts. All of the data collection occurred in May and June 2009. In total 1000 air passengers were approached. After screening the questionnaire for incompleteness and abnormalities, a usable sample of 730 was obtained. Air passengers were randomly solicited and invited by trained interviewers to complete a self-administered questionnaire. The survey began with introductory statement that asked respondents to administer their own responses, assured them of confidentiality, and so forth. Respondents were thanked and offered a can of juice/coffee. The final sample was made up of 370 men and 360 women from a range of age between 24 and 70. The air passengers were split on marital status (79.6% married and 20.4% single). The sample was fairly well educated with 33.1% of air passengers having completed some college and 47.8% having completed a university degree.

MEASURES

To improve the content validity of the measurement scales, different stages were taken. First, based on a review of the relevant literature and previous measures, multi-item scales were generated for corporate image, perceived value, emotions, satisfaction, and loyalty. Wherever possible, existing measurements that had been used in past studies were adopted. Second, three independent judges (two academics and a practitioner) individually reconsidered the questionnaire for suitability, abnormalities, and ambiguity (Tabachnik and Fidell, 1999). The questionnaire was iteratively amended based on comments received from the independent judges. Third, a pilot test was carried out among air passengers. 55 questionnaires were collected and the questionnaire was further revised based on the pilot study. The last version of the questionnaire is discussed below.

Corporate image is measured with three items. The items being "Please rate airline X's reputation" (V1), "Please rate airline X's prestige" (V2), and "Please rate the reputation of airline X's services" (V3) (Zeithaml, 1988). All items are on a five-point scale with "extremely low" and "extremely high".

Perceived value is an overall tradeoff between 'benefits' versus 'costs' (Lovelock, 2000). Two items measure perceived value. The labels were: "considering the ticket I pay for the airline X, I believe that the airline X offers sufficient services" (V4), and "the ticket price of the airline X is reasonable" (V5) (Chen, 2008).

In order to assess airline passenger we adopt the scale developed by Tsai (2005); "the services offered by airline X are pleasant to senses" (V6), "the services offered by airline X look delightful" (V7), and "there is no distress elicited by the services offered by airline X" (V8). Respondents used a 5-point Likert scale ranging from '1= never' to '5 = very often'.

Air passengers were solicited to rate their overall satisfaction on two five-point numeric scales ranging from '1= very dissatisfied' to '5 = very satisfied'. The first question was: "How satisfied are you with the services you receive from airline X?" (V9). The second question was: "Overall, how satisfied are you with airline X" (V10) (Stank et al., 1999).

Air passenger loyalty is assessed with two items, one measuring passive loyalty and the other the active loyalty (Ganesh et al., 2000). The items being "I would highly recommend the airline X to my friends and family" (V11), and "As long as everything remains the same, I do not foresee myself switching to a different airline" (V12). Both indicators are measured on five-point scale ranging from "extremely unlikely" to "extremely likely".

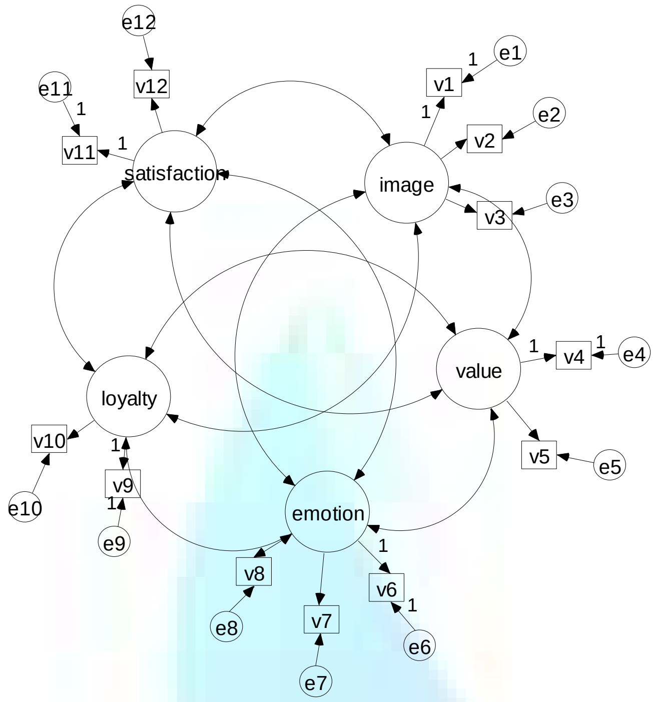
RESULTS

We analysed the research model using the Maximum Likelihood method. AMOS4.0 was selected to perform the data analyses in the present study. AMOS tests the significance of the relations between theoretical constructs and the predictive power of the exogenous variable (Byrne, 2001). Therefore, AMOS is appropriate for predictive applications and theory building since it considers all path coefficients simultaneously and permits examination of direct and indirect connections (Bollen, 1989). AMOS assesses several individual indicators loadings in the context of a theoretically specified framework rather than in separation, hence it besides allows researchers to avoid biased and incompatible parameter estimates for equations (Byrne, 2001).

MEASUREMENT MODEL

The measurement model is shown in Figure 2, the results show a reasonable fit to the data (RMR = 0.058, NFI = .919, CFI = .931, GFI = .944, AGFI = .901, RMSEA = .080, Chi-square = 249.944). The modification indices were predominantly low and all the loadings were significant. Therefore, this measurement model was tentatively accepted as the study's measurement model.

FIGURE 2: THE MEASUREMENT MODEL



A Jöreskog reliability index for each construct was calculated to assess the degree to which indicators are free from random error and consequently yield consistent findings. Reliability indexes in our measurement model ranged from 0.67 to 0.84. These reliabilities denoted that the individual scales, when taking as a group, performed fairly well in the model. The measurement properties are reported in table 1.

TABLE 1: THE MEASUREMENT MODEL EVALUATIONS

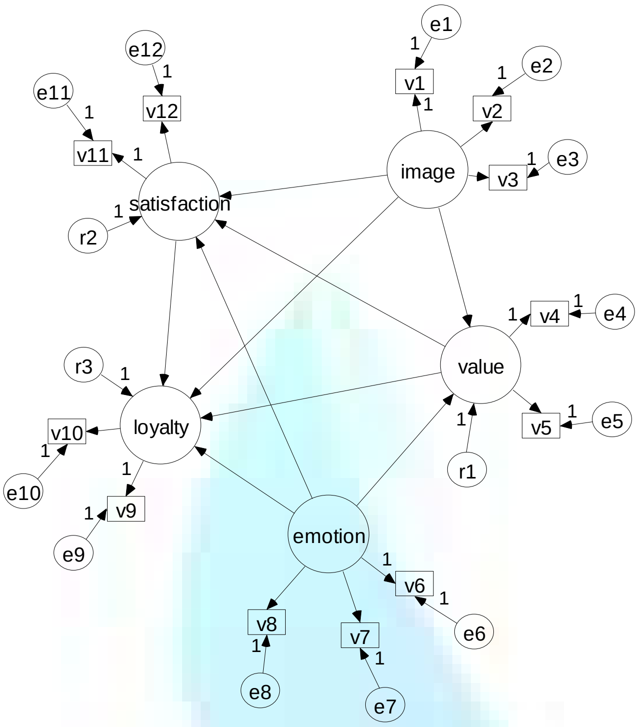
Constructs	Items	Loading	Std. error	*t*-statistic	Reliability index
Corporate image	V1	1			0.84
	V2	1.062	0.033	32.302	
	V3	0.581	0.036	16.021	
Perceived value	V4	1			0.67
	V5	0.936	0.100	9.343	
Emotion	V6	1			0.82
	V7	1.071	0.124	8.635	
	V8	1.375	0.153	9.004	
Loyalty	V9	1			0.75
	V10	0.989	0.097	10.151	
Satisfaction	V11	1			0.78
	V12	0.905	0.055	16.527	

Discriminant as well as convergent validity of the constructs were assessed in order to examine if the items were measuring what they were proposed to measure. The results show that all student tests were significant at 0.01 level. Likewise, none of the standardized residuals is more than (2) or under (−2). These results offer evidence of convergent validity (Hatcher, 1994). We further assessed discriminant validity in the measurement model by examining a confirmatory factor analysis model, which included the five latent variables, corporate image, perceived value, emotions, satisfaction and loyalty. The procedure advocated by Anderson and Gerbing (1988) was used. First, this base model, where all paths between the latent constructs were freely estimated, was tested using AMOS. Then, each correlation parameters was constrained to 1 separately, and the correspondent models were estimated. The $\Delta\chi 2$ values between the constrained models and the unconstrained model suggest that the fit measure of each of the constrained models was significantly worse (at a $p = .005$ level) than the fit measure of the base model. Thus, a strong indication of discriminant validity was present in the measurement model, since the probability that all combinations of the latent variables adequately represent the same construct is less than 5%.
Therefore, the items used to operationalize the constructs are suitable for testing the hypothesized linkages in the full structural equation model

STRUCTURAL MODEL TESTING

The research model that was tested in the present study is exposed in Figure 3. It differs from the model in figure 2 in that figure 3 depicts the causal relationship among exogenous and endogenous variables. An exogenous variable is an independent variable whose causes lie outside the model. In this case, both image and emotion are exogenous variables in the structural model. In contrast to exogenous variables, the postulated causes of endogenous variables are included in the model. In the current model, value, satisfaction, and loyalty are all endogenous variables.

FIGURE 3: THE STRUCTURAL MODEL



We analysed the structural model using the Maximum Likelihood method. We first assessed the proposed model by assessing the path coefficients for the hypothesized relationships. The "proposed model" column in table 2 depicts these coefficients. The χ^2 value for this model was significant ($\chi^2 = 253.522$, $p < 0.001$), also the GFI showed satisfactory fit. Of the nine proposed relationships, eight were significant. Then, we constrained the nonsignificant path to "0" and re-assessed the structural model. The results are summarized in the "revised model" column of table 2. The eight remaining paths were statistically significant. The fit indices were approximately the same as those for the first model. The findings of the present study suggest eliminating the path from emotion to loyalty since the path coefficient (λemotion-loyalty) was not significant ($\lambda = 0.142$, $t = 1.545$).

TABLE 2: STANDARDIZED COEFFICIENTS AND FIT STATISTICS FOR THE PROPOSED AND THE REVISED MODEL (N = 730)

Hypothesized paths	Expected sign	Proposed model	Revised model
H_1: Corporate image → Satisfaction	+	0.180	0.181
H_2: Corporate image → Perceived value	+	0.129	0.129
H_3: Perceived value → Satisfaction	+	0.536	0.528
H_4: Emotion → Satisfaction	+	0.619	0.621
H_5: Emotion → Perceived value	+	0.563	0.581
H_6: Corporate image → Loyalty	+	0.105	0.093
H_7: Satisfaction → Loyalty	+	0.215	0.266
H_8: Perceived value → Loyalty	+	0.260	0.271
H_9: Emotion → Loyalty		0.142 (N.S.)*	-
Fit statistics			
χ^2		253.522	255.892
RMR		0.062	0.063
GFI		0.943	0.943
AGFI		0.902	0.903
NFI		0.917	0.917
CFI		0.931	0.930
RMSEA		0.080	0.079

* N.S.: not significative.

Table 2 exposes the coefficients for the paths in the revised model. They showed the strength of the direct influence of an exogenous variable on an endogenous variable, and that of one endogenous variable on another. The direct effect refers to the effect of one variable on another that is not mediated by any other variables in the model (Bollen, 1989).

Hypothesis 1 stated that corporate image has a significant, positive effect on satisfaction. The path coefficient was 0.181 and the t value was 5.014, which was significant at $\alpha = .01$. This significant coefficient provided evidence of support for hypothesis 1.

Hypothesis 2 explored the relationship between corporate image and perceived value. This hypothesis 2 was supported since the t-test for the path coefficient was significant (t value of 3.464).

The air passenger' perceived value was expected to relate positively to overall satisfaction level. The greater perceived value toward the airline, the higher it was anticipated would be their levels of satisfaction. This relationship was found to be significant with at an alpha level of .01 with a t-value of 6.306, so hypothesis 3 was supported.

It was hypothesized that emotion would influence satisfaction. The higher the emotion of air passengers, the higher it was anticipated would be the levels of satisfaction. The significant coefficient (t value of 5.742) enabled hypothesis 4 to be supported.

It was postulated that a higher level of emotion leads to a higher level of perceived value. The path between the two constructs was significant (t value of 5.842) so hypothesis 5 was supported.

The air passengers' loyalty was expected to be influenced positively by corporate image, satisfaction, and perceived value. When air passengers have positive and favourable image towards an airline and have high levels of satisfaction as well as perceived value, they are more likely to recommend the airline to their friends and family or they do not switch to a different airline as long as everything remains the same. The path coefficients were all found to be significant, so hypotheses 6, 7 and 8 were all supported (t values > 2.92).

The direct, indirect and total effects of all endogenous and exogenous variables in the model are reported in table 3. Direct effects, according to Bollen (1989), are the influence of one variable on another that are not mediated by any other variable. Indirect effects are ones that are mediated by at least one other variable, and the total effects are the sum of direct and indirect effects. While direct effects are calculated by multiplying all the path coefficients for each route of indirect influence. If an independent variable has more than one route of indirect influence on a dependant variable, then the indirect effects for each route are summed to calculate the overall indirect effects of the independent variable on the dependent variable (Bollen, 1989).

TABLE 3: DIRECT, INDIRECT AND TOTAL EFFECTS OF EXOGENOUS AND ENDOGENOUS VARIABLES

	Perceived value			Satisfaction			Loyalty		
	D	I	T	D	I	T	D	I	T
Emotion	0.581	0	0.581	0.621	0.307	0.928	0	0.405	0.405
Corporate image	0.129	0	0.129	0.181	0.068	0.249	0.093	0.101	0.195
Perceived value	0	0	0	0.528	0	0.528	0.271	0.141	0.412
Satisfaction	0	0	0	0	0	0	0.266	0	0.266

Notes: D – direct effects; I – indirect effects; T – total effects

Table 3 indicates that emotion had a stronger direct effect (0.581) on perceived value, than did corporate image (0.129). In addition, these two variables also directly influenced satisfaction as well as indirectly through perceived value.

Corporate image not only directly contributed to air passenger loyalty, but it also indirectly influenced loyalty through two routes. One route was through satisfaction, while the second route was through perceived value and satisfaction (see figure 3). Thus corporate image had total effects of 1.95 on loyalty, with a direct influence of .093 and an indirect influence of 0.101

Air passenger loyalty was either directly or indirectly influenced by perceived value. Perceived value had the strongest total effect (0.412). While emotion had the second strongest total effects (0.405), its indirect effect was the highest (0.405). Corporate image had the lowest total effect (.195) on air passenger loyalty among all variables.

MODERATING EFFECTS OF GENDER: MULTIGROUP ANALYSIS AND LATENT MEAN STRUCTURE

Once support for the main effects had been found, the next step was to include the gender into the model (the revised model) in order to gain further insights. Two separate baseline for men (N = 370) and women (N = 360) were established and a simultaneous model against which subsequent restrictive models will be compared. The baseline women and men structural models, along with corresponding fit indices and standardized parameter estimates, are respectively shown in figure 4 and 5. For the women group, the overall goodness-of-fit was acceptable: $\chi2$ = 137.315, $p < 0.001$, GFI = 0.939, CFI = 0.939, NFI = 0.912, RMSEA = 0.074. Likewise, the overall fit of the men group was satisfactory: $\chi2$ = 122.910, $p < 0.001$, GFI = 0.945, CFI = 0.947, NFI = 0.919, RMSEA = 0.067.

FIGURE 4: WOMEN MODEL (N = 360)

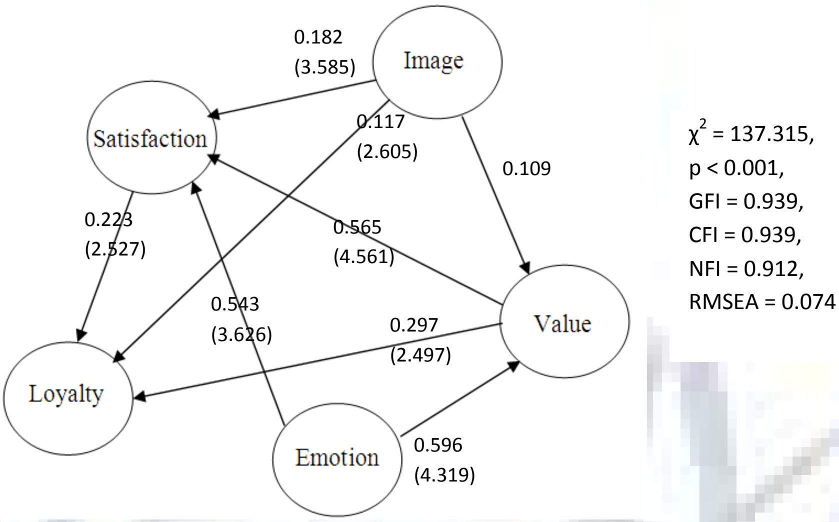
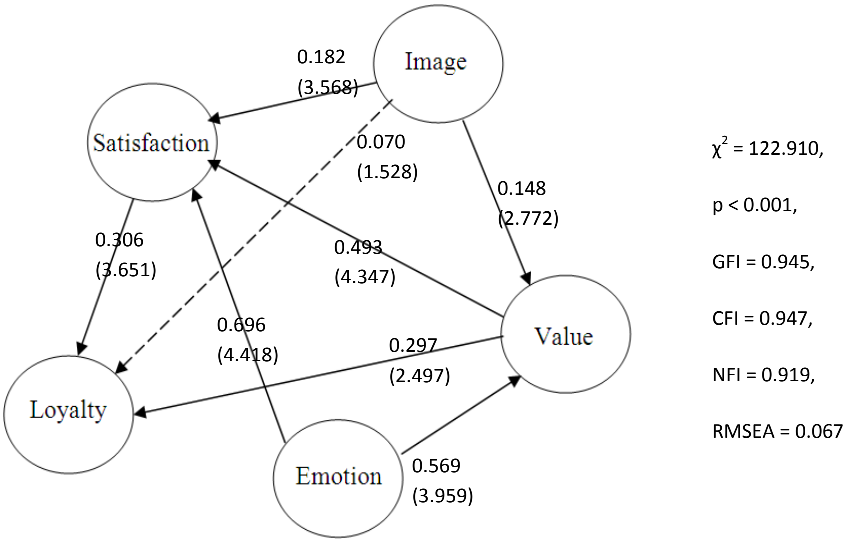


FIGURE 5: MEN MODEL (N = 370)



Overall, the standardized results of the two baseline models were good. Yet, corporate image had no significant effect on loyalty in men group. A more stringent test of the specified model (the initial revised model) would hold the estimated parameters of its measurement part equal across the two groups in question. So, a multiple group analysis was calculated in a hierarchical approach.

In a first step, an overall χ^2 difference was calculated for the moderator variables. Technically, a model with equality constraints is compared to a model that allows the parameters to vary. This test imposes that null hypothesis that the gender variable does not have any effect on the eight parameters. Then, constraints were imposed to test the invariance of the model across various subgroups. According to Steenkamp and Baumgartner (1998), who propose a hierarchical procedure in multigroup analysis, the equivalence of measurement weights was analysed in a second step. Because these models are nested with the general model having one degree of freedom less than the restricted model, the χ^2 values will always be lower for the general model (Homburg and Giering, 2001). Significant differences (CR = 3.84 at the 5% level) indicate that the hypothesis of the moderator effect is supported. In a last step, the invariance of the means of the latent variables was tested. The purpose of testing latent mean structures is to test the equivalence of means related to each underlying factor. Because these factors cannot be observed directly, latent means can be calculated for one group only. These results of the multigroup analysis and the latent mean structure are shown in table 4 and table 5, respectively.

TABLE 4: RESULTS OF MULTIGROUP ANALYSIS

Gender		$\Delta\chi^2$ (df = 1)
Men	Women	
$\gamma_{(emotion - perceived\ value)}$ = 0.569 (3.959)	$\gamma_{(emotion - perceived\ value)}$ = 0.596 (4.319)	0.018
$\gamma_{(corporate\ image - perceived\ value)}$ = 0.148 (2.772)	$\gamma_{(corporate\ image - perceived\ value)}$ = 0.109 (2.096)	0.226
$\gamma_{(emotion - satisfaction)}$ = 0.696 (4.418)	$\gamma_{(emotion - satisfaction)}$ = 0.543 (3.626)	0.503
$\gamma_{(perceived\ value - loyalty)}$ = 0.250 (2.275)	$\gamma_{(perceived\ value - loyalty)}$ = 0.297 (2.497)	0.080
$\gamma_{(perceived\ value - satisfaction)}$ = 0.493 (4.347)	$\gamma_{(perceived\ value - satisfaction)}$ = 0.565 (4.561)	0
$\gamma_{(corporate\ image - loyalty)}$ = 0.070 (1.528)	$\gamma_{(corporate\ image - loyalty)}$ = 0.117 (2.605)	0.523
$\gamma_{(corporate\ image - satisfaction)}$ = 0.182 (3.568)	$\gamma_{(corporate\ image - satisfaction)}$ = 0.182 (3.585)	0
$\gamma_{(satisfaction - loyalty)}$ = 0.306 (3.651)	$\gamma_{(satisfaction - loyalty)}$ = 0.223 (2.527)	0.426

$\Delta\chi^2$ = 1.441 (Df = 8), Not significative for all gammas set equal across subgroups.

TABLE 5: LATENT MEAN STRUCTURE

Group	Corporate image	Emotion	Perceived value	Satisfaction	Loyalty
Women +	0	0	0	0	0
Men	-0.039 (t = -0.498)	0.012 (t = 0.236)	-0.022 (-0.284)	0.020 (t = 0.279)	0.021 (t = 0.334)

+ Reference group

As can be seen from table 4 and 5, there is no difference between men and women regarding the global pattern underlying airline loyalty.

CONCLUSION

The principal aim of this study was to propose and test a conceptual model designed to elucidate air passenger's loyalty. Furthermore, we attempted to identify whether the suggested model is invariant between male as well as female air passengers. As such, the present research is a notable step in gaining an understanding of airline loyalty and is unique in that it exposes an airline loyalty framework exploring a set of previously unproven connections.

Our study may be the first one to focus on the determinants of air passengers' loyalty. In fact, past research on loyalty has been limited to service industries or goods and has not included a focus on this relationship in the airport industry. The model was empirically tested using surveyed data from 730 air passengers. The current work contributes to the transportation literature. In fact, an integrative model was tested to simultaneously assess the relations between corporate image, emotion, perceived value, and satisfaction and to simultaneously examine these variables in the prediction of air passenger loyalty. The empirical findings from this latent variable structural equation model offer valuable insights to airport managers. Hence, this model should be useful to managers for determining the influence of diverse tactics as well as strategies (improving satisfaction, value, and image) on the airport loyalty intention measures of passive and active loyalty.

It is worth noting that because of the presence of a suppressor effect derived from the model complexity, we could not support the path from emotion to loyalty, which has been established in past researches in services context (e.g., Pullman and Gross, 2004; Barsky and Nash, 2002; Allen et al., 1992). Whereas, the insertion of other constructs in our model leads us to important implications. As for gender as a moderator, corporate image was found to have a predictive effect on air passenger loyalty in the case for females (but not in the case for males). This result was the only disparity caused by gender. Nevertheless, a multigroup and a latent mean analysis demonstrated a significant invariance of the significant structural path across women and men groups concerning the abovementioned connection. In other words, we can conclude that gender is not a significant moderator in our airline loyalty model. In that sens, similar psychological mechanism seems to operate for males as well as for females air passengers.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

The present study was subject to several limitations that may affect the interpretation of the findings. The first limitation is the possibility to generalize the results outside Tunisia. Replication in other global contexts is suggested to resolve this limitation. Second, some important variables are not included into the model (for example service quality). Third, the sampling method for our study was a convenience sampling that was not scientifically designed. So, the outcomes of this study may not have represented the entire population, due to this non-probability sampling method. Therefore, notable efforts should be devoted to identifying any possible biases in these nonrandom samples. Finally, this research arises as a consequence of bias resulting from self-complete surveys. Especially, measurement error may result from inaccuracies in an individual's reporting of data.

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GAME THEORY AS ANOTHER PHILOSOPHICAL FOUNDATION OF POLITICAL MARKETING: EVIDENCE FROM NIGERIA'S ELECTORAL PROCESS

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ABSTRACT

A number of scholars in political marketing have noted that political marketing is a concept originating from a set of philosophical foundations. These foundations are marketing, political and stakeholder theories (Banes 1996, Lees-Marshment, 1999; Scammel, 2003; etc). But our present study captures 'game theory' as another critical foundation of political marketing practice. Confirmatory factor analysis and structural equation modeling are used to clarify the relationship between game theory and political marketing. The research findings which is based on a survey of political marketers, suggest that game theory explains a significant proportion of the variance in the degree of political marketing programme implementation. The paper concludes with respect to the explanatory power of game theory in the context of political marketing strategy.

KEYWORDS

philosophical foundations, politics, marketing, game theory, relationship.

INTRODUCTION

In view of the profound impact of political marketer's decisions on the well - being of electorates and other stakeholders, it is important for political parties to have specific guidelines to develop and implement marketing strategies in socially responsive ways (Robin and Reinenbach, 1987). This paper therefore builds on the research dealing with the concept of political marketing.

Political marketing has been defined as a marriage between marketing and political science designed to enhance electorate well-being of the stakeholders (citizens, corporate bodies, international community and the environment).

The concept of political marketing has been described and discussed in a variety of contexts. For example, Philip Kotler argues that election campaigning has an inherently marketing character and that the similarities of salesmanship in business and politics far outweigh the difference. According to him, marketing strategy is at the heart of electoral success because it forces a campaign to put together, in a very short period of time, a winning relatively stable coalition of diverse and sometimes irreconcilable groups.

Scammel (1999) discussed how the concept of political marketing practice originated in the state of California, around the time of World War 1.

Guided by the concept of political marketing, Baines (1996), Scammel (1999) Lees-Marshment (2001) Wring (2002),and Newman (1999) tracked the sets of political actors in several studies. These actors include political parties, candidates for elections, electorates, party functionaries and supporters.

Consequently, political marketing application has moved from solely a communication tool to an integrated way of managing politics, be it policy development, permanent campaigning (Nimmo, 1999) or even governing (to the extent that government has become 'symbolic' in certain circumstances) (O'Shaughnessy, 2003)

The major objective of this paper, therefore, is to build on the research dealing with political marketing by proposing the inclusion of 'game theory' in the philosophical structure of political marketing.

The ultimate goal is to offer a deeper insight in a nomological sense. This perspective is expected to guide future empirical studies in political marketing. In addition, it should provide political marketers with practical guidelines on how to facilitate the development and implementation of marketing programme that enhance electorate well-being while preserving the well-being of the party's other stakeholders.

THEORETICAL FRAMEWORK

Political marketing is a concept that originates from a set of philosophical foundations in political and marketing thoughts. These foundations include marketing (e.g. Scammel, 1999, Kotler, 1999, 2002), political science (e.g. Kavanagh, 1997; Lees- Marshment, 1999; Harrop and Nimmo, 2001), and stakeholder theory (e.g. Carrol, 1989; Evan and Freeman 1988; Freeman, 1984). We can now consider each of these foundations in turn.

POLITICAL MARKETING AS A CONCEPT ORIGINATING FROM MARKETING

Kotler (2002) has long argued that marketing thought can be viewed in terms of fundamental marketing strategies. He described the following philosophical concepts: production orientation, product orientation, selling orientation, marketing orientation, customer orientation, and societal marketing orientation.

Lees Marshment (2001) put this argument in proper perspective by positing that political parties can use marketing to increase their chances of achieving their goal of winning general elections. They alter aspects of their behaviour, including policy, membership, leadership and organizational structure, to suit the nature and demands of their market. They can do this by being product, sales or market-oriented.

A product-oriented party argues for what it stands for and believes in. It assumes that voters will realize that its idea are the right ones and therefore vote for it. This type of party refuses to change its ideas or product even if it fails to gain electoral or membership support.

A sales-oriented party focuses on selling its argument to voters. It retains its pre-determined product design, but recognizes that desired supporters may not automatically want it. Using market intelligence to understand voters' response to its behaviour, the party employs the latest advertising and communication techniques to persuade voters that it is right. A sales–oriented party does not change its behaviour to suit what people want, but tries to make people want what it offers.

A market-oriented party designs its behaviour to provide voter satisfaction. It uses market intelligence to identify voter demands, then designs its product to suit them within the limits of available resources.

POLITICAL MARKETING AS AN EXTENSION OF POLITICAL SCIENCE

Politics is essentially about power, but the struggle for power results in competition among political actors. Thus, the underguiding political practice is the struggle for power.

From another dimension, politics is about policy. Extending this view, Bruce Miller in Nzimiro (1992) states that policy is a matter of either the desire for change or the desire to protect something against change.

According to Nzimiro (1992), politics in modern society is expressed through political parties which are created to achieve the goals of society. This is why political parties are organized around specific ideas often called 'ideologies'. Originally they were formed from local communities and the spread of their influence evolve from the establishment of the electoral system.

Ohiwerei (2002) observed that the political party can be likened to a company, the party ideology to a company's mission statement; the party manifesto to a company's marketing strategy/ plans, and the party candidate to a brand. The logical conclusion following from this thought process is that political party, if it is to be effective and successful, should operate like a business or a company. Given this analogy, there is no gainsaying the relevance of marketing in politics. The success of any company depends on the success of its brands or services.

Similarly, the success of a political party in election depends on the success of its candidates. Political marketing shares with political science a desire to understand underlying process; and therefore creates explanatory models of party and voter behaviour. Political science typically links the marketing of politics to the decline of ideological cleavages, and the rise of Kirchheimer's famous 'catch-all' parties. The less clear the ideological divide, the more parties will have to rely on the techniques of marketing to manufacture. Catch-all cannot provide an adequate explanation of the entire political market. Political marketing instead looks to theories of competitive marketing strategy and market segmentation theory for alternative explanations.

POLITICAL MARKETING AS A CONCEPT EMBEDDED IN STAKEHOLDER THEORY

The stakeholder view of the political party holds that the party operates in a network of relationships. This means that the party engages in various exchange relationships with many exchange partners including supporters, electorate, competitors, other functional committees within the party, and various stakeholders in the society like civil society, trade unions, cultural associations, etc(e.g. freeman, 1984, carrol 1989, Evan and Freeman, 1988; Morgan and Hunt, 1994). Stakeholder theory is grouped in the literature of business ethics and corporate social responsibility(Carrol, 1989; Frederick, Davies, and post, 1988)

A party's marketing decisions affect the well – being of various stakeholders. For this purpose, a political marketing's stakeholders can be classified as external stakeholders, internal stakeholders, and distant stakeholders (Sirgy, 2002) internal stakeholders are members and other functional committees and business units within the political party other than marketing or campaign and strategy committee. External stakeholders refer to stakeholders outside of the party, upon which the survival and growth of the party depend (e.g. electorates, promoters, suppliers, funders and supporters). Distal stakeholders refer to stakeholders that influence the survival and growth of the party indirectly through external stakeholders (e.g. legal groups, advocacy groups, government agencies, civil society, trade unions, ethnic and cultural groups, etc). For political marketing, voters are considered to be the primary external stakeholders. Political marketers' primary responsibility is to meet the demand of their electorate (citizens) and enhance their quality of life.

EXPLAINING THE GAMES THEORY

Games theory is a system for describing games and using mathematical techniques to convert practical problems into games that need to be solved. Games theory can be described as a distinct and interdisciplinary approach to the study of human behavioural and such disciplines include mathematics, economics, psychology, political marketing, and other social and behavioural sciences. If properly understood, it is a good law for studying decision-making in conflict situations and it also provides mathematical techniques for selecting optimum strategy and most rational solution by a player in the face of an opponent who already has his own strategy.

Historically, the game theory was propounded in the 1920s by Emil Borel, and was further developed by John Von Newman to explain the behaviour of the economic man or the rational actor.

The crux of the games theory is the nature of the inter- dependence of whatever decisions are made by the different players participating in the game. This is because it is not possible for any one player to make a choice without giving considerations to the choices made by the other players. Thus, the task before each player is to ensure that decisions are based on expectations of what actions the other players would take at any given time. The wayout of this is that the game entails elements of consistency and rationality among actors because such actors have partial control over the strategic factors affecting their environment. According to Ajayi (2006), the use of games theory in political studies is based on the following assumptions:

1. That the game is usually well defined
2. That the game has an explicit set of rules
3. That the information available to the players is specified at every point.
4. That the scoring system is complete.

Central to the theory are two vital components: the players and the strategies or tactics. The players also known as decision makers, could be individuals or institutions and are assumed to be rational with well defined objectives and are endowed with resources to checkmate competing forces. To guide the deployment of those resources are rules.

The game theory further argues that each player has a scale of utilities according to which he prefers some outcomes, so long as he plays the game at all. The player also has a range of options among different moves he can make, and there are particular expectations of such moves. Even though their knowledge of outcome of their actions are uncertain, the theory further argues that if players must play well, they must know what they know and what they do not know, and they must know what they can and what they cannot do (Duetch, 1978).

The outcome of whatever strategy is adopted gives rise to the different forms of game theory we know. Examples include:

(i) **Two- Person Zero-Sum Games:** Here, we have only two players and the gains of one always equal to the loss of the other. In other words, two players are involved and the sum of the payoffs for every set of strategies by the two players is zero.
(ii) **Two-Person Non-Zero-Sum Games**: Here two players are involved and there is one strategy set for which the sum of the payoffs is not equal to zero.
(iii) **Non-Constant Sum Games**: The values of payoffs for this game vary.
(iv) **Multi-Person Non-Constant-Sum Games**: Many players are involved in the game and the payoffs for the players vary.
(v) **Cooperative Games**: In this game there is cooperation between some of the players and there are rules guiding the cooperation within the players. Political marketing can be modeled as a cooperative game with some players forming alliance with prospective successful political parties while others defect from parties that they feel can fail in an election.
(vi) **Combinatorial Games**: This makes use of combinatorial analysis.
(vii) **Stochastic Games** which is probabilistic in nature.
(viii) **Two-Person Zero-Sum Stochastic Games**
(ix) **Stochastic Multi-Generation Game.**

Some other games are given interesting names to emphasize the issues being portrayed. Examples are:

(i) **Matching Penny Game**
(ii) **Prisoner's Dilemma**
(iii) **Ultimatum**
(iv) **Angel Problem**
(v) **Tragedy Of The Commons**
(vi) **Majority Rule.**

(i) **Two- Person Zero-Sum Games**

This game involves two players in which losses are treated as negatives and wins as positives and the sum of the wins and losses for each set of strategies in the game is Zero. Whatever player one wins player two loses and vice versa. Each player seeks to select a strategy that will maximize his payoffs although he does not know what his intelligent opponent will do. A two-person zero-sum game with one move for each player is called a rectangular game.

Formally, a two-person zero-sum game can be represented as a triple (A, B, Y): where

A=[a1, a2,…,am] and

B=[b1, b2,…bn] and are payoff functions, eij such that

Y= [ai, bj] = eij.

This game can be represented as an m x n matrix of payoffs from player 2 to player 1 as follows:

$[y[a_1, b_1]\ y[a_1, b_2]\ldots [a_1, b_n]$

$[y[a_m, b_1]\ y[a_m, b_2]\ldots [a_m, b_n]$

The two- person zero-sum games can also be represented as follows:

Suppose the choices or alternatives that are available for player 1 can be represented as

1, 2, 3, ... m

While the options for player two can be represented as

1, 2, 3, ... n

If player 1 selects alternative: and player 2 selects alternative j then the payoff can be written as ay. The table of payoffs is as follows:

Alternative for player 1

Alternative for player 2

	1	2	3	. . .	.n
1	a_{11}	a_{12}	a_{13}	. . .	a_{1n}
2	a_{21}	a_{22}	a_{23}	. . .	a_{2n}
3	a_{31}	a_{32}	a_{33}	. . .	a_{3n}
.					
.					
m	a_{m1}	a_{m2}	a_{m3}		a_{mn}

The strategies employed in a two person zero sum game could be pure, dominating or mixed strategies.

PURE STRATEGIES

In pure strategy, the maximum criterion enables one to obtain a saddle point solution. The maximum criterion states that for a two person zero sum game, it is rational for each player to choose the strategy that maximizes the minimum pay off to be received by each of them. The pair of strategies and the payoffs such that each of the players maximizes the minimum payoffs is the solution to the game. So with his strategy player1(row player) can guarantee that the payoff is at least v, the lower value of the game where:

$\underline{V}$ = sup infy (a_1, b_1)

= Max ^{a1}(Min$^{bj}a_y$)

While player 2 (column player) can guarantee that player1's payoff is no more than v, the upper value of the game.

$\overline{V}$ = infy$_{bj}$ supy$_{ai}$ (a_1, b_1)

= Min (Maxa$_y$)

For the maximum criterion which states that a saddle point solution exists in pure strategies we have

$\underline{V}$ = sup infy (a_1, b_1) = V = infy supy $\overline{(a_1, b_1)}$

Max ^{a1}(Min$^{bj}a_y$) = Min$_j$ (M$_i$axa$_y$)

DOMINATING STRATEGIES

In a payoff matrix, row dominance of i over j occurs if a> aj while column dominance of i over j occurs if bi< bj. If dominance occurs, column j is not considered and we reduce the matrix by dominance until we are left with 1x1 matrix whose saddle point, solution can be easily found. We consider the matrix:

$$\begin{pmatrix} 3 & 4 & 5 & 3 \\ 3 & 1 & 2 & 3 \\ 1 & 3 & 4 & 4 \end{pmatrix}$$

Observation shows that every element in column 1 is less than equal to that of column 4, and we may remove column 4- the dominating column. Similarly, b3 dominates b2 and we remove the dominating column b3. The game is reduced to:

$$\begin{pmatrix} 3 & 4 \\ 3 & 1 \\ 1 & 3 \end{pmatrix}$$

In row dominance, we eliminate the dominated rows aj (where a> aj) while in column dominance we eliminate the dominating column bj(where bi< bj) since player2 desired to concede the least payoff to the row player and thus minimize his losses.

This procedure is repeated using row dominance. Since a1 dominates a2 and also dominates a3, we remove the dominated rows a2 and a3. This is due to the fact that player1, the row player, wishes to maximize his payoffs. We then have 1 x1 reduced game [3 4] which has a saddle point solution. Generally, if a dominated strategy is reduced for a game, the solution of the reduced game is the solution of the original game.

MIXED STRATEGIES

Suppose the matrix of a game is given by:

$$A = \begin{pmatrix} 2 & -1 & 3 \\ -1 & 3 & -2 \end{pmatrix}$$

Inspection shows that row and column dominance cannot be used to obtain a saddle point solution. If no saddle point solution exists we randomize the strategies. Random choice of strategies is the main idea behind a mixed strategy. Generally a mixed strategy for player is defined as a probability distribution on the set of pure strategies. The minimax theorem put forward by Von Newmann enables one to find the optimal strategies and value of a game that has no saddle point solution and he was able to show that every two- person zero-sum game has a solution in mixed if not in pure strategy.

As we noted above in cooperative game, it is possible for two or more players to cooperate against the others by pooling resources and making collective decisions during the play. This is the idea behind the coalition and realignment in politics or ganging up on the front runner in order to stop his chances of winning.

No matter its inadequacies, game theory has found relevance in analyzing major issues in political marketing. It is used, for instance, as analytical tool of strategic studies to explain the phenomenon of conflicts, competition, bargaining, electoral politics, voter behaviour, political alliance and elite conspiracy.

THE NEXUS BETWEEN GAME THEORY AND POLITICAL MARKETING THEORY

The contentious issue in the political marketing literature concerns the extent to which the elements of the marketing programme (i.e product, promotion, price and distribution) which Lee and Sirgy (2004) identified as the marketing beneficence should be handled to fit the characteristics of the various political markets and meet the expectation of the electorate.

The other aspect of the marketing concerns the preservation of the well-being of party's other stakeholders (e.g. employees, civil society, trade unions, cultural associations, international community etc. Lee and Sirgy (2004) called this marketing nonmaleficence.

These two aspects have been reflected in the definition of political marketing. For the avoidance of doubt, political marketing is the political mechanism of applying commercial-marketing techniques by political parties in order to win the mandate of the electorate for the purpose of enhancing the well-being of all stakeholders.

To fully capture the relationship between political marketing and game theory, we will identify specific dimension of beneficence and nonmaleficence marketing to show how game theory interfaces with the four marketing mix decision areas (product, price, distribution and promotion). Within each cell, we identify specific dimensions of political marketing.

TABLE 1: DECISION AREAS OF POLITICAL MARKETING GAME

DIMENSION	Product Decision	Price Decision	Distribution Decision	Promotion Decision
Marketing Beneficence	Credible candidate, Leadership ideologies, Symbols, Constitutions, Activities, Policies, Behaviour etc.	Issues that will not increase the suffering of the masses	Increase the visibility of the product through network, i.e Grassroot visibility	Campaign must include voters' education, and must be issue-based with facts and figures
Marketing Nonmaleficence	Products that are consistent with democratic practice	Avoid hurting the stakeholders	Follow the standard practice in logistics and transportation	Communicate in the manner that does not reinforce negative stereotypes and materialism

Political marketing as a game requires the development and marketing of products that meet the expectation of the citizens through transparent democratic processes within the party. Parties should ascertain the marketability of products or candidates through market intelligence. Failure to do this will put them at a competitive disadvantage.

In relation to making product decisions that preserve the well-being of the party's voter-stakeholders, we assert that it is important to study the political risks associated with the adoption of the party's product in relation to none voter stakeholders. These include under-aged citizens, non-nationals, corporate bodies etc.

Accordingly, the degree of caution exhibited by parties in designing and developing products that enhance the well-being of electorates as well as preserving the well-being of other stakeholders should lead to the loss of opposition at the polls. Thus we state the following hypotheses:

H_1: The more credible the party's products are to the electorates, the greater the possibility of loss of the opposition.

Hypothesis one above is a scenario of the zero-sum game. In the zero-sum game, we have only two players (i.e. two-party system or a multi-party system that is very weak in terms of opposition and the gains of one always equal to the loss of the other.

With respect to pricing decisions, the resources involved in political marketing strategy are mostly time, effort, the goodwill of volunteers and party members as well as party friends. Political marketing strategy should further be geared towards providing the palliatives to cost incurred in non-marketing terms in the sense that there are always opportunity lost in terms of time and resources that party activists or politicians could spend on other activities, working in their constituency, or simply as leisure or in seeking other forms of private income. It may also use resources that could either be used elsewhere or saved for the election campaign itself. These include the time and goodwill of volunteers and staff. This means that parties and their candidates should reciprocate the sacrifice of members and electorate, and should be seen to so do. This leads us to the second hypothesis:

H_2: The more selfless the party's candidates are to the citizens and other stakeholders, the greater the possibility of splitting the votes and seats at the polls.

In the non zero-sum game, two or more players (parties) are involved, and the gladiators may share from the award or the division of the award, and the gain of one need not be equal to the loss of the other. This is because all the parties are perceived serious contenders.

In the case of distribution decisions, political marketing encourages parties to increase their visibility in all the nooks and crannies of the country. The goal is to maximize the voters' accessibility to the party's products. The more extensive the network, the more likely the opponents will be displaced at the polls. This leads to the third hypothesis:

H_3: The wider the geographical spread of the political party in the political market, the greater the size of membership and tendency of acceptability.

This is the zero-sum-person's game. The scenario is like the case of hypothesis two – since the division of the award and the gain of one need not be equal to the loss of the other.

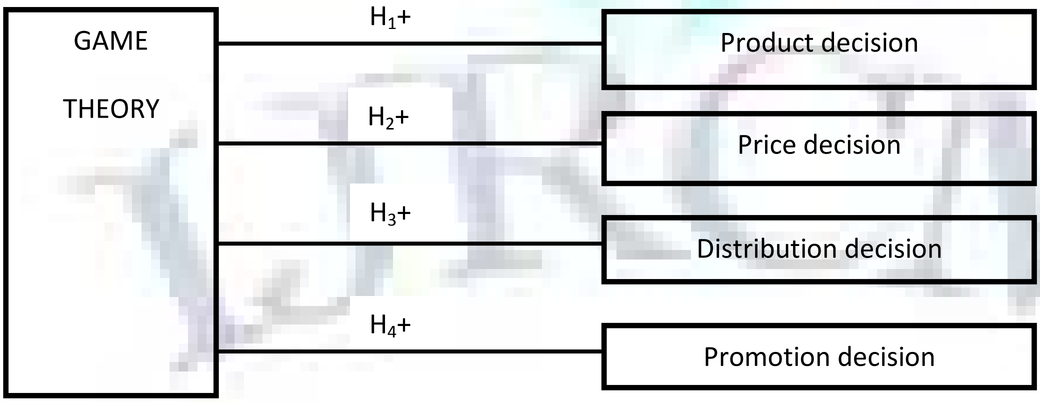
With respect to promotion decisions, the game theory reinforces the notion that voters' well-being will be enhanced if they are provided with both quality and quantity information about the party's products, costs and benefits. This would mean the strength and unique pedigree of the party and its candidates.

Voter education is part of political marketing game. Consistent with that spirit, political marketers are advised to make concerted effort to educate the citizens about the need to exercise their franchise, and be sure to vote for the candidate of their choice. Accordingly, the degree of tact exhibited in promoting the party's product should be reflected in the outcome of the polls. This leads to the fourth hypothesis:

H_4: The weaker the campaign machineries of Leader party, the greater the tendency of coalition among parties to stop the victory of that leader.

This is the non zero-sum n-person game. It means that there are three or more players (parties) or candidates. It is possible for two or more players to cooperate against the others by pooling resources and making collective decisions during the election (play). This is the idea behind the coalition and realignment in politics or 'ganging up' on the front runner in order to stop his chances of winning (Verma, 1975).

FIGURE 1: THE CONCEPTUAL MODEL



RESEARCH METHOD

The results reported here are based on a study of Nigerian political parties actively engaged in political marketing. 20 of these parties were purposively selected to serve as a representative sample from the list of 54 political parties registered for 2007 general elections.

Thirty participating officials were selected from each of the 20 parties' three tier levels of officials (i.e. National, State, and Local Government Areas). This selection process was designed to reflect uniquely hierarchical input, identification and evaluation of political marketing practice and the interface of game theory.

Further to the above, a sample of 424 voters was randomly selected from the six geo-political zones in Nigeria (i.e. North West, North Central, North East, South West, South-South, and South East).

DEVELOPMENT OF MEASURES

To measure game theory, a seven-item measure adapted from previous studies (Klein and Roth, 1990; Clark and Pugh, 2001) was used to capture the perception of differences between the respondents' understanding of game theory and political marketing practice.

The measures used to assess the applicability of game theory to political marketing programme were chosen on the basis of the literature surveyed (Nimmo, Butter & Kavanagh, 1997; Downs, 1957; Harrop, 1990; Maarek, 1992; Lees-Marshment, 2005; Scammell, 1999). In all cases, a five-point scale from (very similar) to 5 (very different) was used (see table 2 below).

TABLE 2: CONFIRMATORY FACTOR ANALYSIS

Constructs and items	Regression Weights	Standardized loadings	t-Value
PRODUCT (CR*= .92; VE^{xx} = .70)			
Party behavior	0.860	0.784	15.429
Party leadership	0.968	0.856	16.538
MPs and candidates	0.955	0.873	17.777
Membership & Staff	0.875	0.820	15.643
Symbols, constitution & activities	(Set to 1)	0.847	
PRICE (CR = .83; VE = .55)			
Time	0.897	0.728	10.728
Cost	0.931	0.763	11.692
Goodwill	0.951	0.754	11.352
Mandate	(Set to 1)	0.730	
PROMOTION (CR = .95; VE = .81)			
Campaign theme & message	1.148	0.945	18.461
Campaign content	1.172	0.943	18.662
Campaign media strategy	1.174	0.948	18.836
Canvassing & Sales Promotion tools	1.038	0.855	16.171
Canvassing & promotion budget size	(Set to 1)	0.804	
DISTRIBUTION (CR = .91; VE = .72)			
Ward network/campaign delivery	1.156	0.848	15.842
Control over network delivery	1.163	0.897	16.757
Logistics strategy/offering delivery	1.040	0.834	15.212
Budget for network/delivery	(Set to 1)	0.828	
GAME THEORY (CR = .87; VE = .50)			
Game definition	0.981	0.649	10.980
Explicit set of rules	0.681	0.693	11.815
Specific information	0.751	0.723	12.167
Complete scoring system	0.807	0.714	12.720
Language of the game	0.866	0.745	10.937
Players wit	1.004	0.646	12.354
Rational value	(Set to 1)	0.758	

MODEL FIT INDEXES ARE AS FOLLOWS

Chi-Square = 616.133; df = 265 (p = 0.000); CFI = 0.981; TLI = 0.977; IFI = 0.981; RMSEA = 0.066

KEY: *composite reliability ($CR) = \frac{(\sum Standardized\ Loading)^2}{(\sum Standardized\ Loading + \sum\Sigma)}$

*Variance Extracted (VE) = $\frac{\sum(Standardized\ Loading^2}{(\sum(Standardized\ Loading) + \sum\Sigma)}$

TABLE 3: CORRELATION BETWEEN CONSTRUCTS: VExx

Construct	1	2	3	4	5
1. Product	0.836				
2. Price	0.496	0.742			
3. Promotion	0.466	0.561	0.900		
4. Distribution	0.399	0.544	0.534	0.549	
5. Game Theory	0.499	0.610	0.505	0.345	0.707

NOTE: Diagonal is the square root of the average variance extracted.

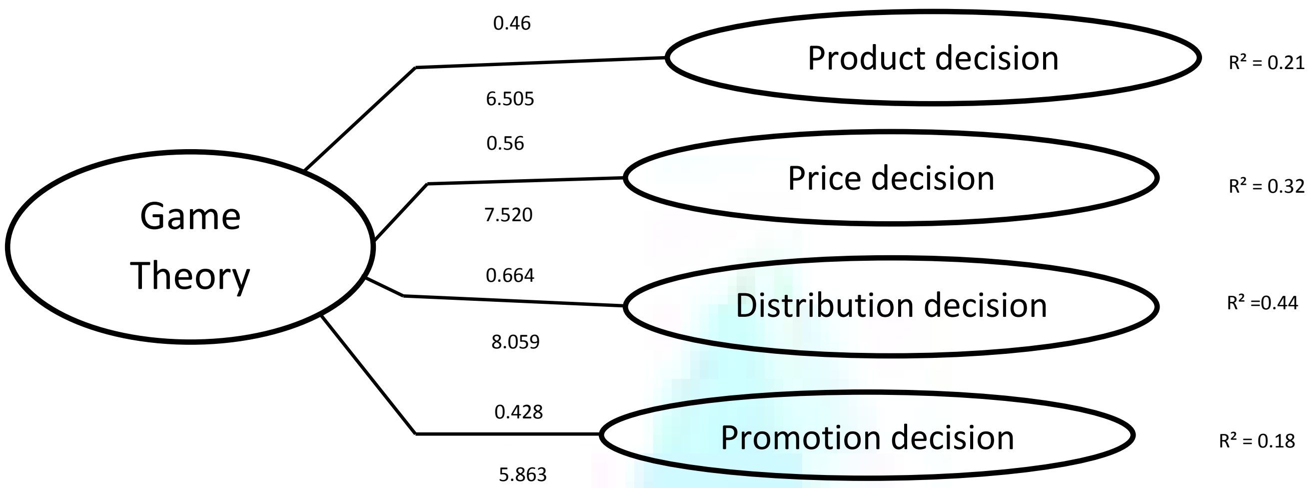
INSTRUMENTATION

In line with the foregoing, 400 was determined as the sample size, causing 400 copies of the questionnaire to be distributed to the 20 participating political parties to confirm from their experience whether game theory applies to their political marketing operations, and if it was capable of improving significantly the level of voter patronage as well as result in high electoral success at the poll. A total of 318 copies of the questionnaire were returned, out of which 301 were complete and usable resulting in a net response rate of 75.25%.

THE TESTING OF HYPOTHESES

The overall Chi-Square for the model exhibited in figure 1 is significant (chi-square = 735.790, df = 27, P < 0.001), as might be expected given the size of the sample, such that tests involving large samples will generally lead to the rejection of the model even if it is appropriate (Bagozzi and Baumgartmer, 1994; Arbuckle and Worthke, 1999). We therefore consider other structural diagnostics for relative global fit suggested by Bollen (1989) and Byrne (2001).

FIGURE 2: FINAL MODEL INVOLVING THE POLITICAL MARKETING MIX ELEMENTS



Chi-Square = 735.790, df = 271
CF1 = 0.975; TL1 = 0.970
IF1 = 0.975; RMSEA = 0.076
NOTE: standardized parameter estimate above the lines and t-value below the lines.

Other measures of model fit were comparative fit index (CF1 = 0.975), Tueker-Lewis fit index (TL1 = 0.970), incremental fit index (IF1 = 0.975) and Root Mean Square Error of Approximation (RMSEA = 0.076). Given that all the fit indexes were inside conventional cut-off values, the model was deemed acceptable (Hair et al, 1998). The relationships proposed in the model are examined next (Figure 2 and Table 5).

Hypothesis one (H_1) to hypothesis four (H_4) propose a positive relationship between game theory and the practice of political marketing which utilizes the marketing mix elements (price, product, promotion and distribution). The positive relationship between game theory and the level of success in product decisions (H_1) is strongly supported as indicated by a parameter estimated of 0.461 ($p < 0.01$). Similarly, the statistically significant estimates of 0.568 ($p < 0.01$) for game theory and price decision (H_2). 0.664 ($p < 0.01$) for game theory and distribution decision (H_3) and 0.428 ($p < 0.01$) for game theory and promotion (H_4) indicate that all four hypotheses are strongly supported.

TABLE 5: MODEL PARAMETER ESTIMATES and t-VALUES

Dependent Variables	Independent Variables		R^2
	S.p	t-values	
Product	0.461	6.505^{xx}	0.21
Price	0.568	7.520^{xx}	0.32
Distribution	0.664	8.059^{xx}	0.44
Promotion	0.428	5.863^{xx}	0.18

KEY: S.p = standardized parameter estimate
xx $p < 0.01$

With regard to the proportion of variance of the political marketing mix elements that is explained by the game theory, results were quite acceptable concerning product decision: An R2 value of 0.21 was reported, indicating that 21% of the variation in product decision is explained by game theory. Similarly, the proportion of variance of price decision, distribution decision and promotion decision that is explained by game theory is 44%, 32%, and 18% respectively.

DISCUSSION, IMPLICATIONS FOR MANAGEMENT AND CONCLUSION

DISCUSSION

A systematic investigation into the relationship between game theory and political marketing practice has not been reported in the literature, yet the results reported above suggest that political marketing decisions are strongly influenced and conditioned by game theory. Accordingly, this study demonstrates the value of the game theory construct as an important determinant of political marketing strategy.

Hypothesis one (H_1) stated that game theory is positively related to the degree of voter patronage due to high credibility. The results strongly support this assumption, i.e. product decision appears to be premised on the desire of political party to present a credible candidate to the electorate (Ajayi, 2006; Worlu, 2005; Wring, 2001; Scammell, 1999).

Concerning the link between pricing decisions and game theory, the results indicate that the basis of the party's pricing strategies is the game theory. This is consistent with H_2. This corroborates previous studies which indicate that political parties tend to present for election purposes candidates who have track records of philanthropic engagements among the citizens, and express commitments towards alleviating the suffering of citizenry in all areas of development (Baines, 1996; Wring, 1994; Harrop, 1990; Newman, 994; O'Shaughnessy, 1990).

Hypothesis three (H_3) indicated that there exists a positive relationship between game theory and distribution decision. This is confirmed in the present research findings which reveal that the wider the geographical spread of the political party in the political market, the greater the size of membership and tendency of acceptability. Lees-Marshment (1999) and Scarrow (1996) also corroborated this stance.

The role played by party managers in the selection of promotion strategy is underscored in political marketing. The results strongly support that game theory is positively related to the promotional strategy of the party (Egan, 1999; Lees-Marshment, 1999; Bradshaw, 1995).

MANAGERIAL IMPLICATION

It may be difficult to generalize from a simple study. However, the results presented in this study help political marketing managers to enhance their understanding of the complex interface between game theory and political marketing phenomenon. Our findings indicate that political marketing operations are conditioned by game theory as well as other philosophical foundations. As a result, political managers should allow themselves to be influenced by game theory when making political marketing decisions.

Political marketers and managers can establish open communication channels both formally and informally as well as accepting culture and marketing training to be aware of the most significant marketing dimensions of the electorate. This will increase cultural understanding that could be factored into the political marketing decision process to increase the degree of game theory application.

CONCLUSION

The overriding objective of this study is to draw scholarly attention to the nexus between game theory and political marketing strategy. Despite the importance of these two constructs in the literature, the relationship between them has received little or no research attention.

In the light of the above, we illustrate the game theory and proposed a testable research model to test the relationship between game theory and political marketing strategy. A paramount task in the political marketing literature is to clarify what determines political marketing strategy; and our results have clearly indicated that game theory is an important construct that should not be ignored as an important determinant of political marketing strategy.

Despite the fact that game theory demonstrates a relatively high explanatory power regarding the various aspects of the political marketing strategy variables, there are certainly other influential factors that were not considered (e.g. environmental factors, organizational factors, expanded marketing mix factors, and individual factors). By building on our theoretical framework, further research should explore the relevance between political marketing strategy of the party and game theory.

Further work should also test this framework in other countries since the present study was based in Nigeria.

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ABSTRACT

For the past two decades, Takāful has emerged as one of the important Islamic financial instruments and a powerful tool to manage individual risks and business downturns. This research paper provides a comprehensive understanding of Takāful from Corporate perspective. Takāful scheme is based on brotherhood, solidarity and mutual assistance to the members in case of need where each participant contributes a fixed amount in the form of Tabarru'(donation) to Participant Takāful Fund (PTF). There are two classes of Takāful business. Family Takāful business includes long term Takāful products whose maturity period is more than one year. General Takāful business includes short term Takāful plans whose maturity period is one year or less. Income for Takāful operator includes Takāful operator's fees, profit from shareholder fund and modarbah share from PTF. Amount in Takāful fund is then invested in Sharī'ah approved instruments. Profit is added to Takāful fund and claims are paid to the loss affected members out of the fund. Remaining profit and surplus is distributed back to participants with no prior claims. Re-Takāful arrangements are also considered essential to transfer a part of Takāful risk to re-Takāful operator. The article concludes that innovative approach to resolve issues in the field of Takāful as Sharī'ah is abundant with real solutions to present business dilemma.

KEYWORDS

Takāful, Sharī'ah, Family Takāful, General Takāful,, Tabarru'(donation), Participant Takāful Fund (PTF), profit sharing, Modarbah, Re-Takāful

INTRODUCTION

Takāful is considered as an alternative to conventional insurance and interchangeably used as Islamic insurance. Due to several misconceptions associated with validity of conventional insurance under *Sharī'ah*, *Takāful* has emerged as one of the important Islamic financial instruments and a powerful tool to manage individual risks and business downturns for the past two decades. Risk is prevalent everywhere in our daily lives as well as in the business and effective risk management plays an important role to deal with uncertainties and unexpected situations. Islamic teachings emphasize on the best use of all available material and financial resources and prudent planning to achieve well being of individuals as well as of society. *Takāful* has proved its validity to combat individual as well as business risks and to boost up the economic activities of a country. It is based on the principles of *Tabarru'(*donation), good faith and mutual cooperation to achieve welfare of public at large.

It is the need of the hour that financial experts and business professionals could understand the operational mechanism of *Takāful*. While it is an important part of Islamic financial system, the concept itself and the nature of operations of *Takāful* companies is a topic that has been relatively neglected compared with Islamic banking (Lewis, 2003). This research paper attempts to provide an in-depth understanding of *Takāful* business from an organizational perspective. It highlights intricacies of operational mechanism of *Takāful* while providing conceptual understanding of *Takāful* through flow chart diagrams. Conceptual understanding includes operational functioning of family and general *Takāful* business as well as sources of income and expenses for participants and *Takāful* operators. It also discusses challenges to risk management in *Takāful*.

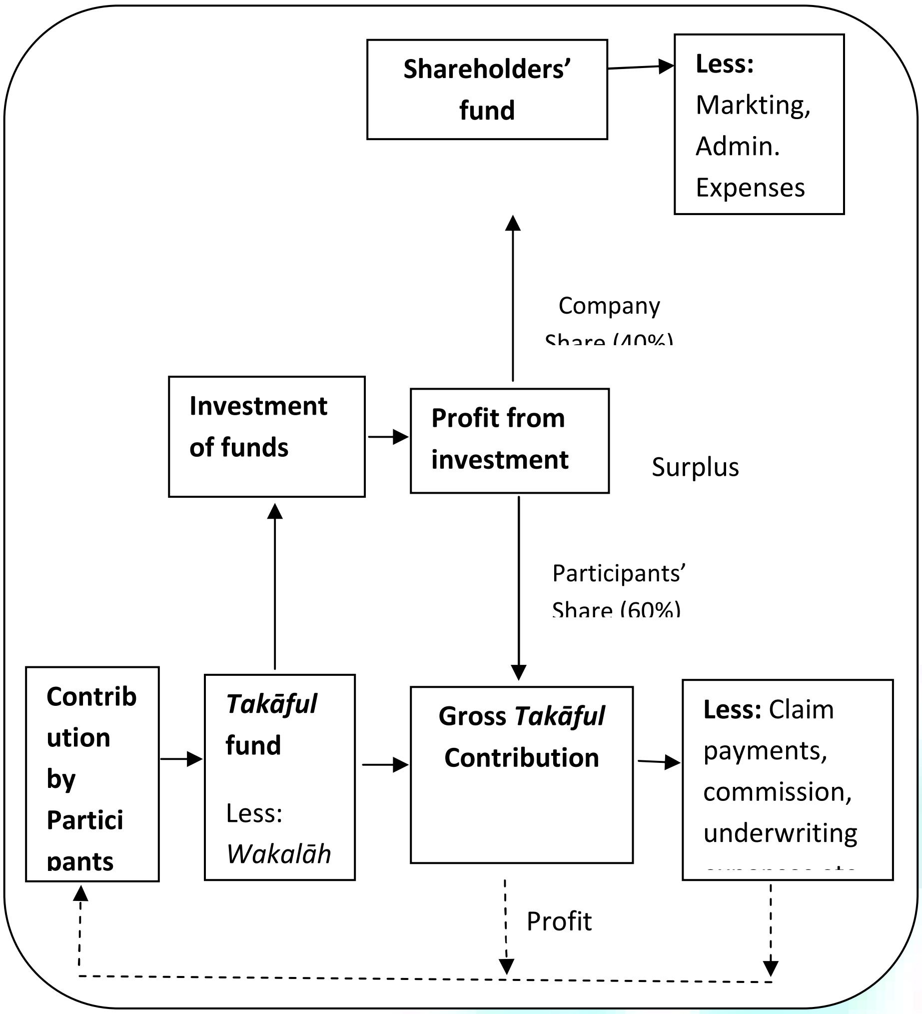
CONCEPTUAL UNDERSTANDING

According to *Takāful* Act 1984 issued by Bank Negara Malaysia, *"Takāful is a scheme based on brotherhood, solidarity and mutual assistance which provides for mutual financial aids and assistance to the participants in case of need whereby the participants mutually agree to contribute for that purpose*" (*Takāful* Act 1984, Section 2).

It can be inferred from the above concept that purpose behind the *Takāful* contract is to achieve the welfare of all members who are in need of help. That is the reason the members give a major portion of their contribution as *Tabarru'* (donation) which could be used to cover a loss or catastrophe that may occur to any participant.

Instead of treating *Takāful* a buying or selling contract, Obaidullah (2005a; pp.124-126) observes it as an arrangement by a group of people with common interests to guarantee or protect each other from a certain defined misfortune or mishap through the creation of a defined pool contributed out of their common resources. In this arrangement, each participant donates a fixed amount in a fund with the intention that if any of the participants incurs a loss or catastrophe, he will be compensated out of that fund. At the end of the year, *Takāful* operator has no right on the surplus that remains in the *Takāful* fund after paying all the claims to the affected participants. The surplus is distributed back to the participants that have no claim during the policy period. This kind of arrangement is known as *Takāful* and is acceptable under *Shari'ah.*

FIGURE 1: CONCEPTUAL UNDERSTANDING OF TAKĀFUL BUSINESS [1]



In the Figure 1, contribution paid by participants first goes to a fund called *Takāful* fund (TF). *Takāful* operator (the company) merely acts as a manager and trustee of these funds and charges a fee for making an arrangement for collection of contribution and payment of claims. *Takāful* fund is invested in *Sharī'ah* approved instruments.

Profit obtained from those investments is shared between *Takāful* operator and participants according to pre-determined agreed ratios. Participants' profit is added to *Takāful* fund to get gross contribution fund that is then paid to participants. After paying claims, deducting agency fees and underwriting expenses whatever is left is called surplus that is then paid back to those participants who have no claim during a specified period. However, *Takāful* Company may hold a portion of surplus as a contingency reserve (*Takāful* Rules 2005, section 14(5)). Under Mudarbah model, management expenses are deducted from shareholders' fund. In case, claim payments and agency fees exceed gross *Takāful* contribution, shareholders can provide interest free loan (*Qard-e-Hasana*) to cover the loss (*Takāful* Rules 2005, section 15). Contingency reserve may also be established by *Takāful* Company with mutual decision of board of directors to protect the rights of participants and to account for expected future losses.

CLASSES OF *TAKĀFUL* BUSINESS

Takāful business could be classified into two major groups of businesses depending upon the maturity period and risk involved.

i. Family *Takāful* business
ii. General *Takāful* business

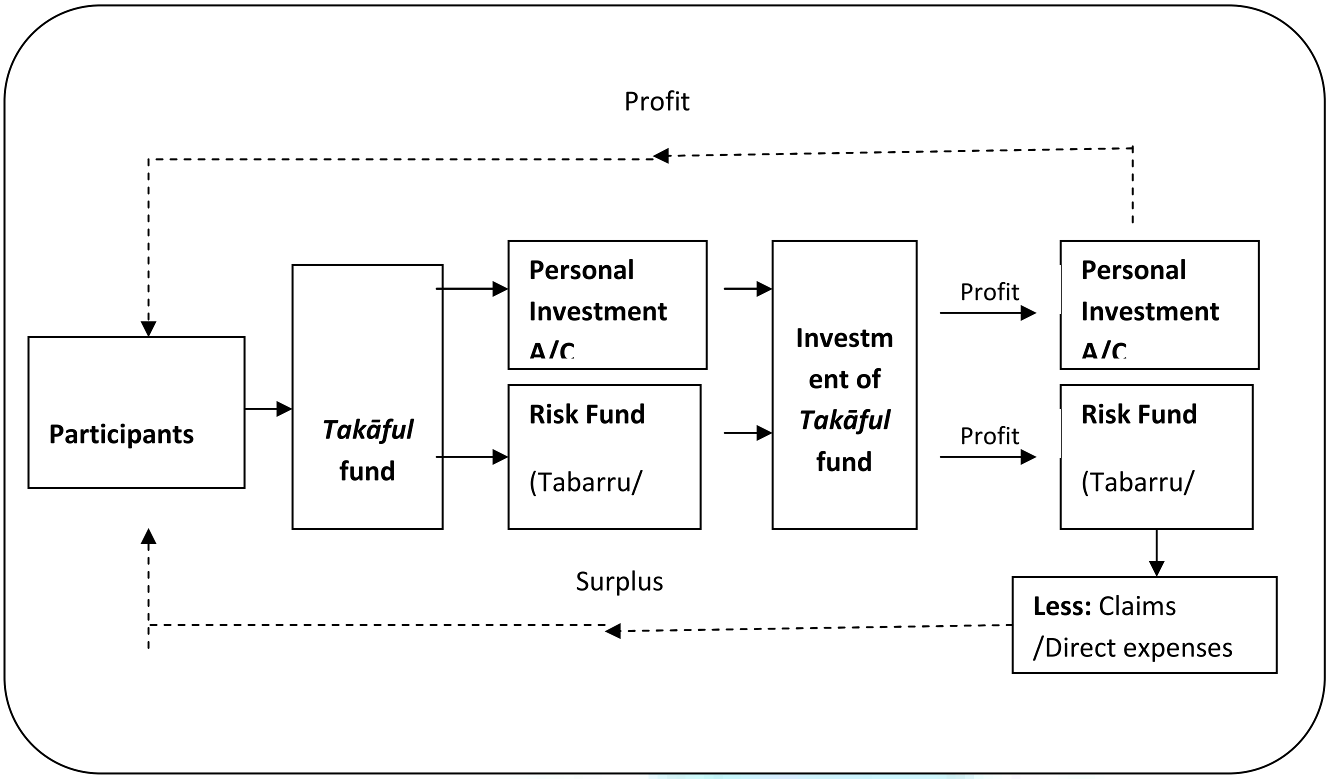
i. *Family Takāful business*[2]:

Family *Takāful* business includes long term *Takāful* products whose maturity period is more than one year. It could be up to 5 years, 10 years or 20 years. For example Pension *Takāful* plan, Children Education *Takāful* plan, Mortgage *Takāful* plan etc.

Family *Takāful* contracts aims at providing long term saving and investment plans to the participants to meet their specific needs in the long run. So contribution paid by participants is divided into two portions. A large part goes to personal investment account and the other small portion is treated as *Tabarru'(*donation) that goes to Risk Fund and is used to pay for claims and direct expenses (agency fees, management expenses). Both funds are invested together in *Sharī'ah* compliant instruments and profit is allocated to both accounts according to their share of investments. Entire profit from personal investment account is added to participants' accounts according to their share of contribution. Risk fund together with the profit obtained from investment is used to pay for claims and company direct expenses (agents' fees, operating expenses). Any amount left is treated as surplus and is paid back to the participants.

[1] This framework was developed after having discussion with senior management of *Takāful* Ikhlas Sdn. Bhd.
[2] This section is based on operational mechanism of family *Takāful* business of Syarikat *Takāful* Malaysia, Berhad.

FIGURE 2: FLOW OF FUNDS IN FAMILY TAKĀFUL BUSINESS [3]



General Takāful business:

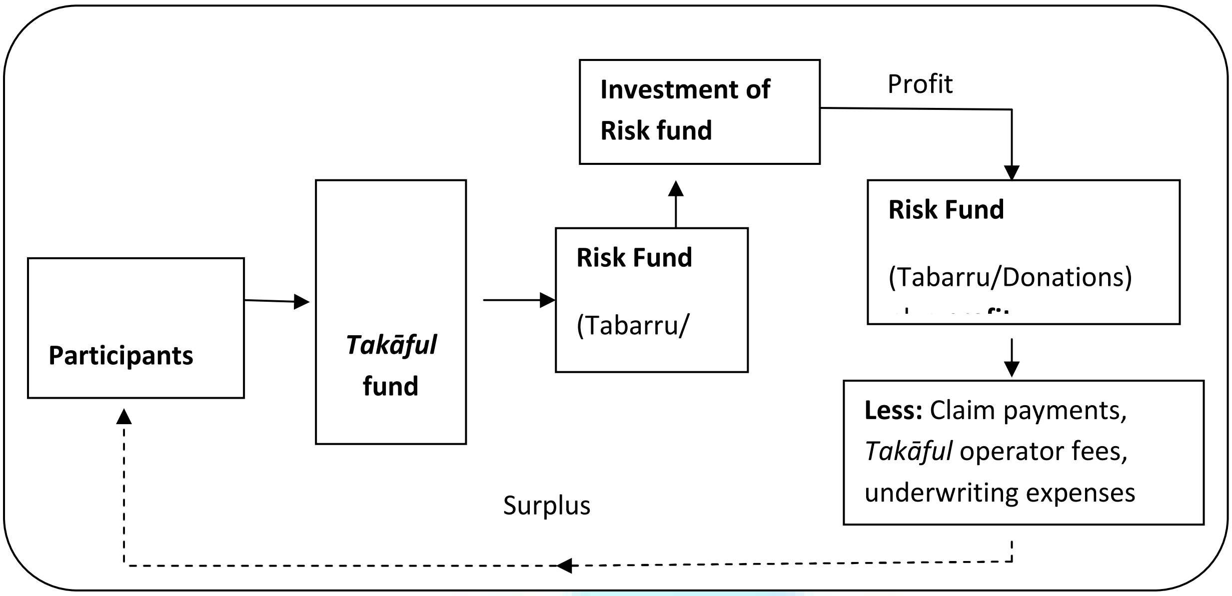
General *Takāful* Products includes short term *Takāful* plans whose maturity period is one year or less. General *Takāful* business is mainly divided into Motor and non-Motor *Takāful* insurance.

