Impact of Derivative Trading on Stock Market Volatility during Pre and Post F&O Period: A Case Study of NSE

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Abstract
This paper examines the impact of financial derivatives trading on the volatility of Indian stock market. NSE S& P CNX Nifty index has been used as a proxy for stock market and period covered under the study varies from 1995-1996 to 2008-09 on the financial year basis. The finding suggests that a derivative trading has reduced the volatility. The decrease in volatility would be mainly being attributed to the fact that derivative markets attract an additional set of traders to the market, which led to increase in the trading volume. With the increase in trading volume, a greater liquidity will be reflected in the prices of the underlying market and then the market will become more stable.

Keywords Stock market volatility, NSE S & P CNX Nifty index, Index future, Stock future, Index option, Stock option

Introduction
The stock market is considered to be volatile when there is sharp rise and sharp decline in the markets within a short span of time. Stock market volatility has been a cause of concern for policy makers as well as for investors not only in India, but also throughout the world. An investor would like to know how much volatility or risk he or she is exposed to, as more volatile a stock is, the more risky it is. The most desired instruments that allow market participants to manage risk in the modern securities trading are known as derivatives. The main logic behind the derivatives trading is that derivatives reduce the risk by providing an additional channel to invest with lower trading cost and it facilitates the investors to extend their settlement through the future contracts. It provides extra liquidity in the stock market. They represent contracts whose payoff at expiration is determined by the price of the underlying asset. Derivatives include Futures, Forwards, Options and Swaps, and these can be combined with each other or traditional securities and loans to create hybrid instruments. Derivative products like Futures and Options on Indian stock markets have become important instruments of price discovery, portfolio diversification and risk hedging in recent times.

Introduction of derivatives in the Indian Capital Market was initiated by the Government following L .C . Gupta Committee Report on derivatives in December 1997. The report suggested the introduction of Stock Index Futures in the first place to be followed by other products, once the market matures. Following the recommendations and pursuing the integration policy, BSE was the first stock exchange in the country to start trading in Index Futures based on BSE Sensex on June 9, 2000. NSE also commenced its trading on 12 June, 2000 based on S&P Nifty. Subsequently, other products like Stock Futures on individual securities were introduced in November 2001. This was followed by approval of trading in Index Options based on these two indices and Options on individual securities. The volumes in derivatives market especially on the Futures and Options segment of the NSE witnessed a tremendous increase and now the turnover is much higher than the turnover in the cash markets. Till today, there are only four derivatives instruments available in the Indian markets, namely, Index Futures, Index Options, Stock Futures and Stock Options.

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Review of literature

Various studies have been conducted to assess the impact of derivatives trading on the stock market throughout the globe. Some of the important contributions are as follow:

Rafael Santamaria (1976) analyzed the effect of the introduction of derivatives (futures and options) in the Spanish market on the volatility and on the trading volume of the underlying Index for the period from October 1990 to December 1994.He used three models of conditional volatility GARCH, EGARCH and GJR to study this effect and found significant impact on variance: the evidence indicates that the conditional volatility of the underlying Index declines after derivative markets are introduced. The trading volume of Ibex-35 increases significantly. In addition, the introduction of the derivative contracts in Spain confirms a decrease in uncertainty in the underlying market and an increase in liquidity which possibly enhance their efficiency.

Cox (1976) asserts that the introduction of derivatives market causes a stabilising influence on the underlying market because of the speed at which information is incorporated into the prices as well as the amount of information reflected in expected prices. This event would be mainly because derivative markets attract an additional set of traders to the market and because these markets, which have lower transaction costs, transmit the new information to the spot market more quickly. It provides circumstances which are more favourable to entering the financial markets and therefore the dispersal of the risk is improved.Edwards (1988) studied whether Stock Index Futures trading destabilised the spot market in the long run. Using variance ratio F tests for the period June 1973 to May 1987, he concluded that the introduction of futures trading did not induce a change in spot volatility in the long run.

Gupta (2002) has examined the impact of introduction of Index Futures on stock market volatility. Further, he has also examined the relative volatility of Spot market and Futures market. He has used daily price data (high, low, open and close) for BSE Sensex and S&P CNX Nifty Index from June 1998 to June 2002. Similar data from June 9, 2000 to March 31, 2002 have also been used for BSE Index Futures and from June 12, 2000 to June 30, 2002 for the Nifty Index Futures. He has used four measures of volatility out of which the first is based upon close-to-close prices, the second upon open-to-open prices, the third is Parkinson's Extreme Value Estimator, and the fourth is Garman-Klass measure volatility (GKV). The empirical results indicated that the over-all volatility of the underlying stock market has declined after the introduction of Index Futures on both the indices.

Raju and Karande (2003) studied price discovery and volatility in the context of introduction of Nifty Futures at the National Stock Exchange (NSE) in June 2000. Co-integration and Generalised Auto Regressive Conditional Heteroskedasticity (GARCH) techniques are used to study price discovery and volatility respectively. The major findings are that the Futures market (and not the Spot market) responds to deviations from equilibrium; price discovery occurs in both the Futures and the Spot market, especially in the later half of the study period. The results also show that volatility in the Spot market has come down after the introduction of Stock Index Futures.

Shenbagaraman (2003) examined the impacts of the introduction of the derivatives contracts such as Nifty Futures and Options contracts on the underlying Spot market volatility have been examined using a model that captures the heteroskedasticity in returns that is recognised as the Generalised Auto Regressive Conditional Heteroskedasticity (GARCH) Model. She used the daily closing prices for the period 5th Oct. 1995 to 31st Dec. 2002 for the CNX Nifty the Nifty Junior and S&P 500 returns. Results indicated that derivatives introduction has had no significant impact on Spot market volatility but the nature of the GARCH process has changed after the introduction of the Futures trading.

Bandivadekar and Ghosh (2005) examined the impact of the introduction of Index Futures on the volatility of stock market in India employing daily data of Sensex and Nifty CNX for period of Jan 1997-March 2003 the return volatility has been modeled using GARCH framework. They found strong relationship between information of introduction of derivatives and return volatility. They have concluded that the introduction of derivatives has reduced the volatility of the stock market.

Alexakis Panayiotis (2007) investigated the effect of the introduction of Stock Index Futures on the volatility of the Spot equity market and contributes in this way to the contrasting arguments with respect to the stability and destabilising effects of such products. The statistical results indicated that the index of Futures trading is fully consistent with efficient market operation as it exerts a stabilising effect in the spot market, reducing volatility asymmetries and improves the quality and speed of the flow of information.

Objective of the study

The present paper examines the impact of derivatives trading on the stock market volatility.

Methodology

Study Period: The period covered under the study varies from 1995-1996 to 2008-09 on the financial year basis. Following are the date of introduction of derivatives instruments in NSE i.e 12 June 2000 for Index Futures, 4 June 2001 for Index Option followed by Stock Options and Stock Futures on 2 July 2001 and 9 November 2001 respectively. Hence the whole time period is divided into sub-time periods i.e pre-derivatives introduction period and post-derivatives period .The pre-derivatives introduction period is from April 1995 to June 2000 for Index Futures, April 1995 to Nov 2001 for Stock Futures, from April 1995 to June 2001 for Index Options and from April 1995 to July 2001 for Stock Option. Second sub-time period is post-derivatives period from the above categorizations to March 2009.

Sample: S&P CNX Nifty Index as a proxy for the stock market is taken for study because it is the important representative of the Indian Stock Market and also it accounts for two thirds of the turnover. The major derivatives products for the study are considered significant as Futures and Options. Futures are further classified into selected Index Futures and Stock Futures and Options into selected Index Options and Stock Options.

Data collection: The study is based mainly on secondary data which have been collected from various websites. The closing prices of S&P CNX Nifty index were collected from the official website of NSE. Data on turnover in derivative instruments at NSE were collected from various monthly bulletins of SEBI.

Measurement of volatility: Volatility has been measured as standard deviation of the rates of return. The rates of returns have been computed by taking a logarithmic difference of prices of two successive periods. Symbolically, it may be stated as follows:
$r_t = \log_e(p_t/p_t\text{-}1) = \log_e(p_t) - \log_e(p_t\text{-}1)$ where $\log_e$ is natural logarithm, p_t and p_t-1 are the closing prices for the two successive periods. The logarithmic difference is symmetric between up and down movements and is expressed in percentage terms for ease of comparability with the straightforward idea of a percentage change.

Hypothesis:

H_{oi}: Introduction of derivatives instruments has no impact on stock market volatility.
H_{1i}: Introduction of derivatives instruments has impact on stock market volatility.
H_{oj}: Pre-event volatility doesn't exceed the post-event volatility.
H_{1j}: Pre-event volatility exceeds the post-event volatility.

Statistical tools: Statistical techniques of paired t-test has been used in the preesent study.

Derivatives market in India

Indian stock market provides various kinds of derivative instruments to investors and it may be traded for a variety of reasons. It enables a trader to hedge some pre-existing risk by taking positions in derivatives markets that offset potential losses in the underlying or Spot market. In India, most derivatives users describe themselves as hedgers and Indian laws generally require that derivatives be used for hedging purposes only. Another motive for derivatives trading is speculation (i.e. taking positions to profit from anticipated price movements). In practice, it may be difficult to distinguish whether a particular trade was for hedging or speculation, and active markets require the participation of both hedgers and speculators.

Table 1 :Trends in turnover in derivatives at NSE (Rs. in Crore)

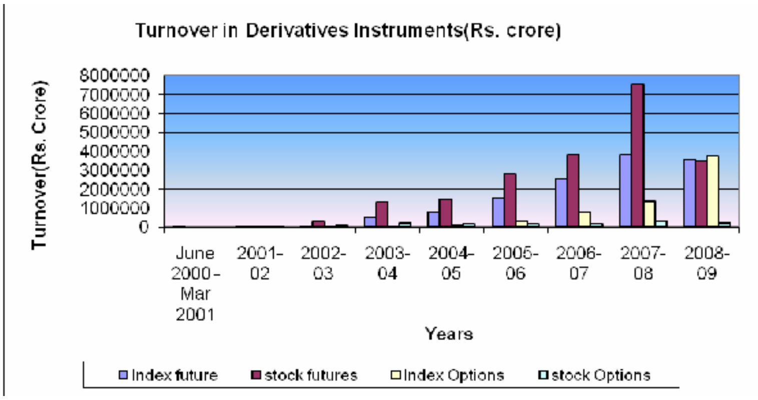
Year	Index Future	Stock Futures	Index Options	Stock Options	Turnover	Growth Rate(%)
June 2000 to March 2001	2365	NA*	NA*	NA*	2365	
2001-02	21482	51516	3766	25163	101927	4209.80
2002-03	43951	286532	9248	100134	439865	331.55
2003-04	554462	1305949	52823	217212	2130446	384.34
2004-05	772174	1484067	121954	168858	2547053	19.55
2005-06	1513791	2791721	338469	180270	4824251	89.40
2006-07	2539575	3830972	791912	193811	7356270	52.48
2007-08	3820667	7548563	1362111	359136	13090477	77.94
2008-09	3570111	3479642	3731501	229226	11010480	-15.89

Source: Data collected from various monthly bulletins of SEBI

***Note:** Data was not available as Stock Futures, Index Option and Stock Options introduced on 9 November 2001, 4 June 2001 and 2 July 2001 respectively.

Table 1 depicts the trends in derivative market in terms of turnover. A cursory glance at it shows the growth of derivatives market in India. An annual growth rate in the turnover was more than 300% in 2002-03 and 2003-04, but in consecutive years it came down even below 100% and became negative in 2008-09.

Graph 1: Turnover in derivatives instruments



Source: Compiled from Table 1

Graph 1 exhibits turnover in derivative instruments. It clearly depicts that trading frequency in the Stock Futures has always been much more in comparison to others. It should be noted that Stock Future is the derivative product which was launched in the market after launching of rest of three derivatives products and it has now become most preferred derivatives for the traders. It can also be seen from the graph that the movement in line of Index Future is not exactly similar but close to that of Stock Futures and trading in rest two derivatives products is lesser than of the above.

Interpretation of results

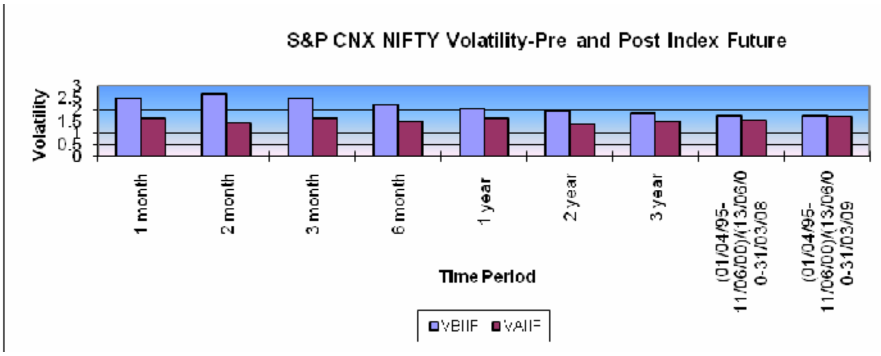
Table 2 presents the volatility of S&P CNX Nifty for pre and post period of introduction of Index Future and found that the volatility in the NSE has been decreasing after introduction of the Index Future i.e. Standard Deviation values have gone down. Like, when volatility has been compared before 1 month, 2 month, 3 month with the period after introduction of Index Future, the volatility was 2.48, 2.68, 2.47 as against 1.6, 1.43, 1.62 in post period. This trend can also be witnessed from the graph 2.

Table 2: S&P CNX Nifty volatility pre and post index future

	VBIIF*	VAIIF**
1 month	2.48	1.6
2 month	2.68	1.43
3 month	2.47	1.62
6 month	2.19	1.49
1 year	2.04	1.63
2 year	1.91	1.37
3 year	1.83	1.48
Pre Index Future period(01/04/95- 11/06/00)	1.74	
Post Index Future period(13/06/00-31/03/08)		1.54
Post Index Future period(13/06/00-31/03/09)		1.70

Source: Calculated from the data taken from NSE website for said period
VBIIF*-Volatility before introduction of Index Future
VAIIF**- Volatility after introduction of Index Future

Graph 2: S&P CNX Nifty volatility pre and post index future



Source: Compiled from Table 2

Table 3: Paired samples t- test

	Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
VBIIF- VAIIF	0.6475	0.3417	0.1208	5.359	8	0.001

Source: Calculated from the data based on Table 2

These findings have further been statistically tested by t-test and found that actual value exceeds the table value i.e., (5.359>2.365). The findings led to the rejection of both null hypothesis (H_{oi} and H_{oj}) and acceptance of the alternative hypothesis. This proves that introduction of Index Future has impact on stock market volatility and secondly, pre-event volatility exceeds the post- event volatility.