In Motor *Takāful* insurance contract, participants pay a fixed amount (contribution) to safeguard themselves against any sudden accident or damage to their private car or motor cycle. The amount is paid for a period specified in the contract (usually a year). Non-Motor *Takāful* business encompasses a wide range of products i.e. fire *Takāful* scheme, marine cargo *Takāful* scheme, personal accident *Takāful* scheme, burglary *Takāful* scheme, machinery break down *Takāful* scheme etc.

In general *Takāful* business, all the contribution is treated as *Tabarru'* (donation) and goes to Risk Fund to cover the loss or damage that may occur to any participant during the specified period. This risk fund is invested on short term basis in *Sharī'ah* compliant instruments and profit is added to Risk fund. Any surplus left after paying claims and deducting direct expenses (*Takāful* agents' fees, underwriting expenses) is paid back to the participants. In case claims payments and direct expenses exceed risk fund, an interest free loan (qard-e-hasana) may be obtained from shareholders' fund to cover the loss. This loss is repaid from the risk fund in future.

[3] This flow chart was developed after discussing family *Takāful* business of *Takāful* Ikhlas Sdn. Bhd. Malaysia with its senior management. It does not include company's account to simplify the processing of funds.

FIGURE 3: FLOW OF FUNDS IN GENERAL TAKĀFUL BUSINESS[4]



SOURCES OF INCOME AND EXPENSES

It is mandatory for *Takāful* operator to keep separate records of accounts for participants as well as for shareholders (*Takāful* Rules, 2005). That's why *Takāful* operators maintain participants' *Takāful* account (PTF) for participants and shareholders' account (SHF) for shareholders. First, we examine sources of income and costs incurred by PTF.

Sources of income to PTF (For Participants):

i. Share in surplus
ii. Share in profit from investment
iii. Claims received from re-*Takāful*

Expenses incurred from PTF:

Following expenses are charged to participants' *Takāful* fund (*Takāful* Rules, 2005, Section 9 (4)):

i. *Takāful* operator fees
ii. *Mudhārabah* share of profit from participants' *Takāful* fund (PTF)/ *Wakalāh* fees for investment management of funds
iii. Re-*Takāful* expenses
iv. Claims costs (surveyors' fees, investigation expenses etc.)

Sources of income (For Takāful Operator):

Takāful Operator usually has three sources of income (*Takāful* Rules, 2005, Section 10 (1)):

i. *Takāful* Operators' fees
ii. 100% profit from Share Holders' Fund (SHF)
iii. *Mudhārabah* share of profit from Participants' *Takāful* Fund (PTF)/ *Wakalāh* fees for investment management of funds

Costs incurred by Takāful operator:

i. Marketing expenses
ii. Operational and investment expenses
iii. Management expenses

Initially, *Takāful* operator has to incur all the costs related to registration and licensing and initial setup to start company's operations.

OPERATIONAL MECHANISM

Takāful business requires prudent marketing and managerial skills and expertise to provide *Takāful* benefits to participants as well as to secure optimum return for shareholders.

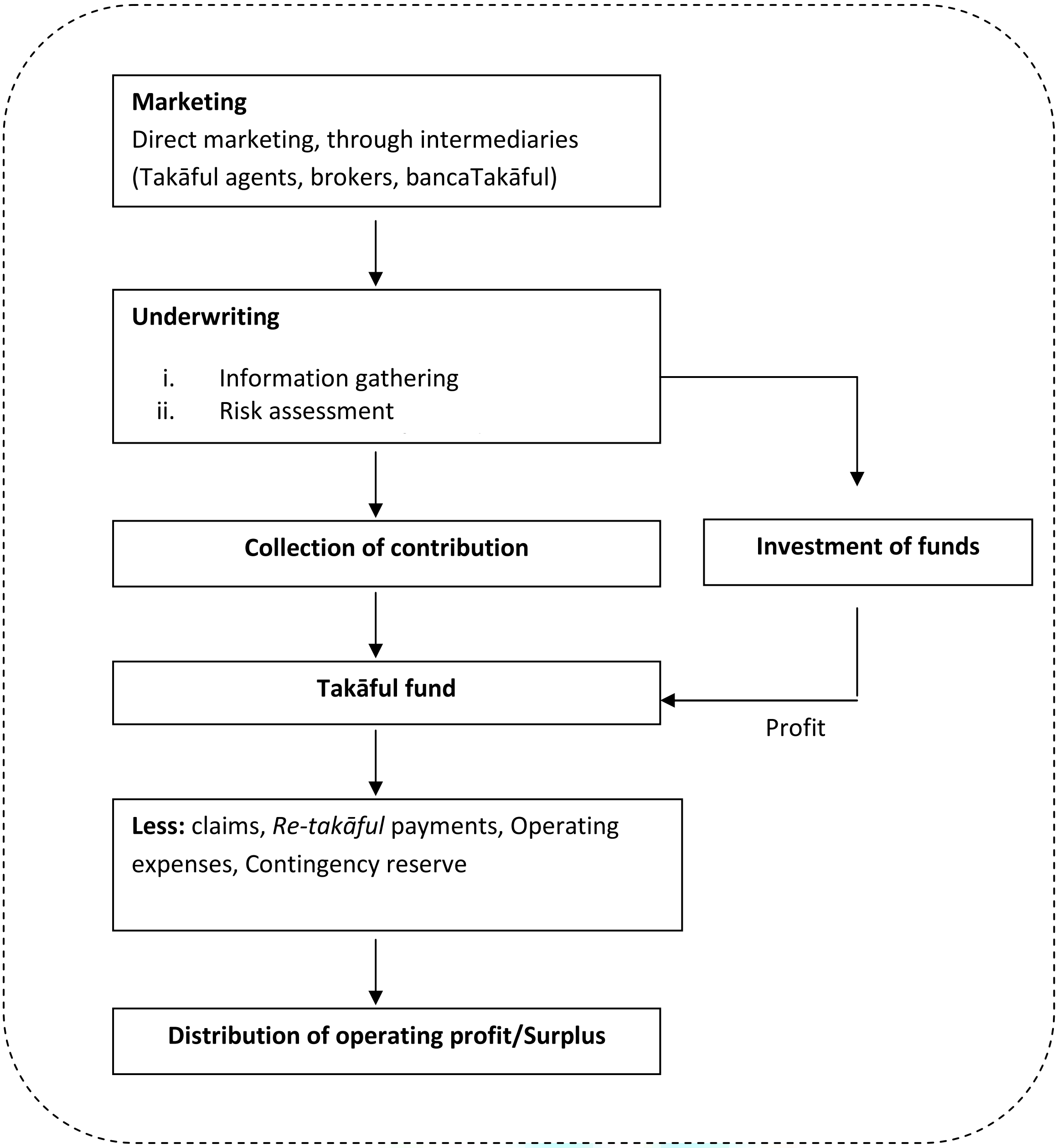
Though direct marketing remains the dominant distribution channel in Malaysia in 2005 with 44.3% of total *Takāful* contribution, yet strong performance of *Takāful* brokers and active agency force have continued to generate higher contributions and account for 34.1% of *Takāful* market. Banca*Takāful* has emerged as a major distribution channel in Malaysia and accounts for 20.4% of total *Takāful* contribution in 2005 albeit from a very low base (BNM report, 2006).

Underwriting refers to the process of selecting and classifying applicants for *Takāful* through clearly established standards consistent with the company's objectives (Rejda, 2006; p.607). It starts with collection of information related to the applicant, assessment of risk and finally determination of contribution amount based on risk assessment.

Contribution is collected from the participants and is sent to *Takāful* fund, from where it is invested in *Sharī'ah* based instruments. Any profit obtained from the investment comes to *Takāful* fund. The claim process generally involves three stages i.e. notification of claim by the participant; investigation of claim by *Takāful* operator and claim assessment. After deducting claim payments, operating expenses and *Re-takāful* payments, dividends are distributed to the shareholders of *Takāful* operator and any surplus left in *Takāful* fund is distributed to participants with no claim (BNM report, 2006). Flow chart for operational mechanism of *Takāful* has been shown in diagram.

[4] This flow chart was developed after discussing general *Takāful* business of *Takāful* Ikhlas Sdn. Bhd. Malaysia with its senior management. It does not include company's account to simplify the processing of funds.

FIGURE 4: FLOW CHART OF OPERATIONAL MECHANISM OF TAKĀFUL



Source: *Author's Construction*

RE-TAKĀFUL **ARRANGEMENTS**

After collecting the contributions, the efforts are then focused on ensuring prudent management of the *Takāful* fund, including the use of *Re-takāful* . *Re-takāful* is basically *Takāful* for *Takāful* operator (ARIL Annual Report, 2006). It is an agreement between *Takāful* operator and Re-*Takāful* Company where original policyholders (participants) of *Takāful* fund are not involved in any way. It is one of the risk management tool used by *Takāful* operators to transfer part of the risk under the *Takāful* fund to another *Takāful* operator or *Re-takāful* company. The amount of risk retained by the *Takāful* operator for its own account is called the retention limit. Re-*Takāful* Operator collects re-*Takāful* contribution from several *Takāful* operators in the region and takes the responsibility to hedge the risks of *Takāful* operators in case the amount of loss exceeds the retention limit. It invests the fund on *modarbah* basis and shares the profit with ceding companies according to pre-determined ratio.

With respect to selection of *Re-takāful* operators, *Takāful* operators should ensure *Re-takāful* coverage is ceded to a financially sound *Re-takāful* operator or a reinsurer. In the current practice, *Re-takāful* arrangements with the reinsurance companies are allowed (*Takāful* Rules 2005) under the circumstances of *"hajah"* (necessity) as lack of *Re-takāful* capacity is still prevalent. In terms of inwards *Re-takāful* arrangements, *Takāful* operators must ensure that acceptance of risks shall comply with the *Shari'ah*.

CONCLUDING REMARKS

Takāful scheme is based on brotherhood, solidarity and mutual assistance to the members in case of need where each participant contributes a fixed amount to *Takāful* fund. Participants pay contribution as donation with good faith. *Takāful* operator acts on behalf of participants and benefits of *Takāful* policy are distributed according to the Islamic laws of inheritance. *Takāful* is acceptable in Islam as it is free from uncertainty, gambling and interest. It is neither against the will of *Allah* nor against *tawakkul*. Operations of *Takāful* Company start with marketing of *Takāful* products through *Takāful* intermediaries. *Takāful* operator underwrites the applicants for risk assessment. Contribution is collected from the qualified applicants. Amount in *Takāful* fund is then invested in *Sharī'ah* approved instruments. Profit is added to *Takāful* fund and claims are paid to the loss affected members out of the fund. Remaining profit and surplus is distributed back to participants with no prior claims. Re-*Takāful* arrangements are also considered essential to transfer a part of *Takāful* risk to re-*Takāful* operator.

Issues associated with *Takāful* have raised several challenges that need to be encountered to enhance its operational mechanism. Regular *Sharī'ah* audit has been found to be an integral part of effective internal controls that prevent the companies from systemic crisis (Khan & Ahmad, 2001). Corporate governance calls for independence of BOD to devise policies for effective risk management, make unbiased decisions and solve issues related to functioning of SSB. *Sharī'ah* based challenges call for devising innovative Islamic financial instruments as *Sharī'ah* is abundant with real solutions to present business dilemma and does not hinder creativity. Exploring those solutions will help to meet the challenge of financial engineering. Islamic financial market will greatly facilitate the task of *Takāful* companies to invest large portion of their fund in Islamic financial instruments and increase their efficiency and competitiveness. There is need to establish private credit rating agencies that could assist IIRA to rate thousands of counterparties for the benefit of *Takāful* operators.

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SMALL AND MEDIUM SCALE ENTERPRISES AS A SURVIVAL STRATEGY FOR EMPLOYMENT GENERATION IN NIGERIA

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ABSTRACT

Small and medium enterprises have been considered as the engine of economic growth and for promoting equitable development. The major advantage of the sector is its employment potential at low capital cost. The labour intensity of the MSME sector is much higher than that of the large enterprises. The role of small and medium enterprises in the economic and social development of the country is well established. The sector is a nursery of entrepreneurship, often driven by individual creativity and innovation. The paper concludes that besides the growth potential of the sector and its critical role in the manufacturing and value chains. The wide spread of SMEs in Nigeria and the multiplier effects they have on the rest of the economy enable them to be the engine of economic progress. It was also noted that the SME sector is the main driving force behind job creation, poverty reduction, wealth creation, income distribution and reduction in income disparities. Most of the government interventions failed to create a much needed transformation due to poor coordination and monitoring and policy inconsistencies. SME sector also formed the vanguard of the modern enterprise sector and presents the propelling force of economic modernization and growth in Nigeria. They are important aspects that need to be adequately factored into policy making and programme implementation.

KEYWORDS

Small and Medium Scale, Unemployment, Capacity Building and Strategy.

INTRODUCTION

The relative importance of small and medium scale enterprise in advanced and developing countries has led and would continue to lead to a reconsideration of the role of Small and medium Scale Enterprises in the economy of nations. The development of many countries is often measured by such indices as the level of industrialization, modernization, urbanization, gainful and meaningful employment for all those who are able and willing to work, income per capital, equitable distribution of income, and the welfare and quality of life enjoyed by the citizenry. There is no doubt that small scale enterprises exist in most economic environment. The historical background of small and medium scale enterprises in Nigeria can be traced back to 1946 when the essential paper No. 24 of 1945 on "A Ten year plan of development and welfare of Nigeria 1946 was presented. Small and medium Scale enterprise is an all time necessity. It was there at the beginning; it was gained prominence today and will increase its importance tomorrow. This is simply dictated by the developmental needs of the Nigeria society.

In recognition of the depth and breath of the consequences of small-scale enterprises in alleviating poverty and national development, there has been a deep-self interest in recent years for development of Nigerians small-scale enterprises particularly since the adoption of the economic reform in 1986. The small and medium scale industry is seen as a key to Nigeria's growth and alleviation of poverty and unemployment in the country. Therefore, promotion of such enterprises in developing economies like Nigeria is of paramount importance since it brings about a great distribution of income and wealth, economic self-dependence, entrepreneurial development employment and a host of other positive, economic uplifting factors (Aremu 2004). Moreover, in a country like Nigeria with an adverse Balance of Payment situation, the growing contribution of the Small Scale Industries sector in Nigeria's export portfolio goes a long way in generating foreign exchange and smoothening out the adverse Balance of payment situation. Aremu (2004) posited that Small Scale enterprises play an important role in the economics of any country in accordance with their relative levels of development. He further emphasized that Poverty is a worldwide phenomenon and its incidence in Nigeria had been high and on the increase since 1980. This position is in line with (Adeyemi and Badmus 2001 and Schmitz 1982) also argued that adequate financing of small scale and medium scale enterprises will reduce the unemployment level in Nigeria.

There is a general believes that desire employment generation in this country can be achieved through development of small and medium scale enterprises (Awosika 1997, Schmitz 1995). Gunu (2004) posited that Small Scale Enterprises provide income, savings, and employment generation. They are seen as veritable engines for the development of entrepreneurial capabilities and indigenous technology which will generate employment in the country. Small and medium scale industries constitute the basis for industry and natural economy in many countries. It has been estimated that SME's employ 22% of the adult population in developing countries (Daniel 1994 and Fisseha 1991). Small and medium scale enterprises can be regarded as one of the important element of a country development and this play a crucial role in the economy of this nation. Small and medium Scale Enterprises speed up the rate of social economic development of many countries, particularly developing countries. They served as system for attainment of national objective in terms of employment generation at low investment cost and also the development of entrepreneurial capabilities and indigenous technology. It also reduce the flow of people from rural area to urban area, henceforth, it can be easily established by the relatively less skilled labour force of a developing country, Small Scale Enterprise contribute substantially to the gross domestic product, export earning, and development opportunities of the countries. After the attainment of independence much emphasis has been laid on growth of small and medium scale industries as means of reduce the incidence of poverty and employment in the country.

At the early stages of industrialization, Japan economy was characterized by traditional industries and large number of small firms who as of that time draw their strength not from an abundant supply of capital, but from their vast supply of labour. So in Japan "during the interwar years (1919 - 1938) and after government policies accorded and continue to accord due priority to country small and medium scale enterprise (Mosk, 2010).

Various studies conducted indicated about 50 per cent of small and medium scale enterprises surveyed did not receive external finance while 77 percent indicated lacked of access to financial resources. The secret behind the success of a self-reliant strategy in any economy does not lie solely in any particular socio-political or socio-economic philosophy, but so much on people's attitude to small enterprises. The objective of this paper is to examine relevance of small and medium scale enterprises as a means of generating employment and reduce poverty in the country.

LITERATURE REVIEW

Countries do not use the same definition for classifying their SME sector. Nor does a universal definition appear to be necessary. The definitions in use depend on the purposes those definitions are required to serve and the policies which govern the SME sector. However, the three parameters generally applied by most countries, singly or in combination are: capital investment on plant and machinery; number of workers employed; and volume of production or turnover of business.

Despite that there are no universal quantitative norms, the SMEs as a class are clearly distinguishable in many countries, be it developed or developing. The factors that set them apart are essentially quantitative or comparative.

On the quantitative side are their internal management structures, decision – making process, financial practice, trading styles, attendance risk factor, etc. It has been observed that most SMEs are one person shows or are run by two or three individuals, usually relatives, friends or business partners, who take most of the decisions. There is no serious distinction between private and business assets, and subjective and personal factors play a large role in decision – making. The personal stakes SME entrepreneur have in their business are much higher than those of the corporate executives in their businesses are much higher than those of the corporate executives in their companies. This enhances the attendance risks and commits entrepreneurs even more strongly to the success of their ventures.

The findings indicate that high levels of technical inefficiency, which reduce their potential output levels significantly, characterize the Nigerian SMEs. There is therefore strong need to assist SMEs to improve their technical efficiency through adequate supply of inputs, markets, and credit facilities, and undertaking extensive infrastructural development and training could be important measures.

The comparative factors have to do with the way SMEs are situated vis-à-vis large enterprises in the corporate sector. They are small and medium sized in comparison with the large corporate entities with which they share a given economic space. SMEs therefore come in varying sizes and SMEs in one country may well be larger than 'big' companies in another. The interesting feature is that, not withstanding their absolute sizes, the problem confronting SMEs appears to be similar in most countries whether developing or developed. It is these features, which set them apart as a distinctive group, and it is these factors, and not the quantitative definition, which are common and have universal applicability.

Within the Nigeria context, the best way to capture the definition as posited by NESG (2002) is based on the nature of business and magnitude. For instance, roadside artisans, petty – traders, pure /bottled water producers, bakers, local fabricators (regarded as micro enterprises) should constitute part of SMEs.

There is a considerable danger that an overemphasis on entrepreneurship within management literature may preclude examination of other factors leading to growth in SMEs. Clearly entrepreneurial drives need examination and the work of Chell and Adam (1993) brings us up to date with current thinking (see also Day and Reynolds, 1995). But increasingly attention is being focused on growth. In this respect the Bangermann Report (Bangermann, 1994) is worthy of reference. Some theorists such as Churchill and Lewis, (1983) identify growth stage models; those attempt to link growth with particular stages of development. However more examination is needed of SME's capability to adapt, deploy skills and focus assets and of how such procedures lead to ultimate success. Clearly as firms and particularly SMES grow they face threats and opportunities and it is legitimate that management researchers should seek to examine the influences. These internal factors are probed and conclusions reached mainly with regard to the firm's value chain.

In 1990 budget, the Federal Government of Nigeria defined small scale enterprises for the purpose of commercial loan as those enterprises with annual turnover not exceeding N500, 000 and for merchant loan as those for the purpose of commercial loan as those enterprises with capital investment not exceeding N 2 million (excluding cost of land or a maximum of N5 million.

According to Umar (1997) the concept of the small size firm is a relative one and it depends mainly on both the geographical location and the nature of economy activity being performed. According to LeGrand et al (1992) and Schubert (1994) they perceive poverty as either absolute or relative or both. Absolute poverty being that which could be applied at all time in all societies, while relative poverty relates to the living standards of the poor to the standards that prevail elsewhere in the society in which they live. Englama et al (1977) also defined poverty in both absolute and relative terms as a state where an individual is not able to cater adequately for his/her basic needs of food, clothing and shelter. Lacks gainful employment, skills, assets and economic infrastructures such as education, health, potable water, and sanitation, and as a result has limited chance of advancing his/her welfare to the limit of his/her capabilities.

World development Report (1990) used an upper poverty line US $ 370 income per capital as a cut off for absolute poverty. People whose consumption level falls below that level are considered poor and those below US $ 275 as very poor. Obadan (1997) sees poverty as a situation of low income or low consumption. Some researchers also defined it as inability to meet basic material needs encompassing food, water, clothing, shelter, education, health as well as basic non-material needs including participation, identity, dignity, etc (Streeten 1997, Blackwood and Lynch 1979).

As a result of flexibility nature of small –scale enterprises, they are able to withstand adverse economic role since they are more of labour intensive. Therefore, they have lower capital costs that are associated with job creating (Anheier and Seibel, 1987; Liedholm and Mead, 1987; Schmitz, 1995)

It is essential for the Nigerian government to realize the important of small-scale enterprises and formulate appropriate comprehensive policies to encourage, support and fund the establishment of small-scale enterprises. This is because development of small-scale enterprises is sine qua non for employment generation, encouragement for the use of local raw materials, employment generation and alleviation of poverty.

SMALL AND MEDIUM SCALE SMES CAPACITY BUILDING IN NIGERIA

In recognition of SMEs substantial contribution to the country's economy, the strategies and initiatives to promote SME development features prominently in most of the government's economic development plans over with a view to nurturing further growth in the sector. Over the last decade, a clear path for accelerating the development of SMEs has been charted through the establishment of agencies such as DFRRI, NDE, NAPEP, etc. although the challenges before this establishment are daunting (Ogwuma, 1995).

The state led models of industrialization followed immediately after Nigerian independence in 1960 and those of 1970s and 1980s was a major factor constraining the growth of SMEs. There are many ways in which industrialization discriminated against SMEs during the time.

First, trade was regulated in a way that followed large firms to obtain import licenses, official exchange rates for imports, and tariff rebates more easily than small firms. The anti-export bias induced by import substitution strategies also discriminated against intensive SMEs. Moreover, small firms were denied access to most investment incentives because of high rent-seeking costs.

Secondly, financial sector interventions also discriminated against SMEs. Selective credit controls in conjunction with controlled interest rates prevented banks from compensation for the higher cost small loans by charging more. As a result, small clients were allocated limited credit, allowing large firms to grow at the expense of small firms.

Thirdly, the problems of dealing with government regulations and tax authorities weighted more heavily on smaller firms in the shape of higher compliance costs, i.e the fixed costs of complying with import/export and tax regulations, labour market regulations, and licensing and price control.

Fourth, Nigeria's underdeveloped physical and social infrastructures create a binding constraint to SMEs growth. SMEs rely heavily on inefficiently provided state infrastructures such as electricity and water and cannot afford the cost of developing any alternatives. Similarly, inadequate investment in human capital hampers SME growth because of the scarcity of skilled workers, managers and entrepreneurs (Tendler and Amorim 1996).

In more challenging environment SMEs are aware of the need to become more resilient and competitive in the face of economic changes. Towards this end, the government efforts should be directed to strengthening SMEs and thus encouraging domestic investment and promoting economic growth.

SMALL AND MEDIUM SCALE SMES STRATEGY FOR SUSTAINABILITY

Sustainable development is recognized as an essential requirement for achieving economic goals without degrading the environment, major problems arise in implementing the concept of sustainability. At the most basic level, researchers dealing with sustainable development have suggested that the achievement of sustainability requires ecologically sustainable political and economic systems, organizations, and individuals (Starik and Rands 1995; Costanza and Daly 1992;

Gallup International Institute 1992). Specifically, governments, consumers, and enterprises contribute and play crucial roles in reaching sustainable development. As a result, if goals of sustainability are to be achieved, small and medium-sized enterprises must be reformed to minimize their negative ecological and social impacts (Gladwin, 1992).

Generally, SMEs will have to assist and facilitate growth, multiply and replicate into sufficient mass across industries and sectors. The SME sector is considered to be the backbone of the modern day economy. The importance of this segment is undisputed. However, the yawning gap between the needs, demands and policy response in this unorganized sector has always dampened the sector's prospects. The recent economic turbulence has only added to the sector's problems. Hence, it becomes imperative for us to ensure that SME sector, which is facing one of the toughest times in the industrial history, should be strongly supported by the relevant stakeholders - government, financial institutions, associations, etc. This is to enable the sector to play its sustainability roles in the economy.

SMEs contribution towards sustainable development is small, taken together SMEs have a very large impact on the development quality of a specific geographic area. The more presence of SMEs in the economy of a particular area, the more important is the SMEs role for achieving sustainability (Welford and Gouldson, 1993).

In comparison with large companies, SMEs show particular benefits for a geographic area interested in achieving a sustainable development, which can be grouped in the following categories: economic, socio-cultural, environmental, and collaboration contributions. Major economic contributions to sustainability come from the fact that residents and indigenous are more probably to own and run SMEs than larger companies, which frequently are multinational companies.

Specifically, in the SMEs, the management process is characterised by the highly personalised preferences, prejudices, and attitudes of the firms' entrepreneur, owner and/or owner-manager (Jennings and Beaver, 1995). As a result, SMEs allow residents and indigenous to participate in the economic development and, consequently, to obtain the economic benefits generated by the community (Howard and Hine, 1995).

Furthermore, SMEs which are owned and run by residents who are expected to reinvest their benefits in the community itself, while large companies usually act internationally. Finally, SMEs draw out capital that would otherwise remain underexploited by the economy, and help develop new markets by improving forward and backward linkages between economically, socially, and geographically diverse sectors of the economy (Howard and Hine, 1995). These SMEs potential economic contributions to sustainability might be balanced against overall economic efficiency of SMEs in comparison with larger companies; meaning that SMEs operating in a particular community must be internationally competitive in order to make significant contributions to sustainability (Diego and Juan 1998).

CONCLUSION AND POLICY RECOMMENDATION

It is becoming increasingly apparent to government and policy makers that the role of small and medium scale enterprises is very important to the development and growth of any given economy. Small and medium scale enterprises will ensure efficient use of resources, employment creation, mobilisation of domestic saving and investment.

Finance is the most important and cogent key of any enterprises. Small-scale enterprises must be financially supported so that they can take off and expand and be able to meet the needs of the Nigerians. Shortage of indigenous entrepreneurs has been identified as a major impediment to economic development.

It is also recommended that there is need for supporting and strengthening SMEs' productive capacities and market competitiveness of Small and Medium Scale Enterprises in the country.

This therefore calls for the need for establishment of small-scale enterprises as a way of developing and providing a training ground for indigenous entrepreneur. The rural urban drift is due to lack of job opportunities in the rural area. Thus, small-scale enterprises will help to reduce this drift particularly when they are sited in rural areas.

Non capital-intensive nature of small-scale industries is another important significance of small-scale enterprises. They are usually started with small saving which made them affordable to go into. The meager capital requirement of small-scale enterprises makes them to promote an even distribution of income in the economy. This is because if there is adequate financial support, more unemployed Nigerians will engage in small scale enterprises thereby gain their means of living easily than looking for unavailable while collar job. There is need for establishment of Small-scale enterprises since they ensure community stability since small-scale enterprises do less harm to the physical environment than large enterprises. They promote agro-industries, improve rural welfare and generally reduce unemployment and poverty in the country.

In advanced economies, the SME sector is acclaimed as the engine of economic growth and development. However, against international best practices Nigeria is rated poorly. Extensive efforts in terms of strategic programmes, policy and practice will be required to elevate Nigeria to a leading position. Though Nigeria lacks adequate census on relevant economic indices, it is estimated that Small and Medium Enterprises in Nigeria currently account for over 75% of employment in the country (SMEDAN 2006). This relatively high percentage is however a paradox as 60% of Nigerians still lives below the poverty level (UNDP, 2005). When 60 percent living below the poverty line are taken into account, the share of those gainfully employed in the SME sector is more likely to be in the region of 10% as recorded by US Industry Small Business Administration (SBA).

Finally, government as a matter of urgency, should prioritise the SME sector giving it devoted practical and visible attention with a view to making it virile, vibrant, focused and productive. The era of 'lip service' attention to the sector should be done away with. The employment creation cannot be developed without a vibrant SME subsector, and so government should do all within its arsenal to reverse the situation.

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A STUDY ON LABOUR WELFARE FACILITY (WITH REFERENCE TO AFT, PONDICHERRY)

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ABSTRACT
India's labour force exhibits extremes ranging from large numbers of illiterate workers unaccustomed to machinery or routine, to a sizable pool of highly educated scientists, technicians and engineers, capable of working anywhere in the world. The Oxford dictionary defines labour welfare as ''Efforts to make life worth living for workers'' (Hornby, 2007). Hence, the term denotes the adoption of measures to promote the physical, social, psychological and general well-being of the working population. Welfare work in any industry aims, or should aim, at improving the working and living conditions of workers and their families. The concept of labour welfare varies from time to time, region to region, industry to industry and country to country, depending upon various factors such as educational level, social customs, degree of industrialization and the general standard of socio-economic development. In this context, an attempt is made to study the welfare facilities provided by a large, well recognized government enterprise in Pondicherry, namely Anglo French textiles.

KEYWORDS
Efficiency and Productivity, Morality, Standard of living, Welfare facilities.

INTRODUCTION
Welfare is a broad concept referring to a state of an individual or a group, in a desirable relationship with the total environment, ecological, economic and social. Employee welfare includes both the social and economic contents of welfare. Social Welfare is primarily concerned with the solution of the weaker sections of the society like prevention of poverty. It aims at social development by such means its social legislation, social reform, social services, social work, social action, the object of economic welfare is to promote economic development by increasing producing an productivity and through equitable distribution.

India's labour force exhibits extremes ranging from large numbers of illiterate workers unaccustomed to machinery or routine, to a sizable pool of highly educated scientists, technicians and engineers, capable of working anywhere in the world. The Oxford dictionary defines labour welfare as ''Efforts to make life worth living for workers'' (Hornby, 2007). Another definition states labour welfare as, ''Anything done for the comfort and improvement, intellectual and social, of the employees over and above the wages paid, which is not a necessity of the industry (Punekar, Deodhar, & Sankaran, 2004, p. 24).Hence, the term denotes the adoption of measures to promote the physical, social, psychological and general well-being of the working population. Welfare work in any industry aims, or should aim, at improving the working and living conditions of workers and their families. The concept of labour welfare varies from time to time, region to region, industry to industry and country to country, depending upon various factors such as educational level, social customs, degree of industrialization and the general standard of socio-economic development.

Employee welfare implies the setting up to minimum desirable standards and the provisions of facilities like health, food, clothing, housing, medical assistance, education, insurance, job security, recreation, etc. such facilities enable the worker and his family to lead a good work life, family life & social life. Employee welfare measures are an effort towards revolving the industrial worker of his worries and making them happy.

MM Joshi defines the welfare facility as "Welfare work covers all their efforts which employer make for the benefits of their employees over and above the minimum standards of working condition fixed by the factories act and over and above the provisions of the social legislations providing against accident old age, unemployment and sickness etc".

Organization provides a wide varieties of service and benefit program. Viz.,
1. Health programs
2. Safety programs
3. Pension plan
4. Recreational programs and
5. Other beneficial service.

However it is important to note that whether all these programs are found in all the organization or not but, it is very important to know how the employees perceive about the adequacy of these benefits provided by their emplopyer.In this context, an attempt is made to study the welfare facilities provided by a large, well recognized government enterprise in Pondicherry, namely Anglo French textiles.

REVIEW OF EARLIER STUDIES
K.K.Chaudhuri in his "Human Resources: A Relook to the Workplace" states that HR policies are being made flexible. From leaves to compensation, perks to office facilities, many companies are willing to customize policies to suit different employee segments. The older employees want social security benefits, younger employees want cash in hand because they can't think of sticking to a company for many years and retire from the same company. Therefore "one jacket fit all" will not be right to motivate the talents and retain them.

Conventions and Recommendations of ILO (1949) set forth a fundamental principle at its 26 th conference held in Philadelphia recommended some of the measures in the area of welfare measures which includes adequate protection for life and health of workers in all occupations, provision for child welfare and maternity protection, provision of adequate nutrition, housing and facilities for recreation and culture, the assurance of equality of educational and vocational opportunity etc.

Johri. CK and SM Pandey (1972) found that extension of social security to the unorganized sector was not merely a matter of extension of existing organized sector schemes to new groups but it involved development of a different and more diversified set of schemes.

Jayadevadas (1980), based on his study of coir workers, suggested that the model before the trade unions in Kerala was that of modern industrial employment characterised by high wage rates, stable employment, fair working conditions, non-wage benefits, and long-term economic security. Guha has argued that given the multiplicity of sectors, and employment and socio-economic patterns in each State, as well as of grassroots organisations and NGOs, it is undesirable to impose uniform patterns on social security systems (Thakurtha Guha, 1980). According to Harilal (1986) construction workers are overwhelmingly rural landless migrants compelled to seek employment in the construction sector due to indebtedness, inadequate employment and insufficient income.

Subrahmanya (1994) defined the concept of social security in its broadest sense, as support provided by the society to the individual to enable him to attain a reasonable standard of living and to protect the standard from falling due to any contingency.

Report of National Commission on Labour (2002) Government of India, made recommendation in the area of Labour welfare measures which includes social security, extending the application of the Provident fund, gratuity and unemployment insurance etc. Shobha Mishra and Manju Bhagat(2002) in their “Principles for successful Implementation of Labour Welfare Activities “, stated that labour absenteeism in Indian industries can be reduced to a great extent by provision of good housing, health and family care,canteen,educational and training facilities and provision of welfare activities. P.L.Rao (2002) in his “Labour Legislation in the Making”, opines that professional bodies like National Institute of Personal Management should constitute a standing committee to monitor the proceeding in the Parliament regarding the labour welfare measures. Rao and Deo observed that self-help organizations constitute the sole agencies, which guarantee the minimum standards of social and economic security to workers in non-traditional and informal sectors of the society.K. P. Kannan (2002) stated that the ever-increasing demand for Welfare Funds for each and every sub-sector of the informal sector may be viewed as a desperate reaction of the work-ers for a measure of social security in an unprotected labour market.

Ira Malmberg-Heimonen and Jukka Vuori(2005) efforts to increase labour market integration, contemporary welfare states emphasize the importance of financial incentives, active job-searching and participation in labour market programmes. However, the effects of these policies have been minor and in some cases even inconsistent. The aim of this study was to examine whether and how financial incentives and job-search training programmes increase re-employment and the quality of re-employment. A total of 1,015 unemployed persons participated in a Finnish follow-up study with a randomized experi-mental design. Although no overall impact of job-search training on re-employment emerged, a positive effect was found for those groups of the unemployed who had a financial incentive to participate in the programme. Nevertheless, among unemployed workers with benefits at a minimum level there were no positive effects on the quality of re-employment, and the impact decreased when unemployment was prolonged. Financial incentives and job-search training appear to increase re-employment among those of the unemployed who generally have better chances on the labour market, whereas these measures are not sufficient for the more disadvantaged groups of the unemployed.

Binoy Joseph, Joseph Injodey,Raju Varshese (2009) concluded that the welfare state rest on the fabric of its social security. Welfare funds are raised by levying a tax on production, sale of export of specific goods or by collecting contribution from various sources, including exployers, employees and the government. These levies are used for meeting expenditure towards the welfare of workers. Government, employers and trade unions have gone a long way in ameliorating the conditions of the life of workers and their families.

Though these studies provide valuable insights into the informal labour markets, none of them has undertaken analysis of real situations and socio-economic realities of construction workers and activities of Welfare Boards, at micro levels. The present work is an attempt in this direction.

OBJECTIVE OF THE STUDY

1. To study the welfare facilities offered in AFT.
2. To identify the possible difference in the opinion of employees of various department regarding the welfare facilities of AFT.
3. To examine the relationship between the perception of welfare facilities (welfare scores) and personal variables of employees
4 To offer viable suggestions to improve the welfare facilities of AFT based on the opinion and expectations of the employees.

METHODOLOGY

The sample was chosen from a large well established textile mills in Pondicherry viz., **Anglo French Textile Mills**. The desired sample size, 100 was obtained by applying convenient sampling technique. Keeping the objective in mind a discussion was made with officials of AFT, interview schedule was prepared. The interview schedule consists of two parts. The first parts deals with personal data and the second part deals with the welfare measure.

In order to analyze the above said objectives - percentage and Chi-square test were applied. The interview schedule used in this study was constructed on 5 point scale.

STATEMENT OF RATING SCALE

Highly satisfied	satisfied	No opinion	Dissatisfied	Highly dissatisfied
2	1	0	-1	-2

HYPOTHESIS OF THE STUDY

Towards fulfilling the objective few working hypothesis were framed:

H1 No significant relationship between age and the welfare score
H2 Sex will not have any attitudinal difference towards the score of welfare measures.
H3 No significant difference between dependent and welfare measures scores.
H4 No relationship between educational level and scores of welfare measures.

LIMITATIONS OF THE STUDY

The study is limited to only some of the department in the organization; hence it may not be universally applied to the organization as a whole.

Considering the nature of the study and the complexity involved in the study sufficient time was not available, time factor is also one of the limitations to the study**.**

It is assumed that answer given by the employees are true and adequate, therefore the study is a representative of the employees opinions.

ANALYSIS AND INTERPRETATIONS

Table 1 was framed to analyze the working condition facilities offered in AFT.

TABLE.1: WORKING CONDITION

Sl.No	Working condition facilities	Highly satisfied	Satisfied	No opinion	dissatisfied	Highly dissatisfied
1	Drinking water Facilities	16(16%)	72(72%)	0(0%)	10(10%)	2(2%)
2	Temperature Ventilation and Lighting Facilities	12(12%)	56(56%)	6(6%)	12(12%)	14(14%)
3	Prevention of Dust frames and Smoke in the Work spot	8(8%)	34(34%)	4(4%)	10(10%)	44(44%)
4	Maintenance of Urinals and Lavatories	4(4%)	56(56%)	0(0%)	16(16%)	24(24%)

Source: Primary data

Figure with in the parenthesis indicate percentage

The above table shows that 16% of the respondents are of the opinion that they were highly satisfied with the drinking water facilities, 72% believe that they were satisfied, 10% and 2 % were dissatisfied and highly dissatisfied regarding drinking water facilities.

Temperature, ventilation and lighting facilities available in the company are necessary for the well being of the employees.12% & 56% of the employees express their opinion as highly satisfied and satisfied respectively.6% of the employees were of no opinion. 12% were dissatisfied and 14% were highly dissatisfied.

Regarding Prevention of dust frames and smoke in the work spot 8% were highly satisfied, 34% were satisfied, 10% were dissatisfied and 44% were highly dissatisfied.

Regarding maintenance of urinals and lavatories 4% were highly satisfied, 56% were Satisfied, 16% were dissatisfied and 24% were highly dissatisfied.
This analysis shows that company has to give more attention to prevention of dust frames and smoke in the work spot and maintenance of urinals and lavatories.

Table 2 was framed to analysis the opinion of the employees regarding their health and safety facilities.

TABLE .2: HEALTH AND SAFETY FACILITIES

Sl.No	Health and Safety Facilities	Highly satisfied	Satisfied	No opinion	dissatisfied	Highly dissatisfied
1	Medical Facilities Given	12(12%)	62(62%)	4(4%)	18(18%)	4(4%)
2	First Aid Facilities	32(32%)	56(56%)	0(0%)	8(8%)	4(4%)
3	Opinion about Workers Health before Joining the Job	12(12%)	46(46%)	0(0%)	38(38%)	4(4%)
4	Ambulance Facilities	24(24%)	64(64%)	0(0%)	12(12%)	0(0%)

Source: Primary data

Figure with in the parenthesis indicate percentage

The observation of the above table shows that regarding Medical facilities 12% of employee were highly satisfied, 62% of them were satisfied, 18% and 4% of them were dissatisfied & highly dissatisfied respectively. Majority of the employees were satisfied with First aid facilities and Ambulance facilities.
Regarding opinion about workers Health before joining job 38% and 4% were dissatisfied and highly dissatisfied respectively. This shows that the company is providing good health and safety facilities as expected by the employees.

Table 3 was framed to analysis the employee state insurance benefit extended to employee.

TABLE 3: EMPLOYEE STATE INSURANCE BENEFIT

Sl.No	Employee State Insurance Benefit	Highly satisfied	Satisfied	No opinion	dissatisfied	Highly dissatisfied
1	Sickness Benefits and Extended Sickness Benefit	12(12%)	62(62%)	8(8%)	8(8%)	10(10%)
2	Medical Benefit Reimbursement	4(4%)	32(32%)	20(20%)	12(12%)	32(32%)
3	Maternity\Fraternity Benefit	6(6%)	34(34%)	34(34%)	12(12%)	14(14%)
4	Depended and Funeral Benefit	10(10%)	32(32%)	16(16%)	20(20%)	22(22%)

Source: Primary data

Figure with in the parenthesis indicate percentage

Table 3 shows that12% and 62% of the employee were of opinion that they were highly satisfied and satisfied respectively regarding Sickness and Extended sickness benefit. 8 % of them were dissatisfied and 10% of them highly dissatisfied. In medical benefit reimbursement majority of them were highly dissatisfied (32%) no opinion (20), & dissatisfied (12%). only 4 % of them were highly satisfied and 32% of employee were satisfied.
10% and 32% of the employee are of the opinion that they were highly satisfied and satisfied regarding Dependent and funeral benefit.16% are no opinion and remaining were satisfied (20%) and highly satisfied (22%). Regarding Maternity/Fraternity benefit 6% of them expressed as highly satisfied followed by 32% as satisfied. Good numbers expressed as dissatisfied and highly dissatisfied. This table shows that the AFT has to give more concentration to Maternity/Fraternity benefit, Medical benefit reimbursement and Dependent and Funeral Benefit.

Table 4 was constructed to analysis the Retirement benefits given to employees.

TABLE – 4: RETIREMENT BENEFIT

Sl.No	Retirement Benefit	Highly satisfied	Satisfied	No opinion	dissatisfied	Highly dissatisfied
1	Gratuity	12(12%)	58(58%)	6(6%)	18(18%)	6(6%)
2	Provident Fund	14(14%)	74(74%)	0(0%)	10(10%)	2(2%)
3	Pension	2(2%)	30(30%)	12(12%)	12(12%)	20(20%)
4	Gift and Others	8(8%)	36(36%)	32(32%)	8(8%)	16(16%)

Source: Primary data

Figure with in the parenthesis indicate percentage

Regarding Gratuity 12% and 58% were highly satisfied and satisfied respectively.6% of them was of no opinion.18% and 6% of the employee gives their opinion as dissatisfied and highly dissatisfied. Majority of the employee were highly satisfied (14%) and satisfied regarding (74%) regarding Provident fund. Regarding Pension Benefit employees opinion were equally divided. 12% percent of employees were not aware of pension.
It is routine among company to honour the employee on the retirement date for their valuable service put in the company. Only 8% were highly satisfied with the Gift and 36% and 32% were satisfied and no opinion respectively 16% were highly dissatisfied and minor percent were dissatisfied with the benefit.
This analysis shows that employees were expecting more pension and gift at the time of retirement.

Table 5 deals with the other benefit which are not covered in the previous tables.

TABLE 5: OTHER BENEFIT

Sl.No	Others Benefits	Highly satisfied	Satisfied	No opinion	dissatisfied	Highly dissatisfied
1	Canteen Facilities	2(2%)	46(46%)	0	12(12%)	40(40%)
2	Bonus Given During Diwali	2(2%)	74(74%)	0	24(24%)	-
3	Uniform Facilities	6(6%)	64(64%)	0	30(30%)	-
4	Welfare amenities regarding marriage of employee/son/ daughter	12(12%)	54(54%)	14(14%)	12(12%)	8(8%)
5	Schooling Facilities	38(38%)	46(46%)	12(12%)	4(4%)	-
6	Death Relief Fund	46(46%)	54(54%)	-	-	-
7	Family Planning Scheme	54(54%)	44(44%)	2(2%)	-	-
8	Employee Co-Operative store and Credit Society	26(26%)	64(64%)	2(2%)	4(4%)	4(4%)

Source: Primary data

Figure with in the parenthesis indicate percentage

Most of the employees were dissatisfied (12%) and highly dissatisfied (40%) with the canteen facilities available in AFT. 46% were satisfied with the canteen facilities. Nearly 76% of the employees were satisfied with the bonus given during diwali. Likewise uniform facilities, welfare amenities given to employee's son/daughter marriage, schooling facilities, family planning scheme and co-operate store and credit society majority of them were satisfied and highly satisfied.
Regarding death relief fund all of them were highly satisfied & satisfied.

Table 6 shows the consolidated figure of welfare facilities available in AFT.

TABLE 6: CONSOLIDATED WELFARE FACILITIES

Sl.no	Labour welfare facilities	Highly satisfied	Satisfied	No opinion	dissatisfied	Highly dissatisfied
1	Drinking water	16	72	0	10	2
2	Temperature, ventilation and lighting facilities	12	56	6	12	14
3	Prevention of dust frames & smoke in the work sport	8	34	4	10	44
4	Maintenance of urinals and lavatories	4	56	0	16	24
5	Medical facilities	12	62	4	18	4
6	First aid facilities	32	56	0	8	4
7	Opinion about workers health before joining	12	46	0	38	4
8	Ambulance facilities	24	64	0	12	0
9	Sickness benefits and extended sickness benefit	12	62	8	8	10
10	Medical benefit reimbursement	4	32	20	12	32
11	Maternity benefit	6	34	34	12	14
12	Depended and funeral benefit	10	32	16	20	22
13	Gratuity	12	58	6	18	6
14	Provident fund	14	74	0	10	2
15	Pension	2	30	12	12	20
16	Gift and others	8	36	32	8	16
17	Canteen facilities	2	49	0	12	40
18	Bonus given during diwali	2	74	0	24	-
19	Uniform facilities	6	64	0	30	-
20	Welfare facilities	12	54	14	12	8
21	Schooling facilities	38	46	12	4	-
22	Death relief fund	46	54	-	-	-
23	Family planning	54	44	2	-	-
24	Employee co-operative store and credit society	26	64	2	4	4
	Total	374	1253	172	310	270
	Overall	15.58	52.21	7.17	12.92	11.25

Source: Primary data

Figure with in the parenthesis indicate percentage

From the above table one can infer that there is general satisfaction with the overall organization welfare facilities. In overall 15.58% were highly satisfied and 52.21% were satisfied with the welfare facilities provided by AFT. An attempt has been made in table 7 to find out the impact of age level on the scores of welfare facilities. In order to analyze the above nul hypothesis was framed - No significant relationship between sex and score of the welfare measure.

TABLE 7: SEX AND THE SCORE OF THE WELFARE MEASURE

Age	Respondent	Score
Up to 35	20	60
35 - 45	30	458
45 and above	50	776

Calculated value is 17.10067, Critical value of chi-square is 3.84, D.F. 1, Level of significance 5%

Source: Primary data

Since the calculated value is greater that critical value null hypothesis is rejected.

TABLE 8: SEX AND THE SCORE OF THE WELFARE MEASURE

Sex	Respondent	Score
Male	86	86
Female	14	160

Calculated value is .46443, Critical value of chi-square is 3.84, D.F. 1, Level of significance 5%

Source: Primary data

The above table is framed to find out whether the scores of welfare measure has any impact on the sex. So as to analyze this hypothesis was framed "sex will not have attitudinal different towards the scores of welfare measures"

Calculated value is .46443.The critical value is 3.84 for 1 degree of freedom at 5% level of significant.

Since the calculated value is less that the critical value the hypothesis is accepted.

TABLE 9: DEPENDENTS AND THE SCORES OF WELFARE MEASURE

Dependent	Respondent	Scores
Less than 5	60	758
5 and more	40	520

Calculated value is.00204, Table value 3.84, D.F. 1, Level of significance

Source: Primary data

Again table 9 was prepared to test whether there is any significance relationship between dependent and their welfare scores. The hypothesis framed is "No significant relationship between dependent and their welfare measure scores"

Since the calculated value is less that the table value the hypothesis is accepted.

TABLE 10: LEVEL OF EDUCATION AND THE SCORES OF WELFARE MEASURE

Education level	Respondent	Score
Less than SSLC	38	432
SSLC	34	356
SSLC and more	28	487

Calculated value 2.97, Table value 3.84. D.F 1, Level of significance 5%

Source: Primary data

The above table was constructed to test whether education level has any impact on the score of welfare measure.

Since the calculated value is less that the table value Hypothesis is accepted, hence it shows that no relation exist between education and score of welfare measure.

SUMMARY OF FINDINGS

1. From the foregoing analyses the study brings to light some important finding regarding welfare measures.
2. Regarding working condition facilities. 88 percent of the employee were satisfied about drinking water facilities, and then come temperature, ventilation and lighting facilities with 68 percent. Exactly 60 percentages of employees were satisfied about maintenance of urinals and lavatories. Majority of the employees(58 percent)were dissatisfied about prevention of dust, frames and smoke in the work spot
3. Regarding Health and Safety Facilities, First aid facilities stood first with 88 percent followed by medical facilities given 74 percent and opinion about worker health before joining the job is 58%. This Shows Company is providing good health and safety facilities.
4. 74 percent of employee given their opinion as satisfied regarding sickness benefit and extending sickness benefit. Majority of the employees were dissatisfied with the Medical benefit reimbursement, Maternity benefit, Depended and funeral benefit. It shows that AFT, is lacking is ESI benefits.
5. In Retirement benefit most of the employs were satisfied about provident fund (88%) and Gratuity (70%).Good numbers were dissatisfied about pension and gift.
6. Bonus given to employees, co-operative stores\credit society, uniform facilities, death relief fund, family planning scheme, welfare amenities regarding marriage of employee/son/daughter were good.
7. Overall welfare measure shows that 68% were satisfied with the available welfare measure.
8. The study reveals that Sex, Dependent, Education Qualification has no significant relationship with their respective welfare scores.
9. This study also shows that age has significant relationship with welfare scores.

SUGGESTION

1. Proper step must be taken to increase the quality of food in Canteen.
2. Most of the employees feel number of uniform provided must increased.
3. The employees are expecting pensions & gifts from the organization.
4. Company has to give more attention to dust, smoke & urinals in the work spot.
5. Company must give attention to Maternity and dependent and funeral benefit.

CONCLUSION

The welfare measure will improve the physique, intelligence, morality and standard of living of the workers, which in turn will improve their efficiency and productivity. From the study on labour welfare facilities in AFT, the researcher concluded that, the various welfare facilities such as health, safety, canteen, uniform, education and gift facilities in AFT, enables workers to live a rich and more satisfactory life. It also contributes to increasing productivity of the enterprise improving efficiency of the worker and raises their standard of living. Thus the labour welfare facilities provided by AFT are good.

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INTERNATIONALIZATION OF INDIAN RUPEE - AN EMPIRICAL STUDY

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ABSTRACT

The recent paradigm tells us that, countries like Russia, Switzerland and Venezuela are withdrawing their foreign exchange reserves from US dollar and investing in Yen, Euro etc. some of the countries are willing to exit from the American currency, but shifting from dollar to Yen or Euro is like jumping out of the frying pan into the fire, as Europe and Japan are suffering from same problems like USA. So, Indian rupee is much stronger in this aspect because of long traditional market oriented financial institutions, mercantile civilization and spreading Indian traders at abroad for last 5000 years. At the beginning of the 20th century, it brought bright opportunities for the Indian rupee to gain back its value on the back of the healthy foreign investments. India has been attracted by many foreign investors in the forms of Foreign Direct Investment and Foreign Institutional Investment. The rupee has touched a 10-year high in June 2008 against the US dollar because of attracting flows of foreign funds. In spite of seeing the year 2008-09 economic slowdown, the rupee managed to keep up its position due to Reserve Bank of India's interference in reducing volatility of the Indian market. The turnover of rupee and dollar is increasing drastically year by year. In the current decade, US dollar dipped below the symbolically significant level, and Rupee has risen against the dollar and other currencies. These signals indicate the rising influence of the India's Rupee in international markets. Thus the study is an attempt to understand the position of Indian rupee in the international market and its future growth of becoming world leader after 2020. The paper provides an in-depth analysis of various issues pertaining to internationalization of the Indian rupee, its opportunities as an alternative for US Dollar and opportunities of other currencies. Six major currencies like, Euro, Yen, Yuan, IMF's SDR, USD and INR are studied for analysis as a sample. The correlation of performance of USD with selected five major currencies is considered. As a part of the study, data is collected for 20 years. Thus it is analyzed by using statistical tools such as Arithmetic Mean, Standard Deviation, and Correlation. The study hypothesized that, demand for USD is gradually coming down and INR having positive correlation with other currencies is appreciating against other currencies at a quite moderate rate.

KEYWORDS
Foreign Exchange, Rupee, Currency, USD.

INTRODUCTION

US Dollar ruled the international transactions space for many years, but the crisis has shown the need to have an alternative currency. The recent global economic slowdown and weakness of the US dollar in the international market has prompted a wide-ranging discussion on the need for a new global reserve currency. However it is quite unlikely that the dollar will lose its predominance as global reserve currency in the foreseeable future. The current crisis has, however, thrown open the debate on the need for a new global reserve currency in case the US economy fails to make a significant turnaround and the weakness of the US dollar persists making its continuance as a global reserve currency unsustainable.

The issue of a new global reserve currency is attracting the notice of policy makers all over the world in recent days. The issue has assumed significance for Asian central banks, including the Reserve Bank of India, which have invested a significant proportion of their reserves in dollar denominated assets. If there is any small reduction in the value of the dollar would necessitate significant losses to these central banks. The debatable question, however, is which currency is capable of replacing the US dollar in the future days. China has already stepped up its efforts towards greater internationalization of its currency Yuan.

RATIONALE OF STUDY

Looking at the recent happenings in India, the significant appreciation of the Indian rupee, and continued excellent performance of the Indian economy has moved up the issue of greater internationalization of the Indian rupee.

India has followed a calibrated approach towards capital account liberalization. India does not permit rupee to be officially used for international transactions except those with Nepal and Bhutan though there are indications that Indian rupee is gaining acceptability in other countries. There are certain problems associated with Internationalization of the rupee as it can increase volatility of its exchange rate and affects on Indian export. Withdrawal of short-term funds and portfolio investments by non-residents can be a major potential risk of internationalization of the Indian rupee.

India generally runs a significant trade and current account deficits. Similarly, its capital account is still relatively closed and Indian financial markets lack depth compared to global standards. For invoicing of international trade the Indian rupee is rarely used, recently Iran has agreed to accept Indian rupee for exporting crude oil to India. India needs to proactively take steps to increase the role of the Indian rupee in the region.

REVIEW OF LITERATURE

Mr. Bharat Jhunjunwala in his article in New Indian Express opined that, world currency needs to have four major qualities: 1) freely convertible 2) backed by a large economy 3) growing and leading economy in the world and 4) sound economic management. He expressed that the above qualities are there with British sterling, however in the recent years it is becoming weak. **Kenen** in the year 1983 has given an early thought on the roles of international currencies. **Chinn and Frankel** in the year 2005 have developed a list of international functions of an international currency, according to them an international currency has to be capable of playing roles of store of value, medium of exchange and unit of account for both residents and non-residents. More specifically, it can be used for private purposes, such as, currency substitution, trade and financial transaction invoicing and denomination. It can also be used for public purpose as official reserves. **Bank for International Settlements** survey stated the average daily turnover of the currency pair stood at $36 billion in the middle of 2010 which indicates the growth of Indian trade in the international market. **The RBI staff** conducted a study on Indian Rupee and expressed their opinion as; Indian rupee was regarded as an official currency of foreign countries, like Kuwait, Bahrain, Qatar, the Trucial States (United Arab Emirates (UAE) since 1971) and Malaysia in previous times. The Gulf rupee, known as the Persian Gulf rupee, was introduced by the Government of India as a replacement for the Indian rupee for circulation exclusively outside the country with the Reserve Bank of India [Amendment] Act, May 1, 1959.

Considering the above literatures, it is quite clear that, there is no as such well-established framework to mean what is meant by internationalization of a currency. For theoretical discussions, however, gives a guideline for understanding various functions that an international currency plays. However Indian rupee is emerging as better candidate than other currencies to take on the role of the world currency since it deserves to be.

CURRENCY INTERNATIONALIZATION

If currency is widely accepted across the world as a medium of exchange, it can be termed as 'international currency'. Internationalization of currency is characterized as i) payments for international transactions is made in that currency ii) both residents and non-residents have to hold financial assets and liabilities denominated in that currency and iii) freedom for outsiders to hold tradable currency balances, even beyond the territory of the issuing country.

INTERNATIONALIZATION OF INDIAN RUPEE

Internationalization of a one nation's currency is a policy matter and depends on the broader economic objectives of the issuing country. The Indian position in internationalizing the India rupee is different. India may not permit rupee to be officially used for international transactions except countries like Bhutan and Nepal (Bhutanese *Ngultrum* is at par with the currency of Indian Rupee and both are accepted in Bhutan. The Indian rupee is again accepted in towns of Nepalese side of Nepal-India border).

India usually trade its international trade in US denomination because of impact on export and NRIs issues, still efforts to promote invoicing in the Indian currency have been met with little success in countries with currencies which are not internationalized as the trade-counterparty does not have the necessary infrastructure to hedge his exposure in international markets.

The contribution of India is very small portion in foreign exchange market turnover in the world as compared to other countries. The survey conducted by BIS Triennial Central Bank reveals, data for 2007 shows that India's daily average share in the total foreign exchange market turnover is just 0.9% as compared to 34.1% of UK and 16.6% of USA. Though, the share of India in total foreign exchange market turnover is less compared to other major countries, but its growth is continuously increasing. India's share has increased from 0.1% of the total foreign exchange market turnover in 1998 to 0.2% in 2001 to 0.3% in 2004 to the current more than 1%.

It is also seen that, there are some anecdotal evidences that Indian rupee is accepted in Singapore, Malaysia, Hong Kong, Indonesia, Sri Lanka and the UK. The Central Bank of Nepal, *Nepal Rastra Bank*, also holds Government of India Treasury Bills.

Let us observe the off-shore rupee in different countries. There is increasing demand for off-shore rupee-linked papers like bonds, given the caps on foreign investor flows to the Indian local currency debt market. AIDB, Inter-American Development Bank issued the first offshore rupee bond with a 3 years maturity for Rs.1,00,00,000 in February 2007, and 10-year tenor for Rs.1,50,00,000 offshore rupee bonds in May 2007 issued. In June 2007, the World Bank issued a similar bond for Rs.1.25 billion with a 3-year tenor. European Bank for Reconstruction and Development (EBRD) also issued rupee offshore bonds with 5 years maturity for Rs.1,00,00,000 in July 2007.

Amongst the Asian countries, India grips an important position in terms of economic growth and volume of trade. It (India) is playing a growing role in Asia as major part in an engine of economic growth. It has been increasingly getting integrated with East Asian Countries. India's economy has almost more than a trillion US dollars growing at a rate of nearly 8.5% every year and expected to accelerate rapidly being second in the world. The value of the Indian rupee is mostly market-determined and not pegged to any currency. Its forex reserves are amongst the largest in the region, It is around $300.21 billion whereas US has just $136.53 billion end of November, 2010. India has wider scope to increase its volume of trade with ACU countries. The share of ACU countries in India's exports is ranging around 6 per cent and in imports around 5 percent in recent years. India export major goods to ACU countries are like petroleum, non-ferrous metals, pulses, chemicals, wood products, iron & steel, textile yarn, and fabrics made-up articles. Imports from ECU countries include engineering goods, petroleum and chemicals.

PERCEIVED COSTS AND BENEFITS OF FURTHER CURRENCY INTERNATIONALIZATION

Currency internationalization gives certain benefits to the country. It may promote growth by facilitating greater degree of integration both in terms of foreign trade and international capital flows. Other benefits are savings in foreign exchange transactions, ease of international trade and reduced foreign exchange exposure.

In spite of the above benefits, internationalization of the domestic currency is not free from several disadvantages. A major problem with the internationalization of a currency is that it may increase the issuing country's weakness to externals, given the freedom to Indian residents and outsiders with respect to the flow of funds in and out of the country and from one nation's currency to other nation's currency. When large amounts of domestic currency are held by foreigners, particularly at offshore locations, any expectation that the currency is vulnerable due to weak fundamentals, can turn out to be self-fulfilling and can lead to a sell-off resulting in a sharp fall in the value of the currency.

STATUS OF CURRENCIES

Various currencies of different countries are analyzed here to know the position of their status in international market in terms of GDP, per capital, forex reserves and FDI. The pros and cons of currencies are critically narrated.

UNITED STATES DOLLAR

Looking at US Dollar condition, its demand in international market especially in terms of foreign exchange reserve is deteriorating. Though US remains the largest economy in the world but its growth rate is pathetic. The share of the US was about half of the world income in the early 1940, has come down to about one-fourth now. The US economy does not display sound economic management. It has trade and fiscal deficits. It spent huge amounts on wars in Vietnam, Afghanistan and Iraq much the way Britain indulged in militarism. It is borrowing money from other countries through the sale of Treasury Bills and using same money to make war or to increase consumption of its people instead of using it for investments. The US is still the technology leader but has not made any decisive technological advance like the internet in the last decade. Rather, Research &Development activities are being moved to India in a big way. It seems the developments in technologies in the future days will take place in India rather than the Unites State. So the dollar is gradually losing its status as the international currency and countries like Japan, China, Europe, Britain and India are beginning to see their currencies as viable potential successor to the dollar.

BRITISH POUND STERLING

The pound sterling was the currency to witness as an international dimension in 19^{th} and 20^{th} century and it had lot of opportunities to become international currency, but failed in some of the aspects. Britain ceased to lead the world economy. Its growth rate has been faltering. As a result countries pulled out of the sterling in the early part of the twentieth century. United Kingdom has made it mandatory for its colonies to hold their foreign exchange in pound sterling in order to strengthen the currency. But, of course, such measures failed to stem the decline, and then United State Dollar became the world currency.

EURO DOLLAR

Among the prospective contenders for the world currency is Euro. The combined income of the European Union is more than the United States. But the growth rate of the EU is little low compared to US, Europe did not add to the invention of new technologies in the last half century, and it has no cities like New York that can emerge as the global finance capital. Though the income of European Union is more but it is combination of group of Europe countries not from high rates of indigenous economic growth. Though Euro may provide safety but it lacks the strength to lead the world economy.

CHINA'S RENMINBI

One of the biggest Asia's contenders is the Chinese Yuan, known as Renminbi. When we look at the economy, it has got highest growth rate among major countries of the world and is growing at a faster rate. It is not investing in unproductive schemes like US. It (China) is investing in productive projects like Roadways, Tibetan Railway etc. however the Yuan is not fully convertible. The trading volume of Yuan in forex market is not quite good. The price is determined less by the market and more by the perceptions of officials of the Bank of China. Since China being the state-run economy, the culture of China idolizes the emperor. This philosophy does not match with the requirements of the global investors today who want the market to determine the value of their holdings rather than some official sitting in the passage of the Bank of China. China is also not the leader in technological developments nor is it a global financial centre. The foreign investors are not so interested to invest in Yuan for these reasons.

THE EMERGENCE OF INDIA RUPEE

Looking at the various reasons of different nations, the situation of the Indian rupee is quite better. It is growing faster towards full convertibility. India's share in world income is increasing rapidly in-spite of having less market share at present. IMF expects, the growth of India in the year 1950 increase by 2900% compared with 2010, where China grows only 1415% and other countries growth will be negligible against India (Exhibit A4). India is obviously becoming the global centre for technology developments, as world is looking at us in terms of Information and Technology. It (India) has a long tradition of market-oriented finance institutions. It is often described as a 'mercantile' civilization. Our traders have travelled to other lands for the last 5,000 years while China has mainly looked inward. Mumbai has the institutions to develop into a world finance centre.

The history tells us that; Indian rupee was regarded as an official currency of foreign countries, like Kuwait, Bahrain, Qatar, the Trucial States (United Arab Emirates (UAE) since 1971) and Malaysia in previous times. The Gulf rupee, known as the Persian Gulf rupee, was introduced by the Government of India as a replacement for the Indian rupee for circulation exclusively outside the country with the Reserve Bank of India [Amendment] Act, May 1, 1959. This creation of a separate currency was an attempt to reduce the strain put on India's foreign exchange reserves. After India devalued the rupee on June 6, 1966, those countries still using it – Oman, Qatar and UAE – replaced the Gulf rupee with their own currencies and Kuwait and Bahrain had done so earlier in 1961 and 1965, respectively.

There was British sterling before dollar that formed the foundation of the global economy. After two world wars and several decades, pound sterling was replaced by dollar as the world standard. Since then US played the role of Big-boss, but in the present situation, the direction of time cycle is showing towards other currencies like INR, CHY, JPY, Euro, GBP and even IMF's SDR as international currency.

INDIAN ECONOMY

India economy, the third largest economy in the world, in terms of purchasing power, is going to touch new heights in coming years. As predicted by Goldman Sachs, the Global Investment Bank, by 2035 India would be the third largest economy of the world just after US and China. It will grow to 60% of size of the US economy. This booming economy of today has to pass through many phases before it can achieve the current milestone of 9% GDP.

The history of Indian economy can be broadly divided into three phases:

Pre- Colonial,
Colonial and
Post Colonial.

PRE COLONIAL: The economic history of India since Indus Valley Civilization to 1700 AD can be categorized under this phase. During Indus Valley Civilization Indian economy was very well developed. It had very good trade relations with other parts of world, which is evident from the coins of various civilizations found at the site of Indus valley. Before the advent of East India Company, each village in India was a self sufficient entity. Each village was economically independent as all the economic needs were fulfilled with in the village.

COLONIAL: The arrival of East India Company in India ruined the Indian economy. There was a two-way depletion of resources. British used to buy raw materials from India at cheaper rates and finished goods were sold at higher than normal price in Indian markets. During this phase India's share of world income declined from 22.3% in 1700 AD to 3.8% in 1952.

POST COLONIAL: After India got independence from this colonial rule in 1947, the process of rebuilding the economy started. For this various policies and schemes were formulated. First five year plan for the development of Indian economy came into implementation in 1952. These Five Year Plans, started by Indian government, focused on the needs of Indian economy.

If on one hand agriculture received the immediate attention on the other side industrial sector was developed at a fast pace to provide employment opportunities to the growing population and to keep pace with the developments in the world. Since then Indian economy has come a long way. The Gross Domestic Product (GDP) at factor cost, which was 2.3 % in 1951-52 reached 9% in financial year 2005-06

Trade liberalization, financial liberalization, tax reforms and opening up to foreign investments were some of the important steps, which helped Indian economy to gain momentum. The Economic Liberalization introduced by Man Mohan Singh in 1991, then Finance Minister in the government of P V Narsimha Rao, proved to be the stepping-stone for Indian economic reform movements.

To maintain its current status and to achieve the target GDP of 10% and more for the coming financial year, Indian economy has to overcome many challenges.

CHALLENGES BEFORE INDIAN ECONOMY:

- **Population explosion:** This monster is eating up into the success of India. According to 2001 census of India, population of India in 2001 was 1,028,610,328, growing at a rate of 2.11% approx. Such a vast population puts lots of stress on economic infrastructure of the nation. Thus India has to control its burgeoning population.
- **Poverty:** As per records of National Planning Commission, 36% of the Indian population was living Below Poverty Line in 1993-94. Though this figure has decreased in recent times but some major steps are needed to be taken to eliminate poverty from India.
- **Unemployment:** The increasing population is pressing hard on economic resources as well as job opportunities. Indian government has started various schemes such as Jawahar Rozgar Yojna, and Self Employment Scheme for Educated Unemployed Youth (SEEUY). But these are proving to be a drop in an ocean.
- **Rural urban divide:** It is said that India lies in villages, even today when there is lots of talk going about migration to cities, 70% of the Indian population still lives in villages. There is a very stark difference in pace of rural and urban growth. Unless there isn't a balanced development Indian economy cannot grow.

OPPORTUNITIES

The above challenges can be overcome by the sustained and planned economic reforms, these include;

- Maintaining fiscal discipline
- Orientation of public expenditure towards sectors in which India is faring badly such as health and education.
- Introduction of reforms in labour laws to generate more employment opportunities for the growing population of India.
- Reorganization of agricultural sector, introduction of new technology, reducing agriculture's dependence on monsoon by developing means of irrigation.
- Introduction of financial reforms including privatization of some public sector banks.

INDIA'S GDP RATE SINCE 1951-52

TABLE A1: GDP IN INDIA

Fin. Year	GDP	Fin. Year	GDP	Fin. year	GDP
1951-52	2.3%	1970-71	5%	1989-90	6.7%
1952-53	2.8%	1971-72	1%	1990-91	5.6%
1953-54	6.1%	1972-73	-0.3%	1991-92	1.3%
1954-55	4.2%	1973-74	4.6%	1992-93	5.1%
1955-56	2.6%	1974-75	1.2%	1993-94	5.9%
1956-57	5.7%	1975-76	9%	1994-95	7.3%
1957-58	-1.2%	976-77	1.2%	1995-96	7.3%
1958-59	7.6%	1977-78	7.5%	1996-97	7.8%
1959-60	2.2%	1978-79	5.5%	1997-98	4.8%
1960-61	7.1%	1979-80	-5.2%	1998-99	6.5%
1961-62	3.1%	1980-81	7.2%	1999-2000	6.1%
1962-63	2.1%	1981-82	6%	2000-01	4.4%
1963-64	5.1%	1982-83	3.1%	2001-02	5.8%
1964-65	7.6%	1983-84	7.7%	2002-03	3.8%
1965-66	-3.7%	1984-85	4.3%	2003-04	8.5%
1966-67	1%	1985-86	4.5%	2005-06	-
1967-68	8.1%	1986-87	4.3%	2004-05	7.5%
1968-69	2.6%	1987-88	3.8%	2005-06	9%
1969-70	6.5%	1988-89	10.5%	2009-10	8.5%

Source: Wikipedia.com

Table A1 explains about per cent age of GDP rate from 1951-52 to 2009-10, by having glance over the table, it seems that, the rate of GDP from 1951-52 and later, it is growing about 5% on an average, and is accelerated from the recent decade. The growth rate was too much volatile up to 1991 and maintained somewhat stable after that. The growth rate is constant and growing at moderate level from 2003-04. It is crossed 10% during 1988-89, and is expected around 9% to 10% for the forthcoming years.