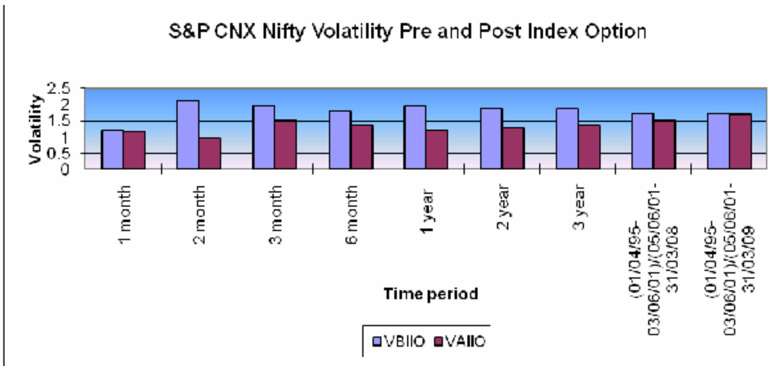
Table 4: S&P CNX Nifty volatility pre and post index option

	VBIIO^	VAIIO^^
1 month	1.21	1.19
2 month	2.12	0.95
3 month	1.98	1.51
6 month	1.81	1.34
1 year	1.96	1.21
2 year	1.88	1.27
3 year	1.88	1.34
Pre Index Option period01/04/95-03/06/01)	1.73	
Post Index Option period 05/06/01-31/03/08		1.51
Post index option period05/06/01-31/03/09		1.69

Source: Calculated from the data taken from NSE website for said period
VBIIO^ Volatility before introduction of Index Options
VAIIO^^Volatility after introduction of Index Options

Table 4 depicts the descriptive statistics of S&P CNX Nifty volatility occurred in Pre and Post Index Option period. The volatility form the period from 1 April 95 to 3 June 2001 shows 1.73 and for the period from 5 June 2001 to 31 March 2008 shows 1.51. It reveals that standard deviation (a measure of volatility) has come down from 1.73 to 1.51 during post Index Option period. The inference drawn from the graph also substantiates that volatility in pre periods are always more than post periods which is also supported by t- tests.

Graph 3 :S&P CNX Nifty volatility pre and post index option



Source: Compiled from Table 4

Table 5 :Paired samples test

	Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
VBIIO-VAIIO	0.5313	0.3439	0.1216	4.369	8	0.003

Source: Calculated from the data based on Table 4

Table 6: S&P CNX Nifty volatility pre and post stock option

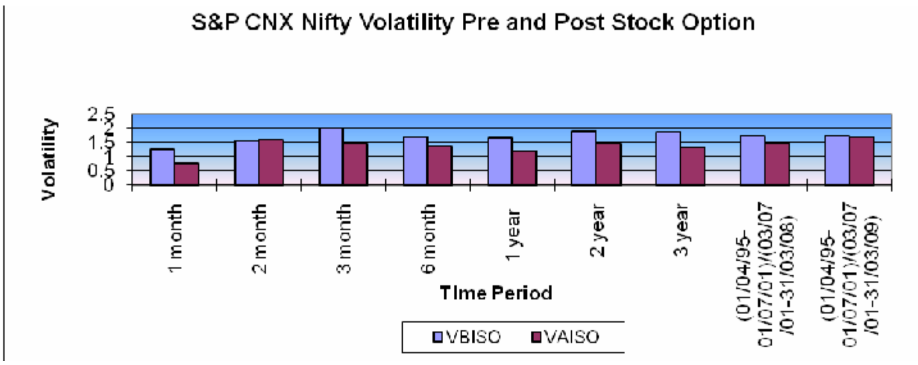
	VBISO$	VAISO$$
1 month	1.28	0.77
2 month	1.57	1.59
3 month	1.99	1.48
6 month	1.71	1.37
1 year	1.67	1.2
2 year	1.9	1.46
3 year	1.85	1.34
Pre Stock Option period(01/04/95-01/07/01)	1.73	
Post Stock Option period (03/07/01-31/03/08)		1.51
Post Stock Option period (03/07/01-31/03/09)		1.70

Source: Calculated from the data taken from NSE website for said period
VBISO$ Volatility before introduction of Stock Options
VAISO$$ Volatility after introduction of Stock Options

In case of Index Options as well, it is found that actual value exceeds the table value i.e. (4.369 >2.365). That led to acceptance of alternative hypothesis and rejection of both null hypothesis (H_{oi} and H_{oj}). The study proves that introduction of Index Options has impact on stock market volatility and pre-event volatility exceeds the post-event volatility.

In the table 6, it is found from the analysis of volatility of S&P CNX Nifty for pre and post period of introduction of Stock Option that the volatility in the NSE has shown decreasing trend after introduction of the Stock Option as values of standard deviation have gone down. The comparison of the volatility for the period before and after the introduction of Stock Option for the period of 1 month, 2 months, 3 months, 1 year, 2 years, 3 years shows decline in the values of volatility. The cumulative value of volatility for pre-Stock Option period also witnessed decrease in post-Stock Option period ending up to March 2008. Though the value increased a bit for the period ending up to March 2009 but it is still lower than the Pre-Stock Option period. The trend is also observed through the graph 4.

Graph 4: S&P CNX Nifty volatility pre and post stock option



Source: Compiled from Table 6

Table 7: Paired samples t-est

	Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
VBISO-VAISO	0.3725	0.1887	6.670E-02	5.585	8	0.001

Source: Calculated from the data based on Table 6

These findings have been further statistically verified by t-test and found that actual value exceeds table value i.e.(5.585>2.365). Hence, it led to rejection of both null hypothesis (H_{oi} and H_{oj}) and acceptance of the alternative hypothesis. This proves that introduction of Stock Options has created an impact on stock market volatility and pre-event volatility exceeds the post-event volatility.

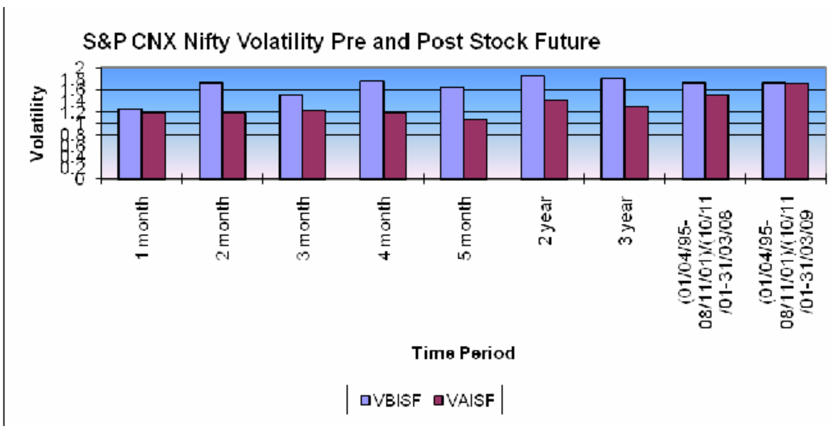
Table 8 depicts the descriptive statistics of S&P CNX Nifty Volatility Pre and Post Stock Future. The volatility of 1.72 (Standard Deviation) for the period, from 1 April 95 to 8 Nov. 2001 has reduced to 1.51 (Standard Deviation) for the period, from 10 Nov. 2001 to 31 March 2008. This trend is also highlighted in the following graph that pre-event volatility exceeds the post-event volatility.

Table 8 :S&P CNX Nifty volatility pre and post stock future

	VBISF#	VAISF##
1 month	1.26	1.2
2 month	1.73	1.18
3 month	1.5	1.23
6 month	1.75	1.19
1 year	1.65	1.078
2 year	1.85	1.418
3 year	1.81	1.3
Pre Stock Future period (01/04/95-08/11/01)	1.72	
Post Stock Future period (10/11/01-31/03/08)		1.51
Post Stock Future period (10/11/01-31/03/09)		1.71

Source: Calculated from the data taken from NSE website for said period
VBISF# Volatility before introduction of Stock Future
VAISF## Volatility after introduction of Stock Future

Graph 5: S&P CNX Nifty volatility pre and post stock future



Source: Compiled from Table 8

Table 9: Paired samples test

	Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
VBISF-VAISF	0.3955	0.1924	6.804E-02	5.813	8	0.001

Source: Calculated from the data based on Table 8

As in case of Index Futures, Index Options, Stock Options, the results of Stock Future are also supported by t-tests and found that actual value exceeds table value i.e. (5.513>2.365). The inferences drew direct the acceptance of alternative hypothesis and the rejection of both null hypothesis (H_{oi} and H_{oj}).

Findings of the study

- The Stock Futures dominate the derivative markets in India with 57 % of the total turnover in 2008-09 followed by the Index Futures.
- The study found that introduction of derivatives trading has significant impact on the volatility of the stock market return and the volatility in S&P CNX Nifty has declined in the period after derivative instruments was introduced recognising the fact that the decline in volatility is a function of not only introduction of derivative products.
- The use of paired t-tests proves that introduction of derivatives trading have created an impact on stock market volatility. In all the cases of derivative products under study, the null hypothesis H_o was rejected while the alternative hypothesis H_1 was accepted.
- The most satisfactory explanation for decline in volatility could be the presence of new investment possibilities, thus making the market more complete. Derivative markets improve the transmission and speed of the information which provides stability for the market. Therefore, any improvement in the running of the market has a significant impact on the market.
- The decrease in volatility after introduction of derivatives products would mainly be attributed to the following reasons: firstly, derivative markets attract an additional set of traders to the market; secondly, these markets have lower transaction costs and transmit the new information to the Spot market more quickly. It provides a favourable environment for entry in to the financial markets which consequently help in dispersal of risk. Furthermore, it becomes one of the reasons for increase in the trading volume. Whenever trading volume increases, a greater liquidity will be reflected in the prices of the underlying market and the market will become more stable.

References

Alexakis, P.(2007) ,“On the effect of index futures trading on stock market volatility”, International Research Journal of Finance and Economics, Issue 11.

Bandivadekar, S. and Ghosh, S. (2005), “Derivatives and volatility on Indian stock markets”, Reserve Bank of India, Occasional Papers.

Cox, C.C. (1976) “Futures trading and market information”, Journal of Political Economy, 84, 6, 1215 - 1237.

Edwards, F. R. (1988),“Does futures trading increase stock market volatility” ,Financial Analysts Journal, Jan/Feb, p 63 – 69.

Gupta, O.P. (2002), “Effect of introduction of index futures on stock market volatility: The Indian evidence” ,UTI Capital Market Conference Paper, Mumbai.

Hetamsaria, N. and Niranjan, S. (2003), “Impact of introduction of futures market on the spot market: An empirical study”’ the ICFAI Journal of Applied Finance, Vol. 9, No. 8, November.

Karmakar, M. and Roy, M. K. (1996), “Stock price volatility and its development implications: Indian experiences”, ‘Finance India, Vol. X No. 3, September, Pages 585–603.

Raju, M. T. and Kiran, K.(2003), “Price discovery and volatility on NSE futures market”, Securities and Exchange Board of India, Working Paper Series, No. 7, March.

Schwert, G. W. (1990), “Stock market volatility: ten years after the crash”, NBER Working Papers, December 1997.

Shenbagaraman, P. (2003),”Do futures and options trading increase stock market volatility”, NSE News Letter, NSE Research Initiative, Paper no. 20,

Santamaría, R. (1976), “ Does derivatives trading destabilise the underlying assets? Evidence from the Spanish stock market,” http://www.unavarra.es /organiza/gempresa/wkpaper/dt26-98.pdf

Singh, M. (2006),“Does the introduction of stock index futures reduce the stock market volatility”, Management Dynamics, Vol. 6 pg 81-101.

Thenmozhi, M.(2002), “Futures trading, information and spot price volatility of NSE-50 index futures contract”, NSE News Letter, NSE Research Initiative, Paper no. 18.

An Analytical Study of VALS of Youth –Implication to Marketers

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Abstract

Indian 'young consumers' spending pattern, attitudes and lifestyles have put a great impact on marketers. These young people populate the markets of the future, while having a tremendous amount of discretionary spending power today. The present trend going on in the Indian market is 'Youth buzzing'. Youth are occupying pivotal positions in the marketing sector duly compensated by higher style of living. The lifestyles and attitudes have brought about a distinct transformation in the market styles compared to the marketing techniques of yester times. Youths in India are already having an enormous impact on the economy, on companies and on culture. Youths are 'the consumer of today, the growth engine of tomorrow'. This generational shift in attitudes is all the more important because this growth is growing so rapidly. By 2015, Indians under 20 will make up 55% of the population- and yield proportionately higher spending power. This research paper analyses VALS of youth in India.

Keywords VALS, Consumer behaviour, Youth marketing, Marketing.

Introduction

"The future is not in the sun, moon, stars or other planets, it's in our youth." Thought by thought, action by action they are the pioneers sculpting future of our country. Youth remain no longer conservative but they are swept by the changes in globalization. Kites rise not with, but against the wind and the youth in India are responsible for the unparallel growth in economy, bringing about unpredicted changes and have put India as the drives of the change in the world markets. Consumerism today has gained immense ground in promoting a highly consumptive culture. Young consumers are being targeted as 'special' consumers and this impacts their thought processes and consumption patterns.

Today, the demographics in favour of youth are enormous. Yes, India is a young country with a massive population below the age group of 35. While we can quibble about the size or the purchasing power, the size is still extremely interesting to a host of marketers both global and local. Yet, many brands have bitten the dust in their quest to crack the youth market. Probably some of them are ahead of their time. A few others might have got their strategies wrong. But the time is right for many others to get in and stay in there. The best for this is to engage themselves with today's youth.

"The forward looking organisation must take its customers skin temperature daily to check and adapt to behavioural change"

The Indian consumer market, which is primarily dominated by young generation, is becoming increasingly sophisticated and brand conscious. A typical upper middle class young consumer is beginning to look beyond the utility aspect of a product to seek intangibles like brand and lifestyle statement associated with the product. This modern consumer wants his purchases to reflect his lifestyle or at least the one he aspires for. As a result of this brand consciousness, the food and beverage segment of the FMCG sector is already witnessing a significant shift in demand from loose to branded products.

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The Indian affluent class has always had a penchant for premium branded goods and this fetish will continue. A recent luxury brands survey conducted by The Nielsen Company, a global information and media research company, has ranked India third after Greece and Hong Kong in the list of most brand conscious countries in the world. Over 35% of Indian respondents said they spend money on luxury brands.

The acronym VALS, (for "Values, Attitudes and Lifestyles") is a psychographic segmentation. It was developed in the 1970s to explain changing U.S. values and lifestyles. It has since been reworked to enhance its ability to predict consumer behavior. Segmentation research based on VALS is a product of SRI Consulting Business Intelligence.According to the VALS Framework, groups of people are arranged in a rectangle and are based on two dimensions. The vertical dimension segments people based on the degree to which they are innovative and have resources such as income, education, self-confidence, intelligence, leadership skills, and energy.

Consumers driven by knowledge and principles are motivated primary by ideals. These consumers include groups called Thinkers and Believers. Consumers driven by demonstrating success to their peers are motivated primarily by achievement. These consumers include groups referred to as Achievers and Strivers. Consumers driven by a desire for social or physical activity, variety, and risk taking are motivated primarily by self-expression. These consumers include the groups known as Experiences and Makers. At the top of the rectangle are the Innovators, who have such high resources that they could have any of the three primary motivations. At the bottom of the rectangle are the Survivors, who live complacently and within their means without a strong primary motivation of the types listed above. The VALS Framework gives more details about each of the eight groups.