TABLE A 2: GDP OF COUNTRIES AS ON OCTOBER, 2010 (AMOUNTS IN BILLIONS OF US$)

	Country	2010	2011	2012	2013	2014	2015
1	*World*	61,963	65,417	69,125	73,112	77,405	81,963
2	*European Union*	16,107	16,452	17,024	17,654	18,320	18,997
3	United States	14,624	15,157	15,825	16,526	17,268	18,029
4	People's Republic of China	5,745	6,422	7,170	8,001	8,936	9,982
5	Japan	5,391	5,683	5,878	6,081	6,302	6,517
6	Germany	3,306	3,358	3,454	3,547	3,641	3,729
7	France	2,555	2,591	2,665	2,751	2,846	2,945
8	United Kingdom	2,259	2,395	2,498	2,617	2,748	2,885
9	Italy	2,037	2,055	2,110	2,167	2,227	2,289
10	Brazil	2,024	2,193	2,327	2,471	2,626	2,789
11	Canada	1,564	1,633	1,701	1,762	1,823	1,880
12	Russia	1,477	1,678	1,867	2,069	2,277	2,499
13	**India**	**1,430**	**1,598**	**1,762**	**1,955**	**2,174**	**2,412**
14	Spain	1,375	1,366	1,399	1,442	1,489	1,540

Source: International Monetary Fund and Wikipedia site

The growth rate of US, EU, Japan is decreasing against the world GDP. US from 23.6% to 22%, whereas China and India are in increasing trend in terms of growth rate from 2010 to 2015. India's growth rate is increasing from 2.3% to 2.94% whereas China's rate is from 9.27% to 12.18% from 2010 to 2015 against world's GDP, this indicates, India is growing and has wide scope of improvement in the coming years.

TABLE A3: GDP AS % INCREASE FROM 2010

Country	2010-11 (in %)	2010-12 (in %)	2010-13 (in %)	2010-14 (in %)	2010-15 (in %)
People's Republic of China	12	25	39	56	74
Russia	14	26	40	54	69
India	**12**	**23**	**37**	**52**	**69**
Brazil	08	15	22	30	38
World	06	12	18	25	32
United Kingdom	06	11	16	22	28
United States	04	08	13	18	23
Japan	05	09	13	17	21
Canada	04	09	13	17	20
European Union	02	06	10	14	18
France	01	04	08	11	15
Germany	02	04	07	10	13
Italy	01	04	06	09	12
Spain	99	02	05	08	12

Source: Calculated values compiled from the secondary source

The average growth of China and Russia is 41% and India's average growth is 38%, whereas the growth rate of US, UK, European Union and world is less than 20%. It is 69% growth in the year 2015 compared to 2010-11 which makes India to stand in the third rank after China and Russia in terms of rapid growth whereas it is in the 13th rank in terms of total amount of GDP.

TABLE A4: GROSS DOMESTIC PRODUCT FROM 2010 TO 2050

(Amount in US$ millions in '000)

Country	2010	2015	2020	2025	2030	2035	2040	2045	2050	Change in % *
China	4,667	8,133	12,630	18,437	25,610	34,348	45,022	57,310	70,710	1415
U S	14,535	16,194	17,978	20,087	22,817	26,097	29,823	33,904	38,514	165
India	**1,256**	**1,900**	**2,848**	**4,316**	**6,683**	**10,514**	**16,510**	**25,278**	**37,668**	**2,899**
Brazil	1,346	1,720	2,194	2,831	3,720	4,963	6,631	8,740	11,366	744
Russia	1,371	1,900	2,554	3,341	4,265	5,265	6,320	7,420	8,580	526
Japan	4,604	4,861	5,224	5,570	5,814	5,886	6,042	6,300	6,677	45
U K	2,546	2,835	3,101	3,333	3,595	3,937	4,344	4,744	5,133	102
Germany	3,083	3,326	3,519	3,631	3,761	4,048	4,388	4,714	5,024	63
France	2,366	2,577	2,815	3,055	3,306	3,567	3,892	4,227	4,592	94
Canada	1,389	1,549	1,700	1,856	2,061	2,302	2,569	2,849	3,149	127
Italy	1,914	2,072	2,224	2,326	2,391	2,444	2,559	2,737	2,950	54

Source: International Monetary Fund, World Economic Outlook Database of October, 2010

Note: * % of Change from 2010 to 2050 (2050/2010 *100)

Looking India's growth, the per cent age of change from 1950 to 2010 is almost 2900% which is much better than any other countries in the world, where China's growth rate is 1415%, US at 165%, Japan at 45% and UK at 102% only. Considering the amount of GDP, China and US remain in the top position, and India will be satisfied with third position. When we compare the growth rate of India with other countries, the acceleration is almost double than China's rate, where India will surely lead the world economy having more contribution in terms of GDP, Forex reserve and other things after 2020. The growth rate of US, UK, Japan and other country will be very negligible against India's growth in 2050.

HISTORICAL EXCHANGE RATES

TABLE A5: INDIAN RUPEES PER CURRENCY UNIT, AVERAGED OVER THE YEAR

Currency	1996	2000	2004	2008	2009	2010	Average Price
U.S. dollar	35.444	44.952	45.34	43.814	48.84995	45.1587	43.9264417
Canadian dollar	26.002	30.283	34.914	41.098	42.92026	44.8479	36.6775267
Euro*	44.401	41.525	56.385	64.127	68.03312	59.912	55.73052
Pound sterling	55.389	68.119	83.084	80.633	76.38023	71.0069	72.435355
Swiss franc	28.714	26.654	36.537	40.451	45.05846	46.1323	37.2577933
Australian dollar	27.761	26.157	33.409	36.972	38.58082	44.7439	34.6039533
Japanese yen	0.3261	0.41711	0.41945	0.42627	0.52239	0.5371	0.44140333
Singapore dollar	25.16	26.079	26.83	30.932	33.60388	34.5255	29.52173
*before Jan 1, 1999, European Currency Unit, code XEU							

Source: Calculated values compiled from the secondary source

Table A5, states that, the moving average/average price of Indian Rupee against other currencies is stronger against the year 2010 except Pound Sterling. Though rupee is weakening, it helps for exporters, NRIs, FIIs and FDIs and also good sign for balance of payment which results in positive capital account.

TABLE A6: LIST OF COUNTRIES BY FOREIGN EXCHANGE RESERVES AS NOVEMBER 2010

Rank	Country	Foreign exchange reserves in millions of USD	
-	World	10008392	--
1	People's Repuublic of China	2648300	26.5
2	Japan	1050235	10.5
3	Euro system	769840	7.7
4	Russia	501100	5.0
5	Saudi Arabia	410300	4.1
6	Taiwan	380505	3.8
7	**India**	**300210**	3.0
8	United States	136532	1.4

www:http://en.wikipedia.org/wiki/List_of_countries_by_foreign_exchange_reserves

India stands in seventh rank in the world in terms forex reserves whereas US stands 8th position. Out of total world foreign exchange reserves, China's contributes 26.5%, Japan 10.5%, Euro 7.7%, India with $300.21 billion 3% and US contributes just 1.4% with $136.53 billion reserves. It indicates that, US forex reserve condition is deteriorating year by year.

CONCLUSION

Though Indian Rupee is far off from being an international currency but given the increased importance of Indian economy and growing at around 9% GDP, we can keep moving towards the objective. Though the size in terms of GDP, less volume of international trade and the Indian rupee is rarely being used for trading in international market but Indian rupee has been gaining its acceptability in international market. Therefore, internationalization of the rupee is not so distant objective of policy makers in India.

Current financial problems and growth of other countries ignited America leading to a slowdown the demand for US dollar. Though America is capable of coming up with its grievances more than what we have seen to topple it, but at the current pace of events it seems it will not happen in short run. Gradually dollar may be no longer the world's reserve currency. So the situation creates the environment of other currency which is going to be an alternative of US dollar. The stage is almost towards setting for world to install the Indian rupees for broad usage across world. Though China, Europe, Japan, SDR and other countries are in race but they have their own set of problems, India has lot of scope to become the leader within 20 years from now. The world currency should have investors' trust, so India is backed with relative economic stability, sustained low inflation, increasing GDP and transparent institutions. However ending the dollar's role in the world economy is not an easy matter.

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PROFITABILITY PERFORMANCE OF PUBLIC SECTOR BANKS-AN EMPIRICAL STUDY

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ABSTRACT
The Public sector banks have brought with them state-of-art technology for business processing and service delivery to provide efficient service in catering to the customers' demand. They also have the advantages of standing with adequate capital resources, well trained and professional man-power, absence of non-performance assets, computerization, lien organizational system, a handful of branches in chosen centers and a new variety of products and services to meet the latest requirements of the present day corporates. Along with this, the global players have also brought in many foreign banks into India to fulfill the requirements of WTO accord. They offer new range of products and services like ATMs, EFTs, Credit Cards, Portfolio Management etc. Hence, a study was conducted to know whether these Public sector banks are maintaining profitability in the overall performance through step wise multiple regression analysis and found that the public sector banks performance is well during the study period.

KEYWORDS
Burden ratios, Burden related ratios, Profitability ratios, Spread ratios, Spread Related ratios.

INTRODUCTION
The growth in the Indian Banking Industry has been more qualitative than quantitative and it is expected to remain the same in the coming years. Based on the projections made in the "India Vision 2020" prepared by the Planning Commission and the Draft 10th Plan, the report forecasts that the pace of expansion in the balance-sheets of banks is likely to decelerate. The total assets of all scheduled commercial banks by end-March 2010 are estimated at Rs 40, 90,000 corers. That will comprise about 65 per cent of GDP at current market prices as compared to 67 per cent in 2002-03. Bank assets are expected to grow at an annual composite rate of 13.4 per cent during the rest of the decade as against the growth rate of 16.7 per cent that existed between 1994-95 and 2002-03. It is expected that there will be large additions to the capital base and reserves on the liability side.

The Indian Banking Industry can be categorized into non-scheduled banks and scheduled banks. Scheduled banks constitute of commercial banks and co-operative banks. There are about 67,000 branches of Scheduled banks spread across India. As far as the present scenario is concerned the Banking Industry in India is going through a transitional phase. The Public Sector Banks (PSBs), which are the base of the Banking sector in India account for more than 78 per cent of the total banking industry assets. Unfortunately they are burdened with excessive Non Performing assets (NPAs), massive manpower and lack of modern technology. On the other hand the Private Sector Banks are making tremendous progress. They are leaders in Internet banking, mobile banking, phone banking, ATMs. As far as foreign banks are concerned they are likely to succeed in the Indian Banking Industry. In the Indian Banking Industry some of the Private Sector Banks operating are IDBI Bank, ING Vyasa Bank, SBI Commercial and International Bank Ltd, Bank of Rajasthan Ltd. and banks from the Public Sector include Punjab National bank, Vijaya Bank, UCO Bank, Oriental Bank, Allahabad Bank among others. ANZ Grind lays Bank, ABN-AMRO Bank, American Express Bank Ltd, Citibank are some of the foreign banks operating in the Indian Banking Industry.

Currently, India has 96 scheduled commercial banks (SCBs) - 27 public sector banks (that is with the Government of India holding a stake), 31 private banks (these do not have government stake; they may be publicly listed and traded on stock exchanges) and 38 foreign banks. They have a combined network of over 53,000 branches and 49,000 ATMs. According to a report by ICRA Limited, a rating agency, the public sector banks hold over 75 percent of total assets of the banking industry, with the private and foreign banks holding 18.2% and 6.5% respectively

BANKING IN INDIA

CENTRAL BANK

Reserve Bank of India

NATIONALISED BANKS

Allahabad Bank · Andhra Bank · Bank of Baroda · Bank of India · Bank of Maharashtra · Canara Bank · Central Bank of India · Corporation Bank ·Dena Bank · IDBI Bank · Indian Bank · Indian Overseas Bank · Oriental Bank of Commerce · Punjab & Sind Bank · Punjab National Bank · Syndicate Bank · UCO Bank · Union Bank of India · United Bank of India · Vijaya Bank

STATE BANK GROUP

State Bank of India · State Bank of Bikaner & Jaipur · State Bank of Hyderabad · State Bank of Indore · State Bank of Mysore · State Bank of Patiala · State Bank of Travancore

PRIVATE BANKS

Axis Bank · Bank of Rajasthan · Bharat Overseas Bank · Catholic Syrian Bank · City Union Bank · Development Credit Bank · Dhanalakshmi Bank · Federal Bank · Ganesh Bank of Kurundwad · HDFC Bank · ICICI Bank · IndusInd Bank · ING Vysya Bank · Jammu & Kashmir Bank · Karnataka Bank Limited · Karur Vysya Bank · Kotak Mahindra Bank · Lakshmi Vilas Bank · Nainital Bank · Ratnakar Bank · Rupee Bank · Saraswati Bank · SBI Commercial and International Bank · South Indian Bank · Tamil Nadu Mercantile Bank · Yes Bank

FOREIGN BANKS

ABN AMRO · Abu Dhabi Commercial Bank · Antwerp Diamond Bank · Arab Bangladesh Bank · Bank International Indonesia · Bank of America · Bank of Bahrain & Kuwait · Bank of Ceylon · Bank of Nova Scotia · Bank of Tokyo Mitsubishi UFJ · Barclays Bank · Citibank India · HSBC · Standard Chartered · Deutsche Bank · Royal Bank of Scotland

REGIONAL RURAL BANKS

South Malabar Gramin Bank · North Malabar Gramin Bank · Pragathi Gramin Bank · Shreyas Gramin Bank

FINANCIAL SERVICES

Real Time Gross Settlement(RTGS) · National Electronic Fund Transfer (NEFT) · Structured Financial Messaging System (SFMS) · Cash Tree · Cashnet · Automated Teller Machine (ATM).

VISION OF BANKS IN INDIA

The banking scenario in India has already gained all the momentum, with the domestic and international banks gathering pace. The focus of all banks in India has shifted their approach to 'cost', determined by revenue minus profit. This means that all the resources should be used efficiently to better the productivity and ensure a win-win situation. To survive in the long run, it is essential to focus on cost saving. Previously, banks focused on the 'revenue' model which is equal to cost plus profit. Post the banking reforms, banks shifted their approach to the 'profit' model, which meant that banks aimed at higher profit maximization.

FOCUS OF BANKS IN INDIA

The banking industry is slated for growth in future with a more qualitative rather than quantitative approach. The total assets of all scheduled commercial banks by end-March 2010 is projected to touch Rs 40, 90,000 crore. This is going to comprise around 65% of GDP at current market prices as compared to 67% in 2002-03. The bank's assets are estimated to grow at an annual composite rate of growth of 13.4% during the rest of the decade as against 16.7% between 1994-95 and 2002-03.Barring the asset side, on the liability perspective, there will be huge additions to the capital base and reserves. People will rely more on borrowed funds, pace of deposit growth slowing down side by side. However, advances and investments would not see a healthy growth rate.

FUTURE CHALLENGES OF BANKS IN INDIA

The Indian banks are hopeful of becoming a global brand as they are the major source of financial sector revenue and profit growth. The financial services penetration in India continues to be healthy, thus the banking industry is also not far behind. As a result of this, the profit for the Indian banking industry will surely surge ahead. The profit pool of the Indian banking industry is probable to augment from US$ 4.8 billion in 2005 to US$ 20 billion in 2010 and further to US$ 40 billion by 2015. This growth and expansion pace would be driven by the chunk of middle class population. The increase in the number of private banks, the domestic credit market of India is estimated to grow from US$ 0.4 trillion in 2004 to US$ 23 trillion by 2050.

LITERATURE REVIEW

Perhaps because profitability was not the objective of Indian banks, there have not been many attempts to compare the profitability amongst the various categories of banks. Verma and Verma [11] attempted to determine the determinants of profitability of SBI group, other nationalized and foreign banks in India. A study by Das [2] compares performance of Public Sector Banks for 3 years in the post reform period, 1992, 95, 98. He notes that while there is a welcome increase in emphasis on non-interest income, Banks have tended to show risk averse behavior by opting for relatively risk free investments over risky loans. Sarkar & Das [8] compared performance of Public Sector Banks, Private Banks, and Foreign Banks for the year-1994-95 on their profitability, productivity & financial management. They found that Public Sector Banks compare poorly with the other two categories of banks. Another study by Ram Mohan [6] covers a recent period, 1996-97 to 1999-2000. He found that over these years the profitability of the Public sector Banks did improve in comparison to the Private and Foreign Banks, but they have lagged behind in their ability to attract deposits at favorable interest rates and have been slow in technology up gradation and improving staffing and employment practices, which may have negative implications on their longer–term profitability. Researchers have earlier opined that the major reason for declining bank profitability are increasing pre-emption for CRR, SLR, rigorously structured interest rate, the burden of social banking and enormous increase in the establishment cost. Recently, there has been an increased amount of stress on soundness of the Balance Sheet as well as on the profitability. It is recognized that Public Sector Banks must have a strong balance sheet and should be profitable. It also implies that bank interest and other earnings should be sufficient to cover its financial & administrative expenses. Stronger balance sheet also means that the banks have sufficient surplus for provisions of bad debts, tax liabilities & depreciation of financial assets, to pay dividends and to augment reserves. A bank's strong balance sheet also implies that it has sufficient capital & reserve to protect its depositors and other creditors from the risks it bears on its assets. The major reasons identified for the declining levels of profitability of Public Sector Banks are mismanagement, liquidity, credit policies, increased lending to priority & preferred sector, mounting agricultural over dues & incidences of sickness of industrial units, rise in operation cost, lack of efforts in *PROFITABILITY AND PRODUCTIVITY IN* 140 *INDIAN BANKS* manpower planning (Bisht, Mishra & Belwal [1]). Ganeshan [4] reveals by an empirical establishment of profit function that interest cost, interest income, deposits per branch, credit to total assets, proportion of priority sector advances & interest income loss are significant determinants of the profits & profitability of Indian public sector banks. Sarkar et al. [7] found that the foreign banks were more profitable and efficient than Indian banks and amongst the Indian Banks private banks were superior to the public sector banks. They also conclude that the non-traded private sector banks are not significantly different from the public sector banks with respect to profitability and efficiency, a result consistent with the property right hypothesis. Sathye [9] studied the impact of privatization on banks performance and efficiency for the period 1998-2002 and found that partially privatized banks have performed better than fully public sector banks and they are catching up with the banks in the private sector. Shanmugam and Das [10] reported that, in general, State bank group and private-foreign group banks have performed better than their counterparts during 1992-1999. According to the Business Standard Banking annual Survey 2003, Indian Banks showed a 52.3% growth in the net profit in the year 2002-2003. Public sector banks outperformed the other category of banks bagging six of the top 10 slots. Only one foreign Bank could make it to the top. The remaining three slots were occupied by the private banks (Kadam, [5]).

OBJECTIVES OF THE STUDY

To assess the profitability performance of selected public sector banks through Spread ratios, Spread Related ratios, Burden ratios, Burden related ratios and Profitability ratios.

SOURCE OF DATA

The study is based on secondary data. The data were collected from the database of Centre for Monitoring Indian Economy (CMIE) namely PROWESS. The published annual reports of the selected banks taken from their website.

TOOLS OF ANALYSIS

The ratios considered for the study are Spread Ratios, Spread Related Ratios, Burden Ratios, Burden Related Ratios and Profitability Ratios. Statistical tools like Mean, Standard Deviation, Coefficient of Variation and Step wise Regression are used for the analysis.

SPREAD RATIOS

1. Ratio of interest income to Working fund(X_1) = Interest income/ Working fund
2. Ratio of Interest expenses to Working fund(X_2) = Interest expenses/ Working fund
3. Spread to Working fund(X_3) = Spread / Working fund

Spread is the difference between interest earned to interest paid

Working fund=Total assets- Accumulated depreciation

SPREAD RELATED RATIOS

1. Ratio of Interest income to Total income(X_4) = Interest income / Total income
2. Ratio of Interest expenses to Total expenses(X_5) = Interest expenses/ Total expenses

BURDEN RATIOS

1. Ratio of Non-interest expenditure to Working fund(X_6) = Non Interest expenditure / Working fund
2. Ratio of Non-interest income to Working fund(X_7) =Non-interest income/ Working fund
3. Ratio of Burden To Working fund(X_8) = Burden / Working fund

BURDEN RELATED RATIOS

1. Ratio of Non-interest income to Total income(X_9) = Non-Interest Income / Total Income
2. Ratio of Establishment expenses to Total expenses(X_{10}) = Establishment expenses / Total expenses

3. Ratio of Operating expenses to Total expenses(X_{11}) = Operating expenses / Total expenses
4. Ratio of Burden to Total income(X_{12}) = Burden / Total income

PROFITABILITY RATIOS

1. Ratio of Gross profit to Working fund(X_{13}) = Gross profit / Working
2. Ratio of Gross profit to Total deposit(X_{14}) = Gross profit / Total deposit
3. Ratio of Net profit /loss to Total income(X_{15}) = Net profit / Total income
4. Ratio of Net profit/loss to Total deposit(X_{16}) = Net profit / Total deposit
5. Ratio of Net profit to working fund (X_{16}) = Net profit / Working Fund

SPREAD RATIOS

Spread is the difference between interest earned (on loan and advances) and interest paid (on deposit and borrowing) by the banks. These ratios play a major role in determining the profitability of the banks. It is the net amount available to the banks for meeting their operating and managerial expenses. The components like Interest earned and Interest paid in relation to working fund of the banks is required to analyze the profitability performance.

ANALYSIS

TABLE 1: CALCULATION OF SPREAD RATIOS

Banks	Interest income to Working Fund (X_1)			Interest Expenses to Working Fund (X_2)			Spread to Working Fund (X_3)		
	Mean	S.D	C.V	Mean	S.D	C.V	Mean	S.D	C.V
Bank of Baroda	0.074	0.010	13.513	0.046	0.009	19.565	0.027	0.003	11.111
Indian Overseas	0.081	0.007	8.641	0.053	0.009	16.981	0.328	0.004	1.219
Punjab National	0.079	0.010	12.658	0.047	0.011	23.404	0.031	0.002	6.451
Canara	0.077	0.008	10.389	0.051	0.009	17.647	0.049	0.003	6.122
Vijaya	0.082	0.010	12.195	0.056	0.011	19.642	0.028	0.006	21.428
Syndicate	0.078	0.011	14.102	0.048	0.009	18.75	0.029	0.006	20.689
SBI	0.076	0.007	9.210	0.088	0.007	7.954	0.026	0.002	7.692
Dena Bank	0.086	0.011	12.790	0.053	0.012	22.641	0.025	0.002	8.00
Over all	**0.079**	**0.009**	**11.687**	**0.055**	**0.009**	**15.867**	**0.067**	**0.003**	**10.339**

The above table 1 reveals that the mean ratio X_1 of the sample banks is ranging from 0.074 to 0.086 with the overall ratios of 0.079, SD of 0.074.The ratio of IOB, VB and DB is higher than the overall ratio and all the remaining banks are less than the overall ratio.

It is also revealed that the mean ratio of X_2 is ranging from 0.046 to 0.057 with the overall ratio of 0.055, SD of 0.077 and CV of 15.867. The ratio of SBI, DB and VB is higher than the overall ratio, BOB, IOB, PNB, CB and Syndicate bank as it less than the average. It is also revealed that X_3 which is the difference between X_1 and X_2 is ranging from 0.025 to 0.328 with an overall ratio of 0.067, SD of 0.03 and CV of 10.339. The ratio of IOB is higher than the overall ratio.

SPREAD RELATED RATIOS

Spread Related Ratios are used to analyze the changes in the contents of interest earned and interest paid. So the following ratios are used to analyze the spread.

TABLE 2: CALCULATION OF SPREAD RELATED RATIOS

Banks	Interest income to Total Income (X_4)			Interest Expenses to Total Expenses (X_5)		
	Mean	S.D	C.V	Mean	S.D	C.V
Bank of Baroda	0.849	0.032	3.769	0.589	0.058	9.847
Indian Overseas	0.863	0.027	3.128	0.607	0.060	9.884
Punjab National	0.859	0.029	3.376	0.569	0.062	10.896
Canara	0.840	0.032	3.809	0.624	0.055	8.814
Vijaya	0.869	0.039	4.487	0.597	0.050	8.375
Syndicate	0.880	0.036	4.090	0.587	0.066	11.243
SBI	0.841	0.023	2.734	0.614	0.075	12.214
Dena Bank	0.835	0.049	5.868	0.603	0.084	13.930
Over all	**0.854**	**0.033**	**4.468**	**0.598**	**0.063**	**10.650**

The above table 2, represents that the ratio X_4 is ranging from 0.835 to 0.880 with an average of 6.836, SD of 0.267 and CV of 35.748 and it is more than the average in case of syndicate, Vijaya, Indian Overseas and Punjab National banks. The degree of variability is less in case of syndicate, Indian Overseas, Bank of Baroda, Punjab National, Canara and SBI. The ratio X_5 is ranging from 0.569 to 0.624 with an average of 0.598, SD of 0.063 and CV of 10.560 and it is more than the average in case of PNB, IOB, DB and SBI. The degree of variability is also less in case of BOB, IOB, PNB and VB.

BURDEN RATIOS

Burden is defined as the difference between non-interest expenditure and non-interest income of the banks. It represents non-interest expenditure that is covered by non-interest income. So the following ratios are calculated.

TABLE3: CALCULATION OF BURDEN RATIOS

Banks	Non-Interest expenditure to Working Fund (X_6)			Non-Interest income to Working Fund (X_7)			Burden to Working Fund (X_8)		
	Mean	S.D	C.V	Mean	S.D	C.V	Mean	S.D	C.V
Bank of Baroda	0.031	0.005	16.129	0.012	0.003	25.00	0.018	0.004	22.222
Indian overseas	0.032	0.004	12.5	0.012	0.002	16.666	0.019	0.004	21.052
Punjab National	0.034	0.006	17.647	0.014	0.003	21.428	0.021	0.003	14.285
Canara Bank	0.030	0.005	16.666	0.014	0.003	21.428	0.029	0.042	144.827
Vijaya Bank	0.032	0.007	21.875	0.012	0.004	33.333	0.022	0.004	18.181
Syndicate Bank	0.031	0.007	22.580	0.010	0.003	30.00	0.021	0.006	28.577
SBI	0.032	0.003	9.375	0.012	0.004	0.333	0.019	0.006	31.578
Dena Bank	0.037	0.008	21.621	0.015	0.005	33.333	0.021	0.007	33.333
Over all	**0.032**	**0.005**	**17.299**	**0.012**	**0.003**	**22.689**	**0.021**	**0.009**	**39.256**

The above table 3, indicates that the ratio of X_6 is ranging from 0.030 to 0.037 with an overall ratio of 0.032, SD of 0.005 and 17.299.The ratio DB and PNB is above average. The degree of variability is less in case of SBI, IOB, BOB and CB. The ratio X_7 is ranging from 0.010 to 0.015 with an overall ratio of 0.012, SD of 0.003 and CV of 22.689.The ratio of DB, CB and PNB is more than average. The degree of variability is less in case of SBI, CB, PNB and IOB. The ratio X_8 is ranging from 0.018 to 0.029 with an overall ratio of 0.021, SD of 0.099 and CV of 39.256.The ratio of CB and VB is more than the average ratio. The degree of variability is less in case of all banks except CB.

BURDEN RELATED RATIOS

TABLE 4: CALCULATION OF BURDEN RELATED RATIOS

Banks	Non-interest income to Total income(x_9)			Establishment expenses to Total expenses(x_{10})			Operating expenses to Total expenses(x_{11})			Burden to Total income(x_{12})		
	Mean	S.D	C.V	Mean	S.D	C.V	Mean	S.D	C.V	Mean	S.D	C.V
Bank of Baroda	0.149	0.032	21.476	0.297	0.057	19.191	0.297	0.057	19.191	0.219	0.045	20.547
Indian overseas	0.135	0.027	20.00	0.293	0.055	18.771	0.293	0.055	18.771	0.214	0.039	18.224
PNB	0.139	0.029	20.863	0.319	0.054	16.927	0.319	0.054	16.927	0.242	0.039	16.115
Canara Bank	0.156	0.034	21.794	0.289	0.062	21.453	0.289	0.062	21.453	0.178	0.045	25.280
Vijaya Bank	0.129	0.036	27.906	0.293	0.110	37.542	0.293	0.110	37.542	0.220	0.056	25.454
Syndicate Bank	0.119	0.035	29.411	0.341	0.073	21.407	0.341	0.073	21.407	0.236	0.085	36.016
SBI	0.157	0.023	14.649	0.297	0.041	13.804	0.297	0.041	13.804	0.205	0.035	17.073
Dena Bank	0.163	0.049	30.061	0.313	0.072	23.003	0.313	0.072	23.003	0.230	0.071	30.869
Overall	**0.143**	**0.033**	**23.27**	**0.305**	**0.065**	**21.51**	**0.305**	**0.065**	**21.512**	**0.218**	**0.051**	**23.697**

The above table 4, describes that the ratio X_9 is ranging from 0.119 to 0.163 with an overall ratio of 0.143, SD of 0.033 and CV of 23.27.The ratio is greater than its average in case of DB, SBI CB and BOB. There is lesser degree of variability in case of ratio SBI, CB, PNB, IOB and BOB. The ratio X_{10} is ranging from 0.293 to 0.341 with an overall ratio of 0.305, SD OF 0.065 and CV of 21.51.The ratio of Syndicate, PNB and DB is more than the average. The ratio X_{11} is ranging from 0.293 to 0.341 with an overall ratio of 0.305, SD OF 0.065 and CV of 21.51.The ratio of Syndicate, PNB and DB is more than the average. The ratio of X_{12} is ranging from 0.178 to 0.242 with an overall ratio of 0.218, SD of 0.051 and CV of 23.697.The ratio is greater than the average in case of PNB, Syndicate, DB,VB and BOB. The ratio has less degree of variability in case of BOB, IOB, and SBI.

PROFITABILITY RATIOS

Profitability ratios indicate the efficiency with which a bank deploys its total resources to maximize its profit. The relationship between the earnings and funds is used to analyze the profitability of the banks.

TABLE 5: Calculation of PROFITABILITY RATIOS

Banks	Gross Profit To Working Fund (X_{13})			Gross Project To Total deposit(X_{14})			Net Profit To Total Income (X_{15})			Net Profit To Total deposit (X_{16})			Net Profit To Working Fund (X_{17})		
	Mean	S.D	C.V	Mean	S.D	C.V	Mean	S.D	C.V	Mean	S.D	C.V	Mean	S.D	C.V
Bank of Baroda	0.058	0.009	0.068	0.068	0.010	14.705	0.094	32.541	34618.08	0.009	0.001	11.111	0.007	0.001	14.285
Indian overseas	0.064	0.005	0.074	0.074	0.006	8.108	0.103	0.049	47.572	0.010	0.004	40.00	0.008	0.004	50.00
Punjab National	0.061	0.009	0.065	0.065	0.009	13.846	0.107	0.028	26.168	0.010	0.002	20.00	0.009	0.002	244.444
Canara	0.073	0.009	0.135	0.135	0.011	8.148	0.111	0.029	26.126	0.012	0.012	100.00	0.011	0.003	27.272
Vijaya	0.067	0.014	0.074	0.074	0.016	21.621	0.199	0.0215	108.040	0.010	0.006	60.00	0.009	0.005	55.555
Syndicate	0.058	0.008	0.065	0.065	0.010	15.384	0.094	0.014	14.893	0.008	0.001	12.50	0.007	0.001	14.285
SBI	0.061	0.006	0.078	0.078	0.008	10.256	0.092	0.021	22.826	0.010	0.001	10.00	0.008	0.001	12.5
Dena Bank	0.064	0.011	0.076	0.076	0.013	17.105	-0.076	0.076	-57.894	0.008	0.005	55.555	0.008	0.004	50.00
Over all	**0.063**	**0.008**	**14.015**	**0.079**	**0.010**	**13.696**	**0.109**	**4.117**	**4350.72**	**0.009**	**0.004**	**38.645**	**0.008**	**0.002**	**52.298**

The above table 5, describes that the ratio of X_{13} is ranging from 0.0582 to 0.073 with an overall ratio of 0.063, SD of 0.008 and CV of 14.015.The ratio is greater than its average in case of IOB, CB, VB and DB. The degree of variability in case of IOB, SBI and Syndicate Bank.

The ratio X_{14} is ranging from 0.065 to 0.135 with an overall ratio of 0.079, SD OF 0.010 and CV of 13.646.The ratio is greater than in case of CB only. The degree of variability is less in case of SBI, CB and IOB.

The ratio X_{15} is ranging from -0.076 to 0.111 with an overall ratio of 0.109, SD of 4.117 and CV of 4350.72.The Ratio is greater than in case of VB, CB. The degree of variability less in case of all banks.

The ratio of X_{16} is ranging from 0.009 to 0.012 with an overall ratio of 0.009, SD of 0.004 and CV of 38.645.The ratio is above average in case of IOB, PNB, CB, VB and SBI.

The ratio of X_{17} is ranging from 0.007 to 0.011 with an overall ratio of 0.008, SD of 0.002 and CV of 2.298. It is more than average in case of PNB, CB and VB.

REGRESSION ANALYSIS

Stepwise multiple regression analysis is used to ascertain the percentage of contribution of each independent variable on the dependent variable. In this section, multiple regression analysis is used to analyze the level of influence of financial ratios on the dependent variable x16.

The following regression model is fitted for financial ratios:

The stepwise multiple regression model indicates that out of 17 ratios X_{17} ratio only significantly contributing to X_{16} (the dependent variable)

Regression fitted $X_{16}= 0.002+0.853X_{17}$

TABLE – 6: REGRESSION COEFFICIENT AND OTHER STATISTICS

Regression Coefficient	Value	Standard error of regression coefficient	't' value	Sig.t
Constant	.002	.002	1.376	.218
X17	.853	.213	3.997	.218
Multiple R=.853[a]	R^2= .727*	F=15.976	S.E. of R=.00074	
* Indicates significant at 5% probability				

The above table describes the results of multiple regression analysis in terms of regression co-efficient, the standard error, co-efficient of determination (R^2 and t value).The co-efficient of determination R^2 value shows that the X_{16} (net profit to total deposits) alone explains the variation in Dependent variable to the extent of 72.7%.The F value of ANOVA is 15.976 greater than probabilistic value (.007) and hence, the model is good fit.

CONCLUSION

The Study reveals that the profit earning capacity of a bank can be understood in terms of four influential factors interest earned, other income, interest expended and operating expenses. With reference to Interest earned in relation to Working fund is less than the average in case of BOB, SBI, Syndicate and Canara banks. So these banks may concentrate on improving their interest income With reference to other income (Non-interest income) in relation to working fund is less than the average in case of Syndicate bank only. So this bank may concentrate on improving their other income. With reference to Interest expenses to Total expenses are more than the average in case of Indian Overseas, Canara, SBI and Dena banks. So these banks may concentrate on reducing their interest expenses. With reference to Operating Expenses to Total expenses are more than the average in case of PNB, Syndicate and Dena banks. So these banks may concentrate on reducing their Operating expenses. On the whole, the selected public sector banks performance is well in that Dena Bank, Vijaya Bank, Punjab National Bank & Indian Overseas Bank are maintaining good profitability performance than the Syndicate, SBI, Canara Bank, & Bank of Baroda.

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GLOBAL INTEGRATION OF ORGANISATION IS EFFECTIVE THROUGH LEGISLATION: A PERSPECTIVE ON THE CURRENT ECONOMIC ENVIRONMENT

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ABSTRACT

Global integration of organization is possible through enactment of legislations conducive for the environment. In the age of Internet, global integration can interlink organizations for horning opportunities and enabling proper distribution to the end-user. Global bodies like GATT, UNO and IMF have been responsible for standardizing the strategic objective of different countries across the globe for a common meeting place. It has created avenues for the organizations to carve out processes and adopt linkages as per their needs. Globalization has a created a level playing ground for all the countries to assimilate ideas irrespective of the differences in the socio-cultural, ethical and moral values that affect the global stakeholder. Recent economic downturn has made the world believe that the global environment has been prevalent in the economies of scale worldwide. European Union has a bastion of definitions for co-operating the process of globalization.

KEYWORDS

Globalisation, New-world economy, Multilateral agreement, Stakeholders' benefit

GLOBAL INTEGRATION IN WIDER ENVIRONMENT

Global integration can happen through different methods ensured by the League of Nations coming under certain agreements for mutual benefits (Bartlett, 1986). Like-minded countries with reciprocal interest and mutual agreement join together for common interest and forge ahead in creating values, capital and resources for the society to harvest. Implications of cross-country relationship have wider ramifications and are translated mostly through organizations involved in the process of making change happen. The US being a forerunner of economic development and having the strength of riches have been heard by nations in the international forum like that of WTO, IMF, UNO and other world bodies; which matter.

Countries are strengthened and countries are being ruined by the prowess of consortium hegemony. But, in the European context, it has been a rollercoaster journey of governance in the scattered parts of the globe which has unfolded the reminiscence of values left in the soil. Bitter-sweet taste of people on the European region has been a lamenting experience and enriching for the new thinkers of the new countries to develop upon a bastion of initiation made by the European nations.

Mutual agreement can happen for the country wherein it can relate to the resources which can benefit the nation; and its people to elevate their economic level (Doz and Prahalad, 1991). It essentially should raise the per capita income, GDP and create wealth for the nation at large. Creating inclusive capital, creating opportunities for people to involve is ultimately important for the nation to develop in the race for economic growth. Globalization has been effective for many countries over the past years who all have imbibed the free market economy (Keegan, 2006). Countries like Czechoslovakia, Poland, Hungary, Taiwan and China revolutionized their economy by espousing free market economy. Singapore, Thailand, Malaysia and Indonesia had foreign direct investments (FDIs) and made the country rise to certain occasions.

LEGISLATION AND LAISSEZ-FAIRE ECONOMY

The countries who all have realized the importance of laissez-faire economy being enforced by the governance, by virtue of the legislations being enacted and enforced, those countries have grown in shape and size and have created value for the nation. Certain countries who all have limited resources like Japan, Singapore and countries in the Oceania resorted to going global by establishing alliances (Bartlett et al, 2004).

They established multinational companies abroad, manufactured and assembled components shipment from different networked points and created finished goods which have a cost leadership and a presence in the market. They went in by lowering the costs and making profit by virtue of competitive advantage and ensured capital earnings through perfecting return on investment. They sought for countries which have better purchasing power parity and currency conversions comparatively profitable for the organization to drive through collaborations and alliances. Effects of globalization can make or mar the national economies which exist. In order to protect the country's economy it has to identify its plus points which are responsible for earning revenue for the nation and identify negative aspects which can be converted to a profit center by outsourcing.

NEW GLOBAL CULTURE

If we take the case of 200 countries which are conspicuous, certain patterns of thought will emerge. Based on the assessment, all the global bodies have been working out with their plans, programs, agendas and budget allocation to eradicate issues of concern. Trade agreements between different countries symbiotically help assist each other across the social texture of the cultures, be it high or low context cultures. It has been striving hard to make the cultures become universal and anthropologically untraceable. Incidentally, the social behaviors of people are changing due to adoption of new culture (Luo, 2003).

Internationalization of the aspects of influence cut across the Maslow's need hierarchy theory and changed the factors of need and want. It impacts the Hofstede's cultural typology by virtue of the cross-cultural forces randomizing the texture of the places and people. Eventually, self-reference criteria and perception of people are fast changing drifting away from genetic inheritance being influenced by the force of the contemporaneous environment. Socio-cultural environment also influences the international relations for bridging amicable relationships for hostile angularities. Consumers become the butt of all aspects of the economy and pay a price for the product, services, events and places (Taggart, 1997).

EUROPEAN TRADE GROUPS AND ECONOMIC ENVIRONMENT

The macro dimensions characteristic traits which influence the global marketing environment and dimensions of economy. Free trade is one of the greatest blessings which a government can confer on the people. Economic integration stood at 10% at the beginning of the 20th century; but today, it is approximately of the environment like economic, social and cultural, political, legal and technological are the 60%. Integration has been effective in two regions particularly. It is conspicuous in the European Union (formerly the European community) and in the North American Free trade area. It was seen that fifty years ago, the world was less integrated and cohesive. Today, due to the spurt of trade and commerce, companies with great products and great differentiation have penetrated into countries into the mind's eye of the customers for striking a purchase.

GLOBAL PRODUCTS

European nameplates like Renault, Citroen, Peugeot, Morris, Volvo and others were radically different from the American Chevrolet, Ford or Plymouth or Japanese models like Toyota or Nissan. But astoundingly, global integration has made global cars a reality for Toyota, Nissan, Honda and Ford (Rugman, 2007).

FISCAL IMPLICATIONS AND PARITY IN COUNTRIES

Today, capital movements rather than trade have become the driving force of the world economy. The dollar value of world trade is greater than ever before. But the London Euro dollar market turns over 400 billion pounds each working day. Foreign exchange transactions are happening worldwide and are critical to analyze. The UK's blue collar employment model in manufacturing has become a myth. Many countries under the European economy have adopted democratic allocation system, command allocation system and mixed allocation system.

It has given birth to an economic democracy in the triad markets by promoting consumer protection. Command control economy of China, the former USSR and India has undergone devolution and reforms except perhaps Cuba. Incidentally, in the 24 member countries for the organization of economic cooperation and development (OECD), the proportion ranges from 32% of GDP for US to 64% in Sweden. It has a global proposition and is an offshoot of the collision of objectives of countries to united stand together in solidarity for common interest (Wang and Ye, 2007).

EFFECTS OF ENVIRONMENTAL LEGISLATION AND POLICY DIRECTIVES

Environmental legislations can effectively drive the business of a country and policies can enforce through the government into the ground realities. Countries change their strategies for greater benefits. It is seen that concentration of income in the triad- European Union, US & Canada and Japan, accounts for the 73% of the global income with only 13% of the global population in 2000 AD.

In Western Europe, the four countries- Germany, France, the UK and Italy account for almost 73% of Western Europe's GNP. The European economic area in the free trade zone includes the 15-nation European Union, Norway and Iceland. The WTO and GATT marked the treaty among 123 nations over a period of 60 years whose government agreed for multilateral global initiative and handled trade with disputes (Taggart and Hood, 1999).

GATT AND DSB

The successor to GATT, the WTO came into existence on January 1, 1995 from its base in Geneva, creating a forum for trade-related negotiations through dispute settlement body (DSB) with a three-member panel to pass ruling within nine months. This panel's recommendations provide options for the losing party to turn to a seven-member appellate body. It is well known that WTO can authorize trade sanctions against the loser. The trade ministers representing the WTO member nations meet annually to improve the world trade environment. In 2000, zero tariffs were slated for 500 products which include calculators, fax machines and so on. WTO's motto is simple- 'If you can decide it tomorrow, why not decide it today?'

MULTILATERAL INITIATIVES AND ORIGINS OF EU

These multilateral initiatives of the WTO have been lowering the barriers in trade between regions; creating regional economic cooperation and bonhomie amongst the trade groups. The European Union (EU) earlier known as (EC) was established by the treaty of Rome in 1958. The six original members were Belgium, France, Poland, Italy, Luxembourg and West Germany. In 1973, Britain, Denmark and Ireland were admitted. In 1981 and 1986, Greece and Spain & Portugal joined respectively. In 1995, Finland, Sweden and Austria joined. These 15 nations of European Union represent approximately 400 million people with a combined GNP of approximately $8.9 trillion and approximately 30% of the world GNP. In 1992, the council of ministers accepted 262 pieces of legislations to make the marketing regulations a reality and today 15 countries are able to freely cross borders in the EU (Wang and Ye, 2007).

As per the provisions of Maastricht treaty, the European Union is working to create a economy and monetary Union (EMU) that will include a Central European Bank and a single European currency. Countries sharing a currency need to coordinate taxes and budget; yet eliminate costs associated with currency conversion and exchange rate uncertainty. Britain, Denmark, Greece and Sweden are not participating in the single currency. It is estimated that Hungary, Poland and Cyprus may become full members followed by Estonia, Malta, Czech Republic and Latvia; then, subsequently Slovenia, Lithuania and Slovakia; then Bulgaria and Romania and then Turkey in 2011. In theory, it is believed that economic development should be the chief criteria for enlisting; but many political influences are also involved for taking decision for admittance into European Union. EU has accord with 70 countries in Africa, the Caribbean and the Pacific (ACP) (Hill, 2006).

HEALTH AND SAFETY OF WORKERS IN EU

EU risk assessment campaign has been a pious endeavor of the governments who all are associated for ensuring better living conditions for the workmen of different categories. Multinational invasion into the domain of business has uprooted the benefits entitled for the employees and workmen contributing to the productivity. Though technological automation has been instrumental in replacing the raw manpower in the high-skilled, skilled and semi-skilled categories, yet certain business is bound to engage workmen in the arduous process of productivity.

RISK ASSESSMENT

Recently, like previous years; these risk assessment campaigns of EU have been taken up again by the 30 multinational organizations and companies. This was organized by the European agencies for safety and health at work, wherein all the above companies are to support propaganda for the health workers. New official partners are joining the movement and more pan-European organizations and multinationals are joining the team as a healthy practice to be inculcated.

The vital aim of the campaign is to reduce work-related accidents and ailments by promoting risk-assessment as a tool to prevent that. Risk assessment is first in the process to ensure a sustainable preventive culture. This process is in its nascent stage and improvement is warranted.

It is estimated that each year, in the EU, approximately 170,000 people die from work-related situations and causes. This has been a common concern for the employers and worker's federation, non-governmental organizations and business organizations spanning across industry. It is seen that some of the ethical organizations in the top-most bracket with corporate social responsibility are investing a lot of time and money.

DIRECTOR EU-OSHA, JUKKA TAKALA

Director EU-OSHA, Jukka Takala has been coordinating to reduce the causes of accident relating to work-places and is striving hard to reach the place of occurrences with the help of well-known organizations. They realize that the first and foremost issue is to make risk assessment. Through risk assessment accidents can be prevented along with ill health at workstations in spite of the size of the organization. Big enterprises, SMEs and Micro-enterprises are doing a kind of risk assessment as a key to eradicate accidents. Yet, improvement is ardent in all spheres of activities relating to business (UNCTAD, 2005).

Risk assessment being a legal obligation on the part of the European companies, there are certain companies who do not make assessment of the risks at requisite periodic intervals and this is more conspicuous in the SMEs. Some organizations have come up as official partners with a commitment to organize campaign measures to disseminate the importance of risk assessment. They are in the process of organizing workshops, seminars, press conferences, video display and photo competitions. They are trying to educate the clients, partners and contractors involved in the process of business. And in doing that, organizations involved in the process of risk assessment campaign are rewarded with partner certificates.

SOCIO-CULTURAL AND MORAL ISSUES AFFECTING ORGANISATIONS

Global organizations rely on outsourcing competencies from across the globe and deploy them in need-based firms. Socio-cultural inheritance of the employees matters in building interpersonal relations for developing amicable HR atmosphere. Employee branding over a period of last one decade has become an in-thing in accelerating productivity and by creating pro-active workforce. In the absence of the welfare of the workers and employees, organizations cannot thrive in the cut-throat competitions. Customer value and value equations of organizations are correlated and mutually reciprocal.

Though ethno-centric, politico-centric and region-centric orientations exist in the management of different multi-nationals, it is slowly becoming a global platform to seamlessly accommodate employees from different cultural contexts into the mainstream of organizational global identity. Certain factors of this kind drive and restrain as a force and affect global integration. Yet, global markets are inevitable and are becoming free of any social and cultural inhibitions. Management of organizations are working hard to refine themselves to leave in diversity in order to achieve organizational goals. Positive policies, legislations and directives of government organizations essentially enable to create a global market place in a universal discipline (Yu, 2005).

ELECTRONIC INTERDEPENDENCE

"The new electronic interdependence has recreated the world in the image of a global village" quotes M. H. McLuhan. Globalization should be taken for granted. The one standard for corporate success is international market share. Winning corporations can only win by finding markets all over the world. Jack Welch is affirmatively of the similar opinion which corresponds to the obstacles in the difference in culture and social border amongst people working across the globe (Keegan, 2006).

Free market economy is possible through e-Bay and other net-based organizations with the click of a mouse. We can read a book sitting in a chair imported from Germany and desk imported from Brazil with a computer manufactured in Japan. We might wear a suit made in Italy, sipping coffee from India listening to the Mayan songs. In the advanced technological arena, culture and societal hues do not have any place. Yesterday's fancy has become today's reality.

STARATEGIC PARTERNERSHIP AND ALLIANCE

Strategic partnerships cutting across cultures and ethics have explored the environmental opportunities and needs. Irrespective of the reference to the country of origin, things are moving in a uni-dimensional mode. Strategic alliances have shifted the focus of marketing from the customer in the context of broader external environment and have brought to the extent of competition government policies, regulations and broadly to the context of economy, social, political and macro forces. The pivotal aspect of consumer interest has become price-sensitive and quality-oriented and has believed in stakeholders' benefit. It is important to deliver value by creating stakeholders' benefit for customers, employees and society. Strategic partnership in the value chain has become of utmost importance and made the world of business a borderless market place (Cai, 1999).

Professor Theodore Levitts' seminal article in the Harvard Business Review titled Globalization of Markets, advised the organizations to develop standardized high-quality world products and market them across the globe using standardized advertising, pricing and distribution. Kenichi Ohmae in his book 'The Borderless World' speaks about the global localization as an important point.

CURRENT ECONOMIC ENVIRONMENT

Corporations are emerging from the local to regional to national and going global through multilateral relationships and alliances between corporations. The major driving force affecting global integration has been technology and is instrumental in making decisions become transnational breaking the cultural boundaries. Technology is a universal factor and is stateless. It doesn't limit the boundaries for its applications. Communication revolution has become a driving force.

Regional economic agreements have accelerated the pace of global integration. The General Agreement on Tariffs and Trade (GATT) has promoted the process of globalization across cultural differences. The major leveraging factors to the global economic trends have experienced transfers, scale economies, resource utilization and global strategy (White and Poynter, 1990). Currently if we see empirically, the European multinational integration has been possible through strategic business concepts of alliances and through principle of competition and value work in building brands to avoid products falling into commodity-like traps through positioning and marketing mix. Global integration is the essence of the progress of nations and is important for creating a value system for the global players to adopt and deliver to the people of the planet's civilization.

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NON-PERFORMING ASSETS: A STUDY OF SCHEDULED COMMERCIAL BANKS IN INDIA

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ABSTRACT

Non-performing assets are assets which cease to generate any income for the bank. These have become the major concern of banks in India. NPA's have direct impact on net-profit and also on the performance of the banks. The recognition of income norms for banks also posed a serious concern to commercial banks. The present article studies the trends in non-performing assets of Indian banks and makes a comparison of public sector banks, old Private sector banks, new private sector banks and foreign banks. The article further attempts to establish relationship between net-profit and NPA's and total advances. The impact of NPA's on net-profit and impact of total advances on NPA's is also examined.

KEYWORDS

NPA, Assets, Income, Bank.

INTRODUCTION

An asset, including a leased asset, becomes non-performing when it ceases to generate income for the bank. R.B.I (2006) A non-performing asset (NPA) is a loan or an advance where ;i) interest and/ or installment of principal remain overdue for a period of more than 90 days in respect of a term loan, ii) the account remains 'out of order' in respect of an Overdraft/Cash Credit (OD/CC),iii) the bill remains overdue for a period of more than 90 days in the case of bills purchased and discounted,(iv) the installment of principal or interest thereon remains overdue for two crop seasons for short duration crops,(v) the installment of principal or interest thereon remains overdue for one crop season for long duration crops. Banks should, classify an account as NPA only if the interest charged during any quarter is not serviced fully within 90 days from the end of the quarter. 'Out of Order' status An account should be treated as 'out of order' if the outstanding balance remains continuously in excess of the sanctioned limit/drawing power. In cases where the outstanding balance in the principal operating account is less than the sanctioned limit/drawing power, but there are no credits continuously for 90 days as on the date of Balance Sheet or credits are not enough to cover the interest debited during the same period, these accounts should be treated as 'out of order'.'Overdue' Any amount due to the bank under any credit facility is 'overdue' if it is not paid on the due date fixed by the bank.

The non-performing loans of developing countries (IMF 2009) showed that NPA's of Developing countries were more when compared to developed countries. The non-performing loans of developing countries were highest for Thailand followed by Philippines and Malaysia. Prasanth K Reddy (2002) studied the experiences of Asian countries in handling NPA's and suggested mechanisms to handle the problem by drawing experiences from other countries. Benardo Maggi(2010) modeled the effect of the non-performing loans on the cost structure of the commercial banking system and proposed a measure based on the costs for managing and monitoring the loans. Enrico Geretto(2009) examined the main characteristics of the Chinese banking industry and analyzed the main performance indicators of the system with reference to non-performing loans(NPL).

Lampros(2004) on the dynamics in Asian non-performing loans mainly dealt with the management of NPL and identified the reasons for the same. SumantBatra(2004) studied the factors contributing for NPA's in India and suggested for control of NPA's. Ashwini Puri(2004) studied the factors for successful resolution of NPA in Asian markets which include Assets Management Company(AMC), enforcement of creditors rights with minimum intervention of courts and foreign ownership of AMC. Salman Ali Sheik (2004) focused on current situation of NPL's, desired situation and strategies to reach the desired situation. Cesar l. Villanueva (2004) studied the strategies to over-come N.P.A'S in Philippines. S.D. Naik (2003) opined that RBI feels that the banks have been neglecting their primary function of credit creation in favour of "narrow banking" for short-term gains. While this could be appropriate in times of easy liquidity, the macro-economic performance of the banking system in the long term would hinge on its ability to fund industrial and other enterprises.

The present article studies NPA's sector-wise and makes a comparison between public sector banks, old private sector banks, new private sector banks and foreign sector banks. Finally the article attempts to understand the relationship between NPA's and net-profit and total advances.

OBJECTIVES OF THE STUDY

- To understand the NPA's sector-wise.
- To make a comparative study of NPA's of public sector banks, old private sector banks, new private sector banks and foreign sector banks.
- To understand the relationship between NPA's, net-profit and advances.

METHODOLOGY

The present study is aimed at analyzing the NPA's of Indian banks. For the purpose of the study data has been collected from secondary source. The main source of information has been RBI reports and bulletins. The study covers five years from 2004-05 to2008-09.The data collected is tabulated and present graphically. The study further uses correlation and regression analyses.

NON-PERFORMING ASSETS SECTOR-WISE

Banks mainly lend to three sectors they include priority sector, public sector and non-priority sector. The lending composition of Indian banks during the last two years is depicted in the following table.

TABLE NO: 1 SECTOR-WISE NPA'S- BANK GROUP-WISE (AMOUNT IN RS.CRORES)

Sector	Public sector 2007-08	2008-09	Old Private Sector 2007-08	2008-09	New Private Sector 2007-08	2008-09	All SCB's 2007-08	2008-09
A. Priority Sector	25,287 (0.8)	24,318 (0.7)	1,338 (0.7)	1,233 (0.50	2,080 (0.3)	2,407 (0.3)	28,705 (0.7)	27,958 (0.5)
i)Agriculture	8,268 (0.3)	5,708 (0.2)	243 (0.1)	263 (0.10	1,225 (0.2)	1,178 (0.2)	9,735 (0.2)	7,149 (0.21)
Ii)Small scale industries	5,805 (0.2)	6,984 (0.2)	359 (0.2)	307 (0.1)	292 -	363 -	6,456 (0.2)	7,654 (0.2)
iii)Others	11,214 (0.4)	11,214 (0.3)	737 (0.4)	663 (0.3)	563 (0.1)	866 (0.1)	12,514 (0.3)	13,155 (0.3)
B. Public Sector	299 -	474 -	- -	- -	- -	75 -	299 -	549 -
C .Non-Priority Sector	14,163 (0.5)	19251 (0.5	1,219 (0.6)	1,839 (0.8)	8,339 (1.1)	11,334 (1.4)	23,721 (0.6)	32,423 (0.6)
Total (A+B+C)	39749 (1.3)	44,042 (1.2)	2,557 (1.3)	3,072 (1.3)	10,419 (1.40)	13,815 (1.7)	52,725 (1.2)	60,930 (1.2)

Source: RBI Report on Trends and progress of Banking in India 2008-09. Figures in brackets indicate percentage to total assets of the respective bank group.

The analyses of the table shows that though there was increase in NPA's in terms of rupees , the percentage of NPA's to total advances was almost the same. The reason for this was the one-time loan restructuring measures adopted by RBI. The observation of the table further showed that NPA's of all Scheduled Commercial Banks (SCB's) for non-priority sector was more when compared to other sectors during the year 2008-09.

FIG 1:

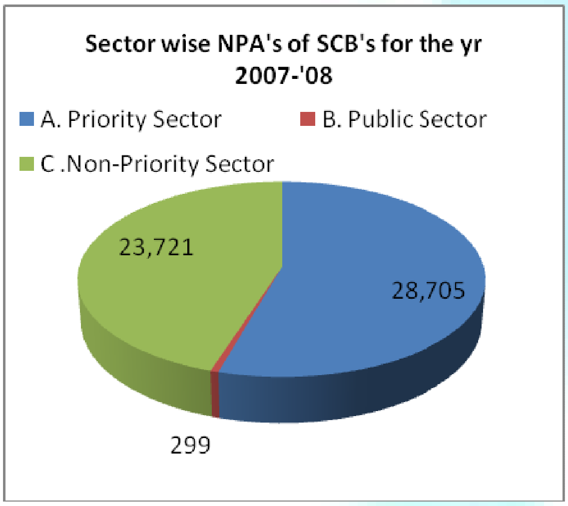
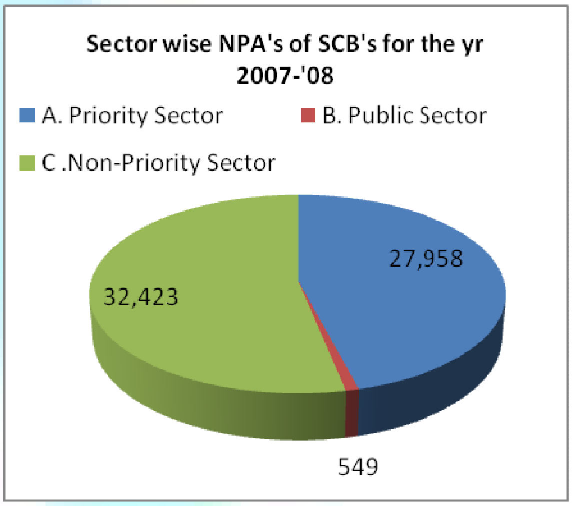


FIG 2:



The figures shown above indicate that NPA's for priority sector and non-priority sector were more. Public-sector loans had least NPA's.

NON-PERFORMING ASSETS AS PERCENTAGE OF TOTAL ASSETS OF SCHEDULED BANK

A comparison of NPA's of public sector banks, old private sector banks, new private sector bank and foreign sector banks is shown in the following table.

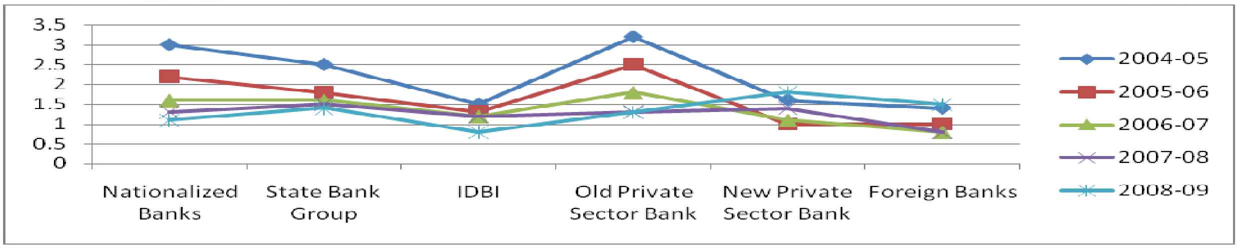
TABLE NO: 2 NON-PERFORMING ASSETS AS PERCENTAGE OF TOTAL ASSETS

Name of the Bank	2004-05	2005-06	2006-07	2007-08	2008-09
Nationalized Banks	3.0	2.2	1.6	1.3	1.1
State Bank Group	2.5	1.8	1.6	1.5	1.4
IDBI	1.5	1.3	1.2	1.2	0.8
Old Private Sector Bank	3.2	2.5	1.8	1.3	1.3
New Private Sector Bank	1.6	1.0	1.1	1.4	1.8
Foreign Banks	1.4	1.0	0.8	0.8	1.5

Source: RBI Report on Trends and progress of Banking in India 2008-09.

The analyses of the above table shows, that there was a decline in the NPA's for nationalized banks, SBI group, IDBI and old private sector bank. The NPA's as a percentage of total assets for nationalized banks decreased from 3% to 1.1%. SBI group NPA's decreased from 2.5% to 1.4%. IDBI NPA's were 0.8% in 2008-09 as compared to 1.5 during 2004-05. The old private sector banks also registered a decline from 3.2% to 1.3%. The new private sector banks initially showed a decrease but later increased from 2007-08. Foreign banks though showed decline registered an increase during 2008-09.During the year 2008-09 NPA's were highest for new private sector banks followed by foreign banks .Nationalized banks and IDBI had the least NPA's during 2008-09.

FIG 3: NON-PERFORMING ASSETS AS PERCENTAGE OF TOTAL ASSETS



The analyses of the above graph shows, that there has been a declining trend in NPA's. The NPA's for the year 2004-05 were highest for all the banks. During 2005-06 all the banks showed a decline. However, the old private banks had more NPA's. During the year 2006-07 also old private banks had highest NPA's. The NPA's during 2007-08 were more new private sector banks. Finally in the year 2008-09 new private banks and foreign banks registered an increase.

NON-PERFORMING ASSETS AS PERCENTAGE OF ADVANCES

The analyses of Non-Performing Assets as percentage of Advances shows the quality of advances made. A comparison of NPA's of public sector banks, old private sector banks, new private sector bank and foreign sector banks is shown in the following table.

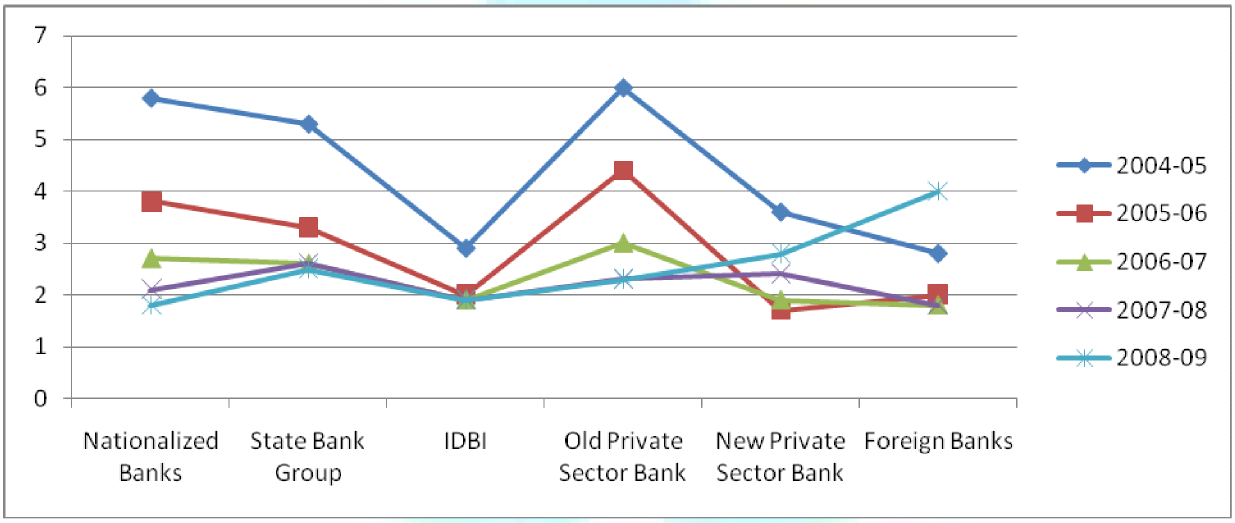
TABLE NO: 3: NON-PERFORMING ASSETS AS PERCENTAGE OF ADVANCES (AMOUNT IN RS. CRORES)

Name of the Bank	2004-05	2005-06	2006-07	2007-08	2008-09
Nationalized Banks	5.8	3.8	2.7	2.1	1.8
State Bank Group	5.3	3.3	2.6	2.6	2.5
IDBI	2.9	2.0	1.9	1.9	1.9
Old Private Sector Bank	6.0	4.4	3.0	2.3	2.3
New Private Sector Bank	3.6	1.7	1.9	2.4	2.8
Foreign Banks	2.8	2.0	1.8	1.8	4.0

Source: RBI Report on Trends and progress of Banking in India 2008-09.

Non-Performing Assets as a percentage of advances showed a declining trend for nationalized banks, state bank group, IDBI and old private sector banks. The NPA's of nationalized banks declined from 5.8% to 1.8% during the period of study. The State bank group also noted a declining trend. The NPA's of SBI group declined from 5.3% to 2.5%. The figure of IDBI NPA's also indicated declining trend. The NPA's of IDBI were 2.9% in 2004-05 which reduced to1.9% in2008-09.The old private sector banks NPA's showed remarkable decline from 6% to 2.3%. In the case of new private sector banks initially, there was reduction but from 2007-08 onwards there was increase in NPA's. The NPA's for foreign sector bank initially registered a decline but in the year 2008-09 there was remarkable increase in NPA's.

FIG 4: NON-PERFORMING ASSETS AS PERCENTAGE OF ADVANCES:



The NPA's as percentage of advances also showed a decrease. However, for new private banks and foreign banks there was increase in NPA's.

CORRELATION OF NPA'S AND NET-PROFIT

Correlation explains the relationship between the two variables NPA's and net-profit. The correlation between NPA's and net-profit for all the category of banks has been negative it was -0.33. This indicates that increase in NPA's will lead to decrease in profits. For the purpose of calculation net-profit and NPA's of five years from 2004-05 to 2008-09 are taken. This is shown in the following table.

TABLE NO: 4: NET-PROFIT AND NPA'S OF SCHEDULED BANKS (AMOUNT IN RS.CRORES)

Year	Net-profit	NPA's
2004-05	20958	59373
2005-06	24582	51097
2006-07	31203	50486
2007-08	42726	52725
2008-09	52771	60930

Source: RBI Report on Trends and progress of Banking in India from2004-05 to2008-09.

CORRELATION OF NPA'S AND TOTAL ADVANCES

The correlation between NPA's and total advances was positive for all the category of banks. The correlation had been 0.194. The formula used for correlation is as follows.

$$r= \frac{N\sum dxdy-(\sum dx)(\sum dy)}{(N\sum dx^2-(\sum dx)^2\ (N\sum dy^2(\sum dy)^2}$$

The calculation was done based on NPA's and total advances taken from 2004-05 to 2008-09. The NPA's and advances for the period are depicted in the following table.

TABLE NO: 5: TOTAL ADVANCES AND NPA'S OF SCHEDULED BANKS (AMOUNT IN RS.CRORES)

Year	Total Advances	NPA's
2004-05	1152682	59373
2005-06	1551378	51097
2006-07	2012510	50486
2007-08	2507885	52725
2008-09	3000906	60930

Source: RBI Report on Trends and progress of Banking in India from2004-05 to2008-09.

IMPACT OF NPA'S ON NET-PROFIT

The impact of NPA's on net-profit is studied by using the regression analyses. The independent variable is NPA's. The formula for regression used was as follows.

$$r\,\frac{\partial x}{\partial y} = \frac{N\sum dxdy-\sum(dx)(dy)}{N\sum dy^2-(\sum dy)^2}$$

The regression line of y on x is

Y = -27.798+.121x

Where Y= Net-profit and X=. NPA's

This regression equation shows that NPA's have negative impact on net-profit of scheduled commercial banks.

IMPACT OF TOTAL ADVANCES ON NPA'S

The regression analyses for impact of total advances on NPA's showed that there is positive impact on NPA's. Where, NPA's are independent variable. The regression equation for same is

Y= 59906+29.32x

Where Y = NPA's and X= Total advances.

Increase in total advances will increase NPA's.

CONCLUSION

There was overall decline in the NPA's. The NPA's were more for non-priority sector during the year 2008-09. The NPA's for public sector loans were least. The analyses category-wise showed that NPA's were more for new private sector banks and foreign banks. The NPA's as percentage of total assets for nationalized banks, IDBI, SBI group and old private sector banks witnessed decline. NPA's as percentage of advances also showed decline. However, for new private sector and foreign banks there was a slight increase in NPA's. The study further observed a negative relation between net-profit and NPA's. Indicating that with increase in NPA's net-profit will decline. The study observed positive correlation between NPA's and total advances. This shows that with increase in total advances NPA's will increase. The impact analyses proved that NPA's had negative impact on net-profit whereas for NPA's and total advances there was positive impact. The study finally observes that banks were performing well in managing there NPA's. The main reasons could be attributed to prudential norms and RBI guidelines, securitizations and changes in law.

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SOLVENCY ANALYSIS OF PUBLIC SECTOR UNDERTAKING: A CASE STUDY OF POWER FINANCE CORPORATION LIMITED (PFCL)

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ABSTRACT
Solvency is the overall stability of a business enterprise. Solvency can be determined in short term as well term period. Solvency ratio measured in short term is known as liquidity and in the long term is known as stability. Short term solvency ratio can be classified into current ratio, quick ratio and acid test ratio. The long term solvency was measured using Debt equity ratio, Proprietary ratio, Fixed Assets ratio, Capital gearing ratio, Debt service coverage ratio & Solvency ratio. The objective of this study was to examine the solvency position of a sample company and testing significance of correlation .To assess the critical factors which affect the solvency of Power Finance Corporation Limited (PFCL) and to give some suggestions for the betterment of future solvency on the basis of findings of the study. The study has been conducted by selecting a few important parameters such as Assets, Liquid assets, Absolute liquid assets, Debt, Equity, Fixed interest or dividend bearing funds, Tangible assets, Outsiders Liabilities. For making the analysis of solvency position of PFCL, ratio analysis techniques of Financial Management have been used. For assessing the behavior of above ratios, Statistical techniques have been used i.e. Arithmetic Mean, Standard Deviation, Co-efficient of Correlation and Student t-test. By the observations of this study, it is found that the short and long term solvency position of PFCL was not satisfactory. The company should improve their short term stability by increasing the current assets and decreasing current liabilities. The long term solvency can improve by increasing equity share capital and decreasing debt capital.

KEYWORDS
Current Assets, Liquid assets, Absolute liquid assets, Debt, Equity, Fixed interest or dividend bearing funds, Tangible assets, Outsiders Liabilities.

INTRODUCTION
Solvency is the overall stability of a business enterprise. Solvency can be determined in long term as well as short term period. Solvency ratio measured in short term is known as liquidity and in the long term is known as stability. Short term solvency ratio can be classified into current ratio, quick ratio and acid test ratio. Current ratio is an indicator of firm's financial stability i.e. an index of technical solvency and the strength of working capital. The logic behind current ratio is that cash need not be immediately available to meet all current liabilities on a particular date, but there should be good prospects for an adequate inflow of cash indicated by the amount of individual components of current assets. The absolute liquidity is represented by cash and cash near items, such as marketable securities. The long term solvency ratio includes Debt-Equity ratio, proprietary ratio, debt service coverage ratio, capital gearing ratio etc. The Debt-Equity ratio enables one to ascertain the proportion of shareholders `stake in the business. This ratio indicates the extent of cushion available to creditors on liquidation. The proprietary ratio indicates the long term or future solvency position of the business. This ratio is a test of the capital structure of the company. The Debt service coverage ratio indicates whether business has earned sufficient profits to pay periodically the interest charges. It is an indicator of the financial strength of an enterprise and an index of margin of safety of long term creditors. The capital gearing ratio indicates the proportion between funds bearing fixed interest or dividend bearing funds and funds not bearing fixed interest or dividend. This ratio reveals the suitability of company's capitalization. So solvency is a very important aspect for the short term and long term existence of the business.