Values and Lifestyles, a system for grouping consumers according to psychological and sociological theories in order to predict their behavior in the purchase decision process. There are three main categories: need-directed-consumers who make purchases based solely on need; outer-directed-consumers who make purchases based on their perceptions of the way others view them; and inner-directed-consumers that make purchases out of some inner need. VALS can aid in defining targets for products and are also helpful in the development of advertising copy and media strategies. The concept was introduced in 1978 by the California consulting firm of SRI International.

Significance of the study

Youth contribute around 47% of the population in India and this percentage is increasing in leaps and bounds. The enormous trends in concurrence marketing in youth are building up and giving way to many a creative activity in the marketing sector. Production and planning departments have to gear up to the tastes and likes of youth. This trend is more focused in youngsters who are in their teens. Traditional appeals have sunk into oblivion with radical changes in values and expectations. Technologies have also transformed the present expectations of youth as youth want everything readymade and instantaneous as there is little time that they can spend or spare on domestic chores or on their shopping sprees. Marketing strategies have to catch up with these expectations and values.

Youth Marketing is a term used in the marketing and advertising industry to describe activities to communicate with young people, typically in the age range of 12 to 34. More specifically, there is the teen marketing, targeting people in the 8 to 12 year-old range, teen marketing, targeting people age 13 to 19, college marketing, targeting college-age consumers, typically ages 18 to 21, young adult marketing, targeting young professionals, typically ages 22 and above.The youth market is critical because of the demographics' buying power and its members' influence on the spending of households. In addition, teens and young adults often set trends that are adopted by other demographic groups.

The youth market is viewed as a difficult group to connect with and sell to, based on the fragmented media landscape and young people's keen ability to identify and reject marketing messages that lack credibility. Nonetheless, many brands target youth by offering relevant products and services by communicating a brand message in an appropriate voice and tone. Successful brands marketing to youth have a foundation in or association with key interests and drivers among youth: music, sports, fashion, video gaming and technology, among others.

While frowned upon for preteens and younger teens, another common way advertisers target the older youth market is through product placement. Product placement occurs when a brand name appears in a medium not necessarily related to the product itself. Companies often pay for their products to be placed in a movie or on a television show. This act, while not an overt form of advertising, seeks to target youth in a subtle manner.

Youth marketing strategies commonly include television advertising, magazine advertising and online marketing. Today young people expect to be able to learn about, interact and be entertained by with brands or services targeting them online. Other common youth marketing tactics include entertainment marketing, music marketing, sports marketing, event marketing, viral marketing, school and college programs, product sampling and influencer marketing.

Objective of the study

The objective of the study is to:

- Make a VALS (Values, Attitudes and Lifestyles) analysis of youth based on gender.
- To identify the behaviour of the youth with reference to family, fashion, education, brand and shopping activities.

Review of literature

Literature on empirical studies on values, attitudes and lifestyles of youth is vast and varied. It is quite an arduous task to make a comprehensive review of all the studies relating to youth marketing which range in a few thousand. It is neither possible in view of the space limitation nor needed in view of making the study unambiguous and well directed. As such the review made in the present section includes such studies which have made some mark in the youth consumer segment and also which have direct or indirect bearing on the present study.

Rashmi Bansal (2007), in her article defined urban youth as youth marketers of today in India and not as per the version of sociologists and media men who relate it to the statistics of men under the age of 25. Youth could be defined as a potent and cultural force, the consumers of today and the growth engines of tomorrow. This study concentrates on the aspirations, inspiration and perspiration of urban Indian youth and not on the response of the youth’s choice of either Western or Indian styles or the cultural values. There is little doubt that increasing affluence would lead to radical choices for the future generations.

Youth can be exciting, exhilarating even. Youth are an exhilarating lot and they contribute to a large magnitude of youth market particularly in the Indian context and especially in the age group of 15-19 years. Marketers also cannot ignore the non homogenous group in the age group of 35 and above who fall under the 70% category of the Indian population and contribute as a major chunk to the Indian potential markets. Marketers should understand the tastes and trends of the present day youth and deal with the youth accordingly. The attitudes of the youth are even more important and should be taken cognizance of apart from the shapes and the sizes that they would need in the market. We need to understand their taste buds and what makes them tick. Clearly youth is growing in importance not only from the economic point of view but also there are noted changes in their behavioural pattern. Many parents of urban kids are working couples and this makes the kids lonely and independent. They develop confidence in themselves. They belong to myopia which reaffirms their individual importance by making their own choices and they are being wanted to be treated as intelligent (Ramanujam Sridhar 2001).

Youth is all about wanting to explore, dream and discover 'Global Youth Marketing Forum: Brands must talk with the youth not at them', February 04, 09, http://www.exchange4media.com/) and that is the theme of the two-day Global Youth Marketing Forum, being held in Mumbai on February 3-4. The youth of 21st century India is not the youth of the 1960's, they are far more aggressive and believe in instant gratification; hence marketers need to find newer ways of reaching out to them. It is all about the goodwill of the brand so that the consumer may feel that the brand is talking with the youth and not at them (Robin Thomas 2009).

Priyanka Mehra (2009) in her article mentions that youth have always been a prime target for marketers. More so in India now, as two-thirds of the population is below 35 years of age. According to MindShare Insights, the research divisions of a media buying agency MindShare, 65%, or over 700 million Indians, are younger than 35 years. This segment has an influence on consumer spending far in excess of its numerical strength. Nine million people in the age group of 12-25 years from the top 35 cities (one million plus population) in India are the ones setting the trends and raising the aspiration value for one-billion-plus Indians, reports MindShare Insights.

Manjeet(1999) in her article finds out that India's youth are ambitious, technology-oriented and confident. By 2015, Indians under 20 will make up 55% of the population and wield proportionately higher spending power.

In the west, the youth segment has almost always been pitted against their seniors. Rebellion was the key starting point. Adventure, music and other symbols of 'cool' became a perfect recipe for creating cult brands that rallied against the system. This model of tapping youth presupposes that it's always youth versus old. It also preoccupies itself with a continuous search for what's 'cool' among youth. Since the behavioural distance between the youth and the others in these societies is significant, it's easy to rally youth around such points of difference. This model however is at a loss in India, where everything and everyone is young. India's largest consuming class is in the age of 25-45 yrs. Most of them behave more like teenagers who are just about turning 15, as that's how long it has been since Indian markets have been liberalized. The same goes for the brands as well. As a society held back by scarcity and a self restrained value system built around it, suddenly opens up to the pangs of desire, in their attempt to be attractive to these consumers, brands too have realized that being 'youthful' is the way to go (Dheeraj Sinha 2009).

Stephen (1982) in study tests the lifestyle and consumption pattern. The total assortment of goods and services used by a consumer is hypothesized to be a minor image of his/her lifestyle. This paper tests this relationship by means of activity, Interests and Opinions (AIO) and product-use-data collected from respondents. Lifestyle clustering (7 Clusters) was finalised by the researcher as:- Traditionalists, Frustrated, Life-expansionists, Mobiles, Sophisticates, Actives, Immediate gratifiers.

Methodology

Keeping in view the various likes and dislikes of the present day generation, a research on the aspirations of the younger sections was taken up. A study in this connection was specially done in respect of the urban youth population in Bangalore city as it is one of the cosmopolitan cities of India.

Data needs and requirement

In this study, both primary and secondary data are used. Primary data was collected from the youth in the city who were in the age group of 25-35 years.