JUSTIFICATION OF THE TOPIC
Solvency is a measure of the company's short term and long term stability. The solvency ratio plays a very important role among the parties interested in the enterprise. The investors, creditors, bankers, suppliers, financial institutions, government etc. uses these ratios to judge the stability of the enterprise. The financial institutions and individuals may be interested in investing in that company's which is financial stable. The solvency ratios enable the investors to judge whether their investment is secured or not. This ratio enables them to analyze the capital structure position of company. The financial Institution and Government will be interested in an enterprise which is financially stable. So solvency is a very important aspect of judging financial stability of a concern. Against their background a study was conducted about the solvency position of Power Finance Corporation Limited (PFCL).

REVIEW OF LITERATURE
"Jagadeeshal" et al (1990) in their study on the performance of Tungabhadra Grammena bank in Karanataka assessed growth of the bank is terms of the physical and financial indicators employing ratio analysis. They found that there was substantial increase in the physical and financial indicators of the bank . The current ratio was 1.68, Credit-Deposit ratio was 183.85% and net capital ratio was 1.02. However the margin of profit earned by the bank was too low.

Natarajan et al (1980) analyzed the working of consumer cooperative in Andhra Pradesh and assessed that the current ratio of 28% quick ratio of 1:1 are best standards of evaluation of solvency. The results of their analysis showed that the liquidity was not satisfactory. The poor performance of consumers cooperative were excess of financing over equity and ineffective utilization of funds.

The pioneering works done by Cornelis Compagne in the Netherlands and at the end of the 1940's and by Teivo Penikainen in Finland in the beginning of 1950's are importance, as they introduced the solvency research for insurance undertaking e.g. Pentikainen (1952), Compagne (1961), and Compagne, Vander & Yntema (1948). Lee and Urrulia (1996) found that current liquidity ratio is a significance indicator of solvencies. The stability of the liquidity ratio is a necessary measure of corporate solvency (Dambolena and Khoury, 1980)

OBJECTIVE OF THE STUDY
This study has the following objectives:

- To analyze the short-term solvency position of Power Finance Corporation Limited.
- To analyze the Long-term Solvency position of Power Finance Corporation Limited.
- To analyze how far profitability is affecting by solvency.
- To give suggestions on the basis of findings of the study.

COMPANY PROFILE

Power Financial corporation limited (PFCL) was set up in July 1986 as a Financial Institution (FI) dedicated to Power Sector financing and committed to the integrated development of the power and associated sectors. The Corporation was notified as a Public Financial Institution in 1990 under Companies Act, 1956. The Corporation was registered as a Non Banking Financial Company by RBI and has been conferred with the status of Nav-Ratna PSU by Govt. of India on 22nd June, 2007

PFC is providing large range of Financial Products and Services like Project Term Loan, Lease Financing, Direct Discounting of Bills, Short Term Loan, and Consultancy Services etc, for various Power projects in Generation, Transmission, and Distribution sector as well as for Renovation & Modernization of existing power projects.

Ministry of Power, Central Electricity Authority and PFC are working together to facilitate development of Ultra Mega Power Projects with the capacity of about 4000 MW each under Tariff based competitive bidding route. Being large in size, these projects will meet the power needs of number of states through transmission of power on regional and national grids

LIMITATIONS OF THE STUDY

The following are the limitationS of the study:

1. The study covers only 10 years period i.e. 2000-2001 to 2009-2010 for the solvency analysis of PFC Ltd.
2. The secondary data's used in this study have been taken from published annual reports only.
3. As per the requirement and necessarily some data's have been grouped and sub-grouped.
4. For making the analysis of solvency position of PFCL, ratio analysis techniques of financial management have been used.

RESEARCH DESIGN & METHODOLOGY

In this study the sample company named PFCL has been taken for analysis of solvency. Present study is based on secondary data i.e. published annual reports of the company. These financial data's are edited, classified and tabulated as per the requirements of the study. This study has covered 10 years data's from 2000-2001 to 2009-2010 for analyzing the solvency position of PFCL

The short and long term solvency position of PFCL have been analyzed by financial techniques i.e. Ratio Analysis. The collected data have been analyzed by the various ratios which are related to short and long term solvency position of the business.

For assessing the behavior of above ratios, Statistical techniques have also been used i.e. Arithmetic Mean, Standard Deviation, Co-efficient of Correlation and Student t-test.

HYPOTHESIS OF THE STUDY

This study is based on the following null hypothesis:

- There is no significant difference in the short term solvency position of PFCL as compared to previous years
- There is no significant difference in the long term solvency position of PFCL as compared to previous years

ANALYSIS OF SOLVENCY POSITION OF PFCL

The solvency positions of PFCL have been analyzed by ratio analysis techniques. In this study we have used various ratios for judging the overall solvency position of the company. In this regard we have calculated the following ratios:

- Current ratio
- Absolute liquid ratio
- Debt equity ratio
- Proprietary ratio
- Fixed Assets ratio
- Capital gearing ratio
- Debt service coverage ratio
- Solvency ratio

CURRENT RATIO

Current ratio is defined as the ratio if current assets to current liabilities. It is an index of technical solvency and an index of the strength of the working capital. A high current ratio is an assurance that a firm will have adequate funds to pay current liabilities and other current payments. It can be calculated as following:

$$= \frac{\text{Current Assets}}{\text{Current liabilities}}$$

TABLE 1: STATEMENT OF CURRENT ASSETS TO CURRENT LIABILITIES (RS IN CRORES)

Year	Current Assets (Rs)	Current Liabilities(Rs)	Current Ratio (Times)
2000 – 2001	1250.71	753.91	1.66
2001 – 2002	777.91	999.17	0.78
2002 – 2003	893.72	1146.96	0.78
2003 – 2004	1174.50	694.17	1.69
2004 – 2005	1071.32	614.06	1.74
2005 – 2006	1785.34	1457.18	1.23
2006 – 2007	2620.25	2111.92	1.24
2007 – 2008	2989.56	2415.80	1.24
2008 – 2009	3668.55	3576.16	1.03
2009-2010	4815.47	3697.52	1.30
Mean	2104.73	1746.68	1.27
Growth Rate (%)	285.02	390.44	-21.50
Annual Growth Rate (%)	**28.50**	**39.04**	**-2.15**

Source: Annual reports of PFCL from 2000-2001 to 2009-2010(pg.no.58, 59)

The above indicated table no. 1 shows the relation between current asset and current liabilities. During the study period current ratio showed a fluctuating tendency. The highest ratio of 0.65 was observed in the year 200-2001 and the least of 0.78 in the year 2001-02 and 2002-2003. During the years 2006-2009 the ratio shows a decreasing tendency. The current ratio had a decreasing annual growth rate of -2.15% with an average of 1.27. Except in the financial year 2001-2002 & 2002-2003 the ratio was above 1 and showed a consistency of 0.78.

ABSOLUTE LIQUID RATIO

Absolute liquidity is represents by cash and near cash Items. The absolute liquid assets many include cash, Bank and marketable securities. This ratio indicates how much immediate liquid assets is available per rupee of current assets. The ideal ratio is 0.5:1. It can be calculated as follows:

$$= \frac{\text{Absolute Liquid Assets}}{\text{Current Liabilities}}$$

TABLE 2: STATEMENT OF ABSOLUTE LIQUID ASSETS TO CURRENT LIABILITIES (RS IN CRORES)

Year	Absolute Liquid Ratio (Rs)	Current Liabilities (Rs)	Absolute Liquid Ratio (Times)
2000 – 2001	546.19	753.91	0.72
2001 – 2002	95.72	999.17	0.10
2002 – 2003	102.07	1146.96	0.09
2003 – 2004	353.02	694.17	0.51
2004 – 2005	338.37	614.06	0.55
2005 – 2006	364.84	1457.18	0.25
2006 – 2007	507.67	2111.92	0.24
2007 – 2008	674.50	2415.80	0.28
2008 – 2009	392.23	3576.16	0.11
2009-2010	1394.30	3697.52	0.38
Mean	476.89	1746.68	0.32
Growth Rate (%)	155.28	390.44	-47.95
Annual Growth Rate (%)	15.53	39.04	-4.79

Source: Annual reports of PFCL from 2000-2001 to 2009-2010(pg.no.58, 59)

The above indicated table No. 2 represents the relation between absolute liquid assets and current liabilities. The ratio was below 1 during the period of study. The highest ratio of 0.72 was in the year 2000-2001 and the least of 0.09 was in the year 2002-2003. . The annual growth rate of absolute liquid ratio showed negative trend of -4.79%. The rate of increase of current liabilities was higher than the rate of increase assets, which showed a negative short term solvency. The absolute liquid ratio showed a fluctuating tendency with an average of 0.32.

DEBT-EQUITY RATIO

Debt-equity ratio relates all external liabilities to Owner's recorded claims. It indicates the firm's obligation to outsiders in relation to owners. If the owner's interest is greater than that of the creditors, the financial position is highly solvent. It is also known as "External-Internal Equity Ratio". It can be calculated as follows.

$$= \frac{\text{Total long-term Debt}}{\text{Shareholders fund}}$$

TABLE 3: STATEMENT OF TOTAL LONG-TERM DEBT TO SHAREHOLDERS FUND (RS IN CRORES)

Year	Long term Debt (Rs)	Shareholders Fund (Rs)	Debt-Equity Ratio (Times)
2000 – 2001	9317.14	3809.59	2.45
2001 – 2002	10981.81	4398.08	2.50
2002 – 2003	14364.10	5332.02	2.69
2003 – 2004	17748.03	6575.76	2.70
2004 – 2005	21648.24	6380.16	3.39
2005 – 2006	26924.82	6938.16	3.88
2006 – 2007	33584.18	8593.09	3.91
2007 – 2008	40647.81	9329.85	4.36
2008 – 2009	52160.15	11507.80	4.53
2009-2010	67108.41	13260.80	5.06
Mean	29448.47	7612.53	3.55
Growth Rate (%)	620.27	248.09	106.92
Annual Growth Rate (%)	62.03	24.81	10.69

Source: Annual reports of PFCL from 2000-2001 to 2009-2010(pg.no.58, 59)

The above indicated table No. 3 shows the relation between total long term debt and shareholders fund. During the period of study the debt equity ratio showed an increasing trend with an annual growth rate of 10.69%. The rate of increase of total long term debt was 2.5 times more than the shareholders fund. The highest ratio of 5.06 was in the year 2009-2010 and the least of 2.5 in the year 2000-2001.During the study period ratio showed an increasing tendency from 2.45-5.06.The ratio showed an increasing trend with an average of 3.55.

SOLVENCY RATIO

This ratio is a small variant of equity ratio. It helps the outsiders to judge the security of their investment. This ratio indicates the relationship between the total liabilities to outsiders as to total assets of a firm. It can be calculated as follows:-

$$= \frac{\text{Total Liabilities to Outsiders}}{\text{Total Assets}}$$

TABLE 4: STATEMENT OF TOTAL LIABILITIES TO OUTSIDERS TO TOTAL ASSETS (RS IN CRORES)

Year	Total Liabilities to Outsiders (Rs)	Total Assets (Rs)	Solvency ratio (Times)
2000 – 2001	10071.05	1475.97	6.82
2001 – 2002	11980.98	961.32	12.46
2002 – 2003	15511.06	1031.54	15.04
2003 – 2004	18442.20	1253.56	14.71
2004 – 2005	22262.30	1138.70	19.55
2005 – 2006	28381.99	1840.71	15.42
2006 – 2007	35696.10	2701.67	13.21
2007 – 2008	43063.61	3066.51	14.04
2008 – 2009	55736.31	3742.08	14.89
2009-2010	70805.93	4886.65	14.49
Mean	31195.15	2209.87	14.06
Growth Rate (%)	603.06	231.08	112.35
Annual Growth Rate (%)	60.31	23.11	11.24

Source: Annual reports of PFCL from 2000-2001 to 2009-2010(pg.no.58, 59)

The above indicated table no.4 shows the relation between total liabilities to outsiders to total assets. Solvency ratio showed an increasing trend with an annual growth rate of 11.23%.the highest ratio of 19.55 was observed in the year 2004-2005and the least of least of 6.82 in the year 2000-2001. The last three years of study showed a consistency of above 14. The growth rate of total liabilities to the outsiders was double the total assets of the company. The ratio showed a fluctuating tendency with an average of 17.96.

PROPRIETARY RATIO

The ratio relates the shareholders funds to total assets. This ratio indicates the long-term or the future solvency position of the business. This indicates the extent to which the assets of the company can be lost without affecting the interest of creditors of the company. It can be calculated as follows:

$$= \frac{\text{Shareholders fund}}{\text{Total tangible assets}}$$

TABLE 5: STATEMENT OF SHAREHOLDERS FUND TO TOTAL TANGIBLE ASSETS (RS IN CRORES)

Year	Shareholders fund (Rs)	Total tangible assets (Rs)	Proprietary Ratio (Times)
2000 – 2001	3809.59	1475.97	2.58
2001 – 2002	4398.08	961.32	4.58
2002 – 2003	5332.02	1031.54	5.17
2003 – 2004	6575.76	1253.56	5.25
2004 – 2005	6380.16	1138.70	5.60
2005 – 2006	6938.16	1840.71	3.77
2006 – 2007	8593.09	2701.67	3.18
2007 – 2008	9329.85	3066.51	3.04
2008 – 2009	11507.80	3742.08	3.08
2009-2010	13260.80	4886.65	2.71
Mean	7612.53	2209.87	3.96
Growth Rate (%)	248.09	231.08	5.14
Annual Growth Rate (%)	24.81	23.11	0.51

Source: Annual reports of PFCL from 2000-2001 to 2009-2010(pg.no.58, 59)

The above indicated table no.5 shows the relation between shareholders fund and total tangible assets. During the period of study the ratio showed a fluctuating tendency between 2.58 to 5.60. The highest ratio of 5.60 was in the year 2004-2005and the least of 2.58 in the year 2000-2001.The first 5 years increasing trend and the remaining years showed a decreasing trend. The shareholders fund and tangible assets showed a similar growth rate of around 24%. The ratio had an average of 3.96 with an annual growth rate of 0.51%.

FIXED ASSETS RATIO

This ratio explains whether the firms have raised adequate long term funds to meet its fixed assets requirement. The ratio should not be more than 1. If the total long term funds are more than total fixed assets, it means that a part of the working capital requirement is met out of the long term funds of the firm. It is calculated as follows:

$$= \frac{\text{Fixed Assets}}{\text{Long Term Funds}} \times 100$$

TABLE 6: STATEMENT OF FIXED ASSETS TO LONG TERM FUNDS (RS IN CRORES)

Year	Fixed Assets (Rs)	Long Term Funds (Rs)	Fixed Assets Ratio (%)
2000 – 2001	225.26	13126.73	1.72
2001 – 2002	183.41	15379.89	1.19
2002 – 2003	137.82	19696.12	0.70
2003 – 2004	79.06	24323.79	0.33
2004 – 2005	67.38	28028.40	0.24
2005 – 2006	55.37	33862.98	0.16
2006 – 2007	81.42	42177.27	0.19
2007 – 2008	76.95	49977.66	0.15
2008 – 2009	73.53	63667.95	0.12
2009-2010	71.18	80369.21	0.09
Mean	105.14	37061.00	0.49
Growth Rate (%)	-68.40	512.26	-94.84
Annual Growth Rate (%)	-6.84	51.23	-9.48

Source: Annual reports of PFCL from 2000-2001 to 2009-2010(pg.no.58, 59)

The above indicated table no.6 shows the relation between fixed assets and long term funds of the concern. During the period of study the highest ratio of 1.72 was in the year 2000-2001 and the least of 0.79 in the year 2009-2010. The fixed asset ratio showed a high negative annual growth trend of -94.84% during the period of study. The fixed assets ratio had a negative annual growth rate of -6.84% and the long term fund had a high positive growth rate of 51.23%. The ratio showed an average of 0.49.

CAPITAL GEARING RATIO

This ratio is mainly to analyze the capital structure of the company capital gearing refers to the proportion between fixed interest and dividend bearing funds and non-fixed interest and dividend bearing funds in the total capital employed in the business. It aids in regulating a balanced capital structure in a company. If the value is more than 1 it is highly geared, less than 1 low geared and equal to 1 even geared. It can be calculated as follows:

$$= \frac{\text{Equity share capital}}{\text{Fixed interest or dividend bearing funds}}$$

TABLE 7: STATEMENT OF EQUITY SHARE CAPITAL TO FIXED INTEREST OR DIVIDEND BEARING FUNDS (RS IN CRORES)

Year	Equity share capital (Rs)	Fixed interest or dividend bearing funds (Rs)	Capital Gearing Ratio (Times)
2000 – 2001	3809.59	9317.14	0.41
2001 – 2002	4398.08	10981.81	0.40
2002 – 2003	5332.02	14364.10	0.37
2003 – 2004	6575.76	17748.03	0.37
2004 – 2005	6380.16	21648.24	0.29
2005 – 2006	6938.16	26924.82	0.26
2006 – 2007	8593.09	33584.18	0.26
2007 – 2008	9329.85	40647.81	0.23
2008 – 2009	11507.80	52160.15	0.22
2009-2010	13260.80	67108.41	0.20
Mean	7612.53	29448.47	0.30
Growth Rate (%)	248.09	620.27	-51.67
Annual Growth Rate (%)	24.81	62.03	-5.17

Source: Annual reports of PFCL from 2000-2001 to 2009-2010(pg.no.58, 59)

The above indicated table No. 7 shows the relation between equity share capital and fixed interest or dividend bearing funds. The highest ratio of 0.41 was in the year 2000-2001 and the least of 0.20 in the year 2009-2010. The ratio showed a consistency of 0.37 in the year 2003 and 2004 and of 0.26 in the year 2006-2007. The last five years of study the ratio showed a decreasing trend with an average of 0.30. The fixed interest of dividend bearing fund had a higher annual growth rate of 62.03% as compared to equity share capital with 24.81%. The capital gearing ratio had a negative annual growth rate of -5.17%.

DEBT SERVICE COVERAGE RATIO

This ratio relates fixed interest charges to the income earned by the business. It is also known as interest coverage ratio. It indicates whether the business has earned sufficient profits to pay periodically the interest charges. It is very important in the lenders point of view. It is calculated as follows:-

$$= \frac{\text{Net Profit before Interest \& Tax}}{\text{Fixed Interest Charges}}$$

TABLE 8: STATEMENT OF NET PROFIT BEFORE INTEREST & TAX TO CURRENT LIABILITIES (RS IN CRORES)

Year	Net Profit before Interest & Tax (Rs)	Fixed Interest Charges (Rs)	Debt Service Coverage Ratio (Times)
2000 – 2001	1816.80	1044.87	1.74
2001 – 2002	2012.59	1049.44	1.92
2002 – 2003	2527.57	1159.62	2.18
2003 – 2004	3570.65	1455.72	2.45
2004 – 2005	2973.79	1556.46	1.91
2005 – 2006	3082.72	1817.89	1.70
2006 – 2007	3866.21	2354.68	1.64
2007 – 2008	4958.39	3170.70	1.56
2008 – 2009	7925.72	4432.92	1.79
2009-2010	6223.39	4912.24	1.27
Mean	3895.78	2295.45	1.82
Growth Rate (%)	242.55	370.13	-27.14
Annual Growth Rate (%)	24.25	37.01	-2.71

Source: Annual reports of PFCL from 2000-2001 to 2009-2010 (pg.no.58, 59)

The above indicated table no. 8 shows the relation between net profit before interest and tax to fixed interest charges. The debt service coverage ratio had a negative annual growth rate of -2.71%. The highest ratio of 2.45 was observed in the year 2003-2004 and the least of 1.56 in the year 2007-2008. During the first 4 years of study the ratio showed an increasing trend and the remaining years showed a decreasing trend. The annual growth rate of fixed interest charges was 31.01% as compared to 24.25% of net profit before interest and tax. The debt service ratio showed a decreasing trend with an average of 1.82.

STANDARD DEVIATION, CO-VARIANCE AND ARITHMETIC MEAN

Arithmetic Mean (A.M) is one of the most popular and widely used measure of representing the entire data by one value i.e. average.

Standard deviation (S.D) is a popular measure of dispersion. The Standard Deviation measures the absolute dispersion or variability of distribution. A small standard deviation means higher uniformity among the observation.

Coefficient of Variation (C.V.) is the relative measure of dispersion. Coefficient of variation is used when the variability of two or more series has to be compared. A high value of coefficient of variation indicates high variability and vice-verse.

TABLE 9: STATEMENT OF ARITHMETIC MEAN, STANDARD DEVIATION AND CO-VARIANCE

Ratios	Arithmetic Mean	Standard Deviation	Co-Variance (%)
Current	1.27	0.35	27.58
Absolute liquidity	0.32	0.22	66.69
Debt-Equity	3.55	0.94	26.49
Solvency	14.06	3.16	22.47
Proprietary	3.96	1.15	29.04
Fixed Assets	0.49	0.55	112.86
Capital gearing	0.30	0.08	26.58
Debt service coverage	1.82	0.33	18.12

The table no.9 shows the Arithmetic Mean, Standard Deviation and Co-variance of solvency ratios. The highest arithmetic mean of 14.06 was shown by Solvency ratio and the least of 0.30 by Capital Gearing ratio. The highest standard deviation of 1.15 was shown by Proprietary ratio and the least of 0.08 by Capital Gearing ratio. The highest co-variance of 112.86% was shown by Fixed Assets ratio and the least of 18.17% by Debt Service Coverage ratio.

CORRELATION(R) AND STUDENT T-TEST

Coefficient of Correlation (r) is a mathematical method of measuring correlation. It gives the degree of relation ship between two variables. The values of "r" lies between + 1 and – 1. When r = 1, means perfect positive correlations, r = - 1 means perfect negative correlation, r = 0 means no relationship between the variables.

Student t – Distribution is a small test used for testing of hypotheses of sample size less than 30. If the calculated value of t is less than the table value. The null hypotheses will be accepted and vice-verse for a given significance level. It can be calculated as follow:

$$t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2}$$

r = Coefficient of Correlation

n = No. Observation

TABLE 10: **SIGNIFICANCE OF CO-EFFICIENT OF CORRELATION 'r' AND STUDENT'S T TEST**

Particular	Current Assets to Current Liabilities	Debt to Equity
Correlation	0.96	0.99
Calculated value of t	9.7	28.12
Table Value of t	3.35	3.35
Significant	NO	NO
Level	1%	1%

The Table No. 10 indicates the Correlation and student t-test value. Highest positive correlation of 0.99 was shown between Debt and Equity and least positive correlation of 0.96 was observed between Current Assets and current liabilities. When student's t-test was applied at 1% significance level between Current Assets and current liabilities, it was found that the calculated value of 9.7 was more than the table value of 3.35; hence the alternate hypothesis was accepted. Similarly while applying test between debt and equity the alternate hypothesis was accepted, as the calculated value of 28.12 was higher than table value of 3.35.

FINDINGS AND CONCLUSION

Following are the main conclusion of Solvency analysis of PFCL:

SHORT TERM SOLVENCY POSITION

- The Current ratio position of PFCL was not satisfactory with a mean of 1.27, as the current assets were nearer to current liabilities. The current ratio followed a decreasing tendency with an annual growth rate of -2.15%, which means the current liabilities of the company were not fully secured. The fluctuating decreasing trend was as a result of faster rate of increase of current liabilities as compared to current assets. The company should increase the amount of current assets and control current liabilities for satisfactory current ratio of 2:1.
- The Absolute liquidity position of PFCL is also not satisfactory with an average of 0.32. The ratio indicates that the company did not have enough cash to pay its short term liabilities. The ratio was fluctuating with an annual growth rate of -4.79%. The decreasing trend was due to the faster rate of increase of current liabilities as compared to the increase in cash position of the company. The company should increase the cash position and decrease the amount of current liabilities for adequate Absolute liquid ratio.

LONG TERM SOLVENCY POSITION

- The Debt-Equity ratio PFCL is not satisfactory with an high average of 3.55 and a positive annual growth rate of 10.69%. The increasing rate of long term debt as compared to equity share capital was the main reason behind the increasing level of ratio. It indicates that the company is insolvent, as the interest of outsiders is much higher than the owners. It also shows that the outsiders fund is not secured. The company should raise more equity share capital and decrease the amount of long term debt for better solvency position.
- The solvency ratio of the company is also not satisfactory with a high average of 17.96 and a positive annual growth rate of 8.29%. It indicates that the total liabilities to outsiders were double as compared to the total assets of the company. The uncontrolled increase in outsider's liabilities resulted in increase in the ratio. The company should decrease the amount of outsider's liabilities and increase the fixed assets for betterment of solvency ratio.
- The Proprietary ratio of the company was highly solvent with an average of 3.96 and an annual growth rate 0.51%. The high ratio above one shows a positive sign to the outsiders, but the last years of study showed a decreasing trend. The company should try to increase the rate of increase of shareholders funds for increasing ratio in the future.
- The Fixed Assets ratio of PFCL was above 1 for the first two years which is not satisfactory. The remaining 2002-2003 & 2004-2005 showed a favorable Fixed Assets ratio. The last six years showed a higher decreasing tendency which should be controlled for favorable long term solvency of the company.
- Capital gearing ratio of PFCL was not satisfactory with an average of 0.30 and a negative annual growth of -5.17%. The annual rate of increase of fixed interest or dividend bearing is 2.5 times the rate of increase of equity share capital. The company should improve the increase rate of equity shareholders fund as compared to fixed dividend or interest dividend bearing fund for good future solvency.
- Debt-service ratio of PFCL is also not satisfactory with an average of 1.82 and an annual growth rate of -2.71%. The ratio showed a decreasing trend, as the rate of increase of fixed interest charges (37.01%) was higher that the rate of increase of EBIT (24.25%). The company should decrease the growth rate of fixed interest charges and increase the growth rate EBIT to stabilize the long term solvency position.

STATISTICAL TECHNIQUES

- Standard deviation was highest in solvency ratio, which shows a higher degree of variability and the least of 0.08 was observed in capital gearing ratio. The highest Co-variance 112.86 was shown by fixed assets ratio, which is an indicator of lesser degree of uniformity compared to other ratios. The highest degree of uniformity among ratios was shown by debt-service coverage ratio. During the period of study it was observed that all the methods of dispersion used showed a high degree of variability.

- Highest positive correlation of 0.99 was shown between Debt and Equity and least positive correlation of 0.96 was observed between Current Assets and current liabilities. So the companies should increases current assets as well as cash position and decrease the current liability position for a favorable short term solvency. When student's t-test was applied at 1% significance level between Current Assets and current liabilities, it was found that the calculated value of 9.7 was more than the table value of 3.35; hence the alternate hypothesis was accepted. Similarly while applying test between debt and equity the alternate hypothesis was accepted, as the calculated value of 28.12 was higher than table value of 3.35. Student's t test indicates that the short term as well as long term solvency position of PFCL has significant difference during the period of study.

By the observations of this study, it is found that the short term as well as long term solvency position of the company is not satisfactory. The reason behind unsatisfactory short term solvency ratio is that, the growth rate of current assets and absolute liquid is low as compared to increase in current liabilies. The company should increase the current assets by keeping shorter and timely interest collection period. The current liabilities of the company should be decreased by timely payment to creditors, unpaid interest etc. The long term solvency position of the company is also not satisfactory due to the continuous and uncontrolled increase in long term debts as compared to the owners fund. The company should improve the long term solvency position by increasing owners funds and decreasing the secured, unsecured loans etc. The operating profit of the company also showed a lower rate of growth as compared to fixed interest charges, which indicates a negative impact on its profit earning capacity. The overall position of PFCL is not satisfactory and it gives indication of alarming that, it should improve their overall working capital stability and long term solvency position. PFCL is a PSU organization and not only PSU; it is also a Nav-Ratna company among PSU. It can improve their efficiency only by control and reducing outsider's liabilities. If the management or government does not look into it seriously, it can result in loss of jobs and the company will become a sick unit.

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GLOBAL FINANCIAL CRISIS AND ITS EFFECT ON REAL ESTATE SECTOR IN INDIA

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ABSTRACT
The global Financial Crisis has originated from USA but Indian Economy too has felt the impact of crisis to some extent. Certain sectors of the economy have been affected by the financial crisis but study has been conducted to identify the impact on real estate sector in India. The present study includes a descriptive research by collecting information from magazines and news papers and analyzing the impact of global financial crisis on real estate sector in India. The global financial crisis has hit the sector to some extent. The people are saving money in banks instead of investing in real estate sector. Banks who had funded money to real estate companies for development projects also went bankrupt due to huge crunch in the real estate sector. Economic recovery during CY 2010-11 has reinvigorated the interest of foreign investors in India's real estate market. Growth and investment have also created opportunities for investment in real estate sector.

KEYWORDS
Real estate, GDP, Recession, Fiscal Policy.

INTRODUCTION
The real estate sector consists of a collection of industrial and services sectors of the economy, such as construction (housing construction, as well as construction of commercial offices, retail and industrial buildings), brokerage services, real estate financial services (mortgage banking, real estate investment), real estate operations, property management, architecture and design.

Today, India is the second fastest growing economy in the world [1]. The Indian real estate sector is an integral part of the economy and a channel for a substantial part of its development investment, is poised for growth on account of industrialization, urbanization, economic development and people's rising expectations for improved quality of living. India is on the edge of becoming one of the fast-growing economies, driven by many factors including multinational entrepreneurialism, buoyant local stock markets, robust economy-changing demographics and the overall emergence of India on the global stage. With great demand of housing for India's huge population and for commercial and industrial premises for its booming economy, large-scale real estate projects were launched across the whole country. This transformed the real estate business into one of the most lucrative sectors in the country.

The real estate sector is second only to agriculture in terms of employment generation and contributes heavily towards the gross domestic product (GDP). Almost five per cent of the country's GDP is contributed to by the housing sector. Investing in real estate is one of the best ways of making big money in very short span of time. With the development of private property ownership, real estate has become a major area of business. The real estate service sector is undergoing a process of rapid change [2]. Purchasing real estate requires a significant real estate investing needs, and each parcel of land has distinct characteristics, so the real estate investing industry has evolved into several distinct fields. The real estate sector in the recent past has been synonym to success. The real estate sector has been growing in the tough times and supported the Indian economy to an extent that it today alone stands at the second position in Indian Economy. With large revenue of twelve million dollars the real estate sector today is estimated to further expand at the rate of thirty percent per annum. The demand for real estate worldwide has increased at a faster rate. Rising middle income groups in the world market have resulted faster rising property demand and a boom in real estate market. Almost 80 per cent of real estate developed in India is residential space, the rest comprising of offices, shopping malls, hotels and hospitals. According to the Tenth Five-Year-Plan, there is a shortage of 22.4 million dwelling units. Thus, over the next 10 to 15 years, 80 to 90 million housing dwelling units will have to be constructed with a majority of them catering to middle- and lower-income groups.

The real state sector offers various services to the clients and to other industries that revolve around the property. It is further the bless of the real estate industry that people are enjoying such marvelous infrastructure, as the infrastructure and the real estate industry goes hand in hand making the present India a viable destination for growth prospects. Indian real estate sector is mostly privately owned and is a highly unregulated, unorganized market with huge potential. Moreover, the real estate sector is also responsible for the development of over 250 ancillary industries such as cement, steel, paints etc. A unit increase in expenditure in this sector has a multiplier effect and the capacity to generate income as high as five times.

Indian Real Estate Sector is certainly zooming away in the wake of current scenario witnessing its being riding on high growth wave. Indian real estate is happening, and a number of non-real estate companies are entering the sector to leverage the opportunities. Indian real estate is a growing sector for both investors and people who are looking for a home. Indian real estate is making rapid strides on the back of country's surging economy.

GENESIS OF THE GLOBAL FINANCIAL CRISIS IN USA
The financial crisis of 2007–2009 has been called by leading economists the worst financial crisis since the one related to the Great Depression of the 1930s. It contributed to the failure of key businesses, declines in consumer wealth estimated in the trillions of U.S Dollars, substantial financial commitments incurred by governments, and a significant decline in economic activity. The intensification of the global financial crisis, following the bankruptcy of Lehman Brothers in September 2008, has made the economic and financial environment a very difficult time for the world economy, the global financial system and for central banks. It all began with the one and all American dream, that every American should have a home. Regardless of who you are and what you do, if you are an American, you should have something called a home. Real Estate business was in a boom, and financial agents thought that there wasn't a better time to give away loans. The household sector was given a boost with increased monetary supply by commercial financial companies, and people were given loans regardless of the credit rating they received. It was never expected that the boom in the real estate business would come to such an abrupt end, and the prices would reach all time low. The global financial crisis, brewing for a while, really started to show its effects in the middle of 2007 and into 2008. Around the world stock markets have fallen, large financial institutions have collapsed or been bought out, and governments in even the wealthiest nations have had to come up with rescue packages to bail out their financial systems [3].

The proximate cause of the current financial turbulence is attributed to the sub-prime mortgage sector in the USA [4]. The US economy being a capitalist driven economy didn't bother to indulge itself in the policies pursued by the well-known financial giants. Gradually these financial giants in this business started feeling the heat as "sub-prime" clients started letdown to pay in their repayment of loans. In contrast, the current on going global financial crisis has had its roots in the US. The sustained rise in asset prices, particularly house prices, on the back of excessively accommodative monetary policy and tax lending standards during 2002-2006 coupled with financial innovations resulted in a large rise in mortgage credit to households, particularly low credit quality households. Most of these loans were with low margin money and with initial low teaser payments. Due to the "originate and distribute" model, most of these mortgages had been securitized. In combination with strong growth in complex credit derivatives and the use of credit ratings, the mortgages, inherently sub-prime, were bundled into a variety of tranches, including AAA tranches, and sold to a range of financial investors. The properties which were mortgaged by the clients weren't even covering the principal amount of the loan, leave alone the interest commitments. The credit offered to the people in indiscriminate fashion, achieving short term goals and ignoring warnings from leading economists about long term sustainability of the policy, backfired completely and companies like Lehmann Brothers, Merill Lynch, Freddie Mac and Fannie Mae's "bad assets" reached magnanimous proportions. An acute credit shortage was experienced in the economy, and simultaneous negative effects started occurring. The credit crunch meant that borrowing interest rates shot up in the market, companies slowed down their investment policies, production declined, lay offs increased, consumption decreased and the whole economy followed the downward spiral. The unemployment rate in the US reached an all time high of 6.1% and industrial growth saw its largest decline in the past three years and fell to 1.1%.The oil prices rises at$100 a barrel**.** On the one hand many people are concerned that those responsible for the financial problems are the ones being bailed out, while on the other hand, a global financial meltdown will affect the livelihoods of almost everyone in an increasingly inter-connected world.

The US governments realized the situation, and started using monetary as well as fiscal policies to check the diminishing economy. Fiscal policy boost in the way that, an amount of around US$ 1 trillion was pumped into the economy to increase the liquidity scenario. The financial companies which filed for bankruptcy were nationalized, or there non-performing assets were accounted for by the government. The Federal Bank of US also lowered the monetary policy rates, like Statutory Liquidity Ratio (SLR), relating to the amount of money required to be deposited by commercial banks to the Federal bank, so as to have some check on the sky high interest rates. These policies which were targeted to cushion the huge credit shortage scenario has taken somewhat affect and the situation has stabilized a bit. But, as leading economists say, it is too early to comment on whether the trough of the graph has reached or not, or it is still the "tip of the iceberg" scenario.

The global economy has impacted the Indian economy though not as badly in comparison to other countries. The Indian economy looked to be relatively insulated from the global financial crisis that started in August 2007 when the 'sub-prime mortgage' crisis first surfaced in the US. In fact the RBI was raising interest rates until July 2008 with the view to cooling the growth rate contain inflationary pressures. But as the financial meltdown, morphed in to a global economic downturn with the collapse of Lehman Brothers on 23 September 2008, the impact on the Indian economy was almost immediate. Credit flows suddenly dried-up and, overnight, money market interest rate spiked to above 20 percent and remained high for the next month. It is, perhaps, judicious to assume that the impacts of the global economic downturn, the first in the center of global capitalism since the Great Depression, on the Indian economy are still unfolding. The impact of the global crisis has been transmitted to the Indian economy through three distinct channels, viz., the financial sector, exports, and exchange rates.

IMPACT OF GLOBAL FINANCIAL CRISIS ON INDIA:

A slowdown in the US economy is bad news for India because:

1. Indian companies have major outsourcing deals from the US
2. India's exports to the US have also grown substantially over the years.
3. Indian companies with big tickets deals in the US are seeing their profit margins shrinking.

SHARE MARKET

1. More people have sold the shares in the Indian share market than they bought in the recent weeks. This has added to the fall of sensex to lower points.
2. Foreign investors have pulled out from stock markets leading to heavy losses in stocks and mutual funds.
3. Stock broking houses are laying-off people.
4. Because of such uncertainty many people have started saving money in banks rather than investing .

REAL ESTATE SECTOR

1. One of the casualties at that time are real estate, where building projects are half-done all over the country and in this tight liquidity situation developers find it difficult to raise finances.
2. Real estate was badly affected by the financial downturn. The investment banks had given huge amounts of money to real estate companies for development projects. With the large investment banks going bankrupt, the projects have to be discontinued, leading to the slump in the real estate market as well.

IMPACT ON THE REAL ESTATE SECTOR

The development of real estate in India is attributed to the off-shoring and outsourcing businesses, such as high-end technology consultation, call centers and programming houses. The demand from the information technology sector has changed the urban landscape. Several multinational companies (MNCs) continue to move their organizational operations to India to take advantage of lower manpower and other costs.

The real estate market in India remains unorganized, fairly fragmented, mostly characterized by small players with a local presence. Traditionally, real estate developers were viewed with an element of skepticism. They were often identified dealing with large amounts of unaccounted money, lacking transparency and would use unscrupulous mean to acquire a variety of regulatory approvals. The tremendous growth of the real estate sector is attributed to various fundamental factors such as growing economy, growing business needs etc. However, this boom was restricted to areas such as commercial office space, retail and housing sectors. The impending concerns of this sector namely skill shortage, non-availability of statistics, lack of low cost-affordable housing, lack of sustainability and to meet a future that might have downturn due to oversupply.

The industry has faced very critical situation. The crisis of the US financial market hit the Indian real estate sector hard. The sector was already reeling under tremendous pressure as RBI increased the interest rates to contain inflation, besides restricting the fund flow in it. RBI put restriction on Indian banks to finance real estate companies in the country; they are depended on foreign funds through FDI route for their fund requirements. Many of these private equity funds were launched by investment banks. But, as the fate of these investment banks is uncertain, their capability to raise funds in their country is doubtful. This has put severe constraint on availability of funds in India. The changes, which happened in American market such as bankruptcy of Lehman Brother (one of the oldest financial firms of American market) and sell process of PE firm Merryl Lynch by the largest US bank, Bank of America, has created a very fast drops/recession in financial industry and created a crisis in all over US economy. Both of these firms had invested their more part of funds into real estate sector without having the proper analyzing or effect. They had also given the funds for mortgage industry of US, which was facing the hurdle of sub prime lending at that moment and affected many players to bankruptcy. All of these changes in the US economy had affected Indian economy as well as real estate segment as most of the Indian players have their liquidity funded by both of these firms. The market rates in India was also dropped by 10 to 30 per cent in most of prominent as well as upcoming cities because of the ill effects of financial crisis.

At the same time, the crisis in the global market has affected the demand for the real estate space in India. The crisis had affected the global economy in such a manner that many of the global major players had postponed or cut the expansion plan. This has affected the demand of the real estate space. Global consultancy firm had predicted the cancellation and postponement of the expansion plan of companies, many of the regions like NCR, Bangalore and Pune has faced the situation of oversupply in the office space. The rentals in these areas was projected to fall by 25 to 30% . The fund flows from all the possible ways was constrained. Funds from banks were not available. Private equity source has also dried up. And the demand from end users was also affected.

RESERVE BANK OF INDIA MONETARY POLICY MEASURES AND ITS IMPLICATIONS

With the trickling of the economic depression in India from the US, the government has taken aggressive stance on the issue and started immediate control on the monetary policy measures. It uses both liquidity and interest rate instruments to achieve the monitory policy objectives[5] On consultation with the Ministry of Finance, Planning Commission, heads of other commercial banks, the Reserve Bank of India decided to implement certain actions to maintain the liquidity scenario in the market and not to let the growth percentage come down:-

1. Both repo rate and reverse-repo rate has reduced to offer additional liquidity to the banking system. The repo rate was reduced to 6.5% and the reverse repo rate to 5%effective from 08 Dec, 2008.
2. Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR) was also reduced to 5.5% and 24% respectively.

The cut in repo and reverse repo rates signifies that the amount lent to commercial banks by the apex bank comes at a cheaper rate, which signifies that the commercial banks in turn offer credit at a cheaper rate to the Industrial sector. The cut in CRR and SLR implies that the proportion of money the commercial banks have to deposit to the apex bank for security purposes has also decreased. This implies that there was greater money supply with the commercial banks, which increases the liquidity situation of the banking sector. The sector thus received easy available credit from commercial banks at affordable rates of borrowing. The investment was improved; production of goods and commodities has taken place which in turn met the demand requirements and it adds to the GDP of the country.

GOVERNMENT OF INDIA FISCAL POLICY MEASURES AND ITS IMPLICATIONS

With the inflation somewhat under controllable limits of around 6.84% (the drastic drop in price of crude being one of the major reasons) and growth also maintaining levels of 7.5%, the government decided to supplement its monetary policy with additional fiscal policy measures. The strategy showed effect on the economy, as the monetary policy has taken some time to effect the changes, called the inside and outside lags. Monetary policies are governed by regulations, and firstly it's through that the government had tried to control the situation, but when it comes to immediate effect scenario, fiscal policy on the basis of discretion was applied.

The government went to the fiscal expansion mode by reducing tax rates, providing tax holidays and increasing expenditure in the forms of credit given to SMEs and Real Estate sectors. The government ignored the fiscal deficit, which increased due to more government expenditure and lesser accumulation of government revenue in the form of indirect taxes, but, boosted the industry sector to invests and increase the overall production levels. This in turn solidifies the foreign trade sector, as with increased production levels, exports increase.

The government complemented its fiscal expansion efforts with a second stimulus package on 15 Dec, 2008. The salient features of this package are:-

1. Increase limit for low-interest housing loans from Rs 20 lakhs to Rs 30 lakhs.
2. Raise tax rebate on home loans from Rs 1.5 lakhs to Rs 2.5 lakhs per annum.

Further reduction in tax rates and loan rates confirms the government's impetus to reduce the inflationary trend as well as put a thrust to the growth scenario of the country. These tax exemptions will lead to greater production from the Industry sector, and as prices will be less due to lesser excise duties, the aggregate demand will start increasing.

PREVIOUS BUDGET AND RELATED ISSUES

Housing for the Poor: 41.13 lakh houses constructed up to December 2007 under Indira Awas Yojana (IAY) against a target of 60 lakh houses; Cumulative number of houses constructed under IAY to be 51.77 lakh by end March 2008; Subsidy per unit in respect of new houses sanctioned after April 1, 2008 to be enhanced from Rs.25,000 to Rs.35,000 in plain areas and from Rs.27,500 to Rs.38,500 in hill/ difficult areas to reflect the higher cost of construction; Subsidy for up-gradation of houses to be increased fromRs.12,500 per unit to Rs.15,000; Public sector banks to be advised to include IAY houses under the differential rate of interest (DRI) scheme and lend up to Rs.20,000 per unit at an interest rate of 4 per cent.

Tax incentive under the previous Budgets:

- No specific tax incentives for real estate sector however the following incentives will boost the real estate.
- Excise duty rates on bulk cement and packaged cement brought on par; bulk cement to attract excise duty of Rs.400 per Metric Tonne or 14 per cent ad valorem, whichever is higher; cement clinkers excise duty at Rs.450 per Metric Tonne.
- General CENVAT rate on all goods reduced from 16 per cent to 14 per cent to give a stimulus to the manufacturing sector.
- Reduction in the excise duty from 16 per cent to 14 per cent.
- Reduction in customs duty from 5 per cent to nil on steel and aluminum melting scraps.

REAL ESTATE PROSPECTS IN 2011

In 2011 the outlook of Indian real estate sector is stable. The demand for residential units driven by the high growth rate in the Indian economy and rapid urbanization is expected to be the main drivers of the sector in the medium term. Regulatory measures by the Reserve bank of India will have a considerable impact on the real estate sector during2011. Any increase in risk weights on banks' lending to real estate companies would adversely affect the amount of funding available to the industry and cause liquidity problems as their majority of the companies are highly leveraged and their dependence on debt refinancing is high.

Real estate companies planning IPOs in 2011 may experience a lack of enthusiasm on the part of the investors due to the lending scams uncovered inQ4CY10 which involve many banks and real estate companies. Any failure to raise funds through the equity markets would increase real estate companies' dependence on banks and their vulnerability to the RBI's regulatory action.

CONCLUSION

Real Estate Sector in particular, has been the main driving engine of Indian economy's growth. A number of global players have entered the Indian market and many more have shown interest. Growth and investment have also created opportunities for investment in real estate sector. The role of the Government is expected to be primarily as a facilitator to the development process, the private sector participation is aimed at bringing technical and managerial expertise in delivering good quality mass housing projects. It is a good sign that many State governments are joining hands with private entrepreneurs in resolving the acute scarcity of residential real estate in urban areas. The private sector and Government has to work in tandem towards a common goal. It is equally important to address the institutional and regulatory aspects as well as strengthen and expand the capacity of financing institutions for further growth of the sector.

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AN INTROSPECTIVE ON CONSUMER BEHAVIOR ON THE BASIS OF DEMOGRAPHY: A SURVEY (WITH SPECIAL REFERENCE TO FMCGS)

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ABSTRACT

The objective of modern marketing is to make profits through satisfying and delighting the consumer's need and wants. Hence, the marketers have to understand the real needs, wants, beliefs and attitudes of the consumers towards their products and services. Today, network marketing is a multi-billion dollar business, and a large number of driving forces of the 21st century economy. Many business leaders now regard net work marketing as the business for future. But the marketing method was misunderstood as a get rich-quick scheme; it is also too common for network marketers worldwide to answer the legality and soundness of their business. In this paper, an attempt is made to analyze and compare the consumer behavior on the basis of demography for the post-purchase evaluation and semi-urban consumerism with regard to different consumer Protection Acts, consumer satisfaction levels of FMCGs.

KEYWORDS

FMCGs, consumer satisfaction levels, demography, ideal score, least score.

INTRODUCTION

Consumer behavior is comparatively a new field of study. It is an attempt to understand and predict human actions with regard to purchase decisions. This subject has assumed growing importance under consumer oriented marketing. Customer satisfaction is an important element in the process of evaluating the performance of markets. At a low level of customer satisfaction, the buyer's state being adequately regarded in buying situation for the sacrifice they have made, customer are likely to abandon the company and even bad mouth it. A customer who is fairly satisfied may find it easy to switch, when a better offer comes along. At the higher levels of satisfaction, customers are likely to repurchase and even speak well of the company and its products. Higher levels of the satisfaction create an emotional bond with the company, not just a rational preference.

Research study reveals that, completely satisfied customers are six times more likely to repurchase the products than the very satisfied customers. In a comparative economy with increasingly rational buyers, a company can only win by creating and delivering superior value involving five customer capabilities, such as:

- Understanding customer value
- Creating customer value
- Delivering customer value
- Capturing customer value
- Sustaining customer value

Today's customers are becoming harder to please. They are smarter, more price conscious, more demanding, less forgiving and collect information about many more competitors with equal or better offers. Therefore, the real challenges is not to have only satisfied customers- several competitors do that- but to have delighted and loyal customers. Otherwise, companies will suffer from high customer churn i.e. high customer defection.

OBJECTIVE OF THE STUDY

In the above backdrop, an attempt is made to make comparative study to undertake an in-depth enquiry into buying behavior of urban, semi-urban and rural consumers with regard to FMCGs, in terms of the consumption patterns, buying motives, factor influencing the buying behavior, brand preferences, level of satisfaction etc. for different consumers and to suggest measures for effective and efficient marketing practices in the light of the findings. The sub -objective of the study include:

- To analyze the consumption patterns with regard to select fast moving consumer goods (FMCGs) in the sample area.
- To investigate into the motives of the different consumers and their brand preferences
- To examine the post-purchase behavior of sample consumers in terms of their levels of satisfaction and consumerism and
- To suggest measures for effective marketing practices to be adopted in the light of the findings of the study.

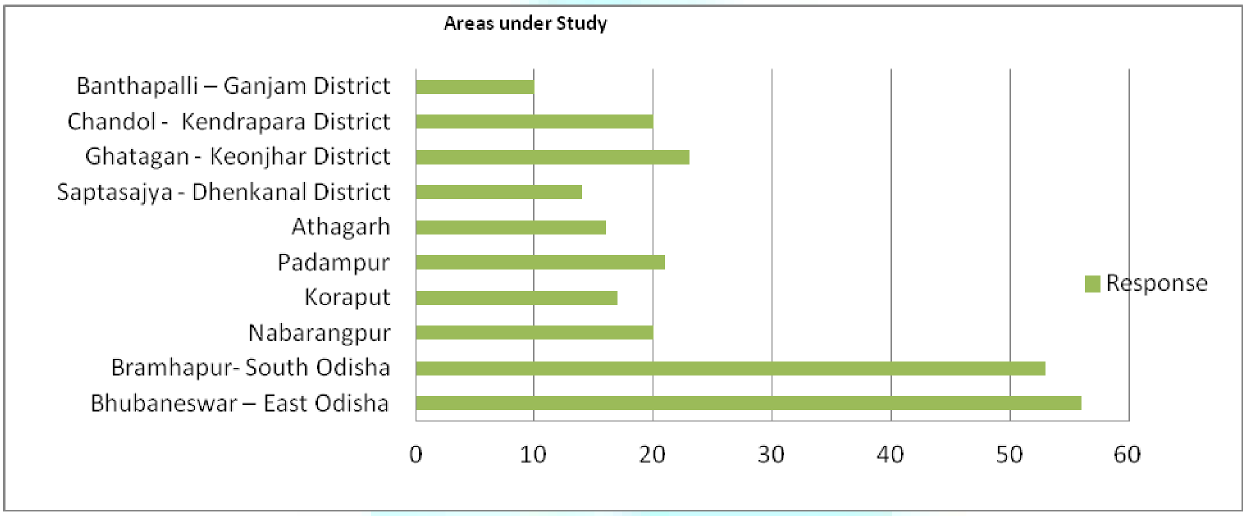
RESEARCH UNIVERSE AND METHODOLOGY

With reference to the selection of the research universe the state of odisha has been selected with specifications to the compulsions of the geographical territory, linguistic boundary, and administrative settlement commonness. Odisha is an Eastern Indian state, the state boundaries are on the Bay of Bengal Sea. South- Andhra Pradesh, West –Chhatisgarh and Jharkhand, North- West Bengal having a total area of 1,55,707 Square Kilometers with total population of 36,706,920 (as per Indian census survey-2001) , population density 236 per Square Kilometers, Sex Ratio 972 literacy rate of 63.61%. The state is comprising of 30 districts (Administrative Divisions) and 58 Sub-Divisions.

SAMPLING PLAN

In support to the objective of the research there is a primary research through questionnaire administration method in the field through stratified random sampling method covering the state through regional, geographical, economic, cultural, lingual and settlement wise and to analyze the data.

Area	*Questionnaire served*	*Response*	*Percentage of response*
Urban Population			
Bhubaneswar – East Odisha	60	56	
Bramhapur- South Odisha	60	53	43.60
Semi-Urban Population:			
Nabarangpur	25	20	
Koraput	25	17	
Padampur	25	21	
Athagarh	25	16	29.60
Rural Population:			
Saptasajya - Dhenkanal District	25	14	
Ghatagan - Keonjhar District	25	23	
Chandol - Kendrapara District	25	20	
Banthapalli – Ganjam District	25	10	26.80
Total	320	250	100



LIMITATIONS OF THE STUDY

- The survey is restricted to selected districts of Odisha.
- The sample is limited; it may not represent the view of all the consumers.
- The study conducted for the period of 3 months i.e July 2010 to September 2010 and not conducted for the extended period of time.

POST- PURCHASE EVALUATION

This post purchase evaluation of the customers serves three important purposes:

- To broaden the set of experiences stored in memory;
- To provide a check to understand how well the customer is selecting the products; and
- To make adjustment in future purchase decisions.

The interaction between consumer expectations and actual product performance produces either satisfaction or dissatisfaction. So, satisfaction or dissatisfaction is not an emotion, but the evaluation of an emotion. Research studies reveal that, several determinants, which influence satisfaction, include demography variables, personality variables, expectations and other factors. Various problems faced by the consumers and their dissatisfaction with regard to various marketing practices and product attributes of FMCGs have led to consumerism. Consumerism is a movement, which seeks to protect and augment the rights of the consumer in relation to various marketing practices of FMCG companies. This movement should influence the attributes of marketing people to share social responsibilities and responsiveness to consumer problems on the one hand, and to untidily resist the unfair trade practices of the businessmen by the consumers, on the others.

Broadly this paper attempts to:

- Analyze the level of satisfaction with regard to various products attributes and other general attributes such as availability, range of products etc.
- Examine the post-purchase behavior of consumers in terms of consumer's complaint behavior etc. Further, an attempt is also made to analyze the levels of the consumerism in terms of levels of awareness with regard to various Consumer Protection Acts and customer grievance redressal mechanism etc., among the consumers on the basis of demography.

In order to measure the levels of satisfaction with regard product attributes and general attributes, a five point scale, viz. Extremely satisfied, Satisfied, Neither satisfied nor dissatisfied, Dissatisfied, Extremely dissatisfied, is being used.

CUSTOMER SATISFACTION WITH REGARD TO FMCGS

To measure the satisfaction levels of consumers with regard to FMCGs the following product-related attributes are identified: quality, quantity, price, taste, freshness, nutritional value ,flavor and packaging etc, while general attributes included: availability, range of products, regularity of supply, cold storage facility, proximity of retail shop etc. For the purpose of quantification of the responses of semi-urban consumers, weights have been assigned as +3,+2,+1, 0 and -1 for the responses " extremely satisfied", " satisfied", " neither satisfied nor dissatisfied", " dissatisfied", " extremely dissatisfied", respectively. Final scores for each feature are calculated by multiplying the number of responses by the weights of corresponding responses. The resultant weighted scores of these features provided by the respondents are shown in Table-1

CALCULATION OF CONSUMER SATISFACTION IDEAL AND LEAST SCORES

PRODUCT ATTRIBUTES

Ideal scores are calculated by multiplying the number of respondents in each category with +3 and product with total number of attributes.

Ideal score of various categories of consumers:
Urban 8 x 3 x109=2616
Semi-urban 8x 3 x 74=1776
Rural 8x 3 x 67=1608
Least scores are calculated by multiplying the number of respondents in each category with -1 and the product with number of attributes in the question.
Urban 8 x -1 x 109=-872
Semi-urban 8 x -1 x 74= -592
Rural 8 x -1 x 67= -536

GENERAL ATTRIBUTES

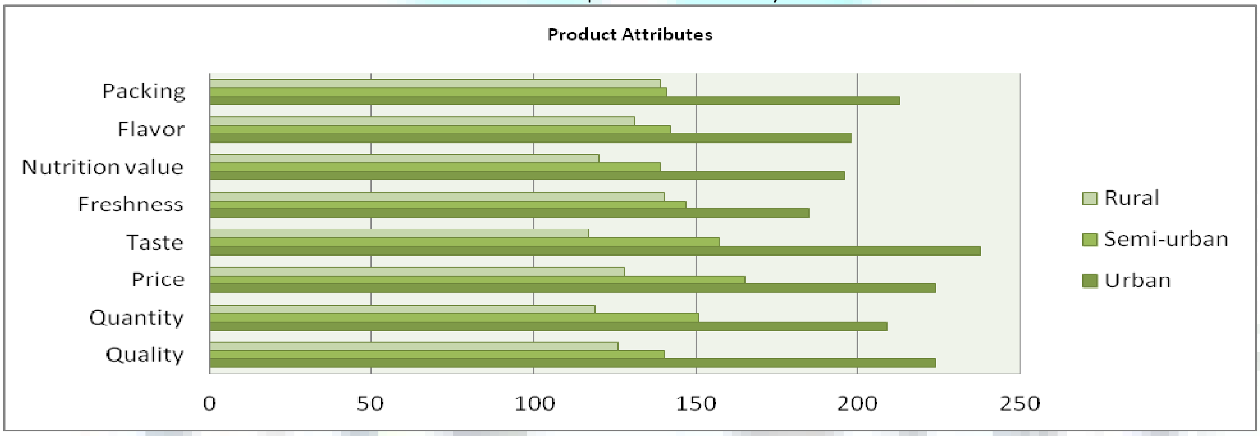
Ideal score
Urban 5x 3 x 109=1635
Semi-urban 5 x 3 x74=1110
Rural 5 x 3 x 67=1005

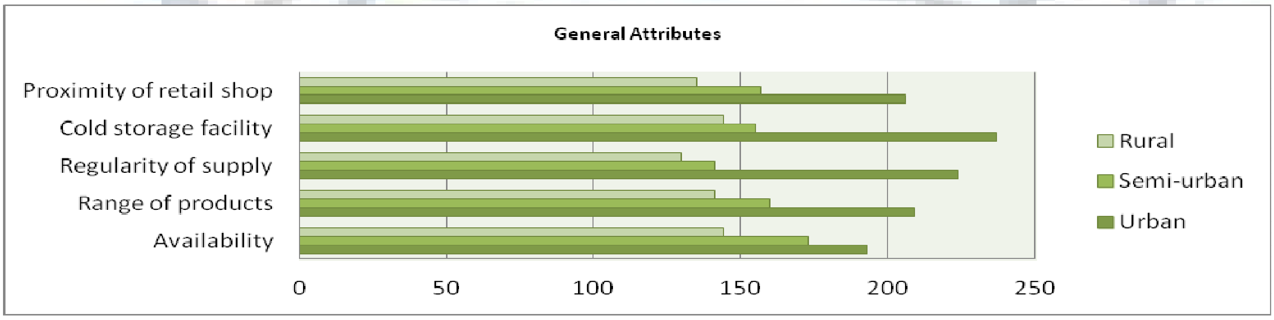
Least score
Urban 5 x -1 x 109= -545
Semi-urban 5 x -1 x 74= -370
Rural 5 x -1 x 67= -335

TABLE-1: CONSUMER SATISFACTION (AGGREGATE SCORE ON THE BASIS OF DEMOGRAPHY) WITH REGARD TO FMCGS

Sl. No	*Items*	*Aggregate scores on the basis of demography*		
		Urban	*Semi-urban*	*Rural*
	Product Attributes			
1	Quality	224	140	126
2	Quantity	209	151	119
3	Price	224	165	128
4	Taste	238	157	117
5	Freshness	185	147	140
6	Nutrition value	196	139	120
7	Flavor	198	142	131
8	Packing	213	141	139
	Total scores	1687(64.49)	1182(66.55)	1020(63.43)
	Ideal scores	2616	1776	1608
	Least scores	-872	- 592	-536
	No. of respondents	109	74	67
	General Attributes			
1	Availability	193	173	144
2	Range of products	209	160	141
3	Regularity of supply	224	141	130
4	Cold storage facility	237	155	144
5	Proximity of retail shop	206	157	135
	Total scores	1069(65.38)	786(70.81)	694(69.05)
	Ideal scores	1635	1110	1005
	Least scores	-545	-370	-335
	No. of respondents	109	74	67

Source: Compiled from field survey





Note: The calculated values of aggregate scores of different income groups are shown in Annexure A, B and C respectively.

An examination of Table-1 reveals that on the whole, consumers are satisfied with the product attributes as well as general attributes on a comparatively better scale. Interestingly, there was no negative score in both the categories of factors. On the whole, the level of satisfaction is high among semi-urban respondents with total score of 66.55% of ideal score for product attributes and similarly for general attributes it is 70.81% of ideal score, while it is 64.49% and 63.43% for urban and rural group with regard to product attributes. Similarly it is 65.38% and 69.05% for general attributes with reference to urban group and rural population respectively. Thus, it is clear that level of satisfaction for semi-urban population for both products attributes and for general attributes it is higher as compared to others. For urban population the level of satisfaction for product attributes is higher and general attributes are lower. Similarly, for rural consumers the level of satisfaction for the product attributes it lower and for general attributes it is higher.

CONSUMERISM

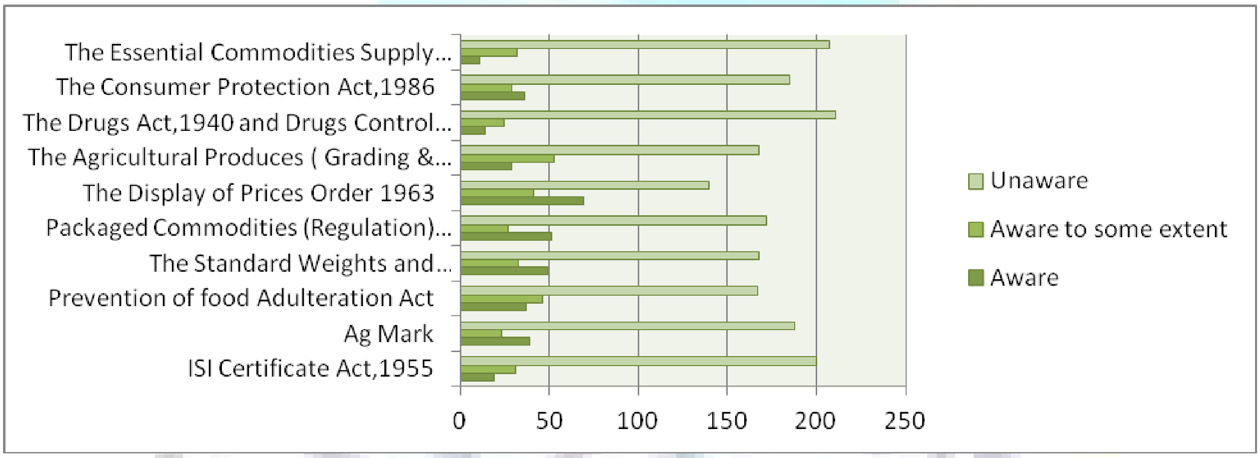
Various problems facing the consumers and their dissatisfaction with the producers with regard to their practices lead to consumerism. This is a movement, which seeks to protect and augment the rights of the consumer in relation to the marketing people like producers, middlemen, retailers etc. It aims at educating the consumers and in reducing the distribution costs. As it was rightly observed "marketing is not an end in itself. It is not the exclusive province of business management. Marketing must serve not only business but also the goals of society. It must act in concert with broad public interest".

In the words of Buskirk and Rothe (1970), consumerism is organized efforts of course seeking redress, restitution and remedy for dissatisfaction they have accumulated in the acquisition of their standard of living. This movement should influence the attitudes of marketing people to share social responsibility and responsiveness to consumer's problems, on one hand, and to untidily resist the unfair trade practices of businessmen by the consumers, on the other. The role of Government in solving the consumer problems cannot be over emphasized. It has been very responsive to consumer needs and has enacted various laws from time to time to protect the consumer's interest. In the light of these developments in the matter of consumerism, consumers of sample area were asked to indicate on three point scale, viz., a) fully aware b) aware to some extent, and c) not aware, as to what extent they were aware of the laws that sought to protect their interests. The responses of the consumers about the extent of awareness of different legislations related to consumer goods are presented in Table-2. It is evident from Table-2, the responses of sample consumers, that consumers' movement has not made any dent in the sample areas. Majority of consumers' indicated their ignorance with regard to a majority of Acts. It is due to ignorance, illiteracy and consequently lack of knowledge of various consumer protection laws that the semi-urban consumers are exposed to unfair trade practices. Added to this, there are a number of loopholes in actual implementation of these laws and many of these laws are becoming archaic, since they could not keep pace with the prevailing market situation.

TABLE-2: CONSUMERS' AWARENESS LEVELS OF DIFFERENT CONSUMER PROTECTION ACT

Legislation	*Aware*	*%*	*Aware to some extent*	*%*	*Unaware*	*%*	*Total*	*%*
ISI Certificate Act,1955	19	7.6	31	12.40	200	80.00	250	100
Ag Mark	39	15.6	23	9.2	188	75.2	250	100
Prevention of food Adulteration Act	37	14.8	46	18.4	167	66.8	250	100
The Standard Weights and Measurement Act,1956	49	19.6	33	13.2	168	67.2	250	100
Packaged Commodities (Regulation) Order, 1975	51	20.4	27	10.8	172	68.8	250	100
The Display of Prices Order 1963	69	27.6	41	16.4	140	56.00	250	100
The Agricultural Produces (Grading & Marketing) Act, 1937	29	11.6	53	21.2	168	88.4	250	100
The Drugs Act,1940 and Drugs Control Act of 1954	14	5.6	25	10.00	211	67.20	250	100
The Consumer Protection Act,1986	36	14.4	29	11.6	185	74.00	250	100
The Essential Commodities Supply Act,1955	11	4.4	32	12.8	207	82.8	250	100

Source: Compiled from field survey



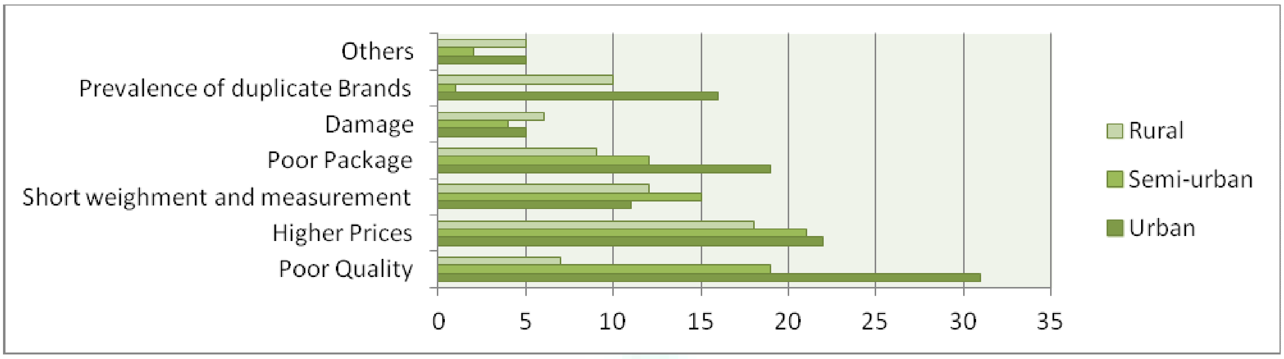
MAJOR COMPLAINTS OF CONSUMERS WITH REGARD TO FMCGS

The important problems that are faced by the consumers, which are identified for the purpose of study, are: a) poor quality b) Higher price c) short weighment and measurement d) poor package e) damage f) higher prevalence of duplicate brands etc. The major complaints regarding food items faced by the various consumers are presented in Table-3. An analysis of the complaints with regard to FMCGs reveals that on the whole, higher price was a major complaint with 24.40% of the sample respondents reporting to it, closely followed by 22.80% for poor quality. The third major factor is poor package with 16.00%.

TABLE-3: MAJOR COMPLAINTS WITH REGARDS TO FMCGS

Complaints	*Types of consumers*							
	Urban		*Semi-urban*		*Rural*		*Total*	
	f	%	f	%	f	%	f	%
Poor Quality	31	28.44	19	25.68	7	10.45	57	22.8
Higher Prices	22	20.18	21	28.38	18	26.87	61	24.4
Short weighment and measurement	11	10.09	15	20.27	12	17.91	38	15.2
Poor Package	19	17.43	12	16.22	9	13.43	40	16.00
Damage	5	4.59	4	5.40	6	8.95	15	6.00
Prevalence of duplicate Brands	16	14.68	1	1.35	10	14.93	27	10.80
Others	5	4.59	2	2.70	5	7.46	12	4.80
Total	109	100	74	100	67	100	250	100

Source: Compiled from field survey



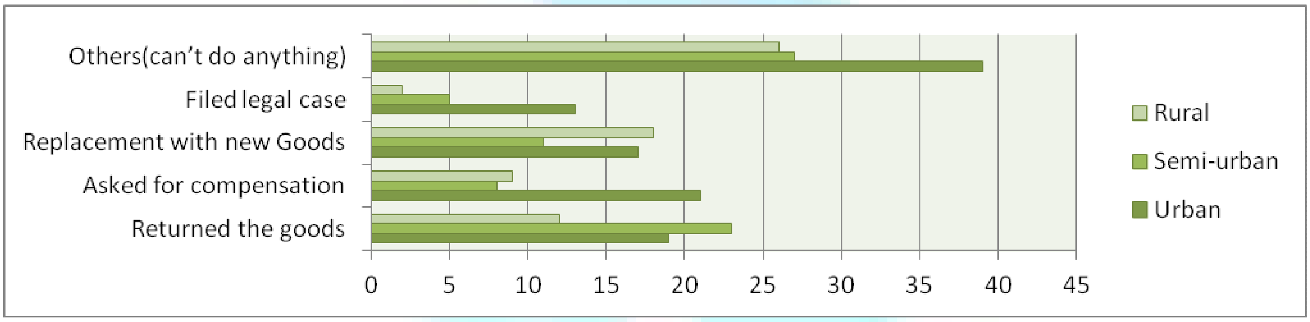
ACTION TAKEN BY CONSUMERS TO RESOLVE CONSUMER PROBLEMS

In the light of these consumer problems with regard to select packaged consumer products, the customers were asked to express the steps taken by them to seek relief, though it is difficult to develop precisely the alternative steps that consumers can take to get relief, the researchers have identified 5 important alternatives. This is depicted in Table-4

TABLE-4: TYPES OF ACTION TAKEN BY THE CONSUMERS TO RESOLVE THEIR MISTREATMENT AS CONSUMERS

Type of Action	***Types of Consumers***							
	Urban		***Semi-urban***		***Rural***		***Total***	
	f	%	f	%	f	%	f	%
Returned the goods	19	17.43	23	31.08	12	17.91	54	21.6
Asked for compensation	21	19.27	8	10.81	9	13.43	38	15.2
Replacement with new Goods	17	15.60	11	14.86	18	26.86	46	18.4
Filed legal case	13	11.92	5	6.76	2	2.99	20	8
Others(can't do anything)	39	35.78	27	36.49	26	38.81	92	36.80
Total	109	100	74	100	67	100	250	100

Source: Compiled from filed survey



The study has classified the consumers into three groups, the basis of the action taken by them to seek relief:

- Upset-action- Consumers who experienced dissatisfaction and took action;
- Upset- no action- Consumers who were dissatisfied, but did nothing about it and
- No upset- consumers who had not experienced dissatisfaction with retailers during last one year.

In the present study, the proportion of upset- no action consumers with 36.80%, followed by the upset-action consumers with63.20%. It is also evident that the type to which consumers belonged in the light of the above three types was influenced by their socio-economic back ground. Thus, it is the indifferent attitude of consumers, to a large extent, on one hand, and the ignorance of the marketers' responsibilities under the various laws and the concept of modern marketing, on the other, which is further complicating the consumer-marketer relationships in the areas.

SUGGESTIONS

In the light of the above findings the following suggestions are offered:

- For the improvement and development of urban, semi-urban and rural marketing, a holistic approach aiming at removing all weak links of the marketing chain is essential. Marketing research programmes should be oriented to develop an orderly and efficient marketing system.
- FMCGs sold in semi-urban markets and rural markets should be focused on pricing rather than brand building and positioning as done in urban area.
- Region specific consumer profiles should be developed to understand the characteristics of target market.
- There is need to explore the local markets such as hats, weekly bazaars, stalls, demonstrations and melas etc. and to improve them slowly in all areas.
- Price is the criteria for purchasing decision, as it should be within their budgeted limits. Semi-urban and rural consumers are not guided by brands that have low functionality and high image. The semi-urban buyers are still unwilling to pay for value additions.
- Companies that took the trouble to understand the needs and peculiarities of consumers on the demographical background of consumers have tasted the success. In the coming years more and more companies are going to take the IT route to make the markets more accessible and this should open up new business opportunities.
- Retailers should take steps to minimize the amount of consumer dissatisfaction. They should solicit customer suggestions for improvements in products and services. Speedy and courteous redressal of customer complaints and grievances will create confidence of consumers in retailing.
- Proper disclosure of the terms of the credit and price information will go a long way in building up confidence on the retailers and will ultimately lead to good customer-retailer relationships.
- The malpractices of the retailers are the greatest constraints in the development of markets. The retailers should try to improve fair business practices. They should insist that the products they purchase should be of standard quality and producers offer guarantee to the customers.
- The entire size, design, image and layout should contribute to attain the retailing goals. Layout of the shop, placement of goods, the manner of display, the décor, the lighting arrangements etc. should be made on suit the consumer requirements.

- The products offered by the retailers should fit into the living system of people. For certain products, point of purchase (POP) display with pictorial presentation will prove very effective.
- Products can no longer be indifferent to the hardships faced by either the retailer or the consumer. They should strengthen the hands of retailers in extending services to the consumers. The producers should take contingence of the peculiar aspects of marketing and modify their strategies accordingly.
- Low priced products will be more successful in semi-urban and rural area. The package of the product should be strong and able to withstand rough handling. Durability of the product is of special interest to semi-urban consumer.
- The brand names of the products sold in semi-urban and rural markets should be easy to remember and pronounce.
- There can be cooperative effort on the part of manufacturers of consumer goods in areas in the matter of distribution in terms of channels of distribution and physical distribution.
- A low unit price package is desirable in selling in the rural markets in order to bring down the prices of goods.
- It is essential that the sales representatives of the manufacturers make regular visit to stores.
- The distribution process can be effective and efficient only when the consumer exercises his wisdom, alertness, awareness in the process of buying. Consumer is the king. Therefore, the consumer should be very alert and effective and then efficiency will follow in good shopping.
- The Radio and TV should devote time for talks and pictures on various consumer problems, consumer protection laws and consumer education in local languages.
- Consumer shopping behavior should not be without guidance. The consumers should insist on information with regard to the product, price, quality and quantity etc. They should not purchase off-brands and inferior quality of goods.
- Overuse of credit purchase is lowering the purchasing power of consumers because of higher prices and sometimes, interest on dues. Therefore, consumers as far as possible should try to purchase goods for cash only.
- The Government's role lies primarily in developing the infrastructure network of roads in the areas, financing and technical assistance in setting up of retail outlets and distribution of consumer goods.
- The governments' role is equally important in conducting market surveys, compilation of statistics and their publication for the benefit of industry, business and public.

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ANNEXURES

ANNEXURE-A: CALCULATION OF LEVEL OF SATISFACTION WITH REGARD TO FMCGS OF URBAN RESPONDENTS

Factors	*Level of satisfaction*					
	Extremely satisfied	*satisfied*	*Neither satisfied nor dissatisfied*	*Dissatisfied*	*Extremely dissatisfied*	*Scores*
	+3	+2	+1	0	-1	
Product Attributes						
Quality	53	29	14	6	7	231-7=224
Quantity	41	37	17	9	5	214-5=209
Price	45	39	14	8	3	227-3=224
Taste	57	32	9	5	6	244-6=238
Freshness	37	29	24	11	8	193-8=185
Nutrition value	39	34	19	9	8	204-8=196
Flavors	42	30	21	7	9	207-9=198
Packing	38	41	19	9	2	215-2=213
General attributes						
Availability	31	37	29	9	3	196-3=193
Range of product	37	29	22	17	4	213-4=209
Regularity of supply	42	35	29	2	1	225-1=224
Cold storage facility	45	39	24	1	0	237-0=237
Proximity of retail Shop	39	43	10	10	7	213-7=206

Source: Compiled from field survey

ANNEXURE-B: CALCULATION OF LEVEL OF SATISFACTION WITH REGARD TO FMCGS OF SEMI-URBAN RESPONDENTS

FactF ffd Factors	***Level of satisfaction***					
	Extremely satisfied	***satisfied***	***Neither satisfied nor dissatisfied***	***Dissatisfied***	***Extremely dissatisfied***	***scores***
	+3	+2	+1	0	-1	
Product Attributes						
Quality	29	23	11	7	4	144-4=140
Quantity	35	19	13	2	5	156-5=151
Price	39	21	7	6	1	166-1=165
Taste	37	20	9	5	3	160-3=157
Freshness	31	24	11	3	5	152-5=147
Nutrition value	27	21	17	8	1	140-1=139
Flavors	29	20	17	6	2	144-2=142
Packing	30	16	21	5	2	143-2=141
General attributes						
Availability	39	26	6	1	2	175-2=173
Range of product	36	21	13	1	3	163-3=160
Regularity of supply	29	24	10	7	4	145-4=141
Cold storage facility	28	30	11	4	1	155-1=154
Proximity of retail shop	36	17	15	5	1	157-1=156

Source: Compiled from field survey

ANNEXURE-C: CALCULATION OF LEVEL OF SATISFACTION WITH REGARD TO FMCGS OF RURAL RESPONDENTS

Factors	***Level of satisfaction***					
	Extremely satisfied	***satisfied***	***Neither satisfied nor dissatisfied***	***Dissatisfied***	***Extremely dissatisfied***	***scores***
	+3	+2	+1	0	-1	
Product Attributes						
Quality	27	20	9	7	4	130-4=126
Quantity	23	19	14	9	2	121-2=119
Price	28	17	11	10	1	129-1=128
Taste	21	24	9	7	6	123-6=117
Freshness	31	18	12	5	1	141-1=140
Nutrition value	25	21	9	6	6	126-6=120
Flavors	29	18	11	6	3	134-3=131
Packing	33	11	19	3	1	140-1=139
General attributes						
Availability	29	23	12	2	1	145-1=144
Range of product	31	19	11	5	1	142-1=141
Regularity of supply	30	16	11	7	3	133-3=130
Cold storage facility	29	25	8	4	1	145-1=144
Proximity of retail shop	23	29	10	3	2	137-2=135

Source: Compiled from field survey

PROFITABILITY ANALYSIS OF ICICI BANK

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ABSTRACT
The key objective of any bank is to earn maximum profit. The banks engaged in the money market are aiming to earn profit and profitability position by providing effective means of services to customers such as accepting deposits and share capital and extending loans and advances. These sorts of services may pave the way to earn income and at the same time incur some expenditure. The income and expenditure are the major components that determine the very profitability and viability of the banks. It is plausible that the operational items and balance sheet items influence the profitability. An exercise in these lines would help to identify the factors influencing profitability. These two major components definitely affect the balance sheet of banks and their profitability. It is in this context, an attempt is made to identify the factors influencing the profitability based on operational and balance sheet items in ICICI bank for the period from 2004-05 to 2008-09. The results of the exercise suggest that the bank could increase its profit and profitability by expanding business operations with an increase in personnel expenses (increase in manpower) and increase current assets – loans and advances.

KEYWORDS
Profitability, Factors, Operational Items and Balance Sheet Items.

INTRODUCTION
The key objective of any bank is to earn maximum profit. The banks engaged in the money market aim to earn profit and wish to keep profitability position by providing effective means of services to customers such as accepting the money in the form of deposits and share capital and dispense the money in the form of loans and advances. These sorts of services may help to earn income while involving expenditure. Thus, the income and expenditure are the major components that determine the very profitability and viability of the banks. If the income exceeds the expenditure, it leads to profit. Conversely, if the expenditure exceeds the income, it leads to loss. These two major components would certainly affect a bank's profitability. There are several items of expenditure and income viz., the operational items and balance sheet items. In the context of assessing banks profitability, one has to take into consideration the operational items and balance sheet items. This would give a fair understanding of factors that influence profitability of a bank. Such an understanding would help take decision to increase the profit and profitability of a bank. There are studies on determinants of profitability of banks with regard to public sector banks in India. The studies with reference to private banks which focus on profitability with more quantitative analysis are less. These and other related facts call for an in-depth analysis. It is in this context, the present study is attempted to ascertain the factors influencing the profitability based on operational and balance sheet items in a private sector bank, ICICI bank.

OBJECTIVES OF THE STUDY
The objectives of the study are
- To identify the operational items influencing the profitability of the bank,
- To identify the balance sheet items influencing the profitability of the bank, and
- To offer suggestions if any required for increasing profitability of the bank.

METHODOLOGY OF THE STUDY
The role played and the performance in terms of profitability by the sample bank in recent years in banking sector necessitates taking this study. The present study makes use of secondary data. The data required for the study were collected from the published annual, half yearly and quarterly reports of the sample bank from its official websites. Analysis and interpretation of data have been carried using the statistical techniques such as percentages, CAGR, correlation and multiple regression analysis using SPSS package. The study covers a period of five financial years, i.e., from 2004-05 to 2008-09.

PROFILE OF ICICI BANK
ICICI bank is India's second- largest bank with total assets of about Rs. 125, 229 crore and a network of over 450 branches and offices and about 1790 ATMs. ICICI bank offers a wide range of banking products and financial services to corporate and retail customers through a variety of delivery channels and through its specialized subsidiaries and affiliates in the areas of investment banking, life and non-life insurance, venture capital, and asset management.
The bank provides varieties of bankable products to the customers in a wide range. Those products include, loans such as Home Loan, Personal Loan, Car Loan, Two Wheeler Loan, Commercial Vehicle Loan, Construction Equipment Loans, Office Equipment Loans, Medical Equipment Loans, deposits such as Savings Bank Account and Current Account, Salary account , Recurring deposits, Fixed deposits and Other Products such as Loans against Securities, Issues of Initial Public

Offerings (IPOs), Sale of Pure Gold, and NRI Services which include money transfer, customized bank accounts, investments, loans, insurances, and property solutions. Added to the above products, there are extensive branches and ATM networks and facilities like mobile, phone, internet and doorstep care banking, and experience banking.

The Indian banks, insurance companies, individuals and corporation of the United States, the British eastern exchange bank and other companies and public of India have subscribed to the issued capital of ICICI.

The share holding pattern indicates that, the proportion of non promoters holding institutional investor's is 61.15 per cent. In this, foreign Institutional Investors share is predominant. Other investors such as private corporate bodies, NRIs, OCBs, directors/ employees, and government investors account for 32.73 per cent of total shareholding.

The details of sales operating profit, interest and gross profit, and earning per share are given in table 1.

TABLE 1: SALES AND PROFIT DETAILS OF ICIC BANK

Year/Particulars	Sales	Operating Profit	Interest	Gross Profit	Earning per Share (Rs.)
2004-2005	9,409.90	5,681.95	6,570.89	2,956.00	27.22
2005-2006	14,306.13	7,710.91	9,597.45	4,690.67	28.55
2006-2007	22,994.29	14,077.37	16,358.50	5,874.40	34.58
2007-2008	30,788.34	19,729.57	23,484.24	7,960.69	37.37
2008-2009	31,092.55	20,23918	22,725.93	8,925.23	33.76
CAGR	13.95	14.39	14.22	13.38	3.87

***Source**:* Annual Reports of ICICI Bank www.icici.in

Table 1 shows that the sales and profit details of the ICICI Bank for the period from 2004-05 to 2008-09. Compound annual growth rates have been computed for sales, operating profit, interest, gross profit and earning per share. The total sales volume has increased from Rs. 9409.90 crores in 2004-2005 to Rs. 31,092.55 crores in 2008-09 with a CAGR of 13.95. Operating profit and interest have also increased with the CAGR of 14.39 and 14.22 respectively. Gross profit has increased from Rs. 2956 crores in 2004-05 to Rs. 8925.23 crores in 2008-09 with the CAGR of 13.38. Earning per share has grown with CAGR of 3.87 during 2004-05 - 2008-09.

RESULTS AND DISCUSSION

A) OPERATIONAL ITEMS INFLUENCING THE PROFITABILITY OF THE BANK

The results of operational items influencing the profitability of the bank are presented in this section. Before discussing the results, the variables considered in the study and their descriptions are given below.

DEPENDENT VARIABLE

Y= Reported net profit (Rupees in crores)

INDEPENDENT VARIABLES

x_1 = Operating income (Rupees in crores)
x_2 = Personnel expenses (Rupees in crores)
x_3 = Selling expenses (Rupees in crores)
x_4 = Administrative expenses (Rupees in crores)
x_5 = Adjusted profit before deduction of income tax (PBDIT) (Rupees in crores)
x_6 = Depreciation and other write offs (Rupees in crores)
x_7 = Adjusted profit before tax (PBT) (Rupees in crores)
x_8 = Tax charged (Rupees in crores)
x_9 = Adjusted profit after tax (PAT) (Rupees in crores)

RESULTS OF CORRELATION ANALYSIS

In order to identify the degree of relationship between the selected independent variables with the dependent variable for the period 2004-05 to 2008-09, the lower triangular correlation co-efficient matrix has been computed and presented in the table 2. It can be seen from the table that except two variables namely the selling expenses (x_3) and depreciation and other write offs (x_6), the other variables have significant correlation with the reported net profit (profitability) of the bank.

Variable x_1 is related to the operating income of the bank. As it contains the income earned by the bank from its lending and investment operations. It is expected to have direct relation with the profitability, i.e., the higher the incidence of $x_{1,}$ the higher will be the profitability. The correlation co-efficient is positive (0.99) and significant at 1 per cent level. Hence, it can be stated that there is positive association between Y and x_1. Higher the operating income, the higher will be the profitability and vice versa. Therefore, it is concluded that the operating income is a major determinant of profitability.

The other variables x_2 and x_4 are related to the personnel and administrative expenses of the bank respectively. These are the variables related to the expenses of the bank for undertaking the various personnel and administrative activities. These two variables are to have an inverse relation with the profitability, i.e., the higher the incidence of x_2 and x_4, the lower will be the profitability. But, the correlation co-efficient is positive and significant at 1 per cent and 5 per cent levels respectively. It suggests that increase in personnel and administrative expenses lead to an increase in profitability and vice versa. It could be inferred that the variables the personnel expenses and administrative expenses do have direct relationship with the profitability of the bank.

The other variables namely adjusted PBDIT ($x_{5)}$, adjusted PBT (x_7) and adjusted PAT (x_9) are related to adjusted profit level even before and after calculating depreciation, interest and tax expenses of the bank respectively. These three variables bear positive sign and significant at 1 per cent level. It indicates that there is positive association of these variables with profitability.

Another variable x_8 is related to tax charges of the bank. It is an expense made by the bank so as to fulfill statutory norms related to income to the bank. It has to have an inverse relation with the profitability and vice versa, i.e., the more the tax charges lower will be the profitability. But, the correlation co-efficient of the variable x_8 is positive and significant at 5 per cent level. It leads one to conclude that the increased tax charges result in increased profitability.

TABLE 2: LOWER TRIANGULAR CORRELATION COEFFICIENT MATRIX OF THE BANK BETWEEN 2004-05 AND 2008-09

Variables	Y	x_1	x_2	x_3	x_4	x_5	x_6	x_7	x_8	x_9
Y	1.00									
x_1	0.99(**)	1.00								
x_2	0.99(**)	0.98(**)	1.00							
x_3	0.54	0.50	0.55	1.00						
x_4	0.95(*)	0.98(**)	0.98(**)	0.39	1.00					
x_5	0.97(**)	0.97(**)	0.95(*)	0.33	095(*)	1.00				
x_6	0.14	0.18	0.13	-0.73	0.30	0.36	1.00			
x_7	0.98(**)	0.98(**)	0.96(**)	0.39	0.95(*)	0.99(**)	0.32	1.00		
x_8	0.93(*)	0.96(*)	0.93(*)	0.27	0.97(**)	0.98(**)	0.37	0.97(**)	1.00	
x_9	0.99(**)	0.99(**)	0.98(**)	0.51	0.95(*)	0.98(**)	0.16	0.99(**)	0.94(*)	1.00

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

RESULTS OF MULTIPLE REGRESSION ANALYSIS

In the earlier section, attempt was made to identify the relationship of each independent variable with the dependent variable without having control over the influence of other variables. Therefore, in order to identify the factors influencing the profitability, the stepwise multiple regression analysis has been used. In the first step, since the variable x_9 (adjusted PAT) has the highest positive correlation with profitability, the variable x_9 is excluded from the regression analysis. Subsequently, other variables were added one by one as predictors to show maximum fit. The final results reveal that the variable x_2 (personnel expenses) is the variable which explains the profitability of the bank.

TABLE 3: REGRESSION ANALYSIS DEPENDENT VARIABLE Y = REPORTED NET PROFIT

Model	Beta In	T	Sig.	Partial Correlation	Collinearity Statistics
					Tolerance
x_1	.488(a)	.378	.742	.258	.006
x_3	-.004(a)	-.033	.977	-.023	.693
x_4	-.369(a)	-.832	.493	-.507	.044
x_5	.322(a)	1.175	.361	.639	.091
x_6	.011(a)	.101	.929	.071	.982
x_7	.387(a)	1.388	.299	.701	.076
x_8	.052(a)	.169	.881	.119	.121

a. Predictors in the Model: (Constant), x_2

TABLE 4: REGRESSION CO-EFFICIENT OF SELECTED VARIABLE DEPENDENT VARIABLE Y = PROFIT TO VOLUME OF BUSINESS

Model	Un-standardized Coefficients		Standardized Co-efficients	t	Sig.	R^2	F	Sig.
	Beta	Std. Error						
1 (Constant)	865.900	211.039		4.103	.026			
x_2	1.501	.133	.988	11.267	.001	.977	126.94	.001[a]

a. Predictors in the Model: (Constant), x_2

The co-efficient of multiple determination (R^2) as per step one, being 0.977 indicates that 97.70 per cent of the variations in dependent variable are explained by the independent variable in the model.
The above analysis indicates that the variable viz., the personnel expenses has a significant bearing on the profitability of the bank.

B) ANALYSIS OF THE BALANCE SHEET ITEMS INFLUENCING THE PROFITABILITY OF THE BANK

This section presents the analysis and results pertaining to balance sheet items influencing the profitability of the bank. The variables considered and their descriptions are as follows.

DEPENDENT VARIABLE

Y= Reported net profit (Rupees in crores)

INDEPENDENT VARIABLES

x_1 = Total Owner's Fund (Rupees in crores)
x_2 = Borrowed Funds (Rupees in crores)
x_3 = Net Fixed Assets (Rupees in crores)
x_4 = Capital work in progress (Rupees in crores)
x_5 = Investments (Rupees in crores)
x_6 = Current Assets, Loans & Advances (Rupees in crores)
x_7 = Current liabilities (Rupees in crores)
x_8 = Total Net Current Assets (Rupees in crores)

RESULTS OF CORRELATION ANALYSIS

In order to assess the degree of relationship between the selected independent variables with the dependent variable for the period 2004-05 to 2008-09, the lower triangular correlation co-efficient matrix has been computed and presented in the table 5.
It can be seen from the table that the variables namely total owned funds (x_1), borrowed funds (x_2), investments (x_5), and current assets and loans & advances (x_6) have significant correlation with the profitability of the bank.
Variable x_1 is related to the total owners' fund of the bank. This fund naturally enhances the total funds as well as helps the expansion of the bank. It has a direct relation with the profitability, i.e., the higher the incidence of x_1, the higher will be the profitability. The correlation co-efficient is positive (0.95) and significant at 5 per cent level. Hence, it can be concluded that more the owners' fund, the higher will be the profitability and vice versa. The owners' fund acts as a major determinant of profitability.
The other variable x_2 is related to the borrowed funds of the bank. These funds are mobilized through external sources which help keeping business expansion, but require payment of interest on borrowings. So, it may have an inverse relation with the profitability, i.e., the higher the incidence of x_2, the lower will be the profitability. But, the correlation co-efficient is positive and significant at 5 per cent level. Hence, it can be concluded that increased borrowed funds result in more profitability and vice versa. It could be explained in such a way that with the borrowed funds business expands and more profit is generated even after payment of interest.

Another variable x_6 is related to current assets and loans and advances of the bank. This variable brings returns as interest in short period, which enhances the profitability. Therefore, any increase in current assets and loans and advances will result in increase in the profitability and vice versa. The results show that this variable has positive sign and significant at 1 per cent level. Hence, it can be stated that the positive association of x_6 boosts the profitability level. It could also be stated that current assets and loans and advances is a determinant of profitability.

Another variable x_7 is related to current liabilities and provisions of the bank. This variable signifies the bank's position to repay the liabilities, sometimes if necessary, along with interest and to make the provisions in the short run. So, it should have an inverse relation with the profitability, i.e., more the current liabilities and provisions, the less will be the profitability and vice-versa. But, the correlation co-efficient of the variable x_7 is positive and significant at 5 per cent level. Hence, it can be concluded that increase in current liabilities and provisions result in increased profitability and vice versa.

TABLE 5: LOWER TRIANGULAR CORRELATION COEFFICIENT MATRIX OF THE BANK FROM 2004-05 TO 2008-09

Variables	Y	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8
Y	1.00								
X_1	0.95(*)	1.00							
X_2	0.91(*)	0.76	1.00						
X_3	- 0.11	- 0.27	- 0.20	1.00					
X_4	- 0.64	- 0.78	-0.26	-0.02	1.00				
X_5	0.99(**)	0.91(*)	0.96(**)	-0.19	-0.52	1.00			
X_6	0.96(**)	0.97(**)	0.87	-0.37	-0.65	0.96(*)	1.00		
X_7	0.71	0.64	0.86	-0.32	-0.06	0.80	0.68	1.00	
X_8	- 0.18	0.12	- 0.47	-0.14	-0.48	-0.27	-0.10	-0.22	1.00

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

RESULTS OF MULTIPLE REGRESSION ANALYSIS

In order to identify the combined impact of relevant variables affecting bank profitability, the stepwise multiple regression analysis has been used. In the first step, the variable x_5 (investments) has the highest positive correlation with profitability so the variable $_{X5}$ is excluded from the regression model. Thereafter, subsequent variables were added one by one as predictors to show maximum fit. The final results revealed that the variable $_{X6}$ (current assets and loans & advances) is the variable which explain the variations in profitability of the bank.

TABLE 6: REGRESSION ANALYSIS DEPENDENT VARIABLE Y = REPORTED NET PROFIT

Model	Beta In	T	Sig.	Partial Correlation	Co linearity Statistics
					Tolerance
x_1	.315[a]	.434	.707	.293	.069
X_2	.309[a]	.920	.455	.545	.247
X_3	.282[a]	3.569	.070	.930	.864
X_4	-.033[a]	-.127	.911	-.089	.580
x_7	.103[a]	.391	.733	.267	.536
X_8	-.082[a]	-.427	.711	-.289	.990

a. Predictors in the Model: (Constant), x_6

TABLE 7: REGRESSION CO-EFFICIENT OF SELECTED VARIABLES DEPENDENT VARIABLE Y = ADJUSTED NET PROFIT

Model	Un-standardized Coefficients		Standardized Coefficients	T	Sig.	R^2	F	Sig.
	Beta	Std. Error						
1(Constant)	1147.572	356.898		3.215	.049			
X_6	.085	.014	.959	5.899	.010	.921	34.793	.010[a]

a. Predictors in the Model: (Constant), x_6

The co-efficient of multiple determination (R^2) as per step one, being 0.921 indicates that 92.10 per cent of the variations in profitability of the bank is explained by x_6.

The above analysis clearly indicates that the variable viz., the current assets and loans and advances influences the profitability of the bank very much.

SUMMARY OF MAJOR FINDINGS

- The total sales volume has increased from Rs. 9409.90 crores in 2004-2005 to Rs. 31,092.55 crores with a CAGR of 13.95. Operating profit and interest have also increased with the CAGR of 14.39 and 14.22 respectively. Gross profit has increased from Rs. 2956 crores in 2004-05 to Rs. 8925.23 crores in 2008-09 with the CAGR of 13.38. Earning per share has grown with CAGR of 3.87 during 2004-05 to 2008-09.

- The results of correlation related to the operational items influencing the profitability of the bank reveal that except two variables namely the selling expenses (x_3) and depreciation and other write offs (x_6), the other variables have significant correlation with the profitability of the bank. However, the results of regression related to the operational items influencing the profitability of the bank reveal that the variable x_2 (personnel expenses) is the major determinant of profitability of the bank.
- The results of correlation related to the balance sheet items influencing the profitability of the bank reveal that the variables namely total owner's funds (x_1), borrowed funds (x_2), investments (x_5), and current assets and loans & advances (x_6) have significant correlation with the profitability of the bank. However, the results of regression analysis related to the balance sheet items influencing the profitability of the bank reveal that the variable x_6 (current assets and loans & advances) is the variable which influences the profitability of the bank significantly in the model.

CONCLUSION

The analyses on factors influencing profitability of ICICI bank reveal that two variables viz., one among operational items and the other among balance sheet items seem to clearly explain the variations in profitability (reported net profit) of the bank during the period 2004-2005 to 2008-2009. These variables are personnel expenses and current assets and loans and advances respectively. These variables have positive and significant influence on profitability. If personnel expenses increase, it influences profitability via expansion of business operations. The current loans and advances also have positive and significant bearing on profitability. Given the other factors, the influence of these two variables suggests the expansion of business operations of the bank under study. If at all the bank has to increase its net profit it can do so either by increasing personnel expenses or by expanding current assets, loans and advances or increasing both in a judicious combination. Hence, the bank needs to expand its business operations by increasing personnel expenses (expanding man power) and increasing current assets, loans and advances so as to increase its profitability.

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WHAT SAVED INDIA FROM THE GLOBAL ECONOMIC MELTDOWN?

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ABSTRACT

India's cautious approach towards reforms has saved it possibly from disastrous implications. The monetary and fiscal stimulus measures initiated in the wake of the global financial crisis played an important role, first in mitigating the adverse impact from contagion and then in ensuring that the economy recovered quickly. Despite all odds, India has managed to achieve 7.2 per cent economic growth rate in 2009-10. The uptrend in Industrial activity continued. The Indian economy is firmly on its recovery path. The leading indicators which saved India like nationalization of banks, RBI measures, welfare measures by government, stimulus packages, internal demand, savings of the people, high foreign exchange reserves and left parties.

KEYWORDS

Meltdown, Nationalisation, Foreign Exchange and Left Parties.

INTRODUCTION

In the global economic meltdown no country has been spared, be it big or small, developing or developed, relatively insulated or more open. Though the crisis was led by financial sector, the shock has impacted both the financial and real sectors. Many of American, European and Japanese companies are facing severe crisis of liquidity and credit. The impact of the crisis can be gauged from the sharp upward revisions to the estimates of possible write-downs by banks and other financial institutions from about US$ 500 billion in March 2008 to about US$ 3.5 trillion in October 2009. More than the financial cost, the adverse impact on the real economy has been severe: in 2009, the world Gross Domestic Product (GDP) is estimated by the International Monetary Fund (IMF) to have contracted by 0.8 per cent and the world trade volume is estimated to have declined by 12 per cent. The World Bank measured that the global economy was shrink by 2.2% during the year 2009 and global output is projected to grow only 2.7 and 3.2 percent in 2010 and 2011 respectively. The US Bureau of Labour Statistics determined that, the US unemployment has reached the highest level of 9.7 per cent as on February 2010 since 1983. It is a well known fact that governments are apprehensive regarding the future of most of the economies which are greatly dependent on the US for foreign investments. There is no doubt that India is also one of the victims of the global turmoil. The Indian economy, which was on a robust growth up to 2007-08, averaging at 9 per cent during the period 2003-04 to 2007-08, witnessed decline to 6.7 per cent in 2008-09. The impact has been felt by the domestic credit equity and forex markets leading to slowing down in the growth rate and employment generation. Similarly, the world trade does not function in isolation, all countries economies are interlinked to each other and any major fluctuation in trade balance and economic conditions causes numerous problems for all other economies.

Despite all odds, India has managed to achieve 7.2 per cent economic growth rate in 2009-10. The uptrend in Industrial activity continued. The Indian economy is firmly on its recovery path. The improved profitability of the industrial sector is also reflected in the corporate sector. The leading indicators of various sectors such as tourist inflows, commercial vehicles production and traffic flow at major ports showed a significant improvement. A uniform increase in bank credit and the financial resources raised by the commercial sector from non-bank sources also suggest that the recovery is gaining momentum. There are many countries such as Greece, Spain, Portugal etc. which are still struggling to bailout from the global economic turmoil. India is on the right path of development. What is the secret behind this? And what saved India from this recession?

India's cautious approach towards reforms has saved it possibly from a disastrous implications. The monetary and fiscal stimulus measures initiated in the wake of the global financial crisis played an important role, first in mitigating the adverse impact from contagion and then in ensuring that the economy recovered quickly. The following fundamental factors contributed to save India from the recession, they are:

1. NATIONALISATION OF BANKS

The then Prime minister Mrs. Indira Gandhi, with a long vision, nationalized 14 and 6 scheduled commercial banks in 1969 and 1980 respectively with a view that the government has a majority control over the banks for public accountability, Because of nationalisation the banks were not able to take decisions on their own and acted according to the government instructions. This made the banks to work within the purview of the certain limitations. Mr. Pranab Mukherjee, the Finance Minister rightly mentioned that "at the time when banks in the US and Europe needed government support for survival, banks in India were strong enough to sustain on their own. While their banks were open to the private sector and faced the brunt of recession. We have stuck to the policy, even with pressure from all corners and political parties; we have not opened up our banking sector completely to the private sector or market forces. Hence, it can be deduced that this made the country to save from the recession.

2. STEPS TAKEN BY RESERVE BANK OF INDIA (RBI)

The main cause for the financial crisis is the sub-prime crisis and innovative products in financial services sector. This made many banks to announce bankruptcy in America and Europe. But the financial institutions in India were working in healthy condition and in fact it also offered thousands of jobs to the public. The prudent regulatory surveillance and effective supervision by RBI have ensured that the Indian Financial sector has been and continues to be robust. The RBI has taken swift and effective action to make the banks comfortable by substantial reduction in CRR, SLR, Repo rate, etc. The RBI Regional Director, Mr. Joseph, F.R. has stated in an occasion that, for several foreign banks survival was at stake due to existential problems but the banks in India been insulated against the effects of the global meltdown by the foresight and prudential measures taken by the RBI over the past few years. While many foreign banks were announcing lay offs, banks here were still recruiting people.

Mr. Joseph also revealed that the impact of the global meltdown on India's financial system so far has been negligible, and the credits in the last year by banks grew by 18 per cent and that showed that banks have been lending. The RBI too has released adequate funds to the tune of Rs.4 lakh crore into the banking system between September 2008 and April 2009. Similarly, the RBI monetary easing measures such as reduction in Cash Reserve Ratio and key interest rates have helped the banks to reduce the interest rate regime and increase affordability. Further, it was the conservative policies adapted by the Indian Banking system. New York Times louded the tough lending standards imposed by Y.V. Reddy, Governor, RBI, on the Indian banks, for saving the entire Indian banking system from the massive sub-prime and liquidity crisis of 2008 and beyond. The RBI Governor, made sure that Indian banks too did not get caught up in the bubble mentality. He banned the use of bank loans for the purchase of raw land, and sharply curtailed securitizations and derivatives, and essentially prohibited off-balance sheet financing.

3. WELFARE MEASURES IMPLEMENTED BY GOVERNMENT OF INDIA (GOI)

The GOIs timely actions insulated the Indian Economy from world financial crisis. The Indian economy too was jolted but the social sector schemes aimed to provide employment to the poor suddenly appeared from nowhere to keep consumption and demand for everyday goods and services up. The poor continued to buy his daily quota of bread, oil, lentils and other consumer goods. Naturally the factories kept producing and profits continued to come. The loan waiver for farmers and the Mahatma Gandhi Rural Employment Guarantee Act improved the purchasing power in the agricultural sector. The government also worked on the principle of welfare of the people rather than profit- making. It is this unique element of the Indian culture which could have saved it from the global crisis.

4. STIMULUS PACKAGES ANNOUNCED BY GOVERNMENT

A number of incentives and measures have been announced in economic stimulus package of India. These have been drawn up by government to infuse a sense of optimism in minds of investors and industrialists. Indian economic stimulus package was announced in December 2008 to cushion the impact of global financial crisis. The Central government announced an economic stimulus package of $4 billion to shield its economy from the impact of the recession. A substantial increase in government expenditure coupled with a cut in interest rates by Reserve Bank of India aim towards raising aggregate demand. Incentive schemes in Indian economic stimulus amounting to $70 million have been allocated to boost exports. Measures have been taken such as reduction in excise duty, export, interest subvention for all labour intensive units and SMEs, additional funding towards export incentives and special packages to sectors such as textiles industry has supported the exporters and entrepreneurs withstand the onslaught of the global meltdown. Lending rates on housing loans for low and middle income segments have been reduced. Medium and small businesses are being provided tax exemptions and tax holidays. Reserve Bank of India has reduced its lending rate to 6.5% and its borrowing rate to 5%. A 10-point India economic stimulus package program, charted by Prime Minister Manmohan Singh, is targeted at reviving the most badly affected sectors of Indian economy like housing, automobiles, infrastructure, power and medium and small industries. A funding of Rs.300 billion has been earmarked for this. An additional funding of Rs.100 billion in the form of tax free bonds has been earmarked for India Infrastructure Finance Company Limited.

5. INTERNAL DEMAND OF THE COUNTRY

India's consumer confidence didn't let the economy down. The 6th Pay Commission contributed to about 1.5 per cent of GDP spread over 5.5 million government employees' boosted the domestic purchasing power. Debt waiver for farmers improved purchasing power in the agricultural sector. The Rural Employment Guarantee Scheme improved the purchasing power of the villagers. ''Bottom of the pyramid sustains the economy of the country. The purchasing power of the common man made Indian economy to weather the global economic crisis,'' said Union Minister for Law and Justice Mr. Veerappa Moily.

6. SAVINGS OF THE PEOPLE

Saving for the future instead of spending on short- term desires is a tendency imbibed in the psyche of the Indian masses. Before thinking at an individual level, the expenditure is always thought collectively in terms of family which makes the entire money- making system unique in India. Manmohan Singh, who is not only India Prime Minister but an excellently trained economist, has constantly stressed the need to raise India's savings and investment rates and has made this a foundation of his economic policy – with considerable success, as has been seen, in terms of sustaining high growth rates. Gross domestic savings and gross capital formation are usually expressed as proportions of the GDP at current market prices. The table-1 shows that the gross domestic savings had increased from Rs. 871 crores in 1950-51 to Rs. 1779614 crores in 2007-08, when compared to the year 1990-91 to 2007-08 the gross domestic savings had been increased more than 12 times.

TABLE – 1 : SECTOR-WISE DOMESTIC SAVINGS (At Current Prices) (Rupees in crores)

Year	House Hold Sector			Private Corporate Sector	Public Sector	**Gross Domestic Savings (4+5+6)**	**Net Domestic Savings**
	Financial Savings	Physical Savings	Total				
1	2	3	4	5	6	**7**	**8**
New Series (Base : 1999-2000)							
1950-51	62	516	578	93	200	**871**	**3**45
1960-61	456	680	1136	281	535	**1952**	1105
1970-71	1371	3000	4371	672	1528	**6571**	4009
1980-81	8610	10114	18724	2339	5818	**26881**	15145
1990-91	49640	55149	104789	15164	10057	**130010**	78932
2000-01	215219	239634	454853	81062	-36882	**499033**	297215
2001-02	247476	256689	504165	76906	-46186	**534885**	306588
2002-03	253255	309985	563240	99217	-15936	**646521**	396014
2003-04	313260	350804	664064	127100	29521	**820685**	540637
2004-05	317546	399328	716874	212048	68951	**997873**	668832
2005-06	420974	443679	864653	276550	86823	**1228026**	847714
2006-07	482822	512076	994898	342284	137926	**1475108**	1038071
2007-08	553289	596846	1150135	416936	212543	**1779614**	1270165

Note: 1. 2006-07 data are provisional
2. 2007-08 data are based on quick estimate

Source: Central Statistical Organisation (CSO)

As per the revised series, it is seen from the table-2 that the Indian grow domestic savings has grown from 23.5 per cent in 2001 to 32.5 per cent in 2008 and the gross rate of investment increased from 22.8 per cent in 2001 to 34.9 per cent in 2008. This demographic dividend in the form of growing capital stock and technological improvements will help India's economic resurgence in the years to come.

TABLE – 2: SAVINGS AND INVESTMENTS (AS A PERCENTAGE OF GDP)						
	Savings		Investment		Saving- Investment Gap	
Countries	2001	2008	2001	2008	2001	2008
1	2	3	4	5	6	7
Advanced Economies *Of which*	**20.4**	**19.5**	**20.9**	**21.0**	**-0.5**	**-1.5**
United States	16.5	12.6	19.3	18.2	-2.8	-5.6
Japan	26.9	26.6	24.8	23.5	2.1	3.1
Germany	19.5	25.6	19.5	19.2	0.0	6.4
United Kingdom	15.4	15.3	17.4	17.0	-2.0	-1.7
Euro area	21.2	21.4	21.1	22.2	0.1	-0.8
Emerging and Developing Economies *Of which*	**25.0**	**34.8**	**24.4**	**30.9**	**0.6**	**3.9**
Developing Asia	31.5	47.7	30.1	41.9	1.4	5.8
China	38.4	49.2	36.3	42.6	2.1	6.6
India	23.5	32.5	22.8	34.9	0.7	-2.4
Middle East	29.7	41.9	23.4	22.8	6.3	19.1
Commonwealth of Independent States	28.8	30.9	21.8	26.2	7.0	4.7
Note: Data for China is from the World Development Indicators Online Database, World Bank; data for India is from the national source (CSO). **Source**: World Economic Outlook (WEO), October 2009, IMF.						

7. HIGH FOREIGN EXCHANGE RESERVES

The Asian Financial Crisis of 1997-2000 made the Asian countries to suffer a lot. After this Asian countries began generating huge savings surpluses, manifested in huge current account surpluses. Excess Forex reserves have saved Asian countries including India in the recessionary crisis. The table-3 displays that, the Indian foreign exchange reserves have increased more than five folds from US$ 46 billion in 2001 to US$ 248 billion in 2008.

Table-3 : Foreign Exchange Reserves – Emerging and Developing Economie (US$ billion)		
Countries	2001	2008
1	2	3
Emerging and Developing Economies *Of which*	**857**	**4,963**
Developing Asia	380	2,538
China	216	1,950
India	46	248
Middle East	135	826
Commonwealth of Independent States	44	504
Russia	33	413
Western Hemisphere	159	498
Brazil	36	193
Mexico	45	95
Source: WEO, October 2009, IMF.		

8. EFFORTS OF LEFT PARTIES

The United Progressive Alliance (UPA) government, supported by the Left Parties, assumed office in May 2004. During the period the UPA government thought of to introduce some policies such as full capital account convertibility, allowing the foreign banks to takeover private Indian banks, the privatization of pension funds, and increasing FDI in insurance sector. This attempt was stopped by left parties, which helped the Indian economy in minimizing the disastrous impact of American financial crisis. Mr. Sitaram Yechuri, Politburo Member, CPI (Marxist) mentioned that, if the four measures that the UPA government were wanting to bring about were not stopped by us in the last four years i.e. capital account convertibility, allowing of foreign banks to virtually takeover private Indian banks, the privatization of pension funds or on the question of increased FDI in insurance, India would have now been in a deeper crisis due to the global recession.

Prabhat Patnaik, Kerala State Planning Board vice-chairman has said that the Left parties intervention in the government policies to the capital account convertibility would have allowed the rich to take out their investment from India anytime. Such a situation would have deepened the financial crisis in the country. The rupee would have fallen further. The collapse of the rupee would make the life miserable for the common man. He said the free market ideology has taken a knock.

9. LESS EXPOSURE TO INTERNATIONAL ECONOMY

China is the fastest growing economy in the world followed by India. The growth in China's economy is due to manufacturing goods and exporting them. But the Indian economic growth is different from that of China. The manufacturing companies and service organizations in India, are serving more to domestic demands than exporting which made the country to come out with flying colours from the recession. Union Law Minister M. Veerappa Moily said that, domestic demand and less exposure to the international economy protected India from the global recession.

CONCLUSION

The impact of the global economic crisis has led to a significant lowering of growth estimates all over the world. It is not only affected the developed nations but developing countries too. India too was not insulated from this. However, India has managed to achieve 7.2 per cent GDP growth during the period of 2009-10. This could be attributed mainly to the structure of economy, strong growth in domestic consumption, nationalization of banks, prudent measures taken by RBI, welfare measures and stimulus packages announced by government, savings of the people, maintaining huge forex reserves and less exposure to international economy are the factors which saved the country from turmoil. Although some factors helped limit the adverse impact on the Indian economy, there is no room for complacency. As highlighted by RBI Governor Dr. Subba Rao, there are lessons from the crisis for India too which include (i) further strengthening regulations at the systematic and institutional levels. As the current crisis shows, the problems in finance and financial regulations need to be addressed at a national as well as global level to ensure that the benefits of financial developments become more widespread and enduring in nature. Thus what is needed is not more regulations but sharper regulation of the financial system to ensure sustained financial development with stability.

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PERFORMANCE AND RISK ANALYSIS OF MONTHLY INCOME PLANS (MIP) OF SELECTED MUTUAL FUNDS

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ABSTRACT

The study evaluates the performance and risk of monthly income plans of selected mutual funds with an objective to identify the top performing monthly income plan amongst the selected plans. The study has analyzed growth performance on the basis of returns of 6 months, 1 year, 3 years and since inception returns. Growth performance of the funds have been compared with industry average, and its benchmark index i.e., CRISIL MIP Blended Index. The Standard Deviations, Sharpe Ratio and Beta of the selected schemes have been compared to analyze volatility of the schemes and return per unit of risk. The study ends up with identifying top performing monthly income plans for relatively aggressive and conservative risk profile investors.

KEYWORDS

Performance, CRISIL, Volatility, Risk, Aggressive, Conservative.

INTRODUCTION

A monthly income plan can be thought of as budget for a retirement income. Rather than reaching retirement and spending your nest egg by making random withdrawals of varying amounts, a monthly income plan can ensure to receive a stable amount of funds each month to spend, which limits the risk of over-spending. In this regard, an MIP is similar in many ways to an annuity. MIPs are launched with the objective of giving a monthly income to investors, but the periodicity depends upon the option chosen by the investor. These are generally monthly, quarterly, half yearly and annual options. A growth option is also available, where the investors do not receive regular dividends, but gains in the form of capital appreciation.

Monthly Income Plans or MIP's are a category of mutual funds that invest mainly in debt instruments. In monthly income plans, 80-90 percent of the funds are invested in debt instruments, and about 10-20% of the assets are allocated to equity stocks to give good return to investors. These plans facilitate the investors to maintain a low risk portfolio and generate regular and stable returns. The returns in these funds are available on monthly, quarterly, half-yearly or annual returns to the investors; depend upon the option chosen by the investor. These plans are flexible as investor can easily redeem MIP's units. These plans are suitable for conservative investors who want to earn marginally better returns than an only debt portfolio. MIP's are most suitable investment vehicle for retired and senior citizens who need regular or monthly dividend. However, like any other fund of mutual fund, market risk also affects the returns of monthly income plans.

CATEGORIES OF MONTHLY INCOME PLANS

MIP's can be classified into following two categories i.e. MIP – Conservative, and MIP – Aggressive. MIP conservative category includes schemes with a maximum equity component of less than 15 percent, whereas MIP – Aggressive comprises schemes with a maximum equity investment of upto 30 percent. A common feature of both MIP's is the regular declaration of dividends (mostly monthly). The Crisil MIPEX (benchmark for MIPs) returned 7.92 percent over the period of June 2009 end quarter compared to 0.16 percent in the previous quarter.

REVIEW OF LITERATURE

According to Gupta LC (1981) presented a detailed and well-based estimate of "Portfolio" rate of return on equities. This pioneering study in the Indian context has been a major contribution in this field and is regarded as the benchmark on the rate of return on equities for the specified time. He laid the basis of rate of return concept in performance evaluation.

Jain (1982) evaluated performance of unit trust of India (UTI) during 1964-65 to 1979-80, including the profitability aspects of unit scheme 1964, unit scheme 1971 and unit scheme 1976. He concluded that its real rate of return have been low indicating overall poor, performance of UTI Schemes. There has been so significant increase in the profitability over the years.

Arnaud (1985) has suggested that there are three basic measurements of the performance of investment trust company at three basic levels in terms of capital changes. As per the first approach, market value of investments is to be monitored duly adjusted for liabilities. In the second approach NAV per unit is measured and it is considered as more acceptable measure of mutual fund performance. Third level of measurement is to follow share price movements.

Stopp (1988) had evaluated mutual fund schemes (UK) in terms of rate of return generated for the investors for the period ended December 31, 1986. He also examined inter-group performance by re-grouping the sample into four broad categories. He suggested that choosing funds based on outstanding performance might be a recipe for disaster as the sectors, which tend to produce the most outstanding performance may also carry the greatest risk.

Grinblatt and Sheridan (1989) evaluated performance in terms of gross returns of mutual funds. They constructed eight portfolio benchmark based on firm size, dividend yield and past returns. One month T-Bills were used as risk-free return. The period of study was December 31, 1974 to December 31, 1984. The findings revealed that abnormal performance of the funds based on gross returns is inversely related to the size. They pointed out that superior performance may exist for funds with smallest size of net assets value. But due to high expenses, the investors are unable to take advantage of their superior performance.

According to Fredman (1996) the combined effect of capital charges and income received contribute to the total return or overall rate of return generated by the fund. Total return considering both these factors is the most appropriate absolute measure of performance evaluation.

Haslem (1988) evaluated fund performance by comparing the fund return with the return on market portfolio with the comparable risk. The fund's systemic risk, beta co-efficient is used to compare portfolio risk relative to the market risk. 'Beta' is a measure of risk of the fund's portfolio relative to the risk of the market portfolio.

Radcliff (1994) had concluded in his work that to receive greater average yearly returns, the investors must accept greater variability in returns; they should have higher risk tolerance level.

Hudson (1997) 'Wherever performance evaluation is implemented, there will always be two key ingredients (a) a measure of return and (b) a measure of risk, over a given time horizon. Proper evaluation and comparison is possible only if the reporting standard is of high quality and there are well based standards for calculating NAVs.

Treynor (1965) and Sharpe (1966) have provided the conceptual framework of relative measure of performance of equity mutual funds while Treynor used systematic risk. Sharpe used total risk to evaluate the mutual fund portfolio performance higher value of Treynor's index indicates better performance of portfolio and vice versa. The Treynor's measure of portfolio performance is relative measure that ranks the funds in terms of risk and return. The index is also termed as reward to volatility ratio.

Higher value of Sharpe's index indicates better performance of portfolio and vice versa. The Sharpe's measure of portfolio performance is also relative measure that ranks the funds in terms of risk and return. The ratio is also termed as reward to variability ratio.

Fama (1972) advocated yet another measure of portfolio performance Fama suggested that overall portfolio performance has two components first the performance due to stock selection ability of the fund manager and second the performance due to higher portfolio risk assumed by the fund manager.

Fredman (1996) suggested that the risk is measured in terms of the variation or volatility of the fund's net Asset value. The more extreme are the fluctuations in aggregate value of the assets of the fund over a period, the greater is the volatility or risk. The author has described standard deviation as the most insightful and dependable barometer of measuring volatility or risk.

Daniel (1997) has concluded that the 'persistence in mutual funds performance' is due to the use of simple momentum strategies by the fund managers rather than due to certain fund managers having 'hot hand' that allow them to pick winning stocks. Results show that particularly aggressive growth funds exhibit some "selectivity" ability but no "timing ability."

Barua and Uerma (1991) provided empirical evidence of equity mutual fund performance in India. They studied the investment performance of India's first 7 year close-end equity mutual fund, Mastershare. They concluded that the fund performance satisfactory for large investor in term of rate of return.

Vaid (1994) looked at the performance in terms of the ability of the mutual fund to attract more investors and higher fund mobilization. It shows the popularity of the mutual fund as it is perceived to pay supervisor returns to the investors. She concludes that even for equity - Oriented funds, investment is more in fixed income securities rather than in equities, which is a distortion.

Gupta and Sehgal (1997) evaluated mutual fund performance over a four year period, 1992-96. The sample consisted of 80 mutual fund schemes. They concluded that mutual fund industry performed well during the period of study. The performance was evaluated in terms of benchmark comparison, performance from one period to the next and their risk return characteristics.

Mishra (2001) evaluated performance over a period, April 1992 to December 1996. The sample size was 24 public sector sponsored mutual funds. The performance was evaluated in terms of rate of return, Treynor, Sharpe and Jensen's measure of performance. The study also addressed beta's instability issues. The study concluded dismal performance of PSU mutual funds in India, in general, during the period 1992-96.

Singh and Meera (2001) in their book presented a framework for conducting critical appraisal of mutual fund performance in the Indian context and reviewed the performance of Unit Trust of India (UTI) and Private and money market mutual funds.

Sadhak (2003) in his book suggested several improvements in the strategic and operational practices of mutual funds keeping in mind the mechanisms used by fund managers in developed economies.

Sondhi (2004) studied the financial performance evaluation of equity oriented mutual funds on the basis of type size and ownership of mutual funds using the measure of absolute rate of return, comparison with benchmark (BSE 100) and the return on 364 days T-Bills and risk adjusted performance measure (Sharpe, Treynor, Jensen's Alpha and Fama).

STATEMENT OF THE PROBLEM

The literature review revealed that none of the researchers has so for examined the performance of monthly income plans of mutual funds in India. Hence, the present study is an attempt to evaluate the growth performance and inherent risk of Monthly Income Plans of selected mutual funds in India. Monthly Income Plans are suitable for those investors who need regular and less risky income. The expected output of the study is to unearth top performing Monthly Income Plans amongst the selected plans for advice to relatively aggressive and conservative investors looking for several regular income avenues.

OBJECTIVES OF THE STUDY

The objective of the present study to analyze the performance of Monthly Income Plans in comparison to average performance of similar category funds, and its benchmark i.e. CRISIL MIP- Blended Index. Further, it strives to find out the best performing Monthly Income Plan in terms of Risk return matrix over the selected period of study.

NATURE AND SCOPE OF STUDY

The present study is empirical in nature. This present study is based on secondary data, and all the relevant information has been collected from Books, Journals, Magazines, Newspapers, and Websites providing information about mutual funds. The present study evaluates 10 open- ended Monthly Income Plan schemes of selected mutual funds. The schemes selected for analysis are Birla Sun Life Monthly Income Plan – Growth, Birla Sun Life Monthly Income Plan - Wealth 25 Growth, DSP Black Rock Saving Manager Fund - Aggressive Growth, H.D.F.C. Monthly Income Long Term Plan – Growth, H.S.B.C. Monthly Income Plan Saving Plan – Growth, ICICI Prudential Income Mutiplier Fund – Cumulative, ICICI Prudential Monthly Income Plan – Cumulative, Principal MIP Plus Growth, Reliance MIP Growth, UTI MIS Advantage Fund Growth.

ANALYSIS OF DATA

It comprises of analysis and interpretation of the collected data of selected Monthly Income Plans. It has been classified into the following parts.

(a) The collected data has been analyzed on the basis of returns of 6 months, 1 year, 3 years and since inception returns.

(b) The selected returns of selected Monthly Income Plans have been compared with Average Performance of similar Category funds and CRISIL MIP Blended Index

(c) The Standard Deviations, Shape Ratio and Beta of the selected schemes have been compared to analyze volatility of the schemes and return per unit of risk.

TOOLS USED FOR DATA ANALYSIS

1. COMPOUNDED ANNUAL GROWTH RATE: CAGR represents the smoothed annualized gain earned over the investment time horizon. CAGR is not an accounting term, but remains widely used particularly in growth industries or to compare the growth rates of two investment projects. Because CAGR dampens the effect of volatility of periodic returns that can render arithmetic means irrelevant. CAGR is often used to describe the growth over a period of time. Eg. Revenue, Units delivered etc.

$$\mathrm{CAGR}(t_0, t_n) = \left(\frac{V(t_n)}{V(t_0)}\right)^{\frac{1}{t_n - t_0}} - 1$$

$V(t_0)$: start value,
$V(t_n)$: finish value,
$t_n - t_0$: number of years.

2. ABSOLUTE RETURN: In general a mutual fund seeks to produce returns that are better than its peers its fund category or the market as a whole. This type of fund management is referred to as a relative return approach to fund investing. As an investment vehicle an absolute returns fund seeks to make positive returns by employing investment management techniques that differ from traditional mutual fund. Absolute returns investments techniques include using short selling, futures, options, derivatives, arbitrage, leverage and unconventional assets.

3. STANDARD DEVIATION: Standard Deviation is a statistical measurement applied to the annual rate of return of an investment to measure the investment's volatility. S.D. is the deviation of the readings from the mean of the readings, higher S.D. indicates higher volatility and higher risk of the scheme.

$$S = \sqrt{\frac{\sum_{k=1}^{n} (r_k - r_{expected})^2}{n-1}}$$

S= Standard deviation
r_k = specific return
$r_{expected}$ = Expected return
n= No. of return (sample size)

4. SHARPE RATIO: A ratio developed by Wiilliam F. Sharpe, to measure risk - adjusted performance, the Sharpe ratio is calculated by deducting the risk- free rate from the rate of return for a portfolio and dividing the result by the standard deviation of portfolio returns. It is calculated as :

$$\text{Sharpe Ratio} = \frac{\bar{r}_p - rf}{\sigma p}$$

Where

$\bar{r}_p$ = Expected Portfolio Return
Rf = Risk free rate
σp = Portfolio Standard deviation

Sharpe Ratio is a measure of the effectiveness of the fund manager who manages the scheme, it shows the "Units of returns" generated for every unit of risk taken. Normally schemes with higher "Returns per unit risk" are more efficiently and effectively managed schemes.

5. BETA: Beta is the measure of a fund's (or stock's) volatility (or systematic risk), relative to the market or benchmark. Beta is used in the capital asset pricing model (CAPM), a mode that calculates the expected return of an asset based on its beta and expected market returns. Beta is calculated using regression analysis. Beta expresses the fundamental tradeoff between minimizing risk and maximizing returns. A beta of 1 indicates that the security's price will move with the market, a beta of less than 1 indicates that security price will be less volatile than the market. More than 1 indicates that the security price will be more volatile than the market.

Formula for Beta of an asset within a Portfolio:

$$\beta_a = \frac{\mathrm{Cov}(r_a, r_p)}{\mathrm{Var.}(r_p)}$$

Where r_a measures the rate of return of asset r_p measures the rate of return of portfolio Cov (r_a, r_p) is co-variance between rates of return.

RESULTS AND DISCUSSION

(A) COMPARATIVE ANALYSIS OF PERFORMANCE OF SELECTED MIP GROWTH SCHEMES

1. Table 1 depicts the performance of selected MIP's Growth schemes over the period of last 6 months, 1 year, 3 year and since inception respectively. It also depicts the Average Industry Returns and it benchmark index returns i.e. CRISIL MIP Blended Index. Analysis of table 1 clearly reveals that compounded annualized percentage returns since inception varies between 9.23 percent and 12.45 percent. The highest since inception returns of 12.45percent are depicted by H.D.F.C. Long Term Plan Growth. It is followed by Birla Sun Life Monthly Income Plan Growth (12.29percent), and Reliance MIP Growth (11.60percent). It is found that Birla Sun Life Monthly Income Plan Wealth 25 - Growth has given the minimum Compounded Annualized Percentage Return of 9.23percent respectively.

2. Analysis further shows that compounded annualized percentage returns over the period of last 3 years ranges between 7.48 percent to 12.18 percent. Reliance MIP- Growth stands at first position with 12.18percent Compounded annualized percentage return. It is followed by Principal MIP Plus Growth (12.10 percent), H.D.F.C. Long Term Plan Growth (11.73 percent), respectively. The Birla Sun Life Monthly Income Plan wealth 25 - Growth has shown minimum Compounded annualized percentage returns of 7.48 percent over the period of last 3 years.

TABLE 1: PERFORMANCE OF SELECTED MIP GROWTH SCHEMES

S.No.	Scheme Name	Absolute returns (%)		Compounded Annualized Returns (%)	
		6 Months*	1 Year*	3 years**	Since Inception **
(1)	Birla Sun Life Monthly Income Plan Growth	15.03	17.55	10.66	12.29
(2)	Birla Sun Life Monthly Income Plan Wealth 25- Growth	21.14	17.12	7.48	9.23
(3)	DSP Black Rock Saving Manager Fund- Aggressive Growth	14.75	13.02	10.08	11.09
(4)	H.D.F.C. Monthly Income Long Term Plan – Growth	26.86	20.83	11.73	12.45
(5)	H.S.B.C. MIP Saving Plan Growth	15.34	16.75	11.18	10.36
(6)	ICICI Prudential Income Multiplier Fund – Cumulative	22.18	15.11	8.46	10.58
(7)	ICICI Prudential MIP Cumulative	15.05	14.32	8.48	9.98
(8)	Principal MIP Plus Growth	19.60	13.52	12.10	9.96
(9)	Reliance MIP Growth	20.13	25.54	12.18	11.60
(10)	UTI MIS Advantage Fund – Growth	16.57	16.98	10.45	10.73
	Average Performance of Similar Category Funds	**20.48**	**18.7**	**10.38**	**10.83**
	Crisil MIP Blended Index.	**9.79**	**10.29**	**7.81**	**9.29**

*Absolute Returns ** Compounded Annualized Returns as on 4 September, 2010

Source: www.valueresearchonline.com

3. Analysis further shows that as a whole, all the selected schemes have outperformed the benchmark index i.e. CRISIL MIP Blended Index over the period of last 6 months, 1 year and 3 years respectively. Only one scheme i.e. Birla Sun Life Monthly Income Plan Wealth 25 - Growth have underperformed the CRISIL MIP Blended Index over the period of last 3 years. All the selected schemes have outperformed the industry index i.e. Average Performance of similar category funds. Over the period of last 3 years these 4 schemes i.e. Birla Sun Life Monthly Income Plan Wealth 25 growth, D.S.P. Black Rock Savings Manager Fund Aggressive, ICICI Prudential Income Multiplier Fund cumulative, ICICI Prudential MIP - Cumulative have underperformed the industry index over the period of last 3 years respectively. Most of the schemes have outperformed the benchmark index, i.e. CRISIL MIP Blended Index and Industry Index i.e. Average Performance if similar category funds have outperformed over the period of study. Only one scheme i.e. ICICI Prudential MIP Cumulative has underperformed the Industry Index over the period of study.

(B) ANALYSIS OF RISK AND VOLATILITY RATIOS OF MIP SCHEMES

Table 2 highlights the Standard Deviation (S.D.), Sharpe Ratio (Return per units of risk) and Beta Ratio.

TABLE 2: RISK & VOLATILITY RATIOS OF SELECTED MIP SCHEMES

	Scheme Name	Standard Deviation	Sharpe Ratio	Beta Ratio
1.	Birla Sun Life Monthly Income Plan Growth	7.86	0.84	0.67
2.	Birla Sun Life Monthly Income Plan Wealth 25 – Growth	12.42	0.18	1.11
3.	D.S.P. Black Rock Saving Manager Fund Aggressive	6.53	0.86	0.59
4.	H.D.F.C. Monthly Income Long Term Plan – Growth	10.63	0.63	0.94
5.	H.S.B.C. MIP Saving Plan – Growth	8.18	0.46	0.71
6.	ICICI Prudential Income Multiplier Fund Cumulative	12.75	0.11	1.13
7.	ICICI Prudential MIP Cumulative	9.88	0.23	0.76
8.	Principal MIP Plus Growth	8.31	0.40	0.76
9.	Reliance MIP Growth	10.42	1.17	0.80
10	UTI MIS Advantage Fund Growth	7.88	0.32	0.72

Source: www.valueresearchonline.com

1. D.S.P. Black Rock Saving Manager Fund - Aggressive has been ranked at first position in terms of risk and volatility analysis. D.S.P. Black Rock Saving Manager Fund has lowest S.D, Beta and higher Sharpe ratio i.e. 6.53, 0.59 MIP and 0.86 amongst all the selected funds. In terms of Risk Grade, the selected schemes are below average i.e. it is less risky and better for investment purpose.

2. Birla Sun Life M.I.P. Growth has been ranked at second position with lowest S.D. and Beta and higher Sharpe Ratio i.e. 7.86, 0.67 and 0.84. The Birla Sun Life MIP Growth has been selected for investment in terms of risk volatility analysis. The selected scheme has been treated as less risky amongst all the selected MIP schemes.

3. H.D.F.C. Monthly Income Long Term Plan - Growth has been treated as high risk and high return in term of risk grade. The selected fund ranked at more risky investment with high S.D. and Beta i.e. 10.63 and 0.94 and Sharpe Ratio 0.63. But on the basis of return, H.D.F.C. plan has outperformed the Industry Average and CRISIL MIP Blended Index.

4. Reliance MIP - Growth has been preferred for investment purpose with highest Sharpe Ratio i.e. 1.17. But the risk is also high because of highest S.D. and Beta i.e. 10.42 and 0.80. The selected fund has been treated as high risk and high return aggressive fund.

5. UTI MIS Advantage Fund has been treated as risky investment but in terms of return UTI MIS Advantage Fund has outperformed the benchmark index i.e. CRISIL MIP Blended Index over the period of study. The S.D., Sharpe and Beta are 7.88, 0.32 and 0.72 respectively. The selected fund has shown minimum expense ratio i.e. 1.60%, hence, it may be considered worth investing by the investor.

6. Birla Sun Life MIP II - Wealth 25 Growth and ICICI Prudential Income Multiplier Fund - Cumulative has been ranked as high risk and low return funds. The Birla Sun Life MIP II - Wealth 25 Growth has shown highest S.D., Beta and Low Sharpe Ratio i.e. 12.42, 1.11 and 0.18.

7. The ICICI Prudential Income Multiplier Fund- Cumulative has been ranked at lowest position with highest S.D., Beta and lowest Sharpe Ratio i.e. 12.75, 1.13 and 0.11.

8. On the basis of analysis of risk and volatility analysis, it is found that in terms of low risk grade there are two funds available D.S.P. Black Rock Saving Manager Fund - Aggressive and Birla Sun Life M.I.P. - Growth amongst all the selected funds. In case of Aggressive fund i.e. high risk and high return there are three fund available i.e. H.D.F.C. Monthly Income Long Term Plan – Growth, Reliance M.I.P. - Growth and UTI MIS Advantage Fund. Birla Sun Life M.I.P. - Wealth 25 Growth and ICICI Prudential Income. Multiplier Fund - Cumulative has been ranked as lowest position in terms of risk and volatility analysis. These funds have shown highest S.D. and Beta i.e. more risky funds for investment purpose. The conclusions holds valid under the assumption that the investor remains invested having time horizon of 3 years and with moderate risk appetite to a superior long term returns.

CONCLUSION

The analysis of the selected Monthly Income Plans shows that the majority of the schemes have performed well over long horizon of time. All the selected schemes has outperformed the benchmark index i.e. CRISIL MIP Blended Index. The top most outperforming Monthly Income Plans in comparison with Average Performance of similar category funds and with CRISIL MIP Blended Index are H.D.F.C. Monthly Income Long term Plan - Growth, Principal MIP Plus - Growth and Reliance MIP - Growth respectively. However, D.S.P. Black Rock Saving Manager Fund -Aggressive and ICICI Prudential Income - Cumulative have underperformed the Industry Average over the period of study. To conclude, Investors with some aggression may invest in H.D.F.C. Monthly Income Long Term Plan- Growth, Reliance MIP Plus and UTI MIS Advantage Plan respectively. However, Conservative investors may invest in D.S.P. Black Rock Saving Manager Fund - Aggressive and Birla Sun Life M.I.P. - Growth respectively.

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CONSUMER BUYING BEHAVIOUR OF GREEN PRODUCTS

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ABSTRACT

Environmental pollution is a buzz word in today's business environment. Consumers are also aware of the environmental issues like; global warming and the impact of environmental pollution. The purpose of this study is to find out the relationship between consumer attitude towards green marketing and their buying intention. The design of the study is based on the literature review the consumer attitude toward green marketing was measured covering all the basic aspects of marketing mix. Buying intention was covering the price sensitivity and quality consciousness of the consumers. Consumer's attitudes towards green marketing should be measured and included in the marketing plan of the firms and communicated truthfully to the consumers. Green marketing activity is to be followed by the marketers and manufacturers as the green awareness of the consumer is increasing day to day. An intensive research in the developing/underdeveloped nations is required more comparative and empirical support from the future researches. It will be helpful to the market practitioners and researchers to understand the buying intention of the young generation and apply the green marketing strategy not only for customer satisfaction but for winning the ongoing battle.

KEYWORDS

Green Product, Buying Intention, Green Consumer.

INTRODUCTION

The Oxford English Dictionary (2008) defined that green marketing is "the marketing of products on the strength of their environmental friendliness". Consumers who make a special effort to buy green, consider themselves to be opinion leaders, defined by Shrum, McCarty & Lowry (1995). Marketing function can be categorized as per the basic components of the marketing mix as under:

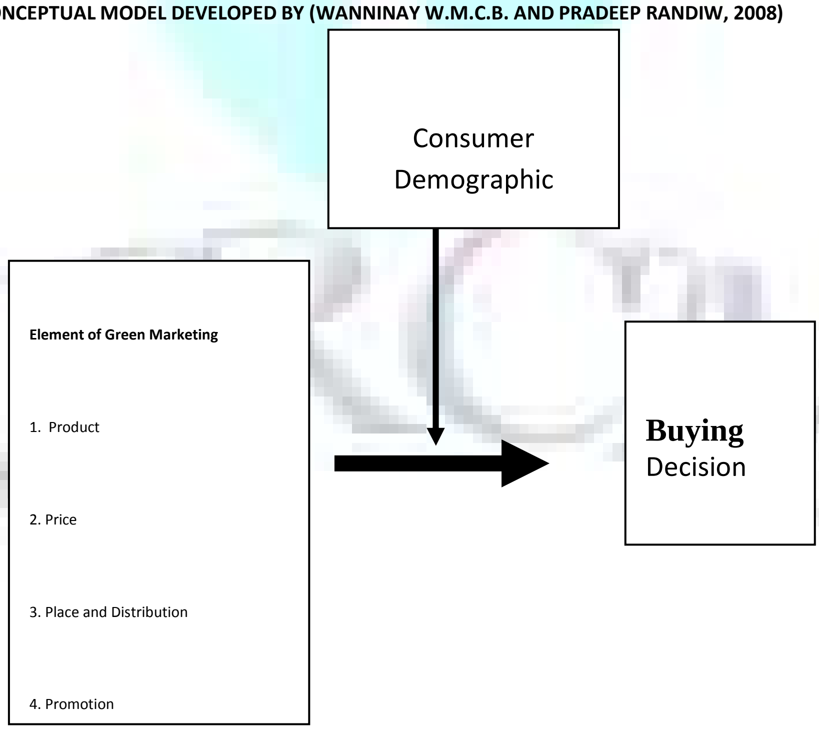
Product: The product strategy, marketers can identify customers' environmental needs and develop products to address this issue, produce more environmentally responsible packages. (Recycle, biodegradable, reuse), and ensure that products meet or exceed the quality expectations of customers, suggested by W.M.C.B. Wanninay and Pradeep Randiw (2008). Females tend to be more environmentally responsible positive attitudes toward the green products, Diana L. Haytko and Erika Matulich (2008).

Price: W.M.C.B. Wanninay and Pradeep Randiw (2008), found that the Marketers can charge high price with highlighting eco friendliness of the products. Consumers are willing to pay more for these types of products.

Place; Distribution, obtaining dealer support to green marketing practice is essential, and also, the location must differentiate from competitors, reported by W.M.C.B. Wanninay and Pradeep Randiw (2008).

Promotion: W.M.C.B. Wanninay and Pradeep Randiw (2008) suggested that to promote the eco-friendly attributes of a product in-store promotions and displays by using recycled materials organization can reinforce environmental credibility by using sustainable marketing and communications such as public relations and creative advertising associated with green issues. Females tend to be more environmentally responsible and have more positive attitudes toward the advertising viewed as being "green", reported by Diana L. Haytko and Erika Matulich (2008).

CONCEPTUAL MODEL DEVELOPED BY (WANNINAY W.M.C.B. AND PRADEEP RANDIW, 2008)



BUYING BEHAVIOUR: Samdahl and Robertson (1989) reported that demographic variables like; income and educational level were not very reliable for predicting environmental concern or buying behavior, but psychology of a consumer can influenced the buying decision of a consumer. (Kassey, 2001) found that green marketing is an emotional issue for some consumers when purchasing products and services. Mandese, (1991) found that the emerging green market does not necessarily indicate that consumers would attempt to purchase environmentally friendly products for higher prices. Price factor are contradictory affects on willingness to pay more for green products. Green consumers have been identified as extremely price-sensitive when it comes to buying environmentally friendly products.

GREEN CONSUMER PROFILE: Hannylyne Todemann (2010) has categorized consumer profile into following segments:

DEMOGRAPHIC: The most common approaches are segmentation according to demographics, socio-economic, geographic or psychographic (Belch and Belch, 2003). All four segmentation analyses have also been applied to the green consumer market and to date it remains unclear which segmentation approach has been proven to be most useful.

SOCIO-ECONOMIC: Two additional variables that have also been carefully explored are 'education' and 'income', which fall under the category of socioeconomics. Education is normally thought to be positively linked to environmental awareness and concern. This means the higher the educational level of an individual, the more likely he/she is to display a sense of responsibility for the environment.

GEOGRAPHIC: Several studies investigated if the variable 'place of residence' was connected to environmental attitudes and behavior. For these studies, results have been fairly consistent as most researchers found that there was a positive correlation between these two

PSYCHOGRAPHIC: Ottman (2003) maintains for instance that "the green consumer is really a psychographic rather than a demographic". Besides these basic segmentation variables of a consumer a new variable is now to be considered as a possible aid in understanding the green market. The respective concept that investigates the effects of regulatory foci is known as 'Regulatory Focus Theory' (RFT) and is originally derived from the hedonic concept that people are attracted to pleasure and circumvent pain (Higgins, 1997). Over the past fifteen years, it has become a popular research tool, Aaker and Lee, (2004). Zhao and Pechman, (2007), studied the RFT as a Means for Understanding the Green Consumer Nature effects of antismoking advertisements and other health-related messages have eagerly applied RFT in their studies.

OBJECTIVES

On the basis of the findings of the above studies the objectives of the study are as follows:

1- To study consumer attitude towards green marketing.

2- To analyze the role of marketing 4ps in the buying intention of a consumer.

3- To study the relationship between consumer attitude towards green marketing and buying intention

METHODOLOGY

The Attitudes toward green Marketing was measured with the help of eight items. Buying Intention of the consumers was measured on four dimensions; high cost-low cost, good quality-inferiority product on a seven-point Likert-type scale ranging from "Strongly Agree --- --- --- --- --- --- --- Strongly Disagree". 238 students of post graduate courses were personally interviewed for the purpose, and their profile was also prepared. More than half (52%) of the respondents were male, more than half (56%) of the respondents were from science steam followed by management 29%. A great majority (77%) of the respondents was from younger age group i.e. 20 to 25 years, and 20% of the respondents were from teen age group i.e. up to 20 years of age. More than half (57%) of the respondents were from middle income families i.e. more than Rs.10,000 to Rs.30,000 monthly income, while one third of the respondents were from low income group, their monthly income was less than Rs.10000. Less than half (46%) of the respondents were from service class families, around one fourth (24%) of the respondents were from business families and rest 30% of the respondents belongs to farmer or other professional occupation. Almost all (93%) of the respondents were unmarried, and more than half (54%) of the respondents were belonging to large family size i.e. more than five members in their family, while a very low number (9%) of the respondents were from small families i.e. three or less than three members in their family.