Tools to collect data

Primary data was collected from a well structured questionnaire, which was personally administered. 206 respondents were chosen non- randomly from various shopping malls in Bangalore city. For the purpose of the studying Values, Attitudes and Lifestyles (VALS) a set of 15 statements on Activities, Interests and Opinions (AIOs) were asked to the respondents. The statements were rated on 5 point likert scale. Equal number of male and female respondents was chosen i.e. 103 male respondents and 103 female respondents.

The secondary data has mostly contributed in the area of review of literature and also in framing certain questions in the questionnaire and gaining in an insight in the research topic. The data collection of secondary nature has been vastly contributed from various articles, journals and other publications.

Sample for the study

Non- Random Convenient sampling was followed where the researcher personally met 206 respondents chosen from various shopping malls in Bangalore.

Plan of analysis

The collected data is put to statistical test depending upon the requirements. Analysis is made at two levels. At the macro level the data was classified and tabulated. Percentiles have been used for the purpose of analysis. A general analysis is made to understand the trend. Keeping in mind the objectives of the study micro analysis is done to understand specific trends of urban youth behaviour. Factor and cluster analysis was done to conclude on the VALS statements.

Results and findings of the study

Men and women tend to have different attitudinal and behavioural orientations, based partly on genetic makeup and partly on socialization practices. Women tend to be more communal- minded and men tend to be more self-expressive and goal-directed. Women tend to take more of the data in their immediate environment; men tend to focus on the part of the environment that helps them to achieve a goal. Gender differntiation has long been applied in clothing, cosmetics, style trends etc.

Market segmentation by gender considers how men and women differ by born physiological differences and learned socialized differences. Market segmentation by gender reveals that men and women respond differently to marketing messages, and different marketing appeals influence them differently. To market effectively the product the marketers should know that among men and women there are certain differences in value and purchase of different items.

The statements of VALS were categorised on family orientation, fashion orientation, education orientation, brand orientation and shopping orientation.

Table 1. : Opinion of the respondents towards VALS

Sl. No.	Statements...	Male (%)	Female (%)
	Family orientation		
1.	Family is always a forcing factor for me	80	91
2.	I would love to spend most of the time at home	74	84
3.	"Home-sweet- home" is always a concept for me	80	78
	Fashion orientation		
1.	A person should always update himself/herself about fashion	59	72
2.	I always get entertainment from media	77	87
3.	I always dress to impress others	78	78
	Education orientation		
1.	Education is very important for a person's success	72	75
2.	I don't believe that the Indian education adds to my value.	75	69
3.	Foreign degree is more glamorous than Indian degree	76	76
	Brand orientation		
1.	Brands that I use express my personality	69	72
2.	I am very crazy about brands	75	66
3.	I always buy brands to satisfy my peer group	67	69
	Shopping orientation		
1.	I don't believe in tomorrow so that I live today	74	66
2.	I always indulge in shopping	74	74
3.	I spend money on things that aren't practical	68	69

Family orientation

A family unit builds up a person's personality. Strong bond of family and good values are very important for an individual and his development. Family is where our roots take hold and from there we grow. We are molded within a unit, which prepares us for what we will experience in the world and how we react to those experiences. Values are taught at an early age and are carried with us throughout our life. A close family bond is like a safe harbor where we find refuge. The goals which a person set for his/her life are very much dependent on the life he/she have with the family. Based on the family orientation 3 statements were developed and the findings were as follows:

Statement 1: Family is always a forcing factor for me.

Youth are with the opinion that family is always a forcing factor for them. They also believe that the family life adds a sense of responsibility in a person's personality development which lacks in those people who have not had a very nice family life. Family is at the root of all society and the family spirit is a special quality that feeds the family with vigour and vitality. Female gives more importance to family than male respondents. i.e. 91 percentage of female agree to this statement and mentions family as forcing factor than male.

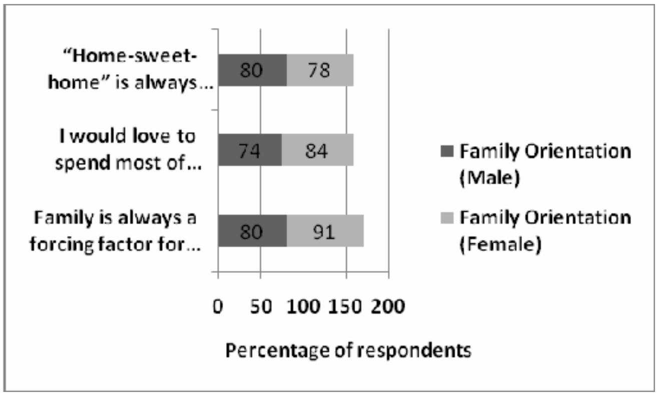
Statement 2: I would love to spend most of the time at home.

Amongst the youth value related to family still exists at a higher level and they prefer to spend their quality time with family. In this statement too female respondents are more than male respondents i.e. a percentage of 84 compared to male i.e. 74%.

Statement 3: "Home-Sweet- Home" is always a concept for me.

Youth consider home as a sweet place to attach themselves with. Marketer can look forward to this, and try making marketing strategies for their products. Male respondents agree to this statement more than female respondent i.e. 80%.

Graph 1: Family orientation of youth



Fashion orientation

Fashion is the style and custom prevalent at a given time. In its most common usage however, "fashion" describes the popular clothing style. Many fashions are popular in many cultures at any given time. Important is the idea that the course of design and fashion will change more rapidly than the culture as a whole. The terms "fashionable" and "unfashionable" were employed to describe whether someone or something fits in with the current or even not so current, popular mode of expression.

Fashions bug a rising approach among youth that has affected almost the whole society. Even the manufacturers are in a race to produce a whole lot of trendy and modern gadgets and clothes. Wearing trendy and designers' clothes have also become a great deal among youngsters.

Statement 1: A person should always update himself/herself about fashion.

Fashion is considered as a status symbol amongst youth and they would always want themselves to update about style, fashion and trends. Most of the youth are fascinated with fashion and trends. In this research female respondents are more cautious about fashion and style statements. They want themselves to be always updated with fashion than men.

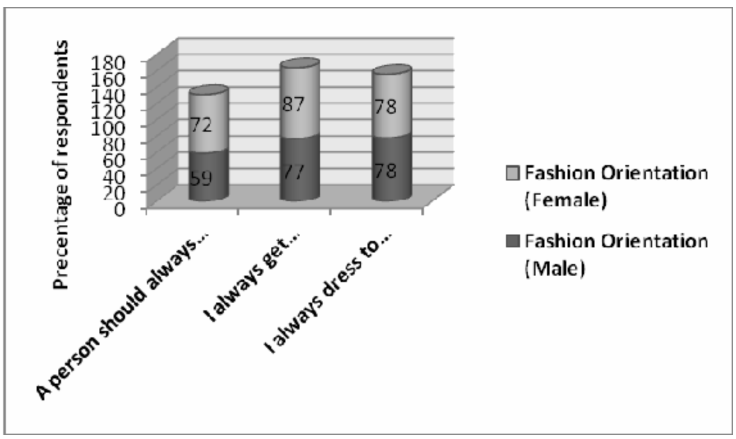
Statement 2: I always get entertainment from media.

Youth still prefer media as a form of entertainment. Youth are much more willing to experiment, especially with new media. Golbalization of media brings opportunities to broaden youngsters outlook and provide more equal access to information. Media also tries to bring cultural identification and values together. Youth participation in society can also be improved when media is in a form of entertainment.

Statement 3: I always dress to impress others.

Male or female, any gender they are, youngsters want the comment of 'stunning' from their friends and near ones. For that purpose they wear branded outfits even though it's highly priced.

Graph 2:Fashion orientation of youth



Education orientation

Education is any act or experience that has a formative effect on the mind, character or physical ability of an individual. In its technical sense education is the process by which society deliberately transmits its accumulated knowledge, skills and values from one generation to another. Education is very important in the present day life. Only a literate person can now adjust with the development of society. Getting educated makes man perfect and eligible. The new generations must get educated and be valuable resources to our own country. World being today in this position, the basis of all these achievement is education. Thus getting educated is very important to be a good human being and a good citizen.

Statement 1: Education is very important for a person's success.

Education is considered by youth as an important factor for a person's success. This would be one of the reason why more and more Indian youth are graduating from universities all over India. In the study it was observed that female respondents (75%) prefer education as an important factor for a person's success.

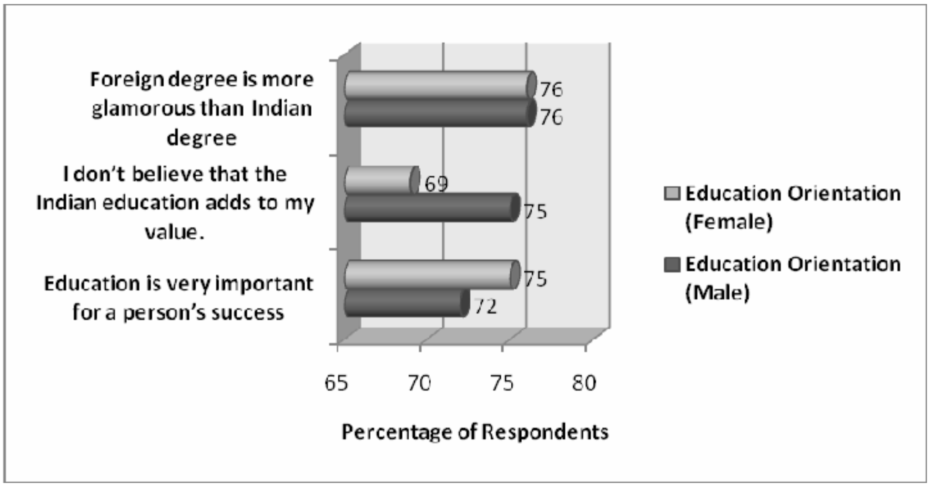
Statement 2: I don't believe that the Indian education adds to my value.

Youth are concerned about education system in India. They do believe that there is lack of quality education in India and this has to be rectified at the earliest to reach international standards. 75% of the male respondents agree to this statement and accept that Indian education doesn't add much value in their life.

Statement 3: Foreign degree is more glamorous than Indian degree.

Youngsters always go for quality, value and credibility of a course. There is always an ambivalent attitude of youngsters towards college degree. They also know that back home in India, a degree from a foreign country will bring more glamour. In this study it was observed that both male and female respondents believe that foreign degree are more glamorous than Indian degree.

Graph 3:Education orientation of youth



Brand orientation

People engaged in branding seek to develop or align the expectations behind the brand experience, creating the impression that a brand associated with a product or service has certain qualities or characteristics that make it special or unique. A brand is therefore one of the most valuable elements of a product.

Statement 1: Brands that I use express my personality.

Youth believe that brands that they use express their personality. Majority of the female respondents (72%) agreed to the fact that usage of branded products or services always expresses their personality than male respondents. They mainly choose brands based on their personality.

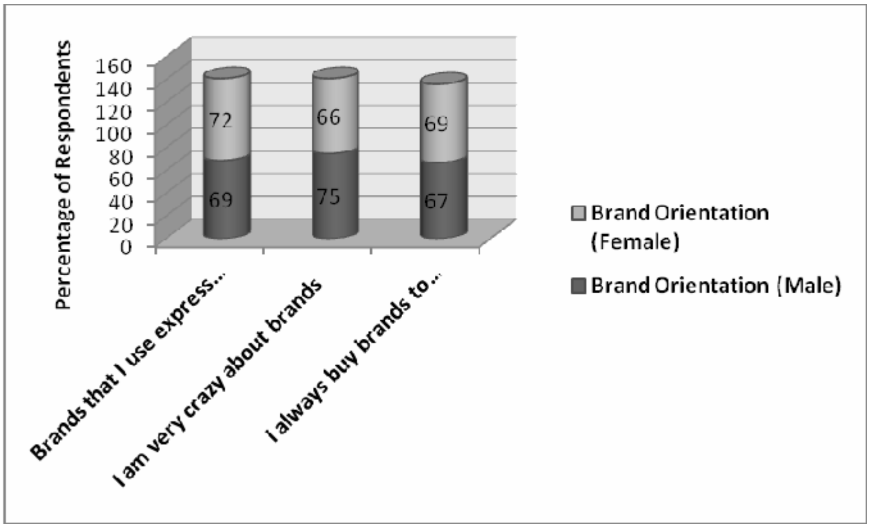
Statement 2: I am very crazy about brands.

These days youngsters prefer leading brands of product that were once so hard to find in the domestic markets. The change is that there is growing needs of the brand savvy young Indians. Youngsters especially men have a craze towards branded products than women.

Statement 3: I always buy brands to satisfy my peer group.

It was observed that peer group influence is high amongst youth. They try to make each other satisfied by purchasing the brands their friends prefer. 69% of female respondents buy brands to satisfy their peer group whereas only 67% of male respondents do the same.

Graph 4:Brand orientation of youth



Shopping orientation

Shopping is the examining of goods or services from retailers with the intent to purchase at that time. Shopping is an activity of selection and/or purchase. To many, shopping is considered a recreational and diversional activity in which one visit a variety of stores with a premeditated intent to purchase a product. Shopping is recognized as an addiction. Also referred as shopping addiction, "shopaholism" or shopaholics, these shoppers have an impulsive uncontrollable urge to shop.

Statement 1: I don't believe in tomorrow so that I live today.

Youth believe in the concept of living for today than living for tomorrow. This concept is more accepted by men than women.

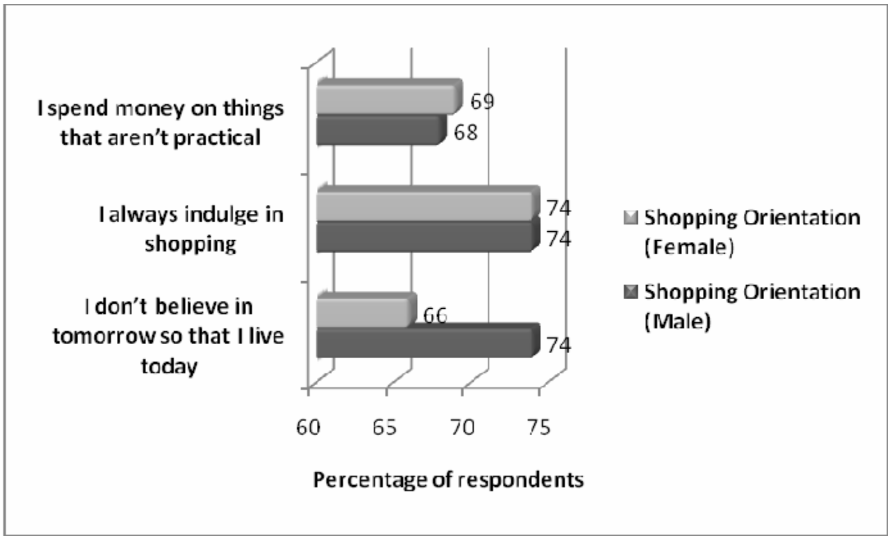
Statement 2: I always indulge in shopping.

Youth always prefer and indulge in shopping. Both male and female love shopping and an equal proportion of them i.e. 74% agree to this fact.