RESULTS

ATTITUDES TOWARD GREEN MARKETING

Attitude of the consumers towards green marketing was measured on the all basic component of marketing mix i.e. product, price, place and promotion. The result obtained from the survey is presented in table-1.

1- GREEN PRODUCTS

almost all (96%) of the respondents reported that they are agree with the statement 'Green Products are valuable to society', with 89% strongly agree. The mean value of the item is 6.71, S.D. is .982 and S.E. is .064 (Table-1).

2- WILLINGNESS TO PAY

An overwhelming majority (92%) of the respondents are agree with the statement that 'I am ready to pay more prices of eco-friendly products', with 6.42, 1.41 S.D. and .091S.E.

3- ENVIRONMENTAL PROMOTIONAL CAMPAIGN

Almost all (96%) of the respondents are agree with the statement that 'I will prefer promotion campaign that protect environment', with 88% strongly agree, the mean value of the item is 6.71, S.D. is .956, and S.E. is .062.

4- POLLUTION FREE DISTRIBUTION CHANNELS

A great majority (88%) of the respondents are agree with the statement that 'I will prefer those places/ distribution channels which are not cause to environment pollution', with 82% strongly agree. The mean value of the item is 6.40, with 1.50 S.D. and .097 S.E.

5-PRODUCT QUALITY OF ECO-FRIENDLY PRODUCT

A great majority (80%) of the respondents are agree that 'I will buy eco-friendly products which are lower in quality in comparison to alternative products' , with 5.70 mean and 2.12 S.D. and S.E. of the item is .137.

6-BIODEGRADABLE PRODUCTS

An overwhelming majority (92%) of the respondents are agree with the statement that 'Biodegradable products are useful to the society', with 87% strongly agree, mean value of the item is 6.63, S.D. is 1.09 and S.E. is.070.

7- RECYCLED PRODUCTS

A great majority (70%) of the respondents are agree that 'I will purchase recycled products even they are more expensive', the mean value of the item is 5.28, S.D. is 2.32 and S.E. is .150.

8- ENVIRONMENTAL VALUE

A great majority (76%) of the respondents are agree with the statement that 'I never compromise with the environmental value when I go for purchase of domestic products', with 5.47 mean value, 2.30 S.D. and .149 S.E.

CONSUMER BUYING INTENTION

Consumer buying intention was measured on two broad dimensions i.e. price sensitivity and brand consciousness in a 7-point scale and the results obtained from the survey are as follows: (Table-2).

1-PURCHASE OF COSTLY PRODUCTS

A overwhelming majority (88%) of the respondents are agree that 'I would like to purchase those products which are costlier but causing less environmental pollution', with 76% strongly agree. The mean value of the item is 6.29; S.D. is 1.57 and .101 S.E.

2-PURCHASE OF CHEAP PRODUCTS

A great majority (70%) of the respondents are agree with the statement that 'I would not like to purchase those products which are cheap but causing environmental pollution' ,the mean value is 5.25,S.E. is 2.45 and S.E. is .158.

3- PURCHASE OF INFERIOR QUALITY PRODUCTS

A great majority (74%) of the respondents are agree that 'I would like to purchase those products which are inferior in quality but causing less environmental pollution' , the mean value of the item is 5.54 with 2.10 S.D. and .136S.E.

4- PURCHASE OF QUALITY PRODUCTS

More than half (59%) of the respondents are agree with the statement that 'I would not like to purchase those products which are good in quality but causing environmental pollution' , the mean value of the item is 4.76 and S.D. is 2.55 with .165 S.E.

RELATIONSHIP BETWEEN CONSUMER ATTITUDE TOWARDS GREEN MARKETING AND BUYING INTENTION

The results of the study confirms the findings of Heidt Tania von der, and Rose Firmin (2009) willingness to pay more (WTP) study, as the item 'I am ready to pay more prices of eco-friendly products' was having significant correlation with the buying intention of the consumers, at 0.01 level. The item 'Green Products are valuable to society' was not having any relationship with the buying intention of the consumers.

Green promotion is having significant relationship with the buying intention of the consumers, as the item 'I will prefer promotion campaign that protect environment' was having significant correlation with the buying intention of costly products which are causing less environmental pollution.

On the other hand the item 'I will prefer those places/ distribution channels which are not cause to environment pollution' was having significant correlation with the buying intention of cheap products, this indicates that the distribution of these products should not be very costly.

The purchase decisions of eco-friendly products were also found significant relationship with the buying intention of the consumers as the item 'I will buy eco-friendly products which are lower in quality in comparison to alternative products' was having significant correlation with cost component of the product.

Biodegradable products are useful to the society; the item was found significant relationship with buying intention of cheap products causing environmental pollution.

I will purchase recycled products even they are more expensive, having significant relationship with the buying intention of costly products. I never compromise with the environmental value when I go for purchase of domestic products was having significant negative relationship with the buying intention of inferiority products.

TABLE-1: ATTITUDES TOWARD GREEN MARKETING

S.N.	Name of the Items	Agree (%)	Neutral (%)	Disagree (%)	Mean	S.D.	S.E
1	Green Products are valuable to society	96	1	3	6.71	.982	.064
2	I am ready to pay more prices of eco-friendly products	92	3	5	6.42	1.41	.091
3	I will prefer promotion campaign that protect environment	96	2	2	6.71	.956	.062
4	I will prefer those places/ distribution channels which are not cause to environment pollution	88	5	7	6.40	1.50	.097
5	I will buy eco-friendly products which are lower in quality in comparison to alternative products	80	6	14	5.70	2.12	.137
6	Biodegradable products are useful to the society	92	5	3	6.63	1.09	.070
7	I will purchase recycled products even they are more expensive	70	9	21	5.28	2.32	.150
8	I never compromise with the environmental value when I go for purchase of domestic products	76	5	19	5.47	2.30	.149

TABLE-2: CONSUMER BUYING INTENTION

S.N.	Name of the Items	Agree (%)	Undecided (%)	Disagree (%)	Mean	S.D.	S.E.
1	I would like to purchase those products which are costlier but causing less environmental pollution	88	6	6	6.29	1.57	.101
2	I would not like to purchase those products which are cheap but causing environmental pollution	70	6	24	5.25	2.45	.158
3	I would like to purchase those products which are inferior in quality but causing less environmental pollution	74	11	15	5.54	2.10	.136
4	I would not like to purchase those products which are good in quality but causing environmental pollution	59	9	32	4.76	2.55	.165

TABLE-3: CORRELATION BETWEEN ATTITUDES TOWARD GREEN MARKETING AND BUYING INTENTION

Name of the Items	Costlier less pollution	Cheap causing pollution	Inferior quality causing less pollution	Good quality causing pollution
Green Products are valuable to society	.026	.100	-.015	.080
I am ready to pay more prices of eco-friendly products	.301**	.229**	.146*	.177**
I will prefer promotion campaign that protect environment	.247**	.107	.165*	.047
I will prefer those places/ distribution channels which are not cause to environment pollution	.092	.306**	.123	.153*
I will buy eco-friendly products which are lower in quality in comparison to alternative products	.222**	.225**	.118	.099
Biodegradable products are useful to the society	.107	.172**	.114	.101
I will purchase recycled products even they are more expensive	.204**	.053	.086	.079
I never compromise with the environmental value when I go for purchase of domestic products	.047	.007	-.179**	.087

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

CONCLUSIONS

The finding of the study shows that consumers are ready to pay more prices for the products which are causing less environmental pollution. They also prefer promotional campaign which protects the environment, and distribution channels which are not causing environmental pollution. But they are not ready to compromise the quality of the product for the sake of the environment. The marketers should include consumer attitude measurement programme in their marketing plan and adopt all aspects of green marketing then only they can achieve their goal and fulfill the social responsibility aspect of a business concern.

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CORPORATE SOCIAL RESPONSIBILITY STRATEGIES FOR SUSTAINABLE DEVELOPMENT: INDIAN EXPERIENCE

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ABSTRACT

Corporate social responsibility (CSR) has been widely regarded as a positive phenomenon helping bridge the gap of social inequality and thus contributing to sustainable development. Corporations around the world are struggling with a new role, which is to meet the needs of the present generation without compromising the ability of the next generations to meet their own needs. Organizations are being called upon to take responsibility for the ways their operations impact societies and the natural environment. They are also being asked to apply sustainability principles to the ways in which they conduct their business. A firm must now focus its attention on both increasing its bottom line and being a good corporate citizen. India's recent economic progress has not only increased pressure on the environment, but also generated social tension by increasing the gap between India's middle class and the poor. Consequently, it has become even more important for corporations to consider their broader impact on society. Firms with CSR engagement may play a central role in stimulating sustainable development in India. The paper tries to find out the answers for: What are the approaches to CSR promotion and implementation? How the CSR as business case versus development in practice? To what extent CSR and corporate are successful in attaining sustainable development? To what extent CSR contribution to sustainable development? What are the CSR's challenges and limitations to achieve sustainable development?

KEYWORDS

Corporate Social Responsibility, Corporations, CSR Practices, Globalization, Sustainable Development.

"Our biggest challenge of this century is to take an idea that seems abstract-sustainable development-and turn it into a reality for the entire world's peoples".

Kofi Annan, former UN Secretary General

INTRODUCTION

In a context of change and globalization, businesses are increasingly asked to pursue their mission paying attention to the needs of the stakeholders whose well-being depends on the way enterprises manage their core activities. Corporations around the world are struggling with a new role, which is to meet the needs of the present generation without compromising the ability of the next generations to meet their own needs. Organizations are being called upon to take responsibility for the ways their operations impact societies and the natural environment. They are also being asked to apply sustainability principles to the ways in which they conduct their business.

Sustainability refers to an organization's activities, typically considered voluntary, that demonstrate the inclusion of social and environmental concerns in business operations and in interactions with stakeholders. It is no longer acceptable for a corporation to experience economic prosperity in isolation from those agents impacted by its actions. A firm must now focus its attention on both increasing its bottom line and being a good corporate citizen. Keeping abreast of global trends and remaining committed to financial obligations to deliver both private and public benefits have forced organizations to reshape their frameworks, rules, and business models (D'Amato, Alessia et. al.-2009). *Corporate social responsibility* is a form of corporate self-regulation integrated into a business model. CSR policy functions as a built-in, self-regulating mechanism whereby business monitors and ensures its active compliance with the spirit of the law, ethical standards, and international norms. The goal of CSR is to embrace responsibility for the company's actions and encourage a positive impact through its activities on the environment, consumers, employees, communities, stakeholders and all other members of the public sphere. CSR is the deliberate inclusion of public interest into corporate decision-making, and the honouring of a triple bottom line: people, planet, profit. CSR has been widely regarded as a positive phenomenon helping bridge the gap of social inequality and thus contributing to sustainable development (Hediger, Werner-2008). WBCSD defines CSR as "The continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the work force and their families as well as of the local community and society at large".

CSR and sustainable development are essentially contested concepts as their meaning is always part of debate about their application. One of the reasons is because CSR and sustainable development are applausive, internally complex and openly defined terms. Generally, the conception of CSR involves several matters related to a company's behavior in its social environment beyond the exclusively economic realms with which companies are traditionally associated. Thus, CSR has often been seen as apart from the profit-making activity of the firm, not required by the law and not the result of governmental coercion. Sustainable development has broad appeal and little specificity, but some combination of development and environment as well as equity is found in many attempts to describe it. Sustainable development is commonly perceived as fighting poverty while protecting the environment on a macro-level. Sustainable development when incorporated by the organization is called corporate sustainability and it contains, like sustainable development, all three pillars: economic, ecological and social.

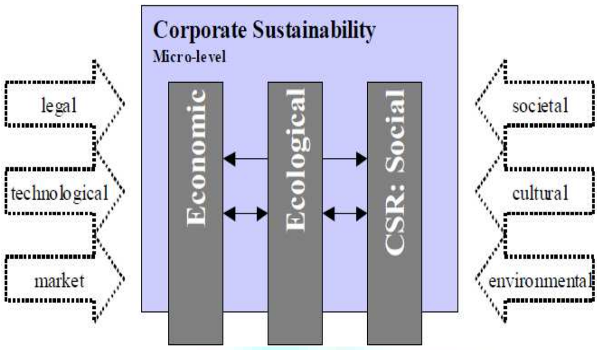
EVOLUTION OF SUSTAINABLE DEVELOPMENT, CORPORATE SUSTAINABILITY AND CSR

In 1987, the WCED defined SD as an ethical concept and has become the major definition of SD: It contains two key concepts: the concepts of "needs", in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organisation of the environments ability to meet present and future needs. Thus the goals of economic and social development must be defined in terms of sustainability in all countries developed or developing, market-oriented or centrally planned" (Elkington, 1998). Therefore SD is defined as a model of triple-bottom-line. WBCSD regards CSR as engine for the social dimension which supports companies to fulfil their responsibilities as good citizens and defines CSR as "business' commitment to contribute to sustainable economic development, working with employees, their families, the local community, and society at large to improve their quality of life" (WBCSD, 2006). The Commission of European Communities describes CSR as a "concept, whereby companies integrate social and environmental concerns into their business operations and interactions with their stakeholders on a voluntary basis" (Ebner, Daniela et al 2008). The relationship between Sustainable Development, Corporate Sustainability and CSR is shown in figure-1.

FIGURE - 1: RELATIONSHIP BETWEEN SD, CORPORATE SUSTAINABILITY AND CSR

Sustainable Development

Macro-level



Source: Ebner, Daniela & Rupert J. Baumgartner (2008) – "The relationship between Sustainable Development and Corporate Social Responsibilit'', Corporate Responsibility Research Conference, CRRC 2008: 7-9 September, Queen's University Belfast. P: 13.

Fig. 1 shows the framework, SD as defined by Brundtland and the model of the triple-bottom-line as an ethical concept which offers ideas concerning sustainable orientation on a macro-level. The concept of SD on a corporate level is stated as Corporate Sustainability which is based on the three pillars economic, ecological and social issues, therefore, the social dimension is named CSR. The corporate orientation on sustainability is specially affected by external influences due to the specific sustainability orientation on a macro-level:

- Technological: new technologies
- Market: suppliers, competitors, customers, trends
- Societal: NGO's, society
- Cultural: attitudes, behaviour
- Environmental: nature, availability of resources

Not only does society influence the company, the implementation of Corporate Sustainability in companies also has positive effects on society in the long-term.

CSR CONTRIBUTION TO SUSTAINABLE DEVELOPMENT

It is evident that company can contribute to sustainable development via its CSR activities if its CSR values coincide with those of sustainable development. Under the circumstances when company's CSR is directed mainly to short term profit, CSR contribution to sustainable development is questionable. First of all, there always has to be guaranteed a short term win-win scenario from the firm's perspective whereas sustainable development by definition is targeted at a long-term period. Secondly, additional conditions have to be assured in order CSR partnership with a non-business partner to become sustainable. The main difference from short term profit oriented CSR is that companies seek to uncover and pursue long term win-win situations what appear to be win-loss situation in the short term turned into win-win situation in the long term. CSR definition which says that CSR is not directed at short-term profits, CSR is thought to largely contribute to sustainable development. Many factors and influences have led to increasing attention being devoted to the role of companies and CSR. These include:

SUSTAINABLE DEVELOPMENT: Humankind is using natural resources at a faster rate than they are being replaced. If this continues, future generations will not have the resources they need for their development. In this sense, much of current development is unsustainable-it can't be continued for both practical and moral reasons. CSR is an entry point for understanding sustainable development issues and responding to them in a firm's business strategy.

GLOBALIZATION: With its attendant focus on cross-border trade, multinational enterprises and global supply chains-economic globalization is increasingly raising CSR concerns related to human resource management practices, environmental protection, and health and safety, among other things. CSR can play a vital role in detecting how business impacts labour conditions, local communities and economies, and what steps can be taken to ensure business helps to maintain and build the public good.

GOVERNANCE: Governments and intergovernmental bodies have developed various compacts, declarations, guidelines, principles and other instruments that outline norms for what they consider to be acceptable business conduct. CSR instruments often reflect internationally-agreed goals and laws regarding human rights, the environment and anti-corruption.

CORPORATE SECTOR IMPACT: The sheer size and number of corporations, and their potential to impact political, social and environmental systems relative to governments and civil society, raise questions about influence and accountability. Companies are global ambassadors of change and values.

FINANCE: Consumers and investors are showing increasing interest in supporting responsible business practices and are demanding more information on how companies are addressing risks and opportunities related to social and environmental issues. A sound CSR approach can help build share value, lower the cost of capital, and ensure better responsiveness to markets.

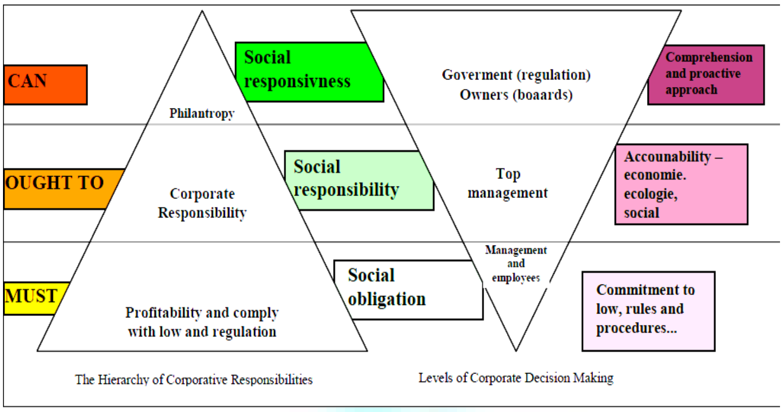
ETHICS: A number of serious and high-profile breaches of corporate ethics resulting in damage to employees, shareholders, communities or the environment-as well as share price-have contributed to elevated public mistrust of corporations. A CSR approach can help improve corporate governance, transparency, accountability and ethical standards.

BUSINESS TOOL: Businesses are recognizing that adopting an effective approach to CSR can reduce the risk of business disruptions, open up new opportunities, drive innovation, enhance brand and company reputation and even improve efficiency.

THE HIERARCHY OF CORPORATE RESPONSIBILITIES

Sustainability requires partnerships for economically feasible, socially fair and ecologically stable development. The priorities of international development cooperation under this paradigm are summarised in the United Nations' Millennium Development Goals: poverty reduction, universal education, gender equality, child and maternal health, combating HIV/AIDS and environmental sustainability (GTZ's Contribution-2010). The 'must-ought to-can' concept can be linked to Sethi's model of corporate social performance, which points out three levels of obligations to stakeholders, i.e. social obligation, social responsibility, and social responsiveness. It is mentioned in figure-2 that the obligation levels are connected with decision-making levels.

FIGURE - 2: THE HIERARCHY OF CORPORATE RESPONSIBILITIES BY DECISION-MAKING LEVELS



Source: Vitezic, Neda (2010) – "A Measurement System of Corporate Social Responsibility in the Pharmaceutical Industry of the Region", 2010 EABR & ETLC Conference Proceedings Dublin, Ireland, P: 668.

On the first level – social obligations, all the employees, and primarily management, must perform their business activities and tasks by upholding the laws, rules, procedures and other regulations in order to ensure efficacy and profitability of business activities, but also to satisfy the interests of other stakeholders. On the second level – social responsibility surpasses social obligation and is considered to be something that should be included in the company's business policy which is adopted by top management or the board of directors. Responsibility is not only viewed through economic indicators, but also through ecological and social responsibility, which also satisfies the interests of external stakeholders. On the third level is responsiveness, the higher level of society's needs, which means applying and developing a proactive approach in development and adoption of regulations, with an emphasis on the possibility of satisfying social needs through philanthropy. Namely, both the government and the owners should strive to anticipate future social problems and actively, with much responsiveness, participate with all stakeholders in the identification of social needs. This approach does not mean substitution of social obligations and responsibilities with social responsiveness, but rather a holistic approach in the linking of interests and needs of all stakeholders.

THE APPROACHES TO CSR PROMOTION AND IMPLEMENTATION:

As companies they face the challenges of a changing environment in the context of globalisation and in particular the Internal Market, they are increasingly aware that corporate social responsibility can be of direct economic value. Although the prime responsibility of a company is generating profits, companies can at the same time contribute to social and environmental objectives, through integrating corporate social responsibility as a strategic investment into their core business strategy, their management instruments and their operations. CSR should be treated as an investment, not a cost, much like quality management. They can thereby have an inclusive financial, commercial and social approach, leading to a long-term strategy minimizing risks linked to uncertainty. Companies should pursue social responsibility for which there are various approaches. They are as below:

PHILANTHROPY APPROACH: A more common approach of CSR is philanthropy. This includes monetary donations and aid given to local organizations and impoverished communities in developing countries. Some organizations do not like this approach as it does not help build on the skills of the local people, whereas community-based development generally leads to more sustainable development. Many companies use the strategy of benchmarking to compete within their respective industries in CSR policy, implementation, and effectiveness. Benchmarking involves reviewing competitor CSR initiatives, as well as measuring and evaluating the impact that those policies have on society and the environment, and how customers perceive competitor CSR strategy. After a comprehensive study of competitor strategy and an internal policy review performed, a comparison can be drawn and a strategy developed for competition with CSR initiatives.

A HOLISTIC APPROACH: While companies increasingly recognise their social responsibility, many of them have yet to adopt management practices that reflect it. Pioneering companies can help to mainstream socially responsible practice by disseminating best practice.

- *Social responsibility integrated management:* Companies' approaches in dealing with their responsibilities and relationships with their stakeholders vary according to sectoral and cultural differences. At the start companies tend to adopt a mission statement, code of conduct, where they state their purpose, core values, and responsibilities towards their stakeholders. These values then need to be translated into action across the organization, from strategies to day-to-day decisions.
- *Social responsibility reporting and auditing:* Many multinational companies are now issuing social responsibility reports. While environmental, health, and safety reports are common, reports tackling issues such as human rights and child labour are not. Moreover companies' approaches to social reporting are as varied as their approaches to corporate social responsibility.
- *Quality in work:* Employees are major stakeholders of companies. In addition, implementing corporate social responsibility needs commitment from the top management, but also innovative thinking and, thus, new skills and closer involvement of the employees and their representatives in a two-way dialogue that can structure permanent feedback and adjustment.
- *Social and eco-labels:* Consumers care about the most are protecting the health and safety of workers and respecting human rights throughout company operations and the chain of suppliers, safeguarding the environment in general, and the reduction in emissions of greenhouse gases in particular.
- *Socially responsible investment:* In recent years, socially responsible investing (SRI) has experienced a strong surge in popularity among mainstream investors. Socially and environmentally responsible policies provide investors with a good indication of sound internal and external management. They contribute to minimising risks by anticipating and preventing crises that can affect reputation and cause dramatic drops in share prices (Green Paper, 2001).

TRIPLE BOTTOM LINE (TBL) APPROACH: An increasing number of companies are adopting a new way of operationaling the intangible concepts of 'corporate social responsibility' and 'sustainability'. Triple Bottom Line or TBL focuses on data collection, analysis and decision making using economic, environmental and social performance information. In this concept, the company is judged on the basis of its triple bottom-line: its returns to shareholders, communities and the environment. Under this concept, the company will have to look at not just what it should do with its profits, but how it made its profits in the first place. This implies looking at impacts on all its stakeholders. Companies like Tata group and ITC are at the forefront of adopting the triple bottom-line approach in India.

CLUSTER APPROACH: all the local actors are stimulated to cooperate in order to manage the responsibility of the whole productive system towards the workers in the cluster, the local community, the customers, the environment, etc., being the social responsibility actions of their own organizations only a part of the sustainability management at the territorial level and an instrument to strengthen its potential.

- make local actors identify common CSR
- identify intermediary local actors
- diffuse – among the local actors
- develop – through a participative process
- make at local actors' disposal collective CSR tools

The proposed set of operational steps make quite clear that the "cluster" approach can be applied only in specific social and economic contexts where the relational structure can facilitate the development of co-operative behaviours (Battaglia et al, 2007). The application of a "cluster" approach to CSR can improve the management of social and environmental cumulative impacts caused.

TRIPLE-P APPROACH: CSR is measured on the basis of the configuration of the business organization into three levels, or the *Triple-P approach to CSR:*

- ***P****rinciples* of social responsibility;
- ***P****rocesses* of social responsiveness;
- ***P****roducts (or outcomes)* as they relate to the firm's societal relationships.

These can then naturally be further divided into the principles, processes and outcomes for each stakeholder group. Corporations focus on creating stakeholder value as measured by profits, but in a socially responsible manner. A company that does poorly on one line, namely profits, but wonderfully on the environment or social component of TBL, is not going to last long in a competitive world. So concentration on defining exactly what is meant by a corporation's responsibility to its stakeholders, who they are and how to measure progress through a limited number of precise key indicators (Hopkins, Michael –2004).

THE CSR AS BUSINESS CASE VERSUS DEVELOPMENT IN PRACTICE:

The steps below show one way to implement CSR commitments:

- Develop an integrated CSR decision-making structure;
- Prepare and implement a CSR business plan;
- Set measurable targets and identify performance measures;
- Engage employees and others to whom CSR commitments apply;
- Design and conduct CSR training;
- Establish mechanisms for addressing problematic behaviour;
- Create internal and external communications plans; and
- Make commitments public.

TABLE-1: IMPLEMENTATION FRAMEWORK

When? (Conceptual phase)	What? (Task delineation)	How? (Checkpoints on the journey)
Plan	1.Conduct a CSR assessment	• Assemble a CSR leadership team; • Develop a working definition of CSR; • Identify legal requirements; • Review corporate documents, processes and activities, and internal capacity; and • Identify and engage key stakeholders.
	2. Develop a CSR strategy	• Build support with CEO, senior management and employees; • Research what others are doing, and assess the value of recognised CSR instruments; • Prepare a matrix of proposed CSR actions; • Develop ideas for proceeding and the business case for them; and • Decide on direction, approach, boundaries and focus areas.
Do	3. Develop CSR commitments	• Do a scan of CSR commitments; • Hold discussions with major stakeholders; • Create a working group to develop the commitments; • Prepare a preliminary draft; and • Consult with affected stakeholders.
	4. Implement CSR commitments	• Develop an integrated CSR decision-making structure; • Prepare and implement a CSR business plan; • Set measurable targets and identify performance measures; • Engage employees and others to whom CSR commitments apply; • Design and conduct CSR training; • Establish mechanisms for addressing problematic behaviour; • Create internal and external communications plans; and • Make commitments public.
Check	5. Assure and report on progress	• Measure and assure performance; • Engage stakeholders; and • Report on performance, internally and externally.
Improve	6. Evaluate and improve	• Evaluate performance; • Identify opportunities for improvement; and • Engage stakeholders.
Cross-check: One cycle completed		Return to plan and start the next cycle.

Source: http://www.iisd.org/pdf/2007/csr_guide.pdf

Regardless of the exact approach taken, it should follow the *'SMART'* guidelines:

- *S*imple;
- *M*easurable;
- *A*chievable;
- *R*eliable; and
- *T*ime-bound.

TABLE – 2: CSR AND PROFITS, LIKELY BENEFITS AND COSTS

Stakeholder group	Benefits	Costs
Directors	More independent non-executive directors	More meetings and briefings
Shareholders	Increased investment from	CSR premium on all company activities
	Ethically based pension funds	such as increased reporting costs, more
		openness, etc.
Managers	Better HR policies lead to increased motivation	Increased training in ethics
	More awareness of ethical issues from focus	Focus group sessions and reporting
	group sessions lead to more confidence about	
	employees.	
Employees	Better HR policies lead to increased motivation	Inclusion of ethics training
	Good ethical conduct by superiors lead to	More intra-company communications
	improved productivity.	
	Less labour relations disputes, less strikes	More effort on labour relations
	Better working conditions	
	Good company CSR leads to easier recruit-	
	ment of high flyers and young people	Will need to implement human rights policies
	Reduced costs of recruitment	
Customers	Move to ethical consumption captured by	Costs of goods may increase in the short term
	Company	
	Less disputes	
	Advertising can cite CSR	
	Enhanced reputation	
	Brand quality recognition	
Subcontractors /Suppliers	Better quality inputs	Cost of inputs may increase in short-term
	Less harmful effect on public image	
Community	More willingess to accept new investments	Requires continual interaction with community
	Improved public image	
Government	More confidence in company.	Costs of adhering to new regulations will
	Fewer legal battles, no new	increase.
	Potentially harmful legislation.	
	More favourable trading regime	
	More willingness to accept	
	Expansion or downsizing	
Environment	Less legal battles	Investment in environmental damage control.
	Improved public image	

Source : Hopkins, Michael (2004) – "Corporate social responsibility: an issues paper", Working Paper No. 27, Policy Integration Department, World Commission on the Social Dimension of Globalization, International Labour Office, Geneva. P- 30.

STAKEHOLDER ENGAGEMENT MATTER: Four key reasons for stakeholder engagement are building social capital; reducing risk; driving innovation; and integrating these elements in corporate strategy.

BUILDING SOCIAL CAPITAL: Social capital refers to the firm's relationship with society, how it is perceived and regarded. In today's business environment, where reputation is key, social capital can be at least as important as access to other forms of capital. Social capital is the foundation on which a firm renews its "licence to operate." It is the basis for employees' willingness to give their best. Social capital means strong, trusting relationships.

REDUCING RISK: Stakeholder engagement can provide an early warning of: the service or product concerns of customers; safety; the human rights and environmental concerns of communities; and the governance concerns of shareholders, among other issues.

DRIVING INNOVATION: Stakeholder engagement can improve information flow, identify business opportunities and generate ideas. The importance of stakeholder engagement is to consider the role that customers, shareholders, employees, suppliers, communities and others can play in the "plan, do, check and improve" aspects of a CSR implementation framework.

- **PLANNING** - During the planning phase, stakeholders can assist in identifying a firm's environmental, social and economic impacts, and help develop a firm's CSR strategy;
- **DOING** - Shifting from planning to doing, stakeholders play an important role in developing a firm's CSR commitments, as well as implementing those commitments;
- **CHECKING** - At the checking stage, stakeholders are integral to verification and progress;
- **IMPROVING** - the input of stakeholders can be crucial to a firm's evaluation and improvement activities; and

INTEGRATING MANAGEMENT: Finally, as part of the overall approach to CSR, the engagement process should encourage further alignment and coherence of the firm's strategic, financial, R&D, product development, supply chain, marketing and communication departments. In all phases, approaches to engagement should be practical and transparent, tailored to the abilities and needs of the firm and the stakeholders.

CSR PRACTICES IN DEVELOPING COUNTRIES

Carroll's four-part pyramid construct can be useful to look at how CSR is manifested in a developing country context. Taking this approach, my contention is that the order of the CSR layers in developing countries—if these are taken as an indicator of the relative emphasis assigned to various responsibilities—differs from Carroll's classic pyramid. Hence, in developing countries, economic responsibilities still get the most emphasis. However, philanthropy is given second highest priority, followed by legal and then ethical responsibilities. This is illustrated in Figure 3.

FIGURE – 3: CSR PYRAMID FOR DEVELOPING COUNTRIES

Source: Visser, wayne (2007) -"Corporate Social Responsibility in Developing Countries" Chapter-21 in a book on CSR in global context P: 489.

Each element of the figure is discussed in brief:

ECONOMIC RESPONSIBILITIES: It is well known that many developing countries suffer from a shortage of foreign direct investment, as well as from high unemployment and widespread poverty. It is no surprise, therefore, that the economic contribution of companies in developing countries is highly prized, by governments and communities alike. Hence, in developing countries, CSR tends to stress the importance of 'economic multipliers', including the capacity to generate investment and income, produce safe products and services, create jobs, invest in human capital, establish local business linkages, spread international business standards, support technology transfer and build physical and institutional infrastructure. When communities or countries become overly dependent on multinationals for their economic welfare, there is the risk of governments compromising ethical, social, or environmental standards in order to retain their investment.

PHILANTHROPIC RESPONSIBILITIES: Developing countries philanthropy generally gets higher priority as a manifestation of CSR. The socio-economic needs of the developing countries in which companies operate are so great that philanthropy is an expected norm-it is considered the right thing to do by business. Companies realize that they cannot succeed in societies that fail, and philanthropy is seen as the most direct way to improve the prospects of the communities in which their businesses operate.

LEGAL RESPONSIBILITIES: In developing countries, legal responsibilities generally have a lower priority than in developed countries. This is because, in many developing countries, the legal infrastructure is poorly developed, and often lacks independence, resources, and administrative efficiency.

ETHICAL RESPONSIBILITIES: In developing countries, however, ethics seems to have the least influence on the CSR agenda. This is not to say that developing countries have been untouched by the global trend towards improved governance.

CSR PRACTICES – INDIAN EXPERIENCE

The CSR framework of companies in India has evolved over a period of time. For business conglomerates like Tata, Birla or the Godrej family, their specific approaches and strategies are mainly based and driven by the ethical beliefs of the founding fathers. However, of late, the companies have been influenced by several factors including business areas in which the companies operate the socio-economic environment, and the emerging opportunities. The basic objective of CSR these days is to maximize the company's overall impact on the society and stakeholders. An increasing number of companies are viewing CSR as a comprehensive set of policies, practices and programs that are integrated throughout the business operations, processes that are supported and rewarded by the top management. If integrated in the overall business strategy, CSR could be a remedy for protection against sudden corporate downfall. The following issues and companies are reviewed for their CSR practices.

EMPLOYEE ISSUES

TATA GROUP - has more than 2,45,000 employees. Tata were the pioneers in employee benefits that were later mandated through legislation in India and elsewhere in the world. The eight-hour working day, free medical aid, welfare departments, grievance cells, leave with pay, provident fund, accident compensation, training institutes, maternity benefits, bonus and gratuity were introduced by the group before any legal rules were framed on them. Tata has created cities and towns – Jamshedpur, Mithapur, Babrala and Mathigiri – around industrial facilities. Tata Steel maintains Jamshedpur's public utilities such as the local municipality and takes care of road maintenance, water and electricity supply, streetlights, healthcare and sanitation.

HLL - approximately 9% of the company's resources for community involvement come in the form of employee time. Their time is ranged from their involvement in Ashadaan to the disaster affected Yashodadham village near Bhuj. HLL management trainees spend approximately four weeks on Project Shakti in rural areas with NGOs or Self Help Groups.

INFOSYS - employees are encouraged to report workplace hazards and incidents to the concerned officials and contribute to implementing solutions. Infosys implemented health clubs and health programmes, such as health week, nutrition programmes and ergonomics training. It also implemented safety programs to improve awareness about precautions and measures to improve road and personal safety.

RESPONSIBLE FOR THE COMMUNITY

TATA CHEMICALS - has set up the Tata Chemicals Society for Rural Development (TCSRD) in 1980 to promote its social objectives for the communities in and around Mithapur and Babrala, where its facilities are located. Some of the initiatives of TCSRD are: agricultural development, education, women's programmes, animal husbandry, rural energy, training, watershed development, relief work and infrastructure. TCCI, in collaboration with the UNDP (India), created the Tata Index for Sustainable Human Development. This was aimed at directing, measuring and enhancing the community work that group enterprises undertake.

BSNL - the company is committed to provide quality Telecom Services at affordable price to the citizens of the remotest part of India, since it is of utmost importance for achievement of the country's social and economic goals. BSNL, is the only service provider offering rural telephony as part of its social responsibility. BSNL plans to provide broadband to 20,000 villages that are already connected through optical fibre. BSNL with support from government plans to provide broadband to all gram panchayats, secondary and higher secondary schools and public health care centres. BSNL is offering special tariffs for rural subscribers by providing lower rental and higher free calls as compared to urban area subscribers.

BAJAJ AUTO'S philanthropic activities among the rural poor are carried out by a Trust, the Jankidevi Bajaj Gram Vikas Sanstha (JBGVS) established in 1987 by Ramkrishna Bajaj in memory of his mother, Jankidevi Bajaj.This Trust acts as a catalyst to development at the grass root level in 32 villages around its plants in Pune and Aurangabad. The trust initiates sustainable, integrated development through long term projects in rural health, hygiene and sanitation, education and adult literacy, improving agricultural and livestock yield, watershed development and women's empowerment. These projects have a positive impact on the quality of rural living standards.

DABUR has a vision of being a company dedicated to the health and well being of every household, drawing inspiration from its founder Dr. S. K. Burman. In 1993, Dabur India Ltd established Sustainable Development Society (SUNDESH), a registered voluntary organisation, integrating various aspects such as health, literacy, employment, and empowerment. Through this, the company addresses the most deprived and weaker sections of the society including women, children, illiterates, and the unemployed. The Company organises camps, which include general OPDs, antenatal checkup, vaccination for children aged 0-5 years, family welfare, health awareness through meetings, eye screening and eye operation camps.

INFOSYS FOUNDATION, the philanthropic arm of Infosys Technologies Ltd, came into existence on 4 December 1996. Its main objective was to fulfil the social responsibility of the company by supporting and encouraging the underprivileged sections of society. The Foundation has been working on initiatives such as: training destitute woman in tailoring and donation of sewing machines and material to them to improve their livelihood; counselling centres to rehabilitate marginalised devadasis in North Karnataka; relief work conducted after natural disasters; donation of aid equipment to the physically challenged in rural areas of Karnataka; and construction of orphanages in rural areas.

THE ENVIRONMENT

TATA STEEL has laid great emphasis, over the years, on creating a green environment in and around its plants and on utilising the waste generated in the process of manufacturing steel. The company generates roughly 700 kg of various wastes in the process of producing one tonne of crude steel. Of this, 83.16% is utilised either through recycling and reuse in the company's own processes or is sold as raw material to other industries. The rest is sent for land filling.

GODREJ has been a key player in aiding education, environment and the health verticals besides looking after its own employees. The Soonabai Pirojsha Godrej Foundation has been maintaining the western bank of the Thane Creek, the single largest mangrove belt in Mumbai. The Sohrabji Godrej Green Business Centre launched the Green Business Initiative in December 2005, which was aimed at facilitating the development of corporate greenhouse gas inventories and subsequent investments in greenhouse gas mitigation projects.

ITC- focuses on the use of renewable energy such as biomass and solar energy. A number of units have installed solar thermal systems mainly for use in canteens and kitchens. It claims it endeavours to be a carbon positive corporation. Its efforts in the field of energy conservation, use of carbon neutral fuels and large scale tree plantations through social and farm forestry have resulted in sequestering 85.6% of the Carbon Dioxide (CO2) emitted by its operations.

INDIAN OIL CORPORATION: has included CSR in its vision and mission statement and has built its corporate strategies around it. Environmental initiatives include: development of cleaner fuels such as diesel with low sulphur content and biodegradable lube formulations; pollution control programme, in which all refineries are provided with facilities to control pollution from different sources; and ecological parks, which are scientifically designed green belts that have been developed at Gujarat Panipat refineries, to serve as a pollution sink and to enhance the aesthetic look of the refinery area. In 1998-99, the Salaya-Mathura Pipeline and the Koyali-Ahmedabad Pipeline became the first oil pipelines in the world to be accredited with ISO-14001 for Environment Management System.

THE STAKEHOLDER PERSPECTIVE

BP: The Company engages itself in dialogue with a wide variety of groups to create strong and lasting relationships with them. Employees maintain a dialogue with key groups, such as national NGOs, in different ways and make recommendations for the company on the social and environmental impacts.

Hero Honda Motors takes considerable pride in its stakeholder relationships, especially ones developed at the grassroots. The company believes it has managed to bring an economically- and socially-backward region in Dharuhera, Haryana, into the national economic mainstream.

ONGC is playing an important role in strengthening India's corporate world with a tuned sense of moral responsibility towards the community of people where it operates and the country at large. It also aspires to abiding commitment to safety, health and environment to enrich quality of community life and to imbibe high standards of business ethics and organisational values (Article 13 Group -2007).

A number of Indian companies discharge their social responsibilities quite satisfactorily. Table – 3 illustrates socially responsible Indian companies.

TABLE - 3: CSR ACTIVITIES OF SOME INDIAN COMPANIES

S N	CORPORATE	AREA OF ACTIVITY	BENEFICIARY STATE
1.	ITC	• Primary education • Livestock development • Social forestry • Integrated watershed devt.	UP, Bihar, MP, AP, Karnataka, MP
2.	ACC	• Revival of traditional arts • Preserving culture and heritage • Health and medicine • Education	Rajasthan, HP, MP, Jharkhand, Maharashtra, AP
3.	CITI group	• Women empowerment • Rehabilitation • Education • Health	AP, TN, Karnataka, Kerala, Maharashtra, MP
4.	HLL	• Rehabilitation • Education • Water conservation & harvesting • Women empowerment	Gujarat, Maharashtra, UP, Bihar, Jharkhand, WB, Orissa, MP, Chhattisgarh, Maharashtra
5.	TISCO	• Community development • Social welfare • Agriculture • Rural industrialization	MP, Bihar, UP, Gujarat, Maharashtra, Karnataka, Orissa, WB
6.	SAIL	• Community development • Education • Medical facilities and health • Agriculture, poultry, fisheries	Maharastra, AP, MP, Karnataka, Bihar, Jharkhand

Source: http:www.indianngos.com/corporate/about–csr.htm and http://www.itcportal.com/

CSR'S CHALLENGES AND LIMITATIONS TO ACHIEVE SUSTAINABLE DEVELOPMENT

The challenges on the road to developing socially responsible business seem formidable, and include:

LACK OF UNDERSTANDING OF THE CONCEPT OF CSR AND THE BUSINESS CASE FOR CSR: In addition, those that were familiar with the term and its meaning often portrayed CSR as an add-on to business, and not as a tool for supporting and achieving the strategic goals of the company.

VOLATILE BUSINESS CLIMATE: The instability and the uncertainty of the business climate contribute to some extent to a short-term as opposed to a long-term focus in business strategies and practices. This has a particular negative bearing on the introduction of CSR, as the benefits of sound CSR practices can be expected only in the long run.

LACK OF SOCIALLY RESPONSIBLE INVESTORS: Socially responsible investments constitute a major driver to raising awareness for and promoting the practice of CSR in developed countries.

LOW LEVEL OF AWARENESS OF CONSUMER RIGHTS AND LACK OF CONSUMER ACTIVISM: It is obvious that companies pay little attention to the observance of consumer rights, that consumers themselves are not often aware of their rights, and that the willingness and the enforcement capacity of the government in this area is weak.

WEAKNESSES IN CORPORATE GOVERNANCE: The country is still facing the challenge of improvement of corporate governance, which is particularly important for better behaviour of firms and for private sector development. Allot remains to be done for improving corporate transparency.

LACK OF DOMINANT MODEL OF CORPORATE GOVERNANCE/FUNDING: Local companies still lack a dominant model of corporate governance and control. There is no substantial external pressure or incentives for companies to fully implement the concept of CSR in their behaviour (Petkovski, Vladimir & Aleksandar Nikolov -2007).

As the roles and responsibilities of government are being redefined and the boundaries between business and government become less clear, the business leaders are facing a daunting array of challenges. In the new age of CSR, the needs of the stakeholders, consumers, employees, national as well as international regulators, watchdogs, NGOs, and activist groups have to be satisfied. The CSR rhetoric - including the blurred boundaries of CSR, the underdevelopment of the civic society, the economic reality, the ethical standards, and the attempts at self-regulation of business.

CONCLUSION

Business houses all over the world are increasing in realizing their stake in the society and engaging in various social and environmental activities. Corporate social responsibility is an evolving concept that incorporates a wide range of internal and external policies and practices extending from the workplace, into the community, the environment and beyond. It is not a new activity to many companies, both large and small, have already been practising CSR, albeit on an informal basis, for years. CSR holds a very important place in the development scenario of the world today and can pose as an alternative tool for sustainable development. As companies have shown great concerns for their immediate community and the stakeholders. Nevertheless CSR has certain limitations which restrict its activities. The need of the hour is to formulate effective strategic policies and adopt various instruments according to the company history, its content, peculiarity in relationship with its different stakeholders so that CSR can be best implemented towards its goals – sustained environmental, social and economic growth. Corporate together can make the world as a better place to live. CSR is becoming a leading principle of top management and of en-trepreneurs. Organizations can re examine their pattern of behaviours in the TBL framework and begin their journey toward a sustainable approach that is integrated into their business strategy.

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A STUDY ON MEASURING THE PERFORMANCE OF INDIAN BANKING SECTOR IN THE EVENT OF RECENT GLOBAL ECONOMIC CRISIS- AN EMPIRICAL VIEW

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ABSTRACT
When banks in almost all the countries have witnessed a severe thunder bold due to global financial turmoil, the Indian banking system has shown remarkable resilience in withstanding the impact of global financial crisis. The performance of banking sectors in the recent years have vindicated that the sector has no direct impact of global crisis and it has the capability of handling the crisis relatively better than other countries. It is still argued that the banking sector in India is well insulated and it is immune to the crisis because of well regulated banking system. In the light of the above fact this paper has made an attempt to highlight certain key parameters to evaluate the performance of the Indian banking sector amidst in the global financial turmoil. The parameters used in evaluating the performance of the banking sector of our sub- continent are Current Growth of bank credit to the private sector, Capital to risk weighted asset ratio (CRAR), Asset quality management, Classification of loan asset, Cost of funds , Return on fund and Spread, Return on asset (ROA) and Return on Equity & Procurement of capital through domestic and foreign sources,

KEYWORDS
Capital Adequacy Ratio, NPA, Spread, ROE, ROA, GDR, ADR

INTRODUCTION
When banks in almost all the countries have witnessed a severe thunder bold due to global financial turmoil, the Indian banking system has shown remarkable resilience in withstanding the impact of global financial crisis. The performance of banking sectors in the recent years have vindicated that the sector has no direct impact of global crisis and it has the capability of handling the crisis relatively better than other countries. It is still argued that the banking sector in India is well insulated and it is immune to the crisis because of well regulated banking system. In the light of the above fact this paper has made an attempt to highlight certain key parameters to evaluate the performance of the Indian banking sector amidst in the global financial turmoil.
The following selected parameters are considered to be worthwhile in evaluating the performance of the banking sector of our sub- continent.

- Current Growth of bank credit to the private sector.
- Capital to risk weighted asset ratio (CRAR).
- Asset quality management.
- Classification of loan asset
- Cost of funds , Return on fund and Spread
- Return on asset (ROA) and Return on Equity
- Procurement of capital through domestic and foreign sources

GROWTH OF BANK CREDIT TO THE PRIVATE SECTOR
Growth in bank credit to private sector plays an important role in nourishing the industries. According to RBI, the advances of all scheduled commercial banks grew at 24% till the end of 2008. The major contributor to the credit growth was corporate credit just as time deposit. The primary reason for the growth in bank credit is attributed to the non-availability of credit from other sources and so that bank credit is one of the few sources which is available at the door step of the industries.
When we compare the year 2007 to 2010 towards the disbursement of bank credit to the private sectors by taking selected countries, the following facts are revealed:

- US contribution declined from 12% to -2.7%
- France, Germany, Japan, Italy, Greece, Spain, Russia, Brazil and Mexico have struggled to maintain the growth in bank credit to the private sector.
- Almost all the countries except India and china have shown negative growth in bank credit to the private sector
- India has managed to the large extent to maintain the percentage in growth in bank credit throughout the quarters. Finally it has marginally sacrificed to the extent of 35% towards the growth in bank credit to first quarter, 25.7% of growth in bank credit to private sector has been declined to 17% in the II quarter of 2010. Though the decrement in the growth took place, Indian banking sector is no longer inferior to any other country in distributing the credit to the private sector.

CAPITAL TO RISK WEIGHTED ASSET RATIO (CRAR)
CRAR is one of the soundness indicators of banking sector; higher ratio of CRAR indicates that the bank maintains the capital adequacy position in order to meet any emergency position. The CRAR of Indian banks under Basel I framework, has shown a consistent increment since 2007, and even in the financial crisis, the

sector has witnessed a marginal increment from the year 2008 to 2009. According to Basel II norm, RBI has stipulated minimum ratio of 9% and the stipulated ratio has been met by all the banks and to say almost all the banks have been maintaining more than 9% of capital adequacy ratio in the end of year 2008 and 2009.

Generally CAR is measured through the tools Tier I & Tier II capital and risk – weighted assets. Tier I capital refers core capital i.e. paid up capital and Tier II capital refers non-core capital. In addition to that, the assets are classified according to the risk and the weightage will be given in tandem with risk. In order to measure CAR, capital funds via Tier I & Tier II capital are reflected as percentage of risk weighted assets. In case of Indian banks, core capital made up of 70% of total capital at the end march 2010. Core CRAR itself is being represented as 9.4% and 10.1% under Basel I and Basel II norms.

TABLE 1.1 SHOWING COMPONENT WISE CAPITAL ADEQUACY OF SCBS (AS AT END-MARCH) (RS IN CRORES)

Item	Basel I		Basel II	
	2009	2010	2009	2010
A. Capital funds (i+ii)	488563	572582	487826	567381
i) Tier I capital	331422	397665	333810	395100
ii) Tier I capital	157141	174916	154016	172281
B. Risk-weighted assets	3704372	4216565	3488303	3901396
C. CRAR (A as % of B)	13.2	13.6	14.0	14.5
Of which tier I	9.0	9.4	9.6	10.1
tier II	4.2	4.1	4.4	4.4

Source: RBI report on banks 2010

The above table shows that CRAR has been improved from 13.2% to 13.6% during the year 2009 and 2010 under Basel I norms and under Basel II norms, the scheduled commercial banks have shown an increment from 14% to 14.5% in the year 2009 and 2010. The contribution of Tier I capital is much significant rather than Tier II capital in measuring capital adequacy ratio indicates that the banking sector in India has shown robust fool proof in withstanding the pressures of the global financial crisis.

TABLE 1.2 SHOWING CAPITAL TO RISK WEIGHTED ASSETS RATIO – BANK GROUP – WISE (AS AT END -MARCH)

Bank Group	Basel I		Basel II	
	2009 (%)	2010 (%)	2009 (%)	2010 (%)
Public Sector Banks	**12.3**	**12.1**	**13.5**	**13.3**
Nationalised banks	12.1	12.1	13.2	13.2
SBI Group	12.7	12.1	14.0	13.5
Private Sector Banks	**15.0**	**16.7**	**15.2**	**17.4**
Old Private Sector Banks	14.3	13.8	14.8	14.9
New Private Sector Banks	15.1	17.3	15.3	18.0
Foreign banks	**15.0**	**18.1**	**14.3**	**17.3**
Scheduled commercial banks	**13.2**	**13.6**	**14.0**	**14.5**

Source: RBI report on banks 2010

The above table indicates the following facts with respect to CRAR maintained by bank group.

- In 2009, the private sector banks have maintained 15% and 15.2% of CAR under Basel I and Basel II norms. The above figure is far more than the minimum stipulation of RBI
- The public sector banks have witnessed a thin decline in terms of capital adequacy ratio in the year 2009 and 2010 under Basel I and Basel II norms. The decline is very much negligible in the event of global financial crisis

ASSET QUALITY MANAGEMENT

While the capital adequacy of Indian banks remained robust, there were some emerging concerns with regard to the second important soundness indicators of banks' Non-Performing Assets (NPA).

TABLE 1.3 SHOWING TRENDS IN NON PERFORMING ASSETS – BANK GROUPWISE

Gross NPAs as per cent of gross advances	Public sector banks	Nationalised banks	SBI Group	Private Sector Banks	Old Private Sector Banks	New Private Sector Banks	Foreign banks	Scheduled commercial banks
2008-09	**1.97**	1.73	2.46	**2.89**	2.36	3.05	**3.80**	**2.25**
2009-10	**2.19**	1.95	2.70	**2.74**	2.32	2.87	**4.29**	**2.39**

Source: RBI report on banks 2010

Asset quality of Indian banks had gradually seen a steady improvement since 1999. The gross NPA ratio of SCBs placed at 14.6% at the end march 1999 had declined steadily to 2.25% at the end march 2008. During the crisis year 2008-09, the gross NPA ratio remained unchanged for Indian banks.

At the bank group level, the gross NPA ratio was the highest for foreign banks followed by private sector banks in the year 2010. On the other hand, it was the lowest for public sector banks.

CLASSIFICATION OF LOAN ASSET

In case of classification of loan assets, public sector banks maintained 98% of standard assets in the year 2010 showing drastic improvement in terms of maintaining quality assets compared to private sector banks and foreign banks.

As far as the loss asset is concerned, public sector banks, private sector banks and foreign banks had a portion of less than 1% in their asset portfolio.

COST OF FUNDS, RETURN ON FUNDS AND SPREAD

Performance parameters during the two-year period showed that banking sector exhibited a significant improvement. The cost of funds registered a significant decline. Analysis of bank group wise performance is as follows with the table

TABLE 1.4 SHOWING COST OF FUNDS, RETURN ON ADVANCES ADJUSTED TO COST OF FUNDS & RETURN ON ASSETS - BANK GROUP WISE

Bank groups	Cost of fund (%)		Return on advances adjusted to cost of funds (%)		Return on assets (%)	
	2009	2010	2009	2010	2009	2010
SBI and its subsidiaries	5.94	5.32	3.95	3.60	1.02	0.91
Nationalized banks	6.09	5.35	4.09	3.83	1.03	1.00
Old private sector banks	6.67	6.13	5.15	4.81	1.15	0.95
New private sector banks	6.06	4.43	5.23	5.13	1.12	1.38
Foreign banks	4.46	2.82	8.14	7.17	1.99	1.26
All scheduled commercial banks	5.96	5.09	4.53	4.19	1.13	1.05

Source: RBI report on banks 2010

COST OF FUNDS

The cost of funds had come down considerably during 2009-10 although it continued to be high for all bank groups except for foreign banks. The cost of funds which ranged between 4.46% and 6.67% for different bank groups in March 2009 came down considerably and worked out between 2.28 % and 6.13% in March 2010.

Foreign banks could bring down their cost of funds from 4.46 % to 2.82% during the period, whereas the State bank group and nationalized banks could bring down their cost only from 5.94% to 5.32% and 6.09% to 5.35% respectively.

While the new private sector banks could bring down their cost of funds only by 0.54% during the period.

RETURN ON ADVANCES ADJUSTED TO COST OF FUNDS

Return on advances adjusted to cost of funds in respect of various bank groups remained in the range of 3.95 % and 8.14 % as at end March 2009 and 3.60 % and 7.17% as at end march 2010. State bank group had the lowest return on advances for both the years.

Foreign banks outperformed the entire bank groups as their return on advances adjusted to cost of funds stood at 8.14% and 7.17% as at end March 2009 and 2010 respectively. The new private sector banks also did well as compared with all other bank groups with 5.23% and 5.13% during the two years. Sustenance of this sort of return will be a major task for all bank groups in a dynamic financial market

RETURN ON ASSETS

In respect of return on assets, while the foreign bank group scored well as compared with the other bank groups, state bank group stood lowest even compared with old private sector banks.

It is noteworthy to observe that while the new private sector banks increased their return on assets from 1.12% in March 2009 to 1.38% in March 2010, all other bank groups, including foreign banks, registered a decline on their return on assets.

SPREAD

TABLE 1.5 SHOWING SPREAD - BANK GROUP WISE

Bank groups	Spread (%)	
	2009	2010
SBI and its subsidiaries	2.95	2.81
Nationalized banks	3.14	3.13
Old private sector banks	3.34	3.12
New private sector banks	3.77	3.99
Foreign banks	6.10	5.49
All scheduled commercial banks	3.40	3.31

Source: RBI report on banks 2010

One of the major indicators of profitability of the banking sectors namely, the spread – which is the difference between return and cost of funds. The spread of the public sector banks during 2008-09 was at 3.07% and during 2009-10 it was at 3.02%. The spread of the private sector banks during 2008-09 it was at 3.67% and during 2009-10 it was at 3.77%. The spread of the foreign banks during 2008-09 was at 6.10% and during 2009-10 it was at 5.49%. The spread of the all SCBs during 2008-09 was at 3.40% and during 2009-10 it was at 3.31%. Though there are fall in the spreads of public sector banks, foreign banks and all SCBs, the fall of spreads are marginal and they are at an optimum level. The spread of private sector banks is at an increasing point.

STEADY PROFIT GROWTH

The current economic slowdown may yet pose a challenge in sustaining this high net profit growth. However, some banks such as Punjab National Bank, HDFC Bank and axis bank, aided by a higher proportion of low- cost deposits and higher net interest margin, may be in a better position to sustain similar growth.

Higher pricing power, at a time of fund crunch, has helped banks post higher advances growth and higher yield on advances which, in turn, helped to sustain margins over the last few quarters. Further, the stimulus packages are also likely to support the credit growth. Higher margins in turn led to study profit growth.

Consider the nine months of FY 09 – net profit of 37 listed banks grew at 24%. The robust net profit growth can be attributed to a 30% growth in net interest income and 17% growth in other income.

RETURN ON EQUITY

TABLE 1.6 SHOWING RETURN ON EQUITY – BANK GROUP WISE

Bank group	Return on equity	
	2008-09 (%)	2009-10 (%)
Public sector banks	**17.94**	**17.47**
Nationalized banks	18.05	18.30
SBI group	17.74	15.92
Private sector banks	**11.38**	**11.94**
Old private sector banks	14.69	12.29
New private sector banks	10.69	11.87
Foreign banks	**13.75**	**7.35**
All SCBs	**15.44**	**14.31**

Source: RBI report on banks 2010

Public sector banks have shown utmost 18% of return on equity in the year 2009 which is significantly more than private sector banks and foreign banks. In general the banking sector has witnessed favourable return on equity in the year 2009 and 2010.

PROCUREMENT OF CAPITAL THROUGH DOMESTIC AND FOREIGN SOURCES

Capital market provides an important avenue to banks to raise resources for strengthening their capital base as well as to provide trading ground for banking sector stock in a liberalised and competitive environment, banks operation in the capital market have crucial implication for the growth of their banking business

TABLE 1.7 SHOWING PUBLIC ISSUES BY THE BANKING SECTOR **(RS IN CRORES)**

Year	Public sector banks		Private sector banks		Total		Grand total
	Equity	Debt	Equity	Debt	Equity	Debt	
2008-09	-	-	-	-	-	-	-
2009-10	**325**	-	**313**	-	**638**	-	**638**

Source: RBI report on banks 2010

In 2008-09 the banking sector did not tap the primary market but in 2009-10 the sector has tapped the market and mobilized the capital to the tune of Rs 638 crores, which shows that the banking sector has a scope to improve and potential to invest even in the financial crisis and as well as the public showed a strong faith on the banking system by the way of subscribing the shares in the primary market.

TABLE 1.8 SHOWING RESOURCE MOBILISATIONS THROUGH EURO ISSUES (RS IN CRORES)

Items	2008-09	2009-10
Euro issues	**4788**	**15967**
ADRs	**-**	**7763**
Of which FIs	-	-
Of which banks	-	-
a) Private	-	-
b) Public	-	-
GDRs	**4788**	**8204**
Of which FIs	-	-
Of which banks	-	843
a) Private	-	843
b) Public	-	-
Foreign Currency Convertible bonds	N.A	N.A

Source: RBI report on banks 2010

Some of the banks have gone to access the capital across the countries by the way of issuing ADRs and GDRs. As for as the above table is concerned, in 2008-09, the banking sector resorted the measure to mobilize the capital through ADR and GDR to the extent of Rs 9500 crores, where as in 2009-10 the sector attracted foreign investment of Rs 34,000 crores (approximately) through ADR and GDR and that made the Indian banking sector to be proud among other sectors

CONCLUSION

When the banks of other nations faced a terrible hit in the global financial crisis, the banking sector in India has shown and showing the positive progress in its operations and they are as follows:

- A stable growth of bank credit to the private sector
- Soundness in CRAR
- Steady improvement in asset quality of banks
- A well managed difference between cost of funds and return on funds resulted in optimum spread
- Steady profit growth
- Healthy return on equity
- Effective procurement of financial resources through domestic and foreign capital markets
- Recognition in the domestic and foreign capital markets

The above factors clearly indicate that the Indian banking sector has functioned well even at the time of crisis and it has not given up its strength during the global financial meltdown. Even after the global financial crisis the banking sector of our country is sustaining growth almost in all levels of its operations.
With the above evident this paper concludes that "Indian banking sector - a smooth sailor in the global financial tsunami".

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e-PROCUREMENT USING REVERSE AUCTIONS FOR CONSTRUCTION PROJECTS

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ABSTRACT

The growth of e-commerce has been phenomenal and it is radically transforming the way companies are doing business in all sectors, and the construction industry is no exception. At all junctions of construction project there has been continuous encouragement to consolidate, innovate, improve quality, improve safety, make partnerships, reduce wastages, deliver on time, meet / save the budget. Service, cost and time are the measures of Procurement excellence in any construction project and the amount saved on cost of the materials directly adds up to the profit of the project. B2B e-Markets offer innovative tools for strategic sourcing requirements of construction projects. B2B Reverse auction is one such innovative tool which offer real-time access to the marketplace, increase competition, lower costs, and save time. A carefully executed reverse auction can contribute to the success and profitability of the Construction Projects. This paper critically analysis material procurement related to Construction Projects and proposes B2B reverse auction methodologies using an Independent Horizontal B2B e-Marketplace.

KEYWORDS

B2B e-Commerce, Reverse Auction, Construction Industry, Project material Procurement.

INTRODUCTION

The global economy has changed dramatically from an industrial society to an information society. Several information and communication technologies (ICTs) have been developed in the marketplace and these ICTs have presented numerous opportunities and challenges for both developed and developing countries. The Internet is an important information technology that has developed over the years and it is transforming the manner in which several companies conduct their business activities and it has enabled the evolution of electronic commerce (e-commerce).

E-COMMERCE AND E-BUSINESS

In general, e-business is used in the broadest sense. It includes buying and selling on-line, but also other aspects of on-line business activity, such as purchasing, tracking inventory, managing production and handling logistics, customer support services, supply chain management and collaborative engineering. Electronic Commerce, or e-commerce, is buying and selling on-line. It is part of the broader term e-business and involves transactions. In simple words B2B commerce can be defined as "doing business electronically" or business that is conducted over the Internet.

E-MARKETPLACE

In economics, a market is defined as a virtual meeting-place of supply and demand. E-marketplaces fulfil the same purpose. E-marketplaces are a Business to Business relationship model (B2B) in which multiple organizations, both sellers and buyers, can communicate, collaborate, and perform commercial transactions by means of a Web platform which is common to all those participating in the market. The main advantage of the e-marketplace compared with other B2B models is that it allows a purchasing company access to multiple selling companies and to selling companies access to multiple purchasing companies.

PROCUREMENT IN CONSTRUCTION INDUSTRY

In this era of escalated demand for growth, the construction industry across the globe faces issues of constant material price fluctuation and shortage of skilled resources. Today, enterprises are increasingly in need of sustainable, faster and safer methods of construction, innovative project delivery modes and procurement practices, as well as interoperable standards within the construction industry, which is really a big challenge to their existing supply chain to improve the efficiency and effectiveness. The construction sector requires a large quantity of materials, machinery and services from other productive sectors, producing a multiplying effect in the economy. The aim of supply is to deliver the correct quantity of a quality product, at the correct time, in the correct place, and at the best price. Purchasing is seen as a great opportunity for savings since it takes quite a large part in the turnover.

At all junctions of construction project there has been continuous encouragement to consolidate, innovate, improve quality, improve safety, make partnerships, reduce wastages, deliver on time, meet / save the budget. Service, cost and time are the measures of Procurement excellence in any construction project and the amount saved on cost of the materials directly adds up to the profit of the project.

LITERATURE REVIEW

A detailed literature survey was conducted on the Procurement process for construction projects, various e-Business models, e-business applications in construction industry. The sources of literature review includes books, management journals, survey reports, research reports and contemporary articles on the e-business applications in supply chain management. Summary of observations made out of the detailed literature survey is given below:

E-COMMERCE IN RELATION TO CONSTRUCTION

E-commerce can be defined as the conducting of buying and selling of goods and services as well as business communication and transactions over computer networks and through individual computers linked to the World Wide Web (Key IT Solutions, 2005). The potentials of e-commerce technologies applications in the construction industry include: E-marketing; E-selling/e-procurement of goods and services; E-collaboration; E-finance; and E-customer services and relations (Veeramani et al., 2002).

The necessary technological solutions for e-supply chain systems are readily available in the current market. Some of the fundamental issues for successful ecommerce in construction, such as signature exchange (Pederson, 1999; Asokan et al., 2000), secure payment (Shamir et al, 1998; Bellare et al., 2000), and fair contracting models (Coscia et al., 2000; Rohm & Pernul 2000; Liu et al., 2001) have already been addressed in broader business-to-business (B2B) projects. E-commerce applications have enhanced the development process operations of a project, and promoted integration and operation through the shared information network system to diverse participants in the construction supply chain (Jones & Saad 2003).

e-Business has much to offer the construction sector, as it directly addresses the issues that a disseminated industry has to deal with – distributed collaboration, electronic sourcing and purchasing of products and services that meet well-defined requirements, globalization, need for improved efficiency and timely delivery. It is widely accepted that e-business is the way to conduct construction business in the 21st century. It is the means available to companies to continuously improve efficiency and effectiveness in serving their clients' needs and in delivering a return to their shareholders. The development of e-business is upon us, now affecting the short and medium term but it is also the way business will develop over the long term. (Chimay J. Anumba and Kirti Ruikar, 2008).

A construction project is a complex activity involving several participants; for example, the client, architect, structural engineer, fabricator and the contractor. It is team efforts, involving several, inter organizational activities and dialogue. Traditional communication and document exchange models were often manual and hence slow. The traditional means of communication involves producing numerous paper copies of documents and drawings. Management of these loose documents is often very time-consuming and tedious. Libraries of documents need to be maintained to effectively access data as and when required by the user. 'A lack of a clear audit trail causes delays in communicating with other members of the team' (Needleman, 2000).

E-business provides mechanisms for cross-enterprise coordination in name of construction supply chain integration. In order to optimize the entire supply chain system cross-enterprise coordination and special business relationship must be established among the organizations along the supply chain (Francisco Loforte Ribeiro and Jorge Lopes, 2001).

E-PROCUREMENT PROCESS

E-Procurement can be defined as the "electronic integration and management of all procurement activities including purchase request, authorization, ordering, delivery and payment between a purchaser and a supplier" (Chaffey, 2002). The more general classifications of the procurement process have been created by authors such as Kalakota and Robinson (2000), Lysons (1996), Fogarty et al (1991), and Whitely (2000). These classifications contain three to four stages of procurement and put the "order" or "sale" as the central phase of the process. In a more recent classification, Archer and Yuan (2000) detail a seven-phase procurement process. The phases include (1) information gathering,(2) supplier contact, (3) background review, (4) negotiation (5) fulfilment, (6) consumption, maintenance and disposal, and (7) renewal.

Six forms of e-Procurement are described by de Boer et al.(2002); (i) electronic-Maintenance Repair and Operations (e-MRO), (ii) web-based Enterprise Resource Planning (ERP), (iii) electronic-sourcing (e-sourcing), (iv) electronic-tendering (e-tendering) (v) electronic-reverse auctioning (e-reverse auctioning) and (vi) electronic-informing (e-informing). Both e-MRO and web-based ERP are built on a web-integrated enterprise resource planning system. The difference between the two is that e-MRO focuses on the procurement of MRO items whereas web-based ERP focuses on direct materials (de Boer et al, 2002). B2B relationships have most effect on the sourcing, fulfilment, and consumption phases of the procurement cycle (Nagle T, Finnegan P, Hayes J, 2006).

Research of enterprises' experiences with Internet-based procurement automation technologies indicates that companies have been able to achieve significant cost and process benefits by automating key procurement activities (Aberdeen, 2001). As a result of their e-procurement initiative, enterprises, on average, displayed a 35% improvement in spend under management, with a 41% reduction in maverick spend. Additionally, enterprises reduced their requisition-to-order cost by approximately 100%, and more than halved their transaction cycle time. In addition to improvement in various performance areas, enterprises reported negotiating, on average, a 4.75% incremental discount with suppliers after implementing their e-procurement solution (Aberdeen, 2007).

e-REVERSE AUCTIONS

In the mid-1990s, a new electronic sourcing tool emerged that has had, and is continuing to have, a profound impact on the way in which firms source goods and services from current and potential external suppliers. This tool, while known by other names (e.g., "online negotiation") is the electronic reverse auction (e-RA). For a growing number of buying firms, e-RAs have found an appropriate niche in their strategic sourcing toolkit, allowing them to efficiently source goods and services that are highly standardized, have sufficient spend volume, can be replicated by a reasonable number of qualified competitors, and have insignificant switching costs (CAPS Research, 2002).

Dimitri P. Bertsekas, David A. Castanon, and Haralampos Tsaknakis (1993) have conducted detailed research and developed reverse auction algorithms for Symmetric Assignment Problems. Auction-based mechanisms are extremely relevant in modern day electronic procurement systems since they enable a promising way of automating negotiations with suppliers and achieve the ideal goals of procurement efficiency and cost minimization (T. S. Chandrashekar, Y. Narahari, Charles H. Rosa, Devadatta M. Kulkarni, Jeffrey D. Tew, and Pankaj Dayama, 2007).

Despite the benefits of e-commerce technologies to the construction industry, there are many challenges in its applications. In many instances, the potential of e-commerce technologies has yet been fully and properly utilized, as many companies are simply utilizing various technologies to automate existing processes without analyzing the company's objectives and realistic needs. In addition, significant people and culture issues need to be addressed to overcome resistance to change and achieve radical revision (Elliman & Orange 2003).

RESEARCH GAPS IDENTIFIED

It has been noted from the above detailed literature survey that, until now, not much evident research has been conducted to pursue successful applications of ecommerce technologies to the construction supply chain. Furthermore, there is very little empirical research available that investigates the implementation of e-Procurement initiative for construction project procurement. Also it has been noted that the available exploratory research does not provide detailed analysis on the various procurement organizational structures (i.e. De-centralized Vs Centralized Vs Center-led) and does not proposes a hybrid form of procurement organization coupled with e-Procurement application.

For this reason, this research will focus on developing a methodology for implementation of e-Procurement using e-RA on a B2B e-market platform in construction supply chain. The specific issues which will be investigated include the objectives, reasons/benefits, barriers of using e-commerce technologies. This research will also investigate the encouraging factors and the need for learning, training, and knowledge sharing for better applications of e-commerce technologies and provide suggestions for better utilization of such modern communication and management tools.

Rationale behind this study

This research paper aims to reduce the drawbacks of traditional procurement process adopted in Construction companies and proposes methodology for utilization of web based B2B Reverse Auctions for the construction Projects through the following analysis:

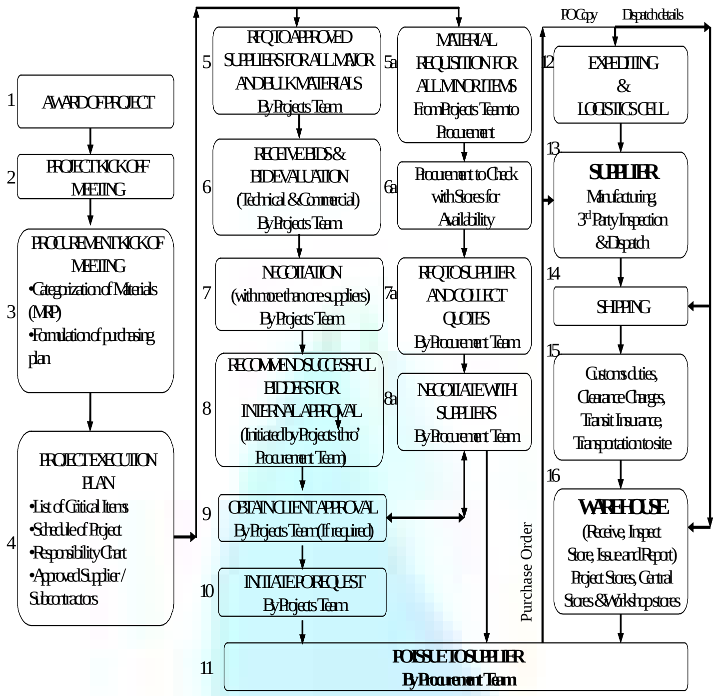
- Project Procurement Process analysis
- Commodity Spend Analysis
- B2B Reverse Auction Analysis
- Auction Implementation Methodology.