Statement 3: I spend money on things that aren't practical.

Youngsters are not wisely spending money and they keep purchasing products without any necessity for it. They are not practical about what they buy. There is a very minute difference in opinion of male and female respondents related to this statement.

Graph 5: Shopping orientation of youth



Cluster analysis

Cluster analysis has become a common tool for the marketing analyst. Both the academic researcher and the marketing applications researcher rely on this technique for developing empirical groups of persons, products or occasions, which may serve as basis for further analysis. Although sometimes viewed with skepticism, cluster analysis has become a widely used technique for market segmentation. An important use of cluster analysis has been in seeking a better understanding of buyer behaviors by identifying homogeneous groups of buyers.

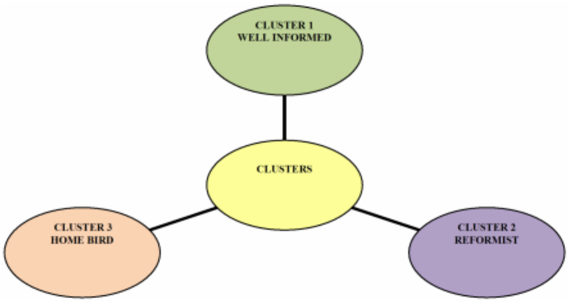
In this research study the data were clustered using factor analysis. The 15 AIOs (Activities, Interest and Opinions) statements were reduced to 5 factors. The next stage in the data analysis was to cluster the respondents into lifestyle segments. Three clusters were formed after the analysis was done based on 206 respondnets. Cluster 1 which comprised of 103 respondents, Cluster 2 with 31 respondents and Cluster 3 with 72 respondents. These clusters grouping was named as Cluster 1-Well Informed, Cluster 2-Reformist and Cluster 3- Home Bird. The cluster formation can be seen in figure shown below.

Table 2: Rotated component matrix(a):5 Factors

	Component				
	1	2	3	4	5
Education is very important for a person's success	0.441	-0.233	-0.162	0.126	-0.004
Brands that I use express my personality	0.404	-0.073	0.267	-0.133	0.007
I don't believe that the Indian education adds to my value	-0.13	0.527	0.209	-0.029	0.165
I always indulge in shopping	0.077	0.443	-0.085	0	-0.064
I always get entertainment from media	0.14	0.4	-0.059	0.083	0.119
A person should always update himself/herself about fashion	-0.115	-0.371	0.061	0.221	0.305
I always buy brands to satisfy my peer group	0.061	-0.081	0.602	-0.167	0.08
I always dress to impress others	-0.014	-0.055	0.539	-0.083	0.089
I spend money on things that aren't practical	-0.045	0.134	0.46	0.261	-0.023
Foreign degree is more glamorous than Indian degree	-0.439	-0.128	0.441	0.24	0.157
I am very crazy about brands	0.061	0.096	0.314	-0.483	0.052
I would love to spend most of the time at home	-0.172	0.019	-0.045	0.473	0.132
I don't believe in tomorrow so that I live today	0.074	0.035	-0.045	-0.429	-0.048
Family is always a forcing factor for me	0.165	-0.184	0.2	0.236	0.104
Home-sweet-home is always a concept for me	0.109	0.02	-0.219	-0.096	0.658

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 6 iterations.

Figure 1: Three clusters of VALS



Conclusion

Youth in India have changed from the past. They still follow some set of shopping, educational values and culture which is imbibed to them by the family. But the entire lifestyle of youth has change. The study reveals that the youth are brand driven, shopaholics, they are mostly self oriented and would like to indulge in buying to enhance their personality among the peers. Looking into this a marketer can focus more on the youth of India in a better manner.

References

Anaggh Desai (2006), " Youth to drive e-commerce growth in India", http://www.domain- b.com/ebusiness/general/ 20060119_commerce.html.

Dheeraj Sinha(2009), "Youth marketing: choice of a new generation", Brand Equity, 3 Jun 2009, The Economic Times) population of about 50 million (urban, top three socio - economic classes.

Indian organized retail sector's impact on lifestyle, http://business.mapsofindia.com/india-retail- industry/indian-organized-retail-sectors-impact-on-lifestyles.html

Manjeet Kripalani(1999), "India's youth", Int'l Edition, Business Week, October 11, 1999, http://www.businessweek.com/ 1999/.html.

Pinakiranjan Mishra(2008), "Youth driving retail sector growth in India", 8 Jan, 2008, Partner, retail & consumer products practice, Ernst & Young, ttp://economictimes.indiatimes.com/News/News- By-Industry.

Priyanka Mehra (2009), "Youth Marketing-- |Target: Gen Y", Livemint.com, The Wall Street Journal, Feb 3 2008, http://www.livemint.com/Youth-Marketing.

Ramanujam Sridhar (2001), "Youth—get them before they get you" , Catalyst, December 13.

Business Line, The Hindu Group, http://www.hinduonnet.com/businessline/catalyst/.html.

Rashmi Bansal,(2007) , "Buying power, A new face of youth consumerism", http://www. businessworld.in/index.php/A-new-face-of-youth-consumerism.html.

Rashmi Bansal (2007), "Urban youth", Business world, http://www.businessworld.in/ index.php/ Aliens html.

Robin Thomas (2009), "Global youth marketing forum: brands must talk with the youth not at them", February 04, 09, http://www.exchange4media.com/.

Stephen C. (1982), "Lifestyles and Consumption Pattern", Journal of Consumer Research, Vol. 8, No.4, March, Pg. 453-455.

http://en.wikipedia.org/wiki/Brand,Youth Marketing, VALS, shopping, fashion, education

http://www.youthportal.gov.in/statistics/demographicdetails.htm.

http://www.indianchild.com/marketing/india-marketing-scenario.htm

http://www.ibef.org/economy/consumermarket.aspx

Evolving Green Procurement and Sustainable Supply Chain Practices in the Organizations: A Framework to Align Functional Strategy Implementation to Organization's Corporate Social Responsibility (CSR) Objectives

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Gerald Petro**

Abstract
Looking at the globally rising concern towards the sustainable development and environmentally sensitive practices, the responsive organizations are making positive efforts to incorporate it in their respective Corporate Social Responsibility (CSR) policies. Effective implementation of (CSR) objectives needs clear linkage between the organization's CSR objectives and the functional objectives and plans. The function of Procurement and Supply Chain Management, being core to the foundation of entire value chain activities, has addressed the issue through the emerging concept of the 'Green Procurement practices'. This paper reviews the current global trend in the evolution of 'Green Procurement' practices and conceptualizes a generic CSR oriented functional strategic framework to further strengthen the linkage between the organization's CSR policies and supply chain function. The methodology involves secondary-sources review and analytical conceptualization.

Keywords Corporate social responsibility, Supply chain management, Green procurement, Pollution

Introduction
The rapid pace of industrial development and significant imbalances in the global production and consumptions have led to the rising level of global environmental problems, evolving over a long period of time. Although the costs relating to these problems cannot be quantified directly because of lack of data, the economic and social costs are high. It is understood that environmental degradation has had, and continues to have, adverse impact on the quality of human life and health. The current state of the Tanzania environment is a matter of concern. Some of the major problems relating to environment include land degradation; lack of accessible, good quality water for both urban and rural inhabitants; environmental pollution; loss of wildlife habitats and biodiversity; deterioration of aquatic systems; deforestation and above all the global climatic change and changes in the quality and level of natural resources. The challenges and problems vary from continent to continent and geography to geography, depending on the specific factors.

Despite the significant differences in the nature and level of environmental challenges faced by the different countries, there seems to a general agreement and consensus to take address the issue at the very basic