PROCUREMENT PROCESS ANALYSIS

Every construction Project generally requires two types of materials namely Direct Material (also called as "Permanent Materials") which will form part of Project Permanent installation and "In-Direct Materials/Services" which are supporting items requires for the day to day site execution of the Projects. As a thumb rule 50 to 70% of the Project Cost is contributed from the Project Permanent Materials.

De-Centralized Procurement Process: Traditionally construction companies are adopting De-Centralized Procurement Process in which Project procurement begins with the award of the Project and issuance of RFQ to the suppliers. In De-centralized process, Procurement Department will play only a meagre role of Processing the Purchase Orders based on the Request received from the Project Offices, where the core Procurement activity is handled by the site Project Team. This type of De-centralized Purchase leads to "maverick purchasing" even the Procurement Departments ensures "checks & balances" as indicated in

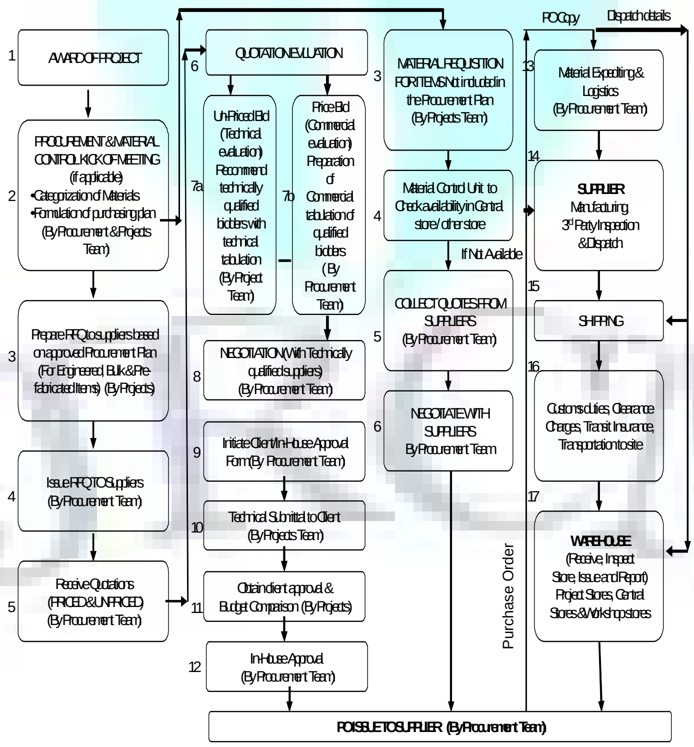
FIG. 1. DE-CENTRALIZED PROCUREMENT PROCESS



Centralized Procurement Process: In order to improve the procurement efficiency Construction companies must centralize the Procurement activities. In the centralized Procurement Process, Procurement Department plays a pivotal role in the sourcing and negotiations. The modified process flow of Centralized Procurement process is indicated Figure-2. According to the modified process flow, Procurement Department will issue Request for Quotations (RFQ) to suppliers and commercial evaluation / negotiations with suppliers will be conducted by Procurement Department. Projects will be notified upon finalization of the successful supplier for obtaining the Client / Consultant approval. The Centralized Procurement has the following advantages:

- Better prices due to volume discounts.
- Greater bargaining power with suppliers.
- Avoids price anomalies and competition for scarce commodities between jobs.
- Standardized procedures.

FIG. 2. CENTRALIZED PROCUREMENT PROCESS



COMMODITY SPEND ANALYSIS

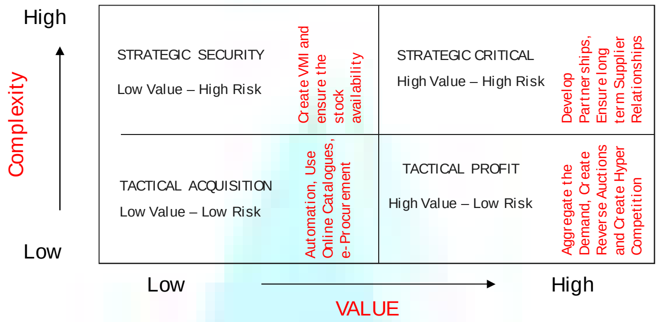
Spend analysis is the examination of the volume and value of purchasing transactions at an organization makes. Corporate purchases can be classified along many dimensions that are relevant for the potential use of B2B e-markets for procurement. Two questions should be kept in mind:

- Given the characteristics, is it possible to use e-markets?
- Given the characteristics, is it economically reasonable to use e-markets, i.e. are e-markets better than any other form of procurement?

The various commodities procured by Contracting Companies for their construction projects can be broadly grouped in to Engineered Materials with a unique assigned number (or tag) such that they can be uniquely identified throughout the entire life of the Project, Bulk items that are manufactured to industry standards and purchased in bulk quantity. (e.g., pipes, cables, fittings, conduits, etc) and Pre-Fabricated Items that are typically fabricated as per engineered specifications at a fabrication shop or shop site separate from the Project site. Depending on the Project, these items are quantified, procured and delivered by the subcontractor. (e.g., process modules, pre-assemblies, pipes spools, control stations, equipment skids, etc.).

Complexity, Strategic Importance, Price and Repeat Purchase are the important dimensions of Procurement Spend for conducting a Commodity Spend Analysis (Report for OGC by Europe Economics, 2002). Depending on the complexity and price of the materials, Construction companies have to adopt Suitable strategy as indicated in the Kraljic Procurement Portfolio Matrix (Marjolein C.J. Caniëls and Cees J. Gelderman, 2005) in Figure-3 to deal with the suppliers to minimize the Procurement Risks.

FIG. 3. KRLJIC PROCUREMENT PORTFOLIO MATRIX



- High Value – High Risk: Ensure availability of Supply with Close Price Management.
- Low Value – High Risk: Ensure availability even if price premium is necessary.
- High Value – Low Risk: Opportunities to Cut Cost, Improve Savings using competition.
- Low Value – Low Risk: Ensure Automation & Minimize the time spent.

B2B REVERSE AUCTIONS

B2B e-Markets offer following trading functions, which can be adopted for the Procurement Requirements of Construction Companies.

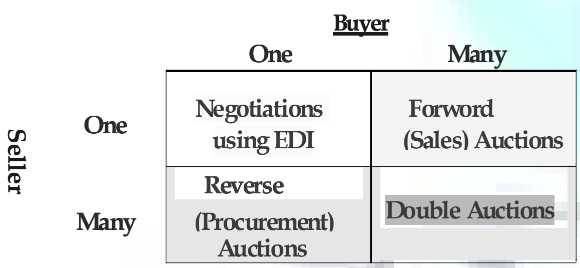
- Reverse Auction
- Exchange (RFQ/RFP/RFB)
- Catalogue

Reverse Auction: In a reverse auction buyers list a product or service they would like to buy. Sellers submit offers, lowering the selling price for each submitted bid. Online bidding is used also for reverse auctions. Online auctions effectively allow for an infinite number of bid re-submissions by suppliers in an open and competitive environment, at a relatively low overhead cost. This turns the concept of a 'true market price' into a reality, providing significant benefits to purchasing organizations. Types of web based Auctions:

- Negotiations using EDI: B2B EDI
- Web-based (Sales) Forward Auctions : eBay, Auction.co.kr
- Web-based (Procurement) Reverse Auctions : Priceline.com
- Web-based Double Auctions : Stock Exchanges

The different types of web based auctions are summarized in the Figure 4

FIG. 4. TYPE OF WEB BASED AUCTIONS



The reverse auction consists of two important components i.e. Auction style and auction control (Table-1 & 2). Companies can launch their auctions in the following auctions styles depending on their need.

TABLE 1

Auction style

Open	Suppliers can see the active bid Prices and attachments (Optional), the supplier identity is concealed.
Blind	Only the buyer can see bids.
Sealed	Neither buyer nor supplier can see the bids until the bids are unlocked.

TABLE: 2 AUCTION CONTROL

Open for all	All e-market registered Suppliers can quote for the auctions. But still specific suppliers can be invited.
By Invitation only	Only specific invited suppliers can quote for the auctions.

Auction style and auction control are the two important functionalities of online auctions. Buyer need to manipulate the combination of auction style and control depending on the commodity and nature of the item to be auctioned. Right combination will reap a potential savings to Buyers. The Buyers can do a spot purchase using the auctions or they can enter in to a long term agreement with the suppliers.

Buyers can also create a Request for quotations. RFQ and Auctions are similar in functionality, the main difference is an Auction can be of "Open Style" where suppliers are allowed to see each other's price and can re-bid for the same item, but RFQs are either Blind or sealed and suppliers can not re-bid.

TABLE 3: AUCTION COMBINATION MATRIX

	Auction Control	
Auction Style	Open for all	By Invitation only
Open	A	B
Blind	C	D
Sealed	E	F

Combinations:

A – Open and Open to all

B – Open and By Invitation only

C – Blind and Open to all
D – Blind and By Invitation only
E – Sealed and Open to all
F – Sealed and By Invitation only

The success of an auction, in terms of the savings obtained by the purchaser, depends on two key factors: the ability to define the good with clear and unambiguous specifications ("high specifiability") and a market with supply-side liquidity where there are plentiful suppliers that compete among each other to get the business ("highly competitive").

Empirically, there is a direct relationship between the order amount and the savings achieved, with larger volumes achieving greater percentage savings. It is therefore preferable for the Buyer Organization to plan and pool requirements together for a specific period of time and to auction its business together, rather than use various auctions.

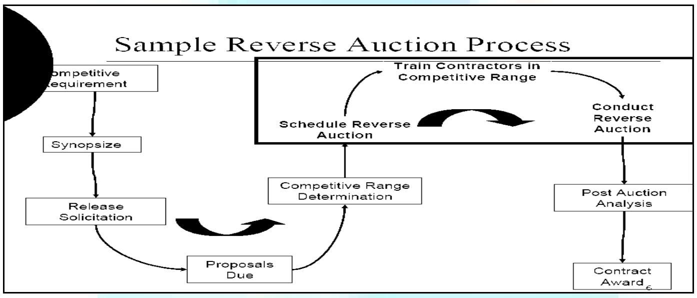
In conclusion, if a product can be perfectly defined, competition between suppliers is high and the value is sufficient, the better suited it will be to an online auction for the purchaser. Experience shows that substantial savings can be made and the risk that the purchaser incurs is minimized if the auction is carried out between approved suppliers.

B2B REVERSE AUCTION PROCESS

The reverse auction process (Figure-5) involves intensive work on behalf of the buyer and market maker to structure the bidding process and prepare suppliers for qualification. The process is represented below:

1. Make Market (specs)
2. Identify Suppliers
3. Pre-Award Review
4. Approved Suppliers Listing
5. Identify Specific Terms & Conditions
6. Invite Suppliers
7. Set Up Auction
8. Conduct Auction
9. Contract Write-up

FIG. 5. REVERSE AUCTION PROCESS



B2B e-Procurement Solution

Based on the above supplier & commodity spends analysis, it has been noted that procurement spend of Construction Companies generally covered under the following combinations (Table-4) and the appropriate B2B e-Procurement strategy has been indicated against the each commodity spend criteria. Based on the detailed analysis conducted on the various functionalities of the B2B e-Market online procurement tools, each of the above procurement strategy has been mapped with the most suitable e-Procurement tool as given in Table-5.

TABLE 4: COMMODITY SPEND CRITERIA & E-PROCUREMENT STRATEGY

Type	Commodity Spend Criteria				Average Annual spend	B2B e-Procurement Strategy
	Price	Repeat Purchase	Strategic Importance	Complexity		
I	Low	High	Low	Low	8%	Develop long term agreement with Suppliers and maintain B2B online supplier catalogues to reduce Transaction cost
II	High	High	Low	Low	8%	Create "Hyper Competition"
III	Low	Low	Low	Low	2%	Develop long term agreement with Suppliers and maintain B2B online supplier catalogues to reduce Transaction cost
IV	High	Low	Low	Low	> 0.5%	Create "Hyper Competition"
V	High	Low	High	Low	4.90%	Create RFQ & Prequalify suppliers and make them technically equal. Create Open auction by inviting only prequalified suppliers.
VI	Low	Low	High	Low	> 0.5%	Create reverse auction with clear item attributes and negotiate online.
VII	High	High	High	Low	> 0.5%	Create reverse auction with clear item attributes and negotiate online.
VIII	Low	High	High	Low	> 0.5%	Create reverse auction with clear item attributes and negotiate online.
IX	High	Low	High	High	75%	Create reverse auction with clear item attributes and negotiate online.
X	Low	High	High	High	1%	Create reverse auction with clear item attributes and negotiate online. The successful supplier will maintain their online catalogue for repeat purchase to reduce the transaction cost.

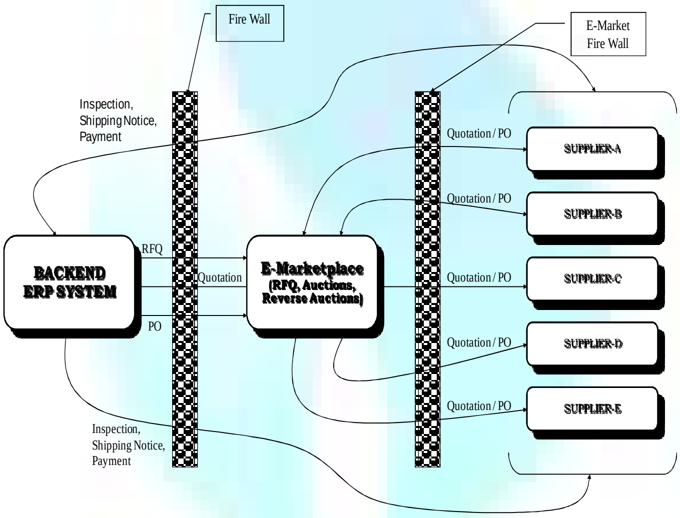
The following are the essential steps to streamline the procurement process through e-marketplace.
- Create online Supplier Invitation lists
- Create Auction / RFQ templates for each commodity
- Consolidate the requirements of similar commodity
- Select appropriate negotiation tool based on the type of the material.

TABLE 5: COMMODITY SPEND MAPPED WITH B2B E-PROCUREMENT TOOL

Type	TYPE OF B2B e-PROCUREMENT TOOL									
	Online Supplier Catalogue	Request for Quotation (RFQ)				Reverse Auction				
		RFQ Style		RFQ Control		Auction Style			Auction Control	
		Blind	Sealed	Open	Invitation	Open	Blind	Sealed	Open	Invitation
I	Yes					Yes			Yes	
II						Yes			Yes	
III	Yes					Yes			Yes	
IV						Yes			Yes	
V						Yes				Yes
VI						Yes				Yes
VII						Yes				Yes
VIII						Yes				Yes
IX		Yes	Yes		Yes					
X	Yes					Yes				Yes

In order to improve the efficiency and to achieve the Procurement Process automation, the Construction Companies having a back end ERP system have to integrate their ERP system with the e-marketplace portal as indicated in Figure-6.

FIG. 6: BASIC FRAMEWORK OF ERP – EMARKET INTEGRATION



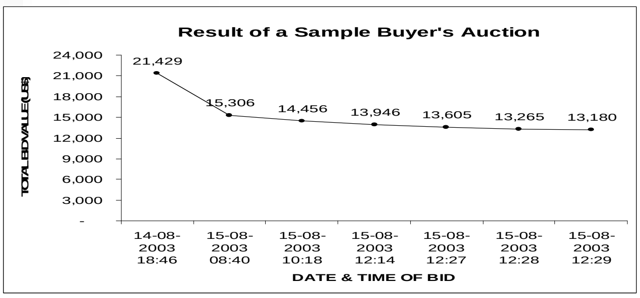
Reverse Auction: Supplier Price Dynamics

The online reverse auction process typically begins with the buyer posting a request for purchase (RFP) to a website and inviting specific suppliers to view the RFP. In a sealed-bid auction, suppliers are asked to submit their bids a few days or weeks later, and a winner is subsequently selected. Only the buyer views the bids.

In the open-bid auction, suppliers bid sequentially through a series of product lots or sub-groups and can view their competitors' bids and respond in real time. A moving end-time (a "soft close") is used for each lot, meaning that any bid within the last minute of the closing time will automatically extend the close time for a few minutes to allow other bidders to respond.

One auction characteristic that may influence auction success is auction time or the auto-extension of the bidding period. Most auctions are initiated with advanced notice of a specific closing time. The fixed end time poses an incentive problem—the early bid serves no benefit to the bidder but reveals information to her rivals. The typical model of the English auction would project that bidders would quickly bid their valuations and the auction would end with the highest valuation bidder receiving the price of the valuation of the second-to-last bidder. Yet many auctions with fixed-end times are experiencing "sniping" or submission of bids in the final minute of an auction as shown below in Figure-7. Late bidding deprives rivals of the ability of seeing one's bid and undercutting it.

FIG. 7. REVERSE AUCTION PRICE DYNAMICS



REVERSE AUCTION TIPS

To conduct successful reverse auctions, buyers must do their homework. To keep the process simple:

- Have a clear and concise requirement (recurring need commodities are best).
- Be certain a significant number of suppliers will compete (through substantial market research).
- Have a dollar amount great enough to offset the cost of conducting the reverse auction.

CONCLUSIONS

In conclusion, if a product can be perfectly defined, competition between suppliers is high and the value is sufficient, the better suited it will be to an online auction for the purchaser. Experience shows that substantial savings can be made and the risk that the purchaser incurs is minimized if the auction is carried out between approved suppliers.

Empirically, there is a direct relationship between the order amount and the savings achieved, with larger volumes achieving greater percentage savings. It is therefore preferable for the Buyer Organization to plan and pool requirements together for a specific period of time and to auction its business together, rather than use various auctions.

A well planned implementation of B2B e-Procurement for contracting companies will result in several benefits and some of the benefits are listed below:

- Cost savings and price reductions
- Reduction or elimination of the role of intermediaries
- Shortening supply chain response and transaction times
- Gaining a wider presence and increased visibility for companies
- Greater choices and more information for end users.
- Improved service as a result of instant accessibility to services
- Collection and analysis of voluminous amounts of data and preferences
- Creation of virtual companies and Leveling playing field for small companies
- Gaining global access to markets, suppliers, and distribution channels.

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PERFORMANCE ANALYSIS WITH SUSTAINABLE GROWTH RATE: A CASE STUDY

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ABSTRACT

Achieving the sustainable growth rate is the prime concern of managers of companies, whether small or big. But, in a fast changing economic, political and competitive environment, achieving the sustainable growth is not an easy task, especially in the present highly complex global environment. Consumer attitude, for instance, changed considerably over the last few decades. The objective of the study is to identify the components of SGR and the efficiency in their usage; analyze the impact of the components on the SGR and relationship between SGR and actual growth rate (AGR). To evaluate this, some important traditional performance measures such as Retention Ratio Analysis, Leverage Analysis, Asset Turnover Analysis, and Profitability Analysis, Correlation Analysis, Overall Performance Analysis along with a new performance measure called Sustainable Growth Rate (SGR) have been used. This research study further throws light on the extensive use of statistical techniques for analyzing the financial performance of the sample companies. The paper also furnishes a summary of the main findings and conclusions in the end. This study empirically tests the strength of the relationship between SGR and AGR in Indian IT Companies for the period between 1999 and 2007. This data have been analyzed with the help of statistical tools like ratios, percentages, averages and trend analysis, The Karl Pearson's correlation coefficient (r), students' 't' test. The statistical technique of hypothesis testing has further been used to analyze the significance of differences between sustainable and actual Growth Rate. This paper also substantiates the above arguments and illustrates how the two firms, viz. Wipro and Infosys have used the internally generated funds to exploit the fast growing IT market and become successful.

KEYWORDS

Shareholders' value, Sustainable Growth Rate (SGR), Ratio Analysis, Correlation Analysis.

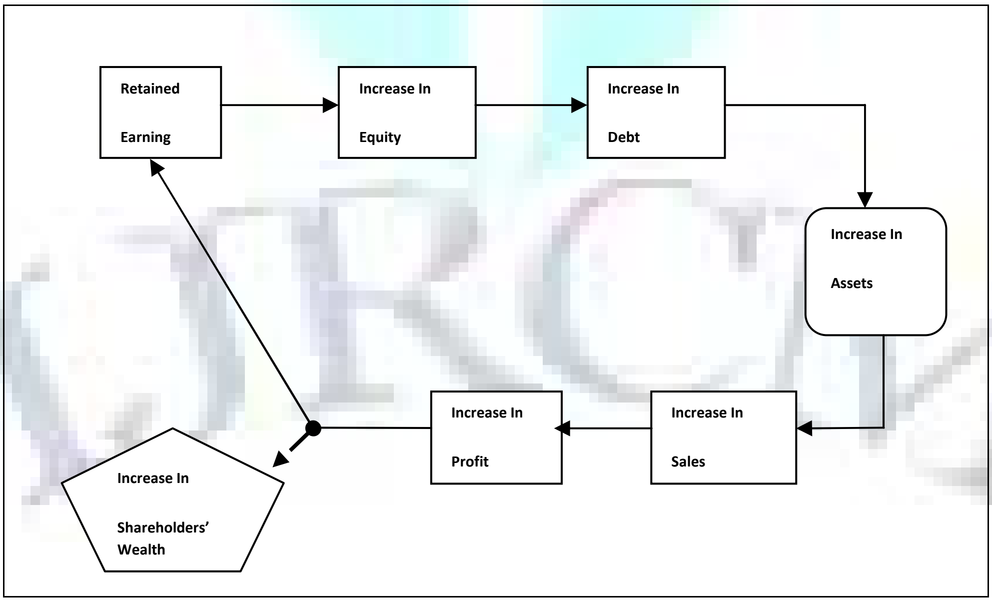
INTRODUCTION

In the present era of highly competitive environment, companies are striving hard to earn a reasonably good profit to increase the shareholders' wealth. The increase in the wealth of the shareholders depends upon a target profit which can be achieved within a reasonable period of time. Now the question remains- how an investor is let to know how long earnings growth can last? The easy way to gauge such a situation is by calculating the company's sustainable growth rate (SGR).

DEFINITION AND MEANING OF SGR

A company's SGR is the maximum growth rate with the use of internally generated funds without changing its operating and financial policies. According to Robert C. Higgins (2001, 2007), sustainable growth represents the maximum sales or asset growth that a firm can support using both internally generated funds and debt. SGR is calculated by multiplying the company's return on equity (ROE) by the proportion of its retained earnings (RE). According to Higgins, SGR depends upon the change in equity in a financial year divided by opening equity without any additional equity introduced during the year. Such a change is possible only through the retained earnings. Thus, the funds generated through retained earnings increase the net worth of the firm and with the increase in the net worth, the firm can borrow more funds which would enable the firm to increase its asset base. The increase in assets results in increase in operation which ultimately results in increase in profit and thereby increase in retained earnings. The following figure depicts the whole process:

FLOW OF FUNDS THROUGH RETAINED EARNINGS



Flow of funds through retained earnings. The following figure depicts the whole process:

Higgins used the following equation to workout SGR:

SGR = Change in equity (without new additions) divided by opening equity

= Retained earnings/Opening equity.

Using DuPont analysis, the equation can be rewritten as:

$$SGR = \frac{\text{Retained earnings}}{\text{Profit}} \times \frac{\text{Profit}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Opening equity}}$$

SGR as determined above is based on the following assumptions:

a) The firm increases the sales as rapidly as the market conditions permit;
b) Management is unwilling to sell new equity;
c) The firm's current capital structure remains unchanged;
d) The firm's current dividend policy remains unchanged;
e) The company maintains a constant assets turnover ratio; and
f) In the long-run, all costs are variable and will become a fixed percentage of sales.

Though the growth through the internally generated funds is the best way of doing business, there is no constraint on the part of the management to raise new equity funds to expand its business operations. But, in practice, firms are reluctant to do so because such new issues involve high floatation costs, possible dilution of earnings per share (EPS) and loss of control of management. Further, a company can increase debt only if it has unused debt capacity with assets that can be used as security and its debt-equity ratio is reasonable in relation to the industry. Also, quite often, the reduction of dividends has a negative impact on the company's share prices. In such situations, the companies adopt internal control measures such as cutting the costs or enhancing the manufacturing and logistics efficiencies to improve the profit margin. In addition, firms can outsource more activities from outside vendors or lease production facilities and equipments, which have the effect of improving the asset turnover ratio.

As opposed to Higgins's formula for SGR, Arvind Ashta (2008) in his recent paper used opening assets in the assets turnover ratio and leverage ratio and refined the formula as follows:

SGR = Change in equity / Opening equity
= Retained earnings / Opening equity

$$= \frac{\text{Retained earnings}}{\text{Profit}} \times \frac{\text{Profit}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Opening assets}} \times \frac{\text{Opening assets}}{\text{Opening equity}}$$

Arvind Ashta used the opening assets in both the ratios based on the following arguments:

1. Relating sales to closing assets seems to create an impression that sales create assets, which may ultimately be true, but the fact is that a firm starts its operation in any financial year with the opening assets rather than the closing assets.
2. The asset or equity may be added on any date of the year of operation, but once it is considered that a firm's growth depends upon opening equity as stated by Higgins, then it is more logical to depend on the opening assets as well to start the flow.
3. It is also true that the fixed assets added during a particular year would not bring the desired returns in the same year rather than in the year after or more.

In this paper also, the equation used by Arvind Ashta is considered more appropriate than Higgins equation due to the arguments posed by Arvind Ashta. The ratios illustrated in Table - 4 of Infosys also substantiate his arguments. Infosys has never used financial leverage in all the nine years of the study period. Using Arvind Ashta's equation (opening assets divided by opening equity), the average leverage ratio of Infosys is worked out to be 1 which indicates that Infosys has totally relied on equity rather than debt. (Financial leverage is the ability of a firm to use debt financing to increase the profitability. Debt is a cheaper source of finance as well as the interest on debt is tax deductible. Researches indicate that a firm is more profitable if it uses more debt in its capital structure.) If the leverage ratio of Infosys is calculated using Higgins formula, the average leverage ratio is 1.3 which is illogical and leads to wrong conclusions.

VALUE CREATION AND CASH MANAGEMENT

The best and most appropriate way a firm can create value is by increasing the sales, thereby increasing the total assets (such as fixed assets, debtors and inventory) to produce and support additional sales. Obviously, these results in spontaneous increase in trade creditors to provide the additional short-term finance needed. In addition to the trade creditors, additional cash is needed to finance extra fixed assets and extra working capital.

Growth and the resultant cash management are measured by taking the difference between the SGR and annual sales growth rates (AGR), which is referred to as sustainable growth challenge (SGC), (Higgins, 2003). If the difference is positive (SGR>AGR), it indicates that there is a cumulative cash surplus. A negative difference (SGR<AGR) means that the firm is in short of cash.

For a firm with several departments or strategic business units (SBUs), it has several alternatives to invest the excess cash to grow further, thereby expanding the company internally or externally through acquisition of similar or related businesses. If there is no opportunity to grow internally or externally, the firm may be tempted to opt for unrelated, diversified acquisitions. Historically, it has been shown that these kind of unrelated diversifications rarely work. A firm should rather avoid it as a general rule.

If the SGR is consistently less than AGR, the firms create value, but are growing too fast. The danger is that if sales grow too quickly and consistently over SGR, there is not enough spontaneous finance from retained income and debt to finance additional fixed assets and to supply the working capital requirements. This causes cash shortfall that accumulates if the growth in sales is not limited to sustainable level. There are two options in this situation — to reduce dividend payments and thereby increasing the retention ratio or to raise additional capital by borrowing or by new issue of shares. If it is not possible to raise new capital, the firm has no other choice but to cut back on some of its operations or to reduce the overall growth rate to the level of SGR.

CHALLENGES OF SUSTAINABLE GROWTH RATE (SGR)

Business experts argue that achieving sustainable growth is not possible without paying attention to two important aspects, viz. growth strategy and growth capability. Companies that fail to give adequate attention to one aspect or the other are doomed to fail in their efforts to establish practices of sustainable growth in the long run. For instance, if a company has an excellent growth strategy in place, but has not taken efforts to increase its infrastructural facilities, long term growth is impossible. Similarly, a company that has sufficient resources and infrastructural facilities, but a poor growth strategy will also fail in the long-run.

Achieving the sustainable growth rate is the prime concern of managers of companies, whether small or big. But, in a fast changing economic, political and competitive environment, achieving the sustainable growth is not an easy task, especially in the present highly complex global environment. Consumer attitude, for instance, changed considerably over the last few decades. They are more discriminative which compels the firms to attract customers by adding more value lo the products and by offering innovative services. Similarly, competition is keen in almost all the industries, which have seen unprecedented breakdowns in the barriers that formerly separated them; therefore, companies must look forward to identify their competitors and their strategic choices in the search for creating sustainable growth.

Based on foregoing discussions, a study has been conducted using the audited financial statements of two leading IT firms, viz. Wipro and Infosys and the results are discussed in the following paragraphs.

OBJECTIVE OF THE STUDY

- To identify the components of SGR and the efficiency in their usage;
- To study the impact of the components on the SGR; and
- To study the relationship between SGR and actual growth rate (AGR).

PERIOD OF THE STUDY

The study is conducted based on the audited financial statements of Wipro and Infosys for a period of 9 years (1998-99 to 2006-07).

RESEARCH DESIGN

1. Simple Ratio Analysis
2. Correlation Analysis with Hypothesis test.

ANALYSIS AND DISCUSSION

The components of capital employed by the two companies are presented in Table-1. Both the companies have relied much on the internally generated funds rather than debt or equity. Both the firms have exploited the market opportunities to improve their AGR which enabled them to use the internal funds rather than the funds from external sources.

TABLE 1: COMPONENTS OF CAPITAL EMPLOYED

	Wipro			Infosys		
Year	SC	R&S	Loan	SC	R&S	Loan
1999	9	57	34	6	94	0
2000	9	84	7	4	96	0
2001	2	95	2	2	98	0
2002	2	97	1	2	98	0
2003	1	97	2	1	99	0
2004	1	96	3	1	99	0
2005	3	96	3	3	97	0
2006	4	95	1	2	98	0
2007	3	94	2	3	97	0

SC = Share capital; R&S = Reserves & Surplus

The summarized results are shown in Table - 2 and the calculations of SGR and AGR of Wipro and Infosys are presented in Table - 3 and Table - 4 respectively.

TABLE 2: SUMMARY RESULT

	Ave	CV	CAGR
Wipro		%	%
Profit Margin	0.19	20	15
Retention Ratio	0.75	35	35
ATR	2.2	32	0
Assets/NW	1.09	15	-5
Infosys	Ave.	CV	CAGR
Profit Margin	0.29	9	-2
Retention Ratio	0.71	33	34
ATR	1.85	12	5
Assets/NW	1	0	0

Ave: Average CAGR-Compounded Annual Growth Rate

COEFFICIENT OF VARIATION (CV)

It can be seen that the average SGR of Wipro (Table - 3) is greater than the average AGR, whereas the SGR is less than AGR in Infosys (Table -4). Also, all the component ratios of SGR were higher except the profit margin in the case of Wipro as compared to Infosys.

TABLE 3: COEFFICIENT OF VARIATION (WIPRO) Rs. Crores

WIPRO										
Details/Year	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**Ave.**
Sales	1831	2360	3134	3477	4040	5135	7233	10227	13684	6161
PAT	112	248	668	866	813	915	1495	2020	2842	1233
Total assets	828	828	2010	2559	3400	3608	4956	6478	9555	4174
Net worth	547	770	1965	2533	3330	3508	4894	6428	9317	4093
Dividend	8	10	14	23	26	761	401	813	1001	381
RE	104	238	654	843	787	154	1094	1207	1841	852
Ratios										
Profit Margin		0.11	0.21	0.25	0.20	0.18	0.21	0.20	0.21	0.19
ATR		2.85	3.79	1.73	1.58	1.51	2.00	2.06	2.11	2.20
Assets/NW		1.51	1.08	1.02	1.01	1.02	1.03	1.01	1.01	1.09
ROE		0.45	0.87	0.44	0.32	0.27	0.43	0.41	0.44	0.45
Retention Ratio		0.96	0.98	0.97	0.97	0.17	0.73	0.60	0.65	0.75
SGR (ROE*RE)		0.44	0.85	0.43	0.31	0.05	0.31	0.25	0.29	**0.36**
AGR		0.29	0.33	0.11	0.16	0.27	0.41	0.41	0.34	**0.29**

TABLE 4: COEFFICIENT OF VARIATION (INFOSYS) Rs. Crores

INFOSYS										
Details/Year	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**Ave.**
Sales	509	882	1901	2604	3623	4761	6860	9028	13149	5351
PAT	135	294	629	808	958	1243	1904	2421	3783	1505
Total assets	574	833	1390	2080	2861	3253	5242	6897	11162	4215
Net worth	574	833	1390	2080	2861	3253	5242	6897	11162	4215
Dividend	12	30	66	132	191	973	352	1412	751	488
RE	123	264	563	676	767	270	1552	1009	3032	1017
Ratios										
Profit Margin		0.33	0.33	0.31	0.26	0.26	0.28	0.27	0.29	0.29
ATR		1.54	2.28	1.87	1.74	1.66	2.11	1.72	1.91	1.85
Assets/NW		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
ROE		0.51	0.76	0.58	0.46	0.43	0.59	0.46	0.55	0.54
Retention Ratio		0.90	0.90	0.84	0.80	0.22	0.82	0.42	0.80	0.71
SGR (ROE*RE)		0.46	0.68	0.49	0.37	0.09	0.48	0.19	0.44	**0.40**
AGR		0.73	1.16	0.37	0.39	0.31	0.44	0.32	0.46	**0.52**

PAT - Profit after tax, RE – Retained earnings, ATR - Asset turnover ratio, NW – Net Worth, AGR - Actual sales growth rate

FIGURE 1: WIPRO

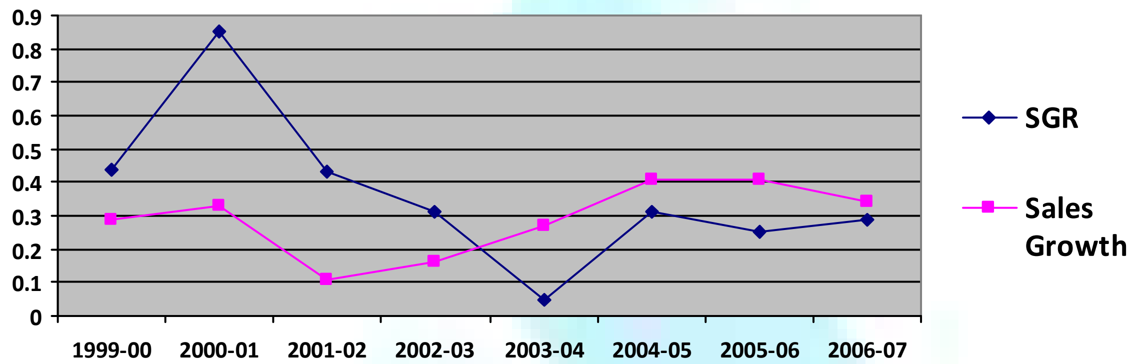
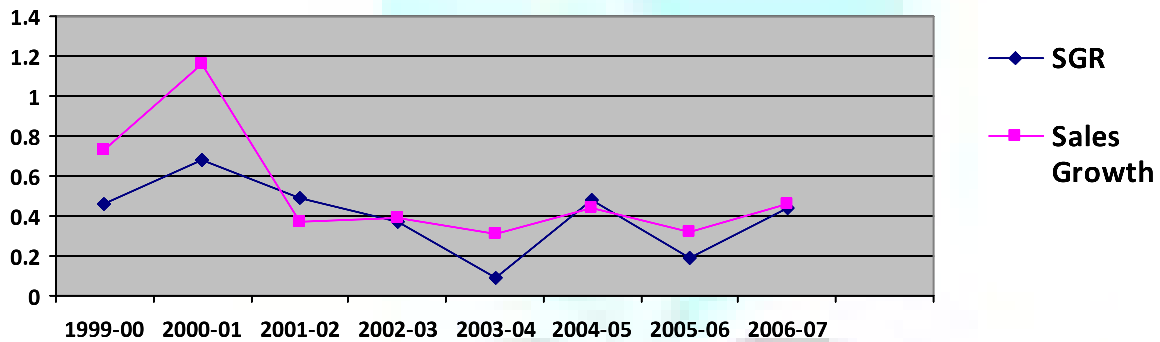


FIGURE 2: INFOSYS



Further analysis of Table - 3 & 4 and Figures 1 & 2 reveals that Wipro had very high SGRs in the earlier years, i.e. from 2000 to 2003, after that the SGRs dropped below the AGRs, The reverse was the case with Infosys. The AGRs were higher than the SGRs in all the years except in the years 2002 and 2005 in which the AGRs dropped marginally below the SGRs.

COMPONENT WISE ANALYSIS

I. PROFITABILITY ANALYSIS

The average profit margin was 19 per cent in the case of Wipro, whereas, the average profit margin of Infosys was 29 per cent which indicates better performance of Infosys as compared to Wipro. The coefficient of variation is 20 per cent and 9 per cent respectively, also that indicates better consistency in the case of Infosys as compared to Wipro, but the compounded annual growth rate (CAGR) was 2 per cent as compared to Wipro's growth rate of 15 percent.

TABLE 5: MAJOR COST COMPONENTS (AS A PERCENTAGE OF SALES)

Wipro	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**Ave.**
RM/sales	0.43	0.32	0.31	0.28	0.25	0.24	0.24	0.15	0.28
EC/sales	0.11	0.13	0.14	0.16	0.17	0.40	0.42	0.42	0.24
S& A/sales	0.25	0.26	0.25	0.31	0.34	0.09	0.08	0.08	0.21
Infosys									
RM/sales	0.05	0.05	0.04	0.06	0.06	0.09	0.10	0.11	0.07
EC/Sales	0.38	0.38	0.43	0.46	0.50	0.46	0.47	0.48	0.44
S& A/sales	0.17	0.16	0.12	0.13	0.11	0.10	0.09	0.08	0.12

0

Further analysis of the profitability of both the firms (Table - 5) reveals that Infosys has spent an average of around 12 per cent of the sales value towards selling and administration expenses, whereas Wipro has spent more than 20 per cent which has caused lesser profit margin as compared to Infosys.
The return on equity was also very high in Infosys as compared to Wipro. The average ROE of Infosys was 54 per cent as compared to 46 per cent ROE of Wipro. High ROE coupled with high retention ratio has enabled both the firms to trade on equity rather than relying on external debt.

II. ASSET TURNOVER ANALYSIS

The asset turnovers of both the firms were exceptionally high compared with any industrial standards. Wipro's asset turnover was more than double (average ATR of 2.2 times), whereas the ATR of Infosys was 1.85 times, indicates better utilization of assets by Wipro as compared to Infosys. But, in terms of growth rates and consistency, Infosys has shown better results with the coefficient of variation of 12 per cent and CAGR of 5 per cent in comparison with Wipro's coefficient of variation of 32 per cent and nil CAGR.

III. LEVERAGE ANALYSIS

It is evident from the data that both the firms were conservative in using external debt during the entire study period. Wipro has used high amount of debt in the first year (1999). then gradually reduced the debt resulting in a substantial decrease in the leverage, ratio from 1.51 times in 1999 to 1.08 times in 2000 and further reduced to a marginal level of 1.01 times during the later years, resulting in a negative growth rate of 5 per cent and the coefficient of variation of 15 per cent. But, Infosys has never used external borrowings; as a result the leverage ratio remained at 1 during the entire study period.

IV. RETENTION RATIO ANALYSIS

Both Wipro and Infosys have adopted a conservative dividend policy except during a couple of years which is evident from Tables - 3 and 4 respectively. The average retention rate was 75 per cent in the case of Wipro and 71 per cent in the case of Infosys, which again substantiates Higgins logic. In terms of growth rate also, both the firms have shown almost the same results with the CAGR of 35 per cent and 34 per cent respectively and the coefficient of variation of 35 per cent and 33 per cent respectively. The coefficient of variations of both the companies were very high because of the lowest retention ratio of 17 per cent of Wipro and 22 per cent of Infosys, both happened in the year 2004.

V. VOVERALL PERFORMANCE

TABLE - 6: GROWTH RATES

	Wipro	Infosys
CAGR of Net Worth (%)	47	46
CAGR of net assets (%)	41	46

Table - 6 shows the growth rates of both the firms in terms of net worth and net assets. Both the firms have a CAGR of more than 45 per cent within a span of just 9 years (47% and 46% respectively), but the CAGR of net assets is far higher in the case of Infosys (The CAGR of Wipro's net assets was 41 per cent and that of Infosys was 46 per cent). In short, it can be concluded that Infosys has outperformed Wipro in terms of sustainable growth as stated by Higgins, i.e. the growth through internally generated funds.

VI. CORRELATION ANALYSIS

As discussed earlier, if targeted sales increase faster than the SGR, the sustainable growth challenge (SGC) is positive and operating and financial adjustments need to be made in order to restore an accounting and operating balance such that SGC —> 0. This is accomplished by increasing the SGR. In contrast, if the SGC is negative which may occur with scale inefficiencies in the utilization of existing resources, targeted sales growth will be lower than the SGR. Consequently, unproductive cash surpluses will increase and to drive SGC —> 0 adjustments must be made to decrease the SGR. Hence, always there is a close relationship existing between the SGR and AGR. In this part of the study, an attempt is made to find the correlation between SGR and AGR to ascertain then" relationship and also to test whether the computed values of such correlation coefficient are significant or not by using student's 't' test.

Table - 7: CORRELATION ANALYSIS

	r	t
Wipro	-0.01	/0.014/
Infosys	0.75	/ 2.78 /

The Karl Pearson's correlation coefficient (r) of Wipro is -0.01 and that of Infosys is 0.75 (Table -7) which indicates that the degree of relationship between SGR and AGR is marginal and negligible in the case of Wipro, but there is a strong positive association between the two variables in the case of Infosys. In order to examine whether there is a significant difference between SGR and AGR, students 't' test is applied. The two hypothesis are:

- *Null hypothesis (Ho) - There is no significant difference between SGR and AGR; and*
- *Alternative hypothesis (HI) - There is significant difference between SGR and AGR.*

The calculated values of 't' of Wipro and Infosys are 0.014 and 2.78 respectively (Table 7). The critical value of't' with 6 (n-2) degrees of freedom and at 5% level of significance is 1.943. As the calculated value of Wipro is much less than the table value, we accept the null hypothesis and conclude that there is no significant association between SGR and AGR. In the case of Infosys, the calculated value (2.78) is much higher than the table value. Hence, the null hypothesis is rejected and it is concluded that the association between the two variables in the case of Infosys is significant.

CONCLUSION

Monitoring the current situation and progress of a company by mapping its sustainable growth rate helps managers to ensure that the scarce resources are allocated wisely. Also, it ensures the company's operating and financial policies go in consistency with the sustainable growth rate and serve as valuable tools in the process of coordinating plans and actions by combining two sets of ratios of SGR equation. The first set includes the retention ratio and leverage ratio whereas the second set includes the asset turnover ratio and profitability ratio. The former two ratios can be described as policy statements of a company reflecting the management's attitude towards the risks and opportunities it expects in the future and the latter two ratios are the outcomes of managerial action; the end result is the overall improvements in its operational and financial performances. In short, using the four component ratios, SGR concept serves as the best tool for prospective firms to fix a target growth rate using the internally generated funds and improve their operating and financial performances over a period of time. This paper also substantiates the above arguments and illustrates how the two firms, viz. Wipro and Infosys have used the internally generated funds to exploit the fast growing IT market and become successful.

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TRANSFER PRICING- A STUDY OF TRANSFER PRICING METHOD USED BY SELECTED COMPANIES

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ABSTRACT

The modern business has become very complex as a result of liberalization, privatization and globalization, which has led to an increase in the pace of diversification among companies. The revolution of LPG has also led to the practice of going for domestic and international mergers by various corporate houses. These mergers, actually, change the organization structure of the enterprise, making it more oriented towards an SBU structure whereby an organization is divided among various units which are strategically independent by nature. Hence any inter-division or inter-unit/segment sale is accounted for. And to account for these inter segment sales, the concept of transfer pricing came into advent. Transfer pricing refers to the pricing of contributions (assets, tangible and intangible, services, and funds) transferred within an organization. The challenging task is to decide upon the price to be charged for all the inter segment sales. There are various methods of pricing the inter segment transfers viz. Market based transfer pricing, Cost based transfer pricing and Negotiated transfer pricing. Various domestic and multinational corporations are using one method or the other. The primary motive of this research paper is to identify the method of transfer pricing used by various companies. For satisfying this purpose, a total of 35 companies have been chosen as a sample collected from various sectors like FMCG, Chemical Industry, Pharmaceutical Industry, Automation, Manufacturing, Textiles and Timber, Building material and electronic companies. The study reveals the prevalence of Market price as a basis of valuing all the inter segment sales among the companies under survey. A total of 17, out of the 35 companies surveyed, admitted that they are using Market price as a basis to value their inter segment sales.

KEYWORDS

Organization for Economic Co-operation and Development (OECD), Arm's length Price, Transfer Pricing Manipulation, Market-based transfer pricing.

INTRODUCTION

The modern business has become very complex as a result of liberalization, privatization and globalization, which has led to an increase in the pace of diversification among companies. Some of the examples of the companies adopting the strategy of diversification, and thereby reaping the benefits of synergy are Hall Mark, ITC etc. The revolution of LPG has also led to the practice of going for domestic and international mergers by various corporate houses. These mergers, actually, change the organization structure of the enterprise, making it more oriented towards an SBU structure whereby an organization is divided among various units which are strategically independent by nature. Hence any inter-division or inter-unit/segment sale is accounted for. And to account for these inter segment sales, the concept of transfer pricing came into advent. This study basically enumerates and discusses in detail the concept of transfer pricing explaining various methods used and practices adopted among various corporate entities worldwide.

Transfer pricing refers to the pricing of goods and services transferred within an organization. It is the price which is charged for the transfers made by one department/division in the organization to another. Since the prices are set within an organization (i.e. controlled), the typical marketing mechanism followed for establishing prices for transactions between third parties may not apply. Hence, the amount used in accounting for transfer of goods or services from one responsibility centre to another or from one company to another which belong to the same group, is termed as "Transfer Price". Hence, any inter-division or inter-unit/segment sale is accounted for. The role of transfer price is to provide valuations for intermediate products and services so as to facilitate transactions across profit centres within a firm. For example, goods from production division may be sold to the marketing division, or goods from a Parent company may be sold to a foreign subsidiary, with the choice of the transfer price affecting the division of the total profit among the parts of the company. Transfers between related parties are also known as "Inter company transactions".

ORGANISATION FOR ECONOMIC CO-OPERATION & DEVELOPMENT (OECD)

Organization for Economic Co-operation & Development (OECD) is an international organization that came into being in 1961. The organization has 30 full members: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The Organization for Economic Cooperation and Development (OECD), released the final version of its transfer pricing guidelines. The guidelines are not law, and member countries are encouraged (but not required) to follow them. Nonetheless, most member countries do not have their own detailed transfer pricing regulations and prior OECD guidelines on transfer pricing have been followed by member countries.

OBJECTIVES OF THE STUDY

To identify and compare the transfer pricing methods used by various organizations for their inter segment sales.
To identify the most prevalent and widely used method of transfer pricing.

REVIEW OF LITERATURE

A number of studies have been conducted on the subject and some of them have been listed below:

Chris (1998) has empirically examined the effects of accountability and performance evaluation scheme on negotiation task. 240 American and 160 Australian subjects negotiated significantly higher joint profits & fewer differences between final offers (DBFO) under high accountability & firm-based performance evaluation.

Ljilja & Vesna (2000) dealt with the analysis of some characteristics of transfer pricing methods. This estimation of adequacy of the methods has been illustrated on an example of hypothetical enterprise with decentralized structure and a large number of profit centres with possible internal transfer of products and services.

Markus, Thomas (2005) in this paper deployed Transaction cost economics (TCE) to elaborate the shortcomings of "mainstream" transfer pricing in multinational firms. Departing from the notion that multinationals increasingly (re)-organize their business along multinational value chains irrespective of jurisdictional borders, the paper discussed the nature of the multinational firm and the problem of choosing the right intra-group transfer price. The mainstream transfer pricing approach derived from the Arm's length principle is deemed inappropriate for globalized MNEs. Referring to the value chain model, the paper has suggested "entrepreneurial coordination" as the key performance feature to be used for valuing business activity and for allocating for tax transfer pricing purposes-standard mark-ups and residual profits along the value chain.

Peter, John, (2000) revealed that the achievement of overall corporate goals is the highest ranked transfer pricing objective. Market Pricing is the most widely used method among the institutions. Salient differences were however found between the transfer pricing choices of banks on the one hand and the building societies on the other.

Sahay, Savita (2003) analyzes a simple transfer-pricing policy based on the actual cost of production. They showed that the performance of actual cost-based transfer pricing can be improved by using an additive mark-up above the unit production cost. The optimal additive mark-up is shown to increase with increasing prices for the firm's product, and decrease with the cost of the supplying division's investment.

Tim et al (2003) in this paper examined transfer pricing in multinational firms when individual divisions face different income tax rates. Assuming that a firm decouples its internal transfer price from the arm's length principle used for tax purposes, the study analyzed the effectiveness of alternative pricing rules under both cost and market based transfer pricing. This analysis characterized optimal intra company discounts as a function of the market parameters and divisional tax rates.

RESEARCH METHODOLOGY

The companies are required to disclose information relating to the method of transfer pricing in their annual reports under significant accounting policies. For satisfying the requirements of the research objective, a sample of 35 companies from FMCG, Pharmaceuticals, buildings, timber, textiles, manufacturing and electronics sector was selected and the transfer pricing method used by them was identified reviewing their annual reports for the year 2007-08.

TRANSFER PRICING METHODS

There are several different methods for determining transfer prices. These can be either Market-based, i.e. equivalent to what is being charged in the outside market for similar goods, or it can non-market based. Importantly, two-thirds of the managers say their transfer pricing is non-market based.

There are three main methods for determining transfer prices:

Market -based transfer prices

Cost-based transfer prices.

Negotiated transfer prices.

MARKET-BASED PRICES

Top management may choose to use the price of a similar product or service publicly listed in, say, a trade association website. Also, top management may select, for the internal price, the external price that a subunit charges to outside customers. In the global business environment today, it is not unusual for subsidiaries of larger companies to conduct business transactions with one another, as if they are not all part of the same corporate family. When two companies that are affiliated by a connection through a parent company, the type of business they transact are often referred to as an arm's length *transaction*. The price per unit that is extended for the items bought and sold is referred to as an arm's length price. Arm's length price means a price that would be obtainable and the transaction takes place between independent parties in uncontrolled conditions. The arm's length price shall be determined by any of the following methods, being the most appropriate method, having regard to the nature of transaction or class of transaction, namely:

Comparable Uncontrolled Price (CUP) Method

The CUP Method compares the price at which a controlled transaction is conducted to the price at which a comparable uncontrolled transaction is conducted. The arm's length principle is simply determined by the sale price between two unrelated corporations. Such comparable transactions fall into two categories: External comparables and internal comparables. The former is a comparable uncontrolled transaction in the purest sense of the term-If Company A, in France, sells widgets to its subsidiary A (sub)in Turkey, then an external comparable transactions would be the sale of widgets from French Company B to Turkish Company C(an unrelated enterprise) on identical terms as the trade between A & A (sub). An internal comparable transaction, then would be either trade of widgets between Company A and Company C, or the trade of widgets between Company B and Company A (sub), with the term "internal" referring to the fact that one of the parties involved in the tested transaction is also involved in the Comparable uncontrolled transaction.

Resale Price Method

The Resale Price (RP) is found by working backwards from transactions taking place at the next stage in the supply chain, and is determined by subtracting an appropriate gross mark-up from the sale price to an unrelated third party, with the appropriate gross margin being determined by examining the conditions under which the goods or services are sold and comparing said transaction to other third party transactions.

PROFIT SPLIT METHOD

The Profit Split method (and its derivatives, including the comparative and Residual Profit split methods) is applied when the businesses involved in the examined transaction are too integrated to allow for separate evaluation, and so the ultimate profit derived from the endeavor is split based on the level of contribution- itself often determined by some measurable factor such as employee compensation, payment of administration expenses etc- of each participants in the project.

TRANSACTIONAL NET MARGIN METHOD

The Transactional net margin method (TNMM) in Transfer pricing compares the net profit margin of a taxpayer arising from a non-arm's length transaction with the net profit margins realized by arm's length parties from similar transactions; and examines the net profit margin relative to an appropriate base such as costs, sales or assets.

This differs from the cost plus and resale price methods that compare gross profit margins. However, the TNMM requires a level of comparability similar to that required for the application of the cost plus and resale price methods. Where the relevant information exists at the gross margin level, taxpayers should apply the cost plus or resale price method.

Because the TNMM is a one-sided method, it is usually applied to the least complex party that does not contribute to valuable or unique intangible assets. Since TNMM measures the relationship between net profit and an appropriate base such as sales, costs, or assets employed, it is important to choose the appropriate base taking into account the nature of the business activity. The appropriate base that profits should be measured against will depend on the facts and circumstances of each case.

Cost-Based Transfer Price

In many situations external reference points do not exist, for example, when products are produced uniquely for internal markets and outside selling is either impossible because of a lack of customers or prohibited because of strategic concerns. In such cases, production cost is used as the base for setting the price.

Prices can be based on:

FULL-COST BASES: In practice, many companies use transfer prices based on full cost. To approximate market prices, cost-based transfer prices are sometimes set at full cost plus a margin. Using full cost based transfer prices requires an allocation of each subunit's fixed costs to products.

VARIABLE-COST BASES: Herein, under this method, the variable cost is used as a basis for determining transfer price.

COST PLUS METHOD: This method is generally used for the trade of finished goods and is determined by adding an appropriate mark-up to the costs incurred by the selling party in manufacturing/purchasing the goods or services provided, with the appropriate mark-up being based on the profits of other companies comparable to the tested party.

Negotiated Transfer Price

Negotiated transfer prices result from a bargaining between selling and buying subunits. In this way the parties are free to set the price that satisfies both. Often this negotiation will be based on information about market prices and internal costs.

ANALYSIS & INTERPRETATION

DATA COLLECTED FROM THE ANNUAL REPORTS OF VARIOUS MULTINATIONAL CORPORATIONS

The annual reports of various companies for the year 2007-08 have been used to elicit information with respect to the method of transfer pricing used by them.

Since as per the accounting standards given, AS- 17 relating to segment reporting and related party disclosures, all the companies are supposed to mandatorily disclose such information in their annual reports. Below given is a brief introduction to all the thirty-five companies involved in the survey:

FMCG (FREE MOVING CONSUMER GOODS INDUSTRY)

1. Hindustan Unilever Ltd.: Hindustan Unilever Limited formerly Hindustan Lever Limited, is India's largest consumer products company and has an annual turnover of over Rs 13,000 crores (calendar year 2007). It was formed in 1933 as Lever Brothers India Limited and came into being in 1956 as Hindustan Lever Limited through a merger of Lever Brothers, Hindustan Vanaspati Mfg. Co. Ltd. and United Traders Ltd. It is headquartered in Mumbai, India.

2. Itc (Indian Tobacco Company): ITC Limited which previously stood for Imperial Tobacco Company of India Limited is an Indian conglomerate with a turnover of US $ 4.75 billion. It ranks third in pre-tax profit among India's private sector corporations.

3. Britannia Industries: Britannia Industries Limited is an Indian company based in Kolkata that is famous for its Britannia and Tiger brands of biscuit, which are highly recognized throughout the country. Britannia is India's largest biscuit firm, with an estimated 38% market share. The Company's principal activity is the manufacture and sale of biscuits, bread, Rusk, cakes and dairy products.

4. Asian Paints: Asian Paints is India's largest paint company that operates in 21 countries and has 29 paint manufacturing facilities in the world servicing consumers in over 65 countries.

5. Dabur India: Dabur India Ltd. is the fourth largest FMCG Company in India. Dabur deals in Health care and Personal care products. Today, Dabur has a turnover of Rs.1899.57 crores.

6. Nestle India: Nestlé India is a subsidiary of Nestlé S.A. of Switzerland. With seven factories and a large number of co-packers, Nestlé India is a vibrant Company that provides consumers in India with products of global standards and is committed to long-term sustainable growth and shareholder satisfaction.

7. Reckitt Benckiser: Reckitt Benckiser plc (LSE: RB) is a global consumer goods company, making and marketing home, health and personal care products. Headquartered in Slough, near London, UK, it has operations in over 60 countries, including 42 manufacturing facilities, and sales in nearly 200 countries.

8. Titan: Titan Industries is the world's fifth largest and India's leading manufacturer of watches. The company has manufactured more than a 100 million watches till date; and has a customer base of over 80 million. The umbrella brand Titan is one of India's leading watch brands that brought about a paradigm shift in the Indian watch market, offering quartz technology with international styling.

9. Johnson & Johnson: Caring for the world, one person at a time... inspires and unites the people of Johnson & Johnson. The company embraces research and science - bringing innovative ideas, products and services to advance the health and well-being of people. Employees of the Johnson & Johnson Family of Companies work with partners in health care to touch the lives of over a billion people every day, throughout the world.

CHEMICAL COMPANIES

10. Pidlite Industries: Since its inception in 1959, Pidilite Industries Limited has been a pioneer in consumer and specialties chemicals in India. Over two-third of the company's sales come from products and segments it has pioneered in India.

11. BASF: In view of India's growing industrialization, BASF had envisaged the growth potential of the Indian chemical industry and embarked on its plan to be a notable player in this market with its high technological products.

12. The Dow Chemical Company: The Dow Chemical Company is an American multinational corporation headquartered in Midland, Michigan. As of 2007, it is the second largest chemical manufacturer in the world by revenue (after BASF) and as of February 2009, the third-largest chemical company in the world by market capitalization (after BASF and DuPont).

13. Sinopec: China Petroleum & Chemical Corporation is one of the major petroleum companies in China. Sinopec's business includes oil and gas exploration, refining, and marketing; production and sales of petrochemicals, chemical fibers, chemical fertilizers, and other chemical products; storage and pipeline transportation of crude oil and natural gas; import, export and import/export agency business of crude oil, natural gas, refined oil products, petrochemicals, and other chemicals. In 2009, it was ranked 9th by Fortune Global 500 becoming the first Chinese corporation to make the top ten.

14. Chevron Corporation: Chevron Corporation (NYSE: CVX) is the world's fourth largest non-government energy company. Headquartered in San Ramon, California, USA, and active in more than 180 countries, it is engaged in every aspect of the oil and gas industry, including exploration and production; refining, marketing and transport; chemicals manufacturing and sales; and power generation.

15. Eastman Kodak Company: Eastman Kodak Company (NYSE: EK) is a multinational US corporation which produces imaging and photographic materials and equipment. Long known for its wide range of photographic film products, Kodak is re-focusing on two major markets: digital photography and digital printing.

16. Cytec Industries: Cytec Industries Inc. is a global specialty chemicals and Materials Company focused on developing, manufacturing and selling value-added products.

17. NOVA Chemicals: NOVA Chemicals Corporation is a leading plastics and chemical company headquartered in Calgary, Alberta, with Executive Offices in Moon Township, Pennsylvania. It was founded in 1954. NOVA Chemicals' products are used in a wide variety of applications, including food and electronics packaging, industrial materials, appliances and a variety of consumer goods.

18. Air Products & Chemicals: Air Products and Chemicals, Inc. is an international corporation whose principal business is selling gases and chemicals for industrial uses. Air Products' headquarters is in Allentown, Pennsylvania, in the Lehigh Valley region of Pennsylvania, in the United States. Air Products is the Lehigh Valley's third largest employer, after Lehigh Valley Hospital and St. Luke's Hospital.

PHARMACEUTICAL

19. Glaxo Smithkline: GlaxoSmithKline is a United Kingdom-based pharmaceutical, biological, and healthcare company. GSK is the world's third largest pharmaceutical company and a research-based company with a wide portfolio of pharmaceutical products covering anti-infective, central nervous system, respiratory, gastro-intestinal/metabolic, oncology, and vaccines products. It also has a Consumer Healthcare operation comprising leading oral healthcare products, nutritional drinks, and over the counter medicines. It is listed on the London Stock Exchange and is a constituent of the FTSE 100 Index.

20. Abbott Laboratories: Abbott Laboratories is a diversified pharmaceuticals health care company. It has 72,000 employees and operates in over 130 countries. The corporate headquarters are in Abbott Park, Illinois, located near North Chicago, Illinois.

21. Chugai Pharmaceuticals Ltd.: Chugai Pharma USA LLC is a research-based, global pharmaceutical company that discovers and develops innovative therapeutic products.

22. CSL: CSL, a pharmaceutical industry.

23. UCB: UCB is a global biopharma focusing on severe diseases in three therapeutic areas.

24. Baxter International: Baxter International Inc., is an American health care company with headquarters in Deerfield, Illinois. The company primarily focuses on products to treat hemophilia, kidney disease, immune disorders and other chronic and acute medical conditions.

25. Divi's Laboratories Ltd.: Established in the year 1990, with Research & Development as its prime fundamental, Divis Laboratories focused on developing new processes for the production of Active Pharma Ingredients (APIs) & Intermediates. The company in a matter of short time expanded its breadth of operations to provide complete turnkey solutions to the domestic Indian pharmaceutical industry.

26 Dr. Reddy's Lab: Established in 1984, Dr. Reddy's Laboratories (NYSE: RDY) is an emerging global pharmaceutical company.

AUTOMATION

27. Rockwell Automation: Rockwell Automation is a global provider of industrial automation, power, control and information solutions. Brands in industrial automation include Allen-Bradley and Rockwell Software.

MANUFACTURING

28. H.B. Fuller: H.B. Fuller is a leading worldwide manufacturer and marketer of adhesives, sealants, paints and other specialty chemical offerings.

29. Avecia: Avecia is a leading private biotechnology company focused on the development and manufacture of innovative biotechnology-based medicines.

30. Agrium: Agrium Inc. is a major Retail supplier of agricultural products and services in North and South America, a leading global Wholesale producer and marketer of all three major agricultural nutrients and the premier supplier of specialty fertilizers in North America through our Advanced Technologies business unit. Agrium's strategy is to grow across the value chain through acquisition, incremental expansion of its existing operations and through the development, commercialization and marketing of new products and international opportunities.

TEXTILES

31. PPG Industries: PPG Industries is a leader in its markets; is a streamlined, efficient manufacturer; and operates on the leading edge of new technologies and solutions.

32. Century Textiles Industries Ltd.: Century Textiles & Industries Limited, Mumbai was incorporated in the year 1897. Till 1951 it had only one industrial unit - Cotton Textile Mills. Since then the Company has been making rapid progress in widely diversified fields. At present, the company is not only the trend setter in Cotton Textiles but has also made a remarkable presence in Yarn, Denim, Viscose Filament Rayon Yarn, Timecards, Caustic Soda, Sulfuric Acid, Salt, Cement and Pulp & Paper.

TIMBER

33. Plum Creek Timber Company: Plum Creek Timber is the largest private landowner in the United States. Most of its lands were originally purchased as timberland.

ELECTRIC

34. Sanyo: SANYO Electric Co., Ltd. is a major electronics company and member of the Fortune 500 whose headquarters is located in Moriguchi, Osaka prefecture, Japan. Sanyo targets the middle of the market and has over 324 offices and plants worldwide' together employing more than 11,000 employees'

BUILDING MATERIAL

35. Sherwin Williams Company: The Sherwin-Williams Company is an American company in the general building materials industry. The company primarily engages in the manufacture, distribution, and sale of coatings and related products to professional, industrial, commercial, and retail customers primarily in North and South America.

FINDINGS

Table 1 attached with the Reference section gives the description, on an individual basis, for the method used by various companies under survey. The following is the enumeration of the outcome or result of the research undertaken:

DISCLOSURE IN ANNUAL REPORTS (Refer Table 2)

A sample of 35 companies form part of the research for determining the transfer pricing method used by various companies as disclosed in their annual reports. The following are the results:

Out of the total thirty-five companies involved in the study, two companies are found using Cost or less (any provision for impairment).

A total of five companies advocate usage of Cost method for inter segment sales.

Three companies use Cost Plus method.

One Company named Rockwell Automation use either Cost or Cost Plus method based on the requirement.

A total of 17 companies use market price method and seven companies use arm's length price.

CONCLUSION

Transfer pricing is portrayed as a technique for optimal allocation of costs and revenues amongst divisions, subsidiaries and joint ventures within a group of related entities. Such representations of transfer pricing simultaneously acknowledge and occlude how it is deeply implicated in processes of wealth retentiveness that enable companies to avoid taxes and facilitate the flight of capital. The research study undertaken as a part of this research paper is primarily focused upon identifying the transfer pricing methods used by various companies and thereby adjudging the method that is most prevalent in use. The research identified market price method as the most widely used method of transfer pricing.

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APPENDIX

TABLE 1: METHOD OF TRANSFER PRICING USED BY VARIOUS COMPANIES AS DISCLOSED IN THE ANNUAL REPORTS

S. No.	COMPANY	METHOD USED
1	Hindustan Unilever Ltd.	Market led price
2	ITC	At Market price OR Where market price is not available at terms agreed by both parties.
3	Britannia	Market price
4	Asian Paints	Arm's length price
5	Dabur	Market price
6	Nestle India	Market price
7	Air products & chemicals	Market price
8	Reckitt Benckiser	Arm's length basis
9	Sanyo	Cost plus
10	Titan	Arm's length
11	Johnson & Johnson	Market price
12	Glaxo smithkline	Cost less any provision for impairment
13	Abbott Laboratories	Standard cost
14	Chugai pharmaceuticals Ltd.	Cost or less
15	CSL	Current market prices
16	UCB	Arm's length price
17	Baxter International	Arm's length price
18	Divi's Laboratories Ltd.	Arm's length price
19	Dr. Reddy's lab	Arm's length price
20	Rockwell Automation	Either at Cost or Cost Plus
21	Sherwin Williams Company	Manufactured Cost
22	Plum Creek Timber Company	Market price
23	Century Textiles Industries Ltd.	Factory Cost
24	Pidlite Industries	Cost Plus
25	BASF	Market Price
26	The Dow Chemical Company	Cost
27	SINOPEC	Market Price
28	Chevron Corporation	Market Price
29	PPG Industries	Market Price
30	Eastman Kodak Company	Market Price
31	Cytec Industries	Cost
32	H.B. Fuller	Cost plus a markup
33	Agrium	Market Prices
34	Nova Chemicals	Market Prices
35	Avecia	Market Price

TABLE 2: FINDINGS

Method Chosen	Number of companies using the method	Percentage
Cost or less	2	6
Cost	5	14
Cost Plus	3	9
Either at cost or cost plus	1	3
Market price	17	48
Arm's length price	7	20
Total	35	100

Source: Annual reports (2007-08)

FACTORS IN FACILITATING THE PROCESS OF OBTAINING FUNDS FOR SMES: AN EMPIRICAL STUDY ON VISAKHAPATNAM DISTRICT

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ABSTRACT
The SMEs are facing are playing a vital in the economic development of the country. They are contributing highest share in the form of exports and employment. But, they are facing many problems. Main problem of them is finance. Entrepreneurs have no fully resources for starting a venture or to diversify, expanding and modernisation of the existing one. They have to depend on financial institutions or money lenders for getting finance. Money lenders issue credit at high interest rates. Entrepreneurs will have to depend on financial institutions for getting finance at reasonable interest rates. The financial institutions are considering some factors for financing the SMEs. The factors plays significant role in getting finance from the institutions. These factors are useful to the bankers to estimate the financial capacity of the SMEs. Based on the factors they are giving finance to the SMEs. The present study is an insight into the factors considered for the process of obtaining funds from the institutions.

KEYWORDS
Cronbach alpha, Factors for obtaining funds, Finance, Kolmogorov-Smirnov Test and SMEs

INTRODUCTION
With a share of 45 per cent in the country's industrial output, 40 per cent in exports, 17 per cent in the GDP (as in 2009), a total workforce of about 60 million people, with 1.3 million being added every year, small and medium enterprises (SMEs) are contributing in a big way to economic development of the country[1]. But, the SMEs have their own set of problems. Every enterprise, whether big or small, need finance to carry on its operations. In SMEs the vital need for finance is realized very badly due to its weak equity base. Due to limitation of own resources, SMEs generally depend on external sources for funds. Various financial institutions like commercial banks, state financial corporations and co-operative banks etc., are providing credit to the SME units by way of working capital finance and term loans.

NEED FOR THE STUDY
The SMEs are depending on external sources for finance. The external agencies are charging high interest rate. Usually, they have to depend on financial institution for getting loans at reasonable rates. But, the financial agencies are considering some factors for financing SMEs. Hence, it is relevant to study the factors considered by the financial institutions in extending credit to borrower units. The present paper is a vent in this direction.The study has focussed on Visakhapatnam area. This is second largest industrial district after Hyderabad.

SCOPE OF THE STUDY
Scope of the study is restricted to the following areas:
- The SME units which are registered in the period between 1991 and 2008.
- The SME Units which come under the new definition are taken for the study.

OBJECTIVE OF THE STUDY
- To know about the factors considered for obtaining finance from the financial institutions.

RESEARCH METHODOLOGY
In pursuance of the above mentioned objectives, the following methodology is adopted. The study is purely based on Primary data.

PRIMARY DATA

A perusal into records of the District Industries Centre (DIC), Visakhapatnam reveals that there are 246 registered SME units (which are satisfying the new definition of SMEs) from the period of 1991 to 2008. Out of 246, 33.33 per cent (82) have been taken as a sample size for the study. A stratified random sampling technique has been used in the selection of sample.

TOOLS AND TECHNIQUES

For the purpose of analysis and to facilitate interpretation Discriminant Analysis is used. PASW for Windows Version 18.0 used for the purpose of extensive analysis.

MEAN ($\overline{X}$)

The mean value is obtained by adding together all the items and by dividing this total by the number of items.

$$\overline{X} = \frac{X_1 + X_2 + X_3 + \dots\dots\dots\dots X_n}{N} = \frac{X_n}{N}$$

Where, $\overline{X}$ = Arithmetic value

$\sum X$ = Sum of all the variables

N = Number of variables

RELIABILITY ANALYSIS

In classical test theory, reliability is defined mathematically as the ratio of the variation of the true score and the variation of the observed score. Or, equivalently, one minus the ratio of the variation of the error score and the variation of the observed score:

$$\rho xx' = \frac{\sigma^2 T}{\sigma^2 X} = 1 - \frac{\sigma^2 E}{\sigma^2 X}$$

Where *ρxx'* is the symbol for the reliability of the observed score, X; $\sigma^2 X$, $\sigma^2 T$, and $\sigma^2 E$ are the variances on the measured, true and error scores respectively. Unfortunately, there is no way to directly observe or calculate the true score, so a variety of methods are used to estimate the reliability of a test.

CRONBACH'S ALPHA

Cronbach's α is defined as

$$\alpha = \frac{N}{N-1}\left(1 - \frac{\sum_{i=1}^{N}\sigma_{Y_i}^2}{\sigma_X^2}\right)$$

Where N is the number of components (items or testlets), σ_X^2 is the variance of the observed total test scores for the current sample of persons, and $\sigma_{Y_i}^2$ is the variance of component i for the current sample of persons.

Alternatively, the standardized Cronbach's α can also be defined as

$$\alpha = \frac{N.\bar{c}}{\bar{v} + (N-1).\bar{c}}$$

Where N is the number of components (items or testlets), $\bar{v}$ equals the average variance for the current sample of persons and $\bar{c}$ is the average of all covariances between the components across the current sample of persons.

MULTIPLE REGRESSION ANALYSIS

It is a technique of analyzing the data, which simultaneously investigate the effect of two or more independent variables on a dependent variable.

The multiple regression takes the form of

$Y = a + b_1X_1 + b_2X_2 + b_3X_3 +$ -------------$+ b_kX_k$

Where Y is the dependent variable, which is to be predicted; X_1, X_2, X_3, X_4,--------- $X_k$are the K known variables on which the predictions are to be based and a, b_1, b_2, b_3, b_4, ----------b_k are parameters, the values of which are to be determined by the method of least squares.

The coefficient of multiple determination (R^2) for the multiple regression can be calculated by the following formula.

$$R^2 = \frac{\sum (Y_i - \overline{Y})^2 - \sum (Y_i - \overset{\Delta}{Y})^2}{(Y_i - \overline{Y})^2}$$

Where R^2 is coefficient of determination

Y_i = Value of i^{th}item in Y series.

$\overline{Y}$ = mean of the Y series.

$\overset{\Delta}{Y}$ = Computed value of i^{th} item in Y series on the basis of regression.

To overcome the problem of tedious calculations involved in multiple regression analysis, computers which support Statistical Packages such as SPSS, STATISTICA, Stat soft etc are generally used. The use of computers facilitate enormously as several independent variables can be handled. We can ascertain whether adding another independent variable will improve results or not. We can see the magnitude of R^2, which indicates what proportion of the variation in the dependent variable is explained by the independent variables.

CO-EFFICIENT OF VARIATION (C.V)

Co-efficient of variation is a situation where we want to compare the variability of two or more than two series. A high variation indicates less consistency and less variation indicates more uniformity.

$$C.V. = \frac{\sigma}{\sqrt{X}} \times 100$$

$\sigma =$ Standard Deviations of the Variables

$\overline{X} =$ Mean Value of Variables

CO-EFFICIENT OF CORRELATION

It is a statistical device, which helps us in analyzing the co-variation between two or more series of variables. The co-efficient of correlation is denoted by the symbol 'r', The formula for computing 'r' which was practiced by "**Karl Pearson**" is:

$$r = \frac{\sum xy}{N\sigma x\sigma y}$$ Where $x = (X - \overline{X})$

$y = (Y - \overline{Y})$

σx = Standard Deviation of Series X

σy = Standard Deviation of Series Y

N = Number pairs or observations

r = The Correlation Co-efficiently.

The value of correlation co-efficient, which is obtained by the above formula, shall always lie between ± 1, If r=+1 it means there is a perfect positive correlation between the variables. When r = -1, there is a perfect negative correlation between the variables. When r = 0 it means there is no relationship between the two variables.

t-TEST OF A CORRELATION CO-EFFICIENT

It is assumed that the two series of variables originate from a bivariate normal distribution, and that the relationship is linear. To test the null hypothesis that the population value of 'r' is zero, the test static.

$$t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2}$$

Is calculated and this follows students' t - distribution with (n-2) degrees of freedom. The test will normally two-tailed but in certain cases would be one tailed.

HYPOTHESIS

Factors facilitating the process of obtaining funds from financial institution exert significant influence and are equal

TABLE-1: FACTORS FACILITATING THE PROCESS OF OBTAINING FUNDS

Sl.no.	Factors	SA (5)	A (4)	N (3)	DA (2)	SD (1)	Total	Mean
1	Revenue	9 (10.98)	31 (37.80)	19 (23.17)	15 (18.29)	8 (9.76)	82 (100.00)	3.2195122
2	Value of asset	12 (14.63)	24 (29.27)	16 (19.51)	17 (20.73)	13 (15.85)	82 (100.00)	3.0609756
3	No. of employees	7 (8.54)	31 (37.80)	24 (29.27)	15 (18.29)	5 (6.10)	82 (100.00)	3.2439024
4	Protected industries	5 (6.10)	35 (42.68)	17 (20.73)	16 (19.51)	9 (10.98)	82 (100.00)	3.1341463
5	Business connections	13 (15.85)	25 (30.49)	24 (29.27)	17 (20.73)	3 (3.66)	82 (100.00)	3.3414634
6	Political connections	11 (13.41)	24 (29.27)	23 (28.05)	23 (28.05)	1 (1.22)	82 (100.00)	3.2560976
7	Low current debt	3 (3.66)	17 (20.73)	26 (31.71)	27 (32.93)	9 (10.98)	82 (100.00)	2.7317073
8	Previous payment	14 (17.07)	31 (37.80)	18 (21.95)	17 (20.73)	2 (2.44)	82 (100.00)	3.4634146
9	Goodwill	8 (9.76)	23 (28.05)	23 (28.05)	23 (28.05)	5 (6.10)	82 (100.00)	3.0731707
10	Market share	16 (19.51)	28 (34.15)	16 (19.51)	16 (19.51)	6 (7.32)	82 (100.00)	3.3902439
11	Business projections	7 (8.54)	21 (25.61)	33 (40.24)	16 (19.51)	5 (6.10)	82 (100.00)	3.1097561

SA= Strongly Agree, A= Agree, N= Neutral, DA= Disagree, SD= Strongly Disagree

Note: Figures in brackets indicate percentage to total

Source:Survey[2]

TABLE-2: CRONBACH ALPHA

Cronbach alpha: .662252
Standardized alpha: .605898

Sl.no.	Particulars	Alpha
1	Revenues	0.666341
2	Value of asset	0.69736
3	No. of employees	0.651736
4	Protected industries	0.601304
5	Business connections	0.658311
6	Political connections	0.601465
7	low current debt	0.683452
8	Previous payment	0.648159
9	Goodwill	0.638416
10	Market share	0.613365
11	business projections	0.616048
12	Acceptance or Rejection	0.687954

TABLE-3: ONE-SAMPLE KOLMOGOROV-SMIRNOV TEST

		Revenues	Value of asset	No. of employees	Protected industries	Business connections	Political connections	low current debt	Previous payment	Goodwill	Market share	business projections	Acceptance or Rejection
N		82	82	82	82	82	82	82	82	82	82	82	82
Normal Parameters	Mean	3.1585	3.0244	3.9390	3.0854	3.3293	3.2439	2.8049	3.4512	3.0854	3.6220	3.2439	.7805
	Std. Deviation	1.10520	1.27633	.63533	1.14613	1.08928	1.03710	1.01153	1.06750	1.15685	1.07313	1.01301	.41646
Most Extreme Differences	Absolute	.277	.217	.331	.263	.182	.194	.211	.245	.180	.321	.199	.481
	Positive	.174	.155	.303	.164	.168	.177	.180	.145	.180	.204	.168	.299
	Negative	-.277	-.217	-.331	-.263	-.182	-.194	-.211	-.245	-.139	-.321	-.199	-.481
Kolmogorov-Smirnov Z		2.506	1.962	2.997	2.383	1.650	1.755	1.907	2.220	1.626	2.903	1.803	4.359
Asymp. Sig. (2-tailed)		.000	.001	.000	.000	.009	.004	.001	.000	.010	.000	.003	.000

a Test distribution is Normal.
b Calculated from data.

TABLE-4: MODEL SUMMARY

	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
Model					R Square Change	F Change	df1	df2	Sig. F Change	
1	.260	.68	-.79	.43257	.068	.462	11	70	.920	2.311

a Predictors: (Constant), Business projections, Business connections, Previous payment, Low Current debt, Goodwill, Revenues, No. of employees, Market share, Political connections, Protected industries, Value of assets.
b Dependent Variable: Acceptance or rejection

TABLE-5: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.951	11	.086	.462	.020
	Residual	13.098	70	.187		
	Total	14.049	81			

a Predictors: (Constant), Business projections, Business connections, Previous payment, Low Current debt, Goodwill, Revenues, No. of employees, Market share, Political connections, Protected industries, Value of assets.
b Dependent Variable: Acceptance or rejection

TABLE-6: COEFFICIENTS

Model	Particulars	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.482406	0.436261	0.001123	3.397977	-0.12101		
	Revenues	-0.0456	0.046255	0.327628	-0.9858	0.019311	0.88395	1.131285
	Value of asset	0.006301	0.04311	0.884212	0.146164	-0.09859	0.763029	1.310566
	No. of employees	-0.06463	0.079893	0.421309	-0.80891	0.01244	0.896628	1.115289
	Protected industries	0.00452	0.047572	0.924568	0.095023	0.053564	0.777057	1.286907
	Business connections	0.020479	0.048712	0.67547	0.420416	-0.14781	0.820498	1.218772
	Political connections	-0.05935	0.051254	0.250779	-1.15805	-0.04767	0.817577	1.223127
	Low current debt	-0.01962	0.049143	0.690856	-0.39934	-0.11044	0.934868	1.069669
	Previous payment	-0.04309	0.049346	0.385556	-0.87317	-0.0554	0.832501	1.201199
	Goodwill	-0.01995	0.04349	0.647929	-0.45862	-0.00427	0.912641	1.095721
	Market share	-0.00166	0.048324	0.972738	-0.0343	0.044475	0.858995	1.164151
	Business projections	0.018284	0.051586	0.724072	0.354444		0.845934	1.182125
a	Dependent Variable: Acceptance or rejection							

TABLE-7: COLLINEARITY DIAGNOSTICS

Model	Dimension	Eigen value	Condition Index	Variance Proportions (Constant)	Revenues	Value of asset	No. of employees	Protected industries	Business connections	Political connections	low current debt	Previous payment	Goodwill	Market share	business projections
1	1	11.07800	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	2	0.18200	7.803	.00	.06	.21	.00	.06	.08	.02	.06	.01	.00	.00	.00
	3	0.13000	9.248	.00	.00	.04	.00	.00	.03	.00	.31	.05	.30	.02	.02
	4	0.11700	9.731	.00	.12	.02	.00	.20	.02	.01	.07	.02	.34	.01	.04
	5	0.11100	9.993	.00	.31	.23	.00	.13	.00	.00	.12	.07	.00	.01	.00
	6	0.08761	11.245	.00	.05	.10	.00	.01	.01	.00	.17	.07	.00	.16	.35
	7	0.07375	12.256	.00	.04	.14	.00	.19	.04	.46	.01	.08	.14	.02	.04
	8	0.06917	12.655	.00	.04	.07	.00	.01	.47	.10	.01	.12	.06	.25	.01
	9	0.06072	13.507	.00	.06	.06	.02	.19	.05	.29	.05	.32	.13	.02	.10
	10	0.05000	14.884	.00	.26	.04	.00	.18	.11	.09	.02	.00	.02	.47	.38
	11	0.03220	18.548	.05	.01	.06	.40	.03	.19	.00	.18	.20	.00	.03	.04
	12	0.00939	24.346	.94	.04	.01	.57	.01	.00	.03	.01	.05	.01	.03	.03

a Dependent Variable: Acceptance or rejection

FACTORS FACILITATING THE PROCESS OF OBTAINING FUNDS

Finance is one of the basic requirements for any SME units. It is the catalytic agent for any business. Financial inadequacy is observed to be one of the most important causes leading to ripple effect of sickness of SMEs. In order to obtain more and more finance & concessions, the owners of the SME units runs from one agency to another and consequently, cannot concentrate on the industry. These individuals concentrate on various formalities and factors to acquire finance from financial institutions.

For the purpose of study, factors such as revenues & firm is profitable, value of assets, higher number of employees, firms operating in "protected" industries, business connections between firm and government officials, political or personal connections between firm and government officials, low current debt, good previous payment record, goodwill and reputation in the society, market share & acceptability of product by customers, business projections.

Table 1 shows the factors facilitating the process of obtaining funds. It can be observed that, 37.80 per cent agreed and 10.98 per cent strongly agreed that revenues are considered as factor for facilitating the process of obtaining funds. Value of the assets are considered as a factor for facilitating funds is agreed by 29.27 per cent and strongly agreed by 14.63 per cent. The number of employees working in the SMEs is considered as a factor is agreed by 37.80 per cent. Protected industry is a factor for obtaining funds is strengthened by 42.68 per cent agreed SMEs. 30.49 per cent agreed and 15.85 per cent strongly agreed business connections are facilitated funds. Political connections influenced in obtaining funds from various sources is agreed by 29.27 per cent and strongly agreed by 13.41 per cent. Low current debt have an effect in obtaining funds is disagreed by 32.93 per cent and strongly disagreed by10.98 per cent SMEs. Previous payment track record has a influenced factor in obtaining funds is agreed by 37.80 per cent and strongly agreed by 17.07 per cent. Goodwill of the enterprise influences in obtaining funds is agreed by 28.05 per cent and strongly agreed by 9.76 per cent. 34.15 per cent agreed and 19.51 per cent strongly agreed that, market share of the enterprises has influenced in obtaining funds. Business projections of the enterprises has influenced in obtaining funds is agreed by 25.61 per cent and strongly agreed by 8.54 per cent.Data collected from the survey has been analysed using the statistical tools on SPSS 11.0 for assessment of reliability of dimension and testing the hypothesis.

RELIABILITY ANALYSIS

The reliability analysis was assessed by computing the coefficient of cronbach alpha. Cronbach alpha measures the internal consistency of the items. Results of the reliability analysis are shown in the table 2. If the coefficient alpha is above 0.60, it is considered to reliable. All alpha coefficient ranges from 0.60 to 0.69, thereby, indicating govel consistency among the items within each dimension and scale.

Correlation and multiple regression have been done to test the hypothesis. Prior to applying the regression analysis, to test the normality of the residuals, the Kolmogoror-smirnov test has been used. The kolmogorov-smirnov test in the table 3 provides the evidence that the residual is normally distributed and the regression analysis can be executed.

In order to check the correlation between the residuals, Durbin-Watson test statistic was computed, which is shown in table 4. The test statistic can vary between 0 and 4. Value of Durbin-Watson test close to 2 shows that the residual are independent that is, uncorrelated, fulfilling the assumption for applying the regression model.

The total variance explained by the variables is 79 per cent (Adjusted R^2). From the table 5, it is observed that, variables considered for the study significantly influences the process of selecting financial institutions. The regression was found to be significant with ANOVA (f=0.462, p=0.020) which indicates that all the independent variables together have a significant influence. In order to ascertain whether there could be any multi collinearity between the independent variables, collinearity statistics from the table 7 is considered. The limits for multi collinearity are that the condition index should be less than 30, tolerance should be between 0 &1 and variance initiation factor values, between 1 and 2. From the table, VIF values lie in between the limit, there is no multi collinearity amongst the independent variables.

SUMMARY

The SMEs concentrate on various formalities and factors to acquire finance from financial institutions. These factors such as revenues & firm is profitable, value of assets, higher number of employees, firms operating in "protected" industries, business connections between firm and government officials, political or personal connections between firm and government officials, low current debt, good previous payment record, goodwill and reputation in the society, market share & acceptability of product by customers, business projections. The regression was found to be significant with ANOVA (f=0.462, p=0.020) which indicates that all the independent variables together have a significant influence. In order to ascertain whether there could be any multi collinearity between the independent variables, collinearity statistics. The limits for multi collinearity are that the condition index should be less than 30, tolerance should be between 0 &1 and variance initiation factor values, between 1 and 2. From the table, VIF values lie in between the limit, there is no multi collinearity amongst the independent variables.

SUGGESTIONS

- MSMEs should improve their book keeping and record management to enhance the confidence of the financial intermediaries.
- The SMEs suffer from lack of reliable and stable economic infrastructure, reduced credit inflow and technology obsolescence thereby leading to inferior quality and low productivity. In the light of global competition, technology development innovations should be made, financial infrastructure should be broadened and adequate inflow of credit to the sector be ensured taking into consideration the growing investment demand for the Small Scale Industries' survival and growth.
- Availability of adequate finance at reasonable rates and right time would mitigate many of their ailments. Improving the production technology to world class level, catering to global quality standards and updating their management and marketing techniques will be taken care of with adequate supply of finance and ancillary services through the existing specialised agencies. A level playing field is to be ensured for them by these agencies. Multiplicity of institutions, schemes and programmes may be avoided. All the assistance and monitoring should go through a single window for better implementation and follow up.

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EMPLOYEES' WORKPLACE EMOTIONS IN ORGANIZATIONS

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ABSTRACT

This paper suggests that feelings (moods and emotions) play a central role in the leadership process. More specifically, it is proposed that emotional intelligence, the ability to understand and manage moods and emotions in the self and others, contributes to effective leadership in organizations. Four major aspects of emotional intelligence, the appraisal and expression of emotion, the use of emotion to enhance cognitive processes and decision making, knowledge about emotions, and management of emotions, are described. Then, it propose how emotional intelligence contributes to effective leadership by focusing on five essential elements of leader effectiveness: development of collective goals and objectives; instilling in others an appreciation of the importance of work activities; generating and maintaining enthusiasm, confidence, optimism, cooperation, and trust; encouraging flexibility in decision making and change; and establishing and maintaining a meaningful identity for an organization.

KEYWORDS

Emotional Intelligence; leadership, organizations.

INTRODUCTION

Emotion is defined as "a complex feeling state accompanied by physiological arousal and overt behaviours". The words 'Emotion' and "Motivation", in essence, imply motion. Motivation is typically functional because a motivated person moves himself towards some goal. But, emotion is primarily expressive because an emotional person is moved. Emotion can be motivating to the extent that human activity towards certain goal is influenced and sustained by feelings. Whenever we try to attain happiness or get rid of anger, irritation, etc emotion plays significantly a motivated role. Emotions can be managed through conscious practices. Morris and Feldman (1996) defined emotional labour as "the effort, planning, and control needed to express organizationally desired emotion during interpersonal transactions". This definition comes from an interactionist approach, where emotions are expressed in, and partially determined by, the social environment. This perspective is similar to those of Hochschild (1983) and Ashforth and Humphrey (1993) in that it acknowledges that emotions can be modified and controlled by an individual and the broader social setting determine when that happens. These authors proposed that emotional labour consists of four dimensions: (a) frequency of interactions, (b) attentiveness (intensity of emotions, duration of interaction), (c) variety of Emotions required and (d) emotional dissonance. Emotional dissonance was discussed by Hochschild (1983) as a state wherein the emotions expressed are discrepant from the emotions felt.

Generally, individuals experience a physiological state of arousal or emotion (anger or fear), and they then have an emotional tendency (attack or flee). This corresponds with Frijda's (1986) idea of "action readiness," and Freud's (1936/1961) idea that emotions provide clues about the environment. The arousal state from emotions informs them and gets them in a bodily state to respond to the situation. But in today's society, people learn to regulate that emotional tendency, so that their emotional reactions to other people don't result in "fight or flight" (Cannon, 1932). So, these "action tendencies" to respond to emotion-producing stimuli are overridden by coping or regulatory processes so that people do not act inappropriately in social settings (Lazarus, 1991).

IMPLICATIONS FOR MANAGEMENT

STUDIES OF COGNITION AND EMOTION IN ORGANISATIONS

Attribution, Affective Events, Emotional Intelligence and Perception of Emotion by Ashkanasy and Tse (2002). In particular there are three areas of research in emotions in organisational settings that have important implications for managers. First, affective events theory tells managers that the ostensibly minor hassles and uplifts that people experience at work every day accumulate to determine organisational members' affective states, and these states can subsequently affect their attitudes and behaviours at work; second, work on emotional intelligence is introducing a new appreciation of the role of emotional perception, understanding, and management in organisations, popularised recently by Goleman (1995, 1998); and third, managers are now coming to appreciate the pros and cons of emotional labour in organisations, as popularised by Hochschild (1983), and the implications of these for management practice. In this respect, Ashkanasy and Daus (2002) set out five tips for better management of emotions, as follows: i). Rather than seeing jobs as purely rational undertakings, managers need to assess the 'emotional impact' of each employee's job, and to design job assignments that take this into account; ii). Organisations are not cold places that people enter just to work. Managers need to create a positive and friendly emotional climate, and to model this through their own behaviour; iii). Managers can encourage a positive emotional climate through rewards and compensation systems; iv). Selection of employees and teams needs to be based, in part, on a positive emotional attitude. Managers should select employees on the basis of their record for engendering a positive emotional attitude in their work teams; and finally v).Managers should seek to train their employees to improve their emotional intelligence skills and to engage in healthy emotional expression at work.

The Relationship of Emotional Exhaustion to Work Attitudes, Job Performance, and Organizational Citizenship Behaviours (Cropanzano *et al*., 2003). Emotional exhaustion has emerged as a central variable for understanding the burnout process. The reasons for this are both empirical and conceptual. Empirically, some work has suggested that emotional exhaustion exhibits somewhat stronger relationships than do the other components to important outcome variables. Conceptually, argued that emotional exhaustion best captures the "core meaning" of burnout. In keeping with these empirical findings and conceptual frameworks, the authors explored the relationship of emotional exhaustion to important work behaviours, attitudes, and intentions.

EMOTIONAL EXHAUSTION AND TURNOVER

In work settings, the withdrawal by emotionally exhausted workers can manifest itself by turnover. This effect has been amply demonstrated, and the present study seeks only to replicate it. The role of emotional intelligence in the pursuit of a spiritual life: Implications for individuals in organisations (Harmer, 2007).Research into emotional intelligence and workforce effectiveness suggests organisations that provide employees with the feeling they belong to a community willing to support, guide and help them through the many emotional peaks and troughs of work will be more engaged and committed. Although still contentious, academic research suggests the effective application of individual emotional intelligence at work by leaders and employees at all level is a stronger predictor of organisational effectiveness than traditional intelligence (IQ) or an individual's personality.

At an organisational level, effective emotional intelligence has been shown to underpin: a work team's capacity to identify and ascribe to attitudinal and behavioural norms related to more effective patterns of interacting employees capacity to recognise, understand and navigate boundary and role confusion between work teams, departments, divisions, and the organisation within the broader market context and a sense of organisational accomplishment and trouble free operation, as well as the development of vertical trust, organisational support, and general workplace wellbeing. At an individual and leadership effectiveness level, emotional intelligence is related to a leader's capability to show sensitivity and empathy towards others; build on other work colleagues' ideas; influence others to accept alternative points of view; demonstrate integrity and; act according to prevailing ethical standards by remaining consistent with one's words and actions (Barbuto and Burbach, 2006; Dulewicz and Higgs, 2003; Palmer *et al.,* 2003; Palmer *et al.,* 2001).

EMOTION REGULATION IN THE WORKPLACE

A New Way to Conceptualize Emotional Labour by Grandey *et al.,* 2004. Generally, emotions are managed in response to the *display rules* for the organization or job (Ekman and Friesen, 1975; Goffman, 1959; Hochschild, 1983). These rules regarding the expectations for emotional expression may be stated explicitly in selection and training materials, or known by observation of co-workers. Many work roles have display rules regarding the emotions that employees should show the public. In other words, managing emotions is one way for employees to achieve organizational goals. If an employee were to express a depressed mood or anger toward a co-worker or customer, that would ruin the performance. Hochschild's (1983) dramaturgical perspective offered two main ways for actors to manage emotions: through surface acting, where one regulates the emotional expressions, and through deep acting, where one consciously modifies feelings in order to express the desired emotion. One of Hochschild's (1983) major tenets is that this management of emotions requires effort.

DRAWING INFERENCES FROM EMOTION – EXTENDING THE MEANING OF AN EMOTION

EMOTION CYCLES

On the social influence of emotion in organizations by **Hareli and Rafaeli. (2007).** Human behaviour is often governed by inferences about other people and the attributions they evoke. As noted above, appraisal theories of emotion suggest that emotions can "tell a story" about the individual experiencing the emotion **(Frijda, 1986; Lazarus, 1991)**. Building on such stories people may not only react emotionally, as suggested above, but may also draw inferences about emotive agents. By extension, an agent presumed to be experiencing anger may also be presumed to have been let down, offended, or disobeyed by someone **(Tiedens, 2001)**, which could endow him or her with high power **(Tiedens, 2002)**, which is a key element of the story of anger **(Smith and Ellsworth, 1985)**. Thus, knowledge of an agents' emotion can lead others to presume knowledge of other things about the agent; the presumed knowledge extends the meaning of an emotion to afford information about the agent in addition to how he or she is feeling. Available research suggests that agent emotions can inspire inferences and attributions of three types: (a) the social status or power of an emotive agent; (b) the competence of the agent; and (c) the credibility of the agent.

WHEN CUSTOMERS LASH OUT

The Effects of Customer Interactional Injustice on Emotional Labour and the Mediating Role of Discrete Emotions (Rupp, and Spencer 2006). Emotional Labour Toward the goal of emotion regulation, many organizations have formal policies, known as *display rules*, regarding the expected emotions of their employees (Ekman and Friesen, 1982; Rafaeli and Sutton, 1987, 1990; Sutton and Rafaeli, 1988; Wharton and Erickson, 1995). Adherence to display rules is viewed as a practical necessity because the emotional front—in many cases courtesy, friendliness, and cheerfulness—plays an important role in fostering positive customer perceptions of service quality (Schneider and Bowen, 1985; Schneider *et al.,* 1980). Although disagreement exists regarding an explicit definition of EL (Glomb and Tews, 2004), our focus is on the degree of effort involved in emotion management during interpersonal transactions.

When employees' true emotions are not consistent with emotional display rules, they might engage in one of two forms of EL strategies: surface acting (modifying facial expression) or deep acting modifying inner feelings; Grandey, 2003; Hochschild, 1983).Research has indicated that surface acting has more negative effects on employees than does deep acting (Brotheridge and Grandey, 2002; Grandey, 2003; Gross, 1998; Morris and Feldman, 1997; Pugliesi, 1999). Surface acting is more likely to be used by inexperienced employees than by those with more on-the-job experience (Grandey, 2003). The current study's conceptualization of EL is consistent with the notion of surface acting. That is, employees must expend effort and exercise control to modify outward emotional displays (i.e., surface act) when their internal feelings conflict with those required by display rules.

Bridging Justice and Emotional Labour via Affective Events Theory One class of affective events includes situations where individuals feel they are treated unfairly. For example, Weiss *et al.,*(1999) as well as Krehbiel and Cropanzano (2000) have presented empirical evidence showing that individuals experience anger when treated unfairly and happiness when treated fairly. Clayton (1992) and Mikula (1986) also provide evidence that anger is a common Consequence of injustice perceptions. The current study seeks to extend this research by exploring how situations involving interactional mistreatment by customers serve as affective events.

WHEN CLERKS MEET CUSTOMERS

A Test of Variables Related to Emotional Expressions on the Job (Rafaeli, 1989). Clerk Attributes: Sex Role Socialization and Conveyed Emotions The first part of the study examined clerk sex and its relationship to the emotions conveyed on the job. Gender differences in nonverbal behaviour are well documented (Deaux, 1985). It is commonly argued that men tend to display nonverbal cues that reflect power and authority, whereas women typically display more warmth and liking cues (Bem, 1974; Frieze and Ramsey, 1976; Siegler and Siegkq 1976). A similar pattern of differences is also evident when verbal behaviour is observed (Putnam and Mc-Callister*,* 1980).

It is unclear; however, to what extent the results of previous studies on gender differences can be generalized to emotional behaviour on the job. Previous research has described behaviour in social settings. In contrast, the present study focuses on *set*tings in which feeling rules emerge as part of an organizational or occupational socialization process. Thus, a first question of this study is whether gender differences-which have been documented in other settings, will be evident in the emotions conveyed when service employees interact with customers.

If gender differences due to sex role socialization transfer to behaviour on the job, then female employees can be expected to display more warmth and friendliness cues than male employees. In contrast, managerial literature recommends the display of positive and esteem-enhancing emotion by all service employees (Ash, 1984; Peters and Austin, 1985). Thus, organizational feeling rules endeavour to suppress gender differences in emotional expressions. When organizational feeling rules are followed, female and male employees *can* be expected to smile and greet all customers to a similar extent. Local feeling rules, however; may not overcome gender-linked differences in emotional expression. Sex role socialization is a lifelong process, supported by myriad sources including child rearing policies, parental masculinity and femininity, and other parental attributes and behaviours (Bem, 1974; Looft, 1973; Spence and Helmreich, 1978). In contrast, organizational socialization involves fewer sources of influence and pertains to a narrower domain of behaviours. Thus, it is expected that gender differences will be evident in emotional behaviour on the job.

MANAGING EMOTIONS IN THE WORKPLACE

Do Positive and Negative Attitudes Drive Performance? by Wharton, 2007. Employees' moods, emotions, and overall dispositions have an impact on job performance, decision-making, creativity, turnover, teamwork, negotiations, and leadership. People are not isolated 'emotional islands.' rather, they bring all of themselves to work, including their traits, moods and emotions, and their affective experiences and expressions influence others," according to the paper, co-authored by Donald Gibson of Fairfield University's Dolan School of Business. An "affective revolution" has occurred over the last 30 years as academics and managers alike have come to realize that employees' emotions are integral to what happens in an organization, which has been doing research in the area of emotions and work dynamics for 15 years. "Everybody brings their emotions to work. You bring your brain to work. You bring your emotions to work. Feelings drive performance. They drive behaviour and other feelings. Think of people as emotion conductors."Three different types of feelings are as follows: i) Discrete, short-lived emotions, such as joy, anger, fear and disgust, ii)Moods, which are longer-lasting feelings and not necessarily tied to a particular cause. A person is in a cheerful mood, for instance, or feeling down. Iii) Dispositional, or personality, traits, which define a person's overall approach to life. "She's always so cheerful," or "He's always looking at the negative." Emotions don't have to be grand and obvious to have an impact. Subtle displays of emotion, such as a quick frown, can have an effect as well. Emotions in the workplace Research, Theory, and Practice by Ashkanasy,(2000).

AFFECTIVE EVENTS-EMOTIONS MATRIX

A Classification of Work Events and Associated Emotions as follows:

AFFECTIVE EVENTS THEORY (AET)

Affective Events Theory (AET) (Weiss and Cropanzano, 1996) proposes that organizational events are proximal causes of affective reactions. "Things happen to people in work settings and people often react emotionally to these events. These affective experiences have direct influences on behaviours' and attitudes" (Weiss and Cropanzano, 1996). Recent research by Fisher (1998) has supported the hypothesized relationship between moment-to-moment emotions and outcomes such as job satisfaction, organizational commitment, and intention to quit. AET also proposes that stable work environment features such as job scope predispose the occurrence of certain types of affect-producing events. For instance, an enriched job might more often lead to events involving feedback, task accomplishment, and optimal challenge, which may lead to the emotions of pride, happiness, and enthusiasm. AET will be very useful for managers to know what types of events are most likely to produce positive or negative emotions, so that the incidence of the former can be enhanced and the latter reduced. This study asks the question: What organizational events or situations cause employees to experience specific emotions while at work? The aim of the research is to construct an event-emotion matrix that shows the relationship between categories of job events and the corresponding emotions experienced by people. Weiss and Cropanzano (1996) used definitions from the World Book Dictionary, "a happening, especially an important happening" and from the Random House Dictionary, "something that occurs in a certain place during a particular period of time." This definition stops short of bringing the individual perceiver into the picture.

COGNITIVE APPRAISAL THEORY

Cognitive appraisal theory (Lazarus, 1966), on the other hand, posits that individuals will only feel the same emotions if their appraisal of the event is the Gendering Emotions, Gendering Teams, Construction of Emotions in Self-managing Teamwork. Studies of organizations have shown that gender is a central component in the analysis of emotions in the workplace (Hochschild, 1983; Leidner, 1993; Parkin, 1993; Rafaeli, 1989). Emotions play an important part in maintaining inequality between women and men at work; for example, a gender division of emotional labor constitutes the structural base of many service industries and perpetuates the ghettoization of women in low-paid service jobs (Hall, 1984; Hochschild, 1983; Leidner, 1993;). In addition to the well-documented gender division of emotional labour, the ways in which specific emotions are constructed in the daily interaction among employees' for example, the meanings that emotional displays are given by colleagues and superiors also maintain women's subordinate status with respect to men (Fineman, 1993).

COMMENTARY: EMOTIONS AS AN ORGANIZING PRINCIPLE

Emotion studies in organizations have often focused on the control exerted by organizations over emotions, by individuals over emotions, or the effects of emotions on performance. In this section, two organizational studies were described, which examine an aspect of emotion in organizational life rarely acknowledged: the role of emotion in creating and maintaining organizational hierarchies. Emotional Competence and Leadership Excellence at Johnson and Johnson: The Emotional Intelligence and Leadership Study by Kathleen Cavallo, PsyD. The study revealed a strong relationship between superior performing (HiPR) leaders and emotional competence, supporting theorist's suggestions that the social, emotional and relational competency set commonly referred to as Emotional Intelligence, is a distinguishing factor in leadership performance. Leaders who received performance ratings of 4.1 or greater on a 5-point scale were rated significantly higher than other participants in all four of the Emotional Intelligence dimensions of Self-Awareness, Self-Management, Social Awareness, and Social Skills by Supervisors and Subordinates. Peers found HiPR leaders to be stronger in the Self-Awareness and Self-Management clusters. Six competencies were found to distinguish HiPR's across all three rater groups, specifically, Self-Confidence, Achievement Orientation, Initiative, Leadership, Influence and Change Catalyst.

Emotion is often described either in psychological terms as an individualized, intrapersonal response to some stimulus, or, by contrast, a socially constituted phenomenon, depending upon the disciplinary perspective one adopts. The power relations pre sent in patriarchal organizational forms bring men into direct. Control of others' emotions and in shaping the emotional labor of others. The experiences of competition and domination likewise produce emotions in male s such as elation when they win and anger when their hegemonic position in the hierarchical structure is challenged. Furthermore, there are emotionalized zone s in organizational settings that invite male expressions of emotion such as retirement parties and other ceremonials, and the "forceful" defense of one's social place in meetings.

Organizational actors quite rationally draw upon their emotions to evaluate their circumstances. This ensures that members will behave in ways that are consistent with their self-interests. Hence, according to this perspective, emotion underwrites rational decision making and enables employees to behave in ways that are rational for them. The behaviors of leaders and decision makers have been described as psychologically defensive reactions to unconscious fears and anxieties and unresolved early life experiences (Fineman, 1993, 1996; Morgan, 1986). As an example, authoritarian leadership styles has been interpreted as manifestations of repressed hostility and anxiety derived from the experience of being reared by harsh disciplinarian caretakers (Fineman, 1996). Other defensive posture s adopted by leaders in response to unrecognized and unconscious fear, anger, or envy may include coalition building, influence tactics or divide and conquer forms of control (Zaleznick, 1970) . A leader's unconsciously motivate d destructive impulse s may have the effect of undermining cooperation among members and create a culture that perpetuates rivalry and competition at a level that may be damaging to organizational goal attainment. Emotions, to be sure, do not emerge in isolation and they are not merely inner phenomena. They have objects, and they occur within some context.

The Role of Communicating Social Emotions Accompanying Apologies in Forgiveness by Hareli and Eisikovits (2006). Apologies are an effective strategy used by transgressors to restore relationships with an injured party. Apologies are often motivated by emotions the transgressor feels in relation to the situation. We report the results of two studies that examined how an injured person's knowledge that an apology was driven by one or more of the social emotions of guilt, shame, and pity affected forgiveness. Findings suggest that the knowledge that guilt and/or shame motivated the apology increased forgiveness. In contrast, knowledge that pity induced the apology decreased forgiveness. These findings are consistent with the view that the communication of emotions has the social function of monitoring and shaping social relationships.

The effectiveness of an apology in achieving the resolution of a social conflict depends on, among other things, verbal and non verbal components included in the apologetic message and on how this message is perceived by the injured party (IP). Indeed, apologies may include combinations of different components such as acceptance of responsibility for the misdeed that led to the break-up of the relationship, expressions of caring about what had happened, and offers of help. Research indicates that the extent to which an apology contains such components determines the level of forgiveness it achieves. An additional factor that determines an apology's effectiveness is information concerning how the transgressor feels about his/her wrongdoing toward the IP, and the extent to which such feelings instigated the apology. Because emotions convey to others important information concerning the state of the person experiencing them (Oatley and Johnson-Laird, 1987; Parkinson *et al.,* 2005), emotions known to prompt an apology can determine the impression an apology makes on its audience should s/he become aware of them.

A transgressor may experience a myriad of emotions following his/her undesirable act toward the IP. Such feelings typically arise from considerations of the way one's actions hurt the offended party and damaged the relationships with him/her. These feelings can also arise from assessment of personal implications the misdeed carries for the transgressor. That is, how the transgressor's character is going to be perceived by others including the IP following what that transgressor did to the IP. The present research provides evidence that information concerning the social emotions that motivate an apology serves the social function of affecting the likelihood of repairing broken social relationships following a transgression. It implies that people are sensitive to this information and consider it when deciding how much they forgive a transgressor. This is in line with the more general view that the function of the communication of emotion is to monitor and shape social relationships.

Emotional Intelligence and Stress Resiliency: A Relationship Study (Garg and Rastogi, 2009). The study has been conducted on a sample of 140 students having technical backgrounds. The findings suggest that students being emotionally intelligent can lead them to be resilient to stress, which determine their success at personal and professional front. One of the factors that have been focused is the "emotion" which drastically effect students' life. This factor has been highlighted with a view that the students being more at competitive edge, experience more stress which impede their academic performance and other scholarly activities. It has also been experienced that students being engrossed in cultivating rational intelligence are stressed and a physiological arousal occurs which leads to panic and interferes with an individual's performance believed that students being continually task-focused are more stressed which interfere with cognitive processing and consequently inhibit learning and memory. As earlier stated, that students being more at competitive edge are usually preoccupied with stress, which make them emotionally weak, and when unsuccessful in achieving their targets, this deteriorates their academic performance. That is, students' level of achievement is significantly related to their emotions as it is observed that more is the balance of emotions, greater success is experienced by the students. Or, we can say that emotional intelligence along with high IQ plays a vital role in determining the success of students, at personal and professional front.

It has been hypothesized that students who are emotionally intelligent are "more resilient to stress" and tend to develop positive attitude within them. Their interpretive styles of perceiving stress empower or disempower them psychologically and make them resilient to stress. Thus, coping mechanisms that utilize avoidance are associated with poorer academic performance (Carver and Sheier, 1983; Bagget and Saale, 1996), while optimistic students achieve higher academic performance compared with pessimistic students. The customer is not always right: customer aggression and emotion regulation of service employees (Grandey, 2004). The study focuses on a behavioral term that refers to verbal communications of anger that violate social norms: verbal aggression, or hostility. This term is clear about the behaviors of interest, avoids the fuzzy boundaries associated with the different terms noted previously, and is not necessarily associated with intra-organizational members as the previous terms have been. Consistent with this variable of interest, in the current study we focus on call center employees who only engage in voice-to-voice service interactions, allowing verbal aggression to be the primary method of communicating anger or hostility.

Two general ways that service workers can emotionally regulate is through surface acting (i.e.,engaging in behavioral change) and deep acting (i.e., engaging in cognitive change) (Grandey, 2000; Hochschild, 1983). Surface acting entails modifying behaviors by suppressing or faking expressions (Brotheridge and Lee, 2002; Grandey, 2000). Deep acting refers to internal change: changing cognitions through perspective taking (reappraising the situation by taking another's point of view) or positive refocus (focusing attention on positive things to regulate feelings) (Gross, 1998). We also examined venting emotions—a dysfunctional response to customers (Bitner *et al.,* 1990; Grandey, 2003) that happens when the individual does not regulate emotions. Surface acting has been linked to burnout and lower service performance, while deep acting has been positively related to service performance.

EMOTIONAL LEADERSHIP THROUGH EMOTIONAL INTELLIGENCE: HIGH ACHIEVERS DO IT; LOW ACHIEVERS DON'T

The definition of emotional leadership is the leading of followers through the proper identification and management of an array of emotions and influencing the outcome of their subsequent needs. Leader decisions must incorporate follower emotions about the organization, the department, the culture and/or the project. When a leader disregards follower emotions, follower attention is divided between what they should do and what they want to do. For most followers, emotional distress detracts from performance especially when that distress is a result of leader/follower conflict regardless if the leader is a high achieving or low achieving leader. Leading follower emotions should be the first priority for anyone building an organization, changing an organization or simply looking to leave a legacy in an organization **(King, 2009).** Emotional Leadership is rooted in relationships of Emotional Quotient (e.g., Emotional Intelligence). They are: The Interpersonal Realm, The Intrapersonal Realm, The Adaptability Realm, The Stress Management Realm, and The Good Mood Realm. An emotionally intelligent leader knows that, "Good relationships and coping strategies are the key to our success from the initial bonding between parent and child to the ability of a manager to bring out the best in [their] employees". The study concludes that successful leadership starts with emotional leadership by focusing on follower emotions as part of the leadership process. Without it, followers fail. The truth is when followers fail, leadership fails.

EMOTIONS AND LEADERSHIP

The role of emotional intelligence, (George, 2000) feelings (moods and emotions) play a central role in the leadership process. More specifically, it is proposed that emotional intelligence, the ability to understand and manage moods and emotions in the self and others, contributes to effective leadership in organizations. Four major aspects of emotional intelligence, the appraisal and expression of emotion, the use of emotion to enhance cognitive processes and decision making, knowledge about emotions, and management of emotions, are described. Five essential elements of leader effectiveness: development of collective goals and objectives; instilling in others an appreciation of the importance of work activities; generating and maintaining enthusiasm, confidence, optimism, cooperation, and trust; encouraging flexibility in decision making and change; and establishing and maintaining a meaningful identity for an organization. What distinguishes moods from emotions is their intensity. Moods are pervasive and generalized feeling states that are not tied to the events or circumstances which may have caused the mood in the first place. Moods are relatively low intensity feelings which do not interrupt ongoing activities. Emotions are high intensity feelings that are triggered by specific stimuli (either internal or external to the individual), demand attention, and interrupt cognitive processes and behaviors. Emotions tend to be more fleeting than moods because of their intensity. Emotions often feed into moods so that, once the intensity of an emotion subsides because the individual has cognitively or behaviorally dealt with its cause, the emotion lingers on in the form of a less intense feeling or mood.

When people are in positive moods, their perceptions and evaluations are likely to be more favorable, they are more prone to remember positive information, they are more self-assured, they are more likely to take credit for successes and avoid blame for failures, and they are more helpful to others. Positive moods have been found to enhance flexibility on categorization tasks and facilitate creativity and inductive reasoning (Isen *et al.,* 1985, 1987). Conversely, negative moods may foster deductive reasoning and more critical and comprehensive evaluations. Emotional intelligence does not only entail being aware of one's own emotions, but also using these emotions in functional ways. First, emotions can be useful in terms of directing attention to pressing concerns and signaling what should be the focus of attention (Frigda, 1988; George and Brief, 1996). Second, emotions can be used in choosing among options and making decisions; being able to anticipate how one would feel if certain events took place can help decision makers choose among multiple options (Damasio, 1994). Third, emotions can be used to facilitate certain kinds of cognitive processes. As mentioned earlier, positive moods can facilitate creativity, integrative thinking, and inductive reasoning, and negative moods can facilitate attention to detail, detection of errors and problems, and careful information processing (Isen *et al.,* 1985, 1987; Salovey *et al.,* 1993; Sinclair and Mark, 1992). Finally, shifts in emotions can lead to more flexible planning, the generation of multiple alternatives, and a broadened perspective on problems.

Emotional knowledge is concerned with understanding both the determinants and consequences of moods and emotions, and how they evolve and change over time. People differ in their awareness and understanding of how different situations, events, people, and other stimuli generate emotions. A leader who is surprised when followers' initial reaction to an announced restructuring is fear and anxiety is not knowledgeable about the determinants of emotions. Over time, emotions and moods change fear and anxiety might evolve into a negative mood and then to apathy or to a more intense state of agitation. While emotions can progress in different ways enthusiasm can lead to further levels of excitation or to a less intense sense of general well-being some people are especially attuned to these kinds of progressions and their causes. In order for leaders to generate and maintain excitement and enthusiasm, they must be able to appraise how their followers feel, and be knowledgeable about how to influence these feelings. They must also be able to anticipate how followers will react to different circumstances, events, and changes, and effectively manage these reactions. Leaders need to manage emotions such that followers are aware of problems yet, given the collective vision, are confident about resolving problems and feel optimistic about the efficacy of their personal contributions. Moreover, leaders need to be able to distinguish between the emotions their followers are actually experiencing, their 'real' feelings, and the emotions they express.

Impact of Emotional Intelligence, Ethical Climate, and Behavior of Peers on Ethical Behavior of Nurses by Satish and Joseph (2008). This study examines factors impacting ethical behavior of 103 hospital nurses. The level of emotional intelligence and ethical behavior of peers had a significant impact on ethical behavior of nurses. Independence climate had a significant impact on ethical behavior of nurses. Other ethical climate types such as professional, caring, rules, instrumental, and efficiency did not impact ethical behavior of respondents. The research suggests that both individual factors (e.g., emotional intelligence) and attributes of the hospital (ethical behavior of peers, independence climate) may impact ethical behavior. While the results of this study have unique implications for healthcare providers, they also have broader implications for other types of organizations and the field of business ethics. Nurses need a lot of emotional energy to interact with patients and be understanding towards those for whom they are responsible (Amendolair, 2003). This study suggests that emotional intelligence may have a significant impact on ethical behavior of nurses. A major component of a nurse's job is to take care of patients. Thus, nurses with personal qualities such as self-confidence, personal honesty, empathy, self management, and knowledge of personal strengths and weaknesses are more likely to make ethical decision. It is possible that training and development efforts aimed at increasing emotional and social competence can help nurses understand their own emotions and the emotions of others.

EMOTION IN THE WORKPLACE

Emotions in workplace settings and emotional intelligence are hot topics in management today. Leading business journals such as Fortune and Harvard Business Review have featured articles on emotional intelligence. The aim of this article is to acquaint managers with intriguing new research that examines both emotional intelligence and the broader issue of emotion. This has been shown to play a powerful role in workplace settings this research has a strong potential for practical application in organizations within many broad human-resource functions such as selection, performance management and training, as well as implications for more narrow domains like customer service. It concluding that the study of emotions in organizational settings has provided new and important insights in to the way in which people in organizations behave and we offer advice for managers to enable them to develop and to maintain a positive emotional climate in their organizations(Ashkanasy *et al.*, 2002).

Emotional Intelligence with its Psychological dimensions among software professionals (Nithya and Rau, 2009). Software Professionals are those people whose pace of work has increased to a high level and it becomes difficult to adjust the schedules for themselves and which in turn made them to become emotionally imbalanced. Under this circumstance, Emotional intelligence is one which makes an individual to become emotionally balanced as it is the ability to reason with, and about emotions. Hence the current paper explains the Emotional Intelligence of Software Professionals which has been designed in such a way that it measures the overall Emotional Intelligence and its three constitutes namely emotional sensitivity, emotional maturity and emotional competency. An empirical investigation has been done on 120 software professionals working in software companies in Chennai. It brings to light the extent of emotional intelligence with its three dimensions among software professionals and to know the awareness level and importance about EI among them.

Evidence that emotional intelligence is related to job performance and affect attitudes at work by Lopes *et al.,* (2006). The present study viewed Emotional Intelligence as a set of four interrelated abilities involved in the processing of emotional information. The ability to perceive emotions in oneself and others entails identifying internal cues of emotional experience and emotional information in facial expressions, voice, music, designs, and other stimuli. The ability to use emotions to facilitate thinking entails integrating emotional information with (cold) cognitive process. The ability to understand emotions entails appreciating emotional dynamics and blends of emotions and how these influence thinking and behavior. The ability to manage emotions entails regulating emotional experience in one and in interpersonal situations to attain personal goals and adaptive outcomes.

EMOTIONAL INTELLIGENCE AND WORK PERFORMANCE

Emotional intelligence may contribute to work performance (as reflected in salary, salary increase and company rank) by enabling people to nurture positive relationships at work, work effectively in teams, and build social capital. Work performance often depends on the support, advice, and other resources provided by others (Seibert *et al.,* 2001). Emotional intelligence may also contribute to work performance by enabling people to regulate their emotions so as to cope effectively with stress, perform well under pressure, and adjust to organizational change. Emotional intelligence and interpersonal facilitation: Interpersonal facilitation pertains to (interpersonally oriented behaviors that contribute to organizational goal accomplishment) (Van Scotter and Motowidlo, 1996). Emotional intelligence may contribute to the quality of people's relationships at work because emotions serve communicative and social functions, conveying information about thoughts and intentions, and helping to coordinate social encounters (Keltner and Haidt, 2001). Emotion-related abilities should help people choose the best course of action when navigating social encounters. For example, the ability to decode facial expressions of emotion can help one to evaluate how other people respond to one's words and actions, yielding important information for adjusting one's behavior (Nowicki and duke, 2001). The ability to use emotions to guide thinking can help one to consider both emotions and technical information when evaluating an interpersonal problem. The ability to manage emotions should help individuals experience and express emotions that contribute to favorable social encounters, in part through emotional contagion (Halfield *et al.,* 1994).

EMOTIONAL INTELLIGENCE, AFFECT, AND ATTITUDES

Describe important expectations **(**Parrott, 1993), people are usually motivated to seek pleasant feelings and avoid unpleasant feelings and avoid unpleasant emotions. The ability to manage emotions can help people nature positive effect, avoid being overwhelmed by negative effect, and cope with stress (Mayer and Salovey, 1997). Other emotional abilities, such as perceiving and understanding emotions, also contribute indirectly to the quality of emotional experience by helping people to identify and interpret cues that inform self-regulatory action. Therefore emotional intelligence should contribute to positive affect and attitudes at work.

CONCLUSION

In this reviews have taken us some way toward appreciating the rich and varied emotional elements of organizations. They have challenged the conventional manage realist orthodoxy on stress and introduced us to critical theoretical perspectives that offer alternative ways to think about stress in organizations. They have provided a psychodynamic view of how leaders' unconscious emotional processes might influence organizational functioning. They have also dismantled the conventional views of organizational rationality and invited us to think differently about the gendered nature of emotion. In addition, we have a better understanding of how social hierarchy influences emotional labor in the workplace and how individuals are infected by and catch the emotional expressions of others. It provides a clue to other areas sorely in need of investigation such as the neglected issue of the everyday workplace emotions of employees and an analytical treatment of negative emotions (Domagalski, 1999). Apart from those emotions prescribed by organizations and subject to management control, there has been no systematic examination of everyday emotions experienced by and among employees in their daily routines and interactions with one another. There is so much to know about the range and intensity of feelings experienced and expressed by employees as they come together in the workplace, the strength and validity of the effects of emotional contagion and the implications this may have for group functioning, and the effects of power and status on felt and displayed emotions. This essay reviewed here has moved the discussion of emotions in organizations toward the front of the stage. It is now time to lift the curtain.

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DISPARITIES IN INDUSTRIAL DEVELOPMENT IN INDIA – AN INTER-STATE ANALYSES

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ABSTRACT
Disparity is an important issue for debate and analyses. As far it concerned to Indian economy, it is composite of federal states. States are heterogeneous in natures which have resulted in wide variations in economic structures of the states. There is empirical evidence from the very starting in this regard, infact from mughal period. National planners and state planners have been putting efforts to have a balanced growth of the Indian economy since independence so that every household and each individual of our Indian society gets the benefit of economic growth. Though these efforts have not proved successful, achievements are not often commensurate with efforts. Considerable level of regional disparities still persists. The present paper is a modest attempt to study the divergence in industrial growth across selected Indian states for the period 1980-81 to 2007-08. The results of the study are completely based on secondary data taken from annual survey of industries of different years. A total of fifteen states have been selected for the present study insuring proper representation across all regions of the country. Coefficient of variation and principal component method are used for the better analyses .The results of the study indicate that there persistently exited inter-state disparity in terms of industrial development. Furthermore, inequality in this regard increased during 1980-81 to 2007-08.

KEYWORDS
Industrial, Economy, Growth, Development.

INTRODUCTION
Indian economy is composite of federal states. States are heterogeneous in natures which have resulted in wide variations in economic structures of the states. It is well known that there is widespread disparity in the levels of economic and social development between the different regions of the Indian nations and there is empirical evidence from the very starting in this regard, we can say that from the mughal period. At that time the economy was village-based and Indian villages were highly segmented both socially and economically. The same situation continued during the British period also. At the time of independence also Considerable difference in economic as well as social development of different regions of the country existed. After dependence, reduction in inter-state/region disparities has been emphasizing. Disparity in economic and social development across the regions and intra-regional disparities among different segments of the society have been the major planks for adopting planning process in India since independence. One of the main objectives of the planning process indicated in the early 1950s was to reduce these regional differences and to achieve, regionally balanced development. Various policy instruments including direct public investment by the centre in infrastructure, guided private investment and building up of capacity enhancing institutions have been tried to achieve this objective. Though these measures have not proved highly successful, achievements were very less than the objectives.. Considerable level of regional disparities exists even after the 59 years of planed economy. An important question, however, is why after fifty years of planned development efforts, such inter-state disparities remain unattended? Often, the answer depends on whether it is given by people who are the victims of underdeveloped or not. The present study attempts to examine inter-state disparities, in terms of industrial development of organized industrial sector .The study is divided in to two sections. The first section deals with the comparison of the values of the various indicators of industrial development for different Indian states .In the second section coefficient of variation and composite index (from principal component method) are determined with the purpose of explaining the inter-state disparities in a better way.

DATA BASE AND METHODOLOGY
The data for the present paper have been taken from annual survey of industries of various years. A total of fifteen states have been selected for the present study ensuring representation across all regions of the country. To analyse inter -state imbalance five industrial indicators i.e. Number of factories, Number of workers, Value of industrial output, Net value added, Fixed capital have been selected. Coefficient of variation and composite index (from principal component method) has also been obtained for the better analyses.

RESULTS AND INTERPRETATION

SECTION 1
This section discloses the inter-state imbalance with the help of the values of the various industrial indicators. Following tables discloses inter-state inequality by recording the values on these indicators.

Table 1 discloses the number of factories in fifteen major Indian states for the years 1980-81 to 2007-08. As the table indicates the highest number of factories in 1980-81 and 1990-91 was in Maharashtra with the number 15576 and 15595, respectively. In 2000-01 2005-06, 2006-07 and 2007-08, in contrast, the highest number of factories was found in Tamil Nadu; 20601, 21265, 23691 and 21042, respectively. The lowest number of factories, on the other hand was recorded in Orissa in 1980-81 and 1990-91, 1563 and 1465, respectively. However, where in 2000-01 Assam registered the least number of factories with 1435 factories, in 2005-06, 2006-07 and 2007-08 the lowest number was found in Bihar with 1669, 1602 and 1783 factories, respectively.

TABLE-1: STATE WISE NUMBER OF FACTORIES

State	1980-81	1990-91	2000-01	2005-06	2006-07	2007-08
1.Andhara Pradesh	11155	15205	14029	15790	15874	16741
2.Assam	1583	1548	1435	1864	1967	1859
3.Bihar	4250	3409	1535	1669	1602	1783
4.Gujarat	11208	10943	14090	14055	1432	15107
5.Haryana	2486	3070	4448	4304	4410	4707
6.Kernataka	5381	5911	7010	7835	7827	8443
7.Kerala	3049	3484	4853	5643	5554	5584
8.Madhaya Pradesh	3488	3962	3221	2951	3069	3165
9.Maharashtra	15576	15595	18528	18711	18612	18304
10.Orissa	1563	1465	1665	1862	1906	1822
11.Punjab	5688	6255	7137	8332	9256	10178
12.Rajasthan	2696	3358	5112	6005	6053	6337
13.Tamil Nadu	10292	14617	20601	21265	23691	21042
14.Uttar Pradesh	7151	10417	9635	10503	10688	10717
15.West Bengal	6359	5606	6091	6077	5928	5987

Source: Annual survey of industries of 1980-81, 1990-91, 2000-01, 2005-06, 2006-07 and 2007-08

In addition this, it can be found that there persistently exited an interstate disparity in regard to the number of factories. It may also be observed that there has consistently been a large gap between the highest and lowest number of factories recorded state wise from 1980-81 to 2007-08, and this gap increased with each measurement except from 2006-07 to 2007-08. in 1980-81, for instance there was a gap of 14013 between the number of factories in Maharashtra and Orissa. In 1990-91 the gap between the numbers for the same states rose to 14130. The discrepancy again had risen to 19166 between the numbers for Tamil Nadu and Assam. A gap of 19596 in 2005-06 and 22089 in 2006-07 (between the number of Tamil Nadu and Bihar) reflects further the increasing trend. However, in 2007-08 this gap declined to 19259 between the numbers for the same states.

As an additional note, the table reveals that a persistent increase in number of factories took place only in two states (Punjab and Rajasthan). In all other states number of factories fluctuated from 1980-81 to 2007-08.

Table 2 is a record of state wise number of workers for the fifteen states in India. It is evident from the data that in 1980-81 numbers of workers varied from 988040 in Maharashtra to 101544 in Assam- a difference of 886496. Ten years later, the same states held the highest and lowest values; Maharashtra and Assam with 908457 and 108953 workers, respectively in 1990-91. In 2000-01, Maharashtra was unseated as the top position in relation to the number of workers when Tamil Nadu took this place with 925389 workers. However, the lowest number was again recorded in Assam, where the number was 92475, resulting in a difference of 832915. Same trend continued as the same states (Tamil Nadu and Assam) maintained their positions until 2007-08. In 2005-06 the number was 1114421 and 110036 (a difference of 1004385); in 2006-07 1347122 and 116253 (a difference of 1230869) and in 2007-08, 1283472 and 113132 (a difference of 1170346).

TABLE-2: STATE WISE NUMBER OF WORKERS

State	1980-81	1990-91	2000-01	2005-06	2006-07	2007-08
1.Andhara Pradesh	564244	832120	763892	819703	840577	862414
2.Assam	101544	108953	92474	110036	116253	113132
3.Bihar	285756	360362	49190	56901	55159	62319
4.Gujarat	572350	675447	553704	669324	749597	797443
5.Haryana	131624	252974	217532	305740	331865	400895
6.Kernataka	302312	307929	359199	498526	551364	567836
7.Kerala	232486	228353	262981	289480	297533	308641
8.Madhaya Pradesh	231152	287899	191131	165807	178154	194046
9.Maharashtra	988040	908457	817305	879248	1005380	953097
10.Orissa	103421	116918	99127	110246	125195	145276
11.Punjab	174947	311670	278303	350747	402588	435386
12.Rajasthan	149205	181067	175566	227081	240326	278541
13.Tamil Nadu	638949	766377	925389	1114421	1347122	1283478
14.Uttar Pradesh	613602	619864	401647	500540	533794	589695
15.West Bengal	756333	578651	455812	420663	403095	421280

Source: Annual survey of industries of 1980-81, 1990-91, 2000-01, 2005-06, 2006-07 and 2007-08.

The data in the table further demonstrate that a large gap between the highest and lowest number of workers took place, but trend in regard to this gap continuously changed with each measurement. In 1981, for instance there was a gap of 886496. In 1991, the gap had fallen to 799504. To the contrary, in 2001 the gap rose to 832915. In fact, it rose to 1004385 and 1230869 in 2005-6 and 2007-08, respectively. However, in 2007-08 the gap declined to 1170346.

Beyond these points it can also be surmised from the data that only in one state i.e. Karnataka, the number of workers persistently increased during 1980-81 to 2007-08.

Table 3 communicates the state wise value of industrial output. It is observed in the table that highest value of production was repeatedly recorded in Maharashtra, where the value was rupees 1440587 lakh, rupees 6141791 lakh, rupees 18497146 lakh, rupees 37358862 lakh., rupees 47665711 lakh and rupees 51993933 lakh in 1981, 1991, 2001, 2005-06, 2006-07 and 2007-08, respectively. The lowest value, on the other hand recorded in Assam in 1980-81 and 1990-91, at rupees 64669 lakh and rupees 288690 lakh, respectively. In 2000-01, 2005-06, 2006-07 and 2007-08, in contrast the lowest value was found in Bihar; rupees 725487 lakh, rupees 1678498 lakh, rupees 1904144 lakh and rupees 2187362 lakh, respectively.

TABLE-3: STATE WISE VALUE OF INDUSTRIAL OUTPUT (RUPEES LAKH)

State	1980-81	1990-91	2000-01	2005-06	2006-07	2007-08
1.Andhara Pradesh	318418	1660800	6134702	11801646	15816396	18253326
2.Assam	64669	288690	874144	2560914	3047619	3104360
3.Bihar	310613	1295454	725487	1678498	1904144	2187362
4.Gujarat	715976	2759271	12797728	30795504	37258066	44824316
5.Haryana	187102	989725	4467504	8579899	10244621	12488415
6.Kernataka	259181	1242437	4625883	13117752	16274620	18425766
7.Kerala	209141	608154	2671055	4326786	5057943	5556577
8.Madhaya Pradesh	245000	1421609	3671237	4954288	6434068	7872158
9.Maharashtra	1440587	6141791	18497146	37358862	47665711	51993933
10.Orissa	102421	787019	1324267	2797711	3664160	4801383
11.Punjab	249106	1248100	3501849	5943945	7749046	9616285
12.Rajasthan	161211	849946	3078418	5422077	6580310	7662696
13.Tamil Nadu	663469	2765359	10353989	18998170	25700144	26543807
14.Uttar Pradesh	377662	2636780	6485418	11886143	16587655	19381502
15.West Bengal	599252	1628735	3918267	8137279	9834214	10946382

Source: Annual survey of industries of 1980-81, 1990-91, 2000-01, 2005-06, 2006-07 and 2007-08.

In addition to this it can be found that there persistently existed a large gap between the highest and lowest value recorded state wise from 1980-81 to 2007-08, and this gap increased with each measurement. In 1980-81 for instance, there was a gap of rupees 1375918 lakh between the value of Maharashtra and Assam. In 1990-91 the gap between the values for the same states raised to rupees 5853101 lakh. This discrepancy again had risen to rupees 17771659 lakh, rupees 35680364 lakh, rupees 45761567 lakh and rupees 49806571 lakh in 2000-01, 2005-06, 2006-07 and 2007-08, respectively.

Table further demonstrates that in all the states except from Bihar the value of industrial output persistently increased during the time period of 1980-81 to 2007-08.

Table 4 discloses the state wise net value added in industrial sector from the years 1980-81 to 2007-08. Table reveals the same trends about the highest and lowest values as was revealed in the previous table. The highest value was repeatedly recorded in Maharashtra: rupees 298599 lakh, rupees 1200354 lakh , rupees 3126098 lakh, rupees 7435401 lakh, rupees 9537109 lakh and rupees 11053762 lakh in 1980-81, 1990-91, 2000-01, 2005-06, 2006-07 and 2007-08, respectively. At the other end, the lowest value for 1980-81 and 1990-91 was in Assam with the value of rupees 11580 lakh and rupees 73363 lakh, respectively. However, in 2000-01, 2005-06, 2006-07 and 2007-08 the lowest value was recorded in Bihar: rupees 72926 lakh, rupees 42223 lakh, rupees 31610 lakh and rupees 115947 lakh, respectively.

TABLE-4: STATE WISE NET VALUE ADDED (RUPEES LAKH)

State	1980-81	1990-91	2000-01	2005-06	2006-07	2007-08
1.Andhara Pradesh	58369	298141	887867	1766116	2707610	3145778
2.Assam	11580	73363	128390	357617	364199	327473
3.Bihar	50123	259830	72926	42223	31610	115947
4.Gujarat	113871	446824	1685587	4787158	4795240	6210755
5.Haryana	34571	163618	557054	1358920	1530711	1827000
6.Kernataka	60302	276914	830163	2089464	3129507	3438424
7.Kerala	39063	122207	355381	446784	355895	592824
8.Madhaya Pradesh	60211	300669	620834	714211	1112914	1422273
9.Maharashtra	298599	1200354	3126098	7435401	9537109	11053762
10.Orissa	19815	115271	235168	628749	902270	1351150
11.Punjab	38607	185728	430080	661710	1042899	1416746
12.Rajasthan	33405	155559	525802	802700	1215276	1224435
13.Tamil Nadu	122940	579285	1653632	2798101	3778425	3934122
14.Uttar Pradesh	74930	462484	957702	1642591	2282767	2344490
15.West Bengal	137494	319842	569917	947059	1148784	1417593

Source: Annual survey of industries of 1980-81, 1990-91, 2000-01, 2005-06, 2006-07 and 2007-08

Let us turn now to the gap between the highest and the lowest value of net value added. It can be seen that there existed a large gap between these values. In 1980-81 there was a gap of rupees 287019 lakh. In 1990-91 this gap raised to rupees 1126991 lakh. The gap further rose to rupees 3053172 lakh in 2000-01, rupees 7393173 lakh in 2005-06, rupees 9505499 lakh in 2006-07 and finally rupees 11169709 lakh in 2007-08.

As an additional note, the table reveals that the net value added increased in all the states except from Bihar, Assam and Kerala with each measurement.

Table 5 is a record of state wise fixed capital .upon examining the data, one can see that in 1980-81 value of state wise fixed capital varied from rupees 477668 lakh in Maharashtra to rupees 28771 lakh in Assam- a difference of rupees 448897 lakh, the same states held the highest and lowest values; Maharashtra and Assam at rupees 2216154 lakh and rupees 1032091 lakh, respectively in 1990-91, with a difference of rupees 1184063 lakh. However,

in 2000-01 the value varied from rupees 6753151 in Maharashtra to rupees 153263 lakh in Bihar, with a difference of rupees 6599888 lakh. Maharashtra and Bihar maintained these positions until 2007-08. In 2005-06 the amount were rupees 10197038 and 292353 lakh, respectively (a difference of rupees 9904686 lakh); in 2006-07, rupees 1214912 and 295118 lakh (a difference of rupees 11854005 lakh0; and in 2007-08 rupees 13729202 (a difference of rupees 13427732 lakh).

TABLE-5: STATE WISE FIXED CAPITAL (RUPEES LAKH)

State	1980-81	1990-91	2000-01	2005-06	2006-07	2007-08
1.Andhara Pradesh	182122	1577908	2633788	3932393	5108918	6425102
2.Assam	28771	103209	554998	752035	801962	891081
3.Bihar	342270	693761	153263	292352	295118	301470
4.Gujarat	268497	1309868	7208836	11953996	13162362	14540034
5.Haryana	95990	365835	1398028	1852399	2237053	2886838
6.Kernataka	129642	484351	2633063	4368896	4975429	5996709
7.Kerala	80045	366106	682688	769483	855082	914336
8.Madhaya Pradesh	210626	1032393	1408361	1900597	2128561	2441823
9.Maharashtra	477668	2216154	6753151	10197038	12149123	13729202
10.Orissa	75055	474477	1146938	2361133	2957210	4337008
11.Punjab	135025	566733	849312	1392579	1836524	2178348
12.Rajasthan	133954	509871	1367300	1624464	1908983	2258736
13.Tamil Nadu	204128	1138526	3743029	6034229	7506812	7933659
14.Uttar Pradesh	309593	1469097	3477513	3763086	4499515	5845002
15.West Bengal	211554	848988	1725304	2650026	2773464	3233151

Source: Annual survey of industries of 1980-81, 1990-91, 2000-01, 2005-06, 2006-07 and 2007-08.

From this, one may conclude that the difference between the highest and lowest values in each year beginning with 1980-81shoing a gap increasing first by 735166 and then by 5415825, 3304798, 1949319 and finally by 1573727. in addition to this, it can be found that value of fixed capital persistently increased in all the states expect from Assam and Bihar.

SECTION 2

In this section coefficient of variation and composite index are determined to evaluate the inter-state disparity in regards to industrial development. Following table reveals the results in this regard.

Table-6: Rank and value of composite index of different states with respect to the industrial development

States	1981		1991		2001		2005-06		2006-07		2007-08	
	Index	Rank	Index	Rank	Index	Rank	Index	Rank	Index	Rank	Index	Rank
1.Andhara Pradesh	7.41	6	10.48	3	8.14	4	7.62	4	7.29	4	8.28	4
2. Assam	1.24	15	1.28	15	1.10	14	1.19	14	1.06	14	1.07	14
3.Bihar	5.98	7	4.79	8	0.70	15	0.66	15	0.54	15	0.67	15
4.Gujarat	9.93	2	9.92	4	11.75	3	12.27	2	9.69	3	12.40	2
5.Haryana	2.69	13	3.27	11	3.58	9	3.44	9	3.19	9	3.77	9
6.Karnataka	4.71	8	4.74	9	5.35	6	5.94	5	5.82	5	6.34	6
7.Kerala	3.17	11	2.87	13	2.88	12	2.47	11	2.07	12	2.36	12
8.Madhaya Pradesh	4.60	9	5.42	7	3.23	10	2.21	12	2.19	11	2.48	11
9.Maharashtra	18.36	1	17.88	1	16.00	1	14.95	1	14.62	1	15.16	1
10.Orissa	1.80	14	2.38	14	1.63	13	1.77	13	1.84	13	2.35	13
11.Punjab	4.06	10	4.65	10	3.61	8	3.45	8	3.45	8	4.17	7
12.Rajathan	2.99	12	3.20	12	3.22	11	2.84	10	2.68	10	3.03	10
13.Tamil Nadu	9.46	3	11.08	2	11.95	2	10.97	3	11.13	2	11.12	3
14.Uttar Pradesh	8.02	5	9.86	5	6.79	5	5.84	6	5.68	6	6.39	5
15.West Bengal	9.07	4	6.65	6	4.67	7	3.99	7	3.49	7	3.84	8
	C.V= 70.54		C.V= 67.95		C.V= 79.55		C.V= 81.66		C.V= 82.00		C.V= 78.53	

Source: Derived by the authors with the help of the data taken from annual surveys of industries of various years

Table 6 reveals the rank and values of major fifteen Indian states in regard to industrial development. It may be seen from the table that the top position in this regard was occupied Maharashtra in all the yearsi.e.1981, 1991, 2001, 2005-06, 2006-07 and 2007-08. In contrast, the last position was secured by Assam in 1981 and 1991. However in 2001, 2005-06, 2006-07 and 2007-08, Assam was unseated by Bihar for the last position. As an additional note the table reveals that a very slight improvement was shown by Andhra Pradesh, Assam and Orissa and a marginal improvement was shown by Haryana, Karnataka, Punjab and Rajasthan in this regard during 1981 to 2007-08. However, in Bihar, Madhya Pradesh, Kerala and west Bengal the situation in relation to the industrial development worsened for the period of time.

Further it may be seen from the data that the value of coefficient of variation was 70.54 in 1981, which had fallen to 67.95 in 1991. Hence, one sees that the disparity declined from 1981 to 1991. To the contrary, the value of coefficient of variation rose from 67.95 in 1991 to 79.55 in 2001, from 79.55 in 2001 to 81.66 in 2005-06 and further to 82.00 in 2006-07. However it finally declined from 82.00 in 2006-07 to 78.53 in 2007-08.

Thus the inter-state disparity in relation to the industrial development first declined during 1981to 1991, then continuously rose during 1991 to 2006-07 and finally again declined during 2006-07 to 2007-08.

CONCLUSION

It may be concluded from the above discussion that there exits significant regional divergence in industrial development across Indian states. Where Maharashtra, Gujarat, Tamil Nadu, Uttar Pradesh and Andhra Pradesh are some developed states in terms of industrial sector, Assam, Bihar, Kerala and Orissa are underdeveloped states in this regard. Moreover this divergence increased during 1980-81 to 2007-08.

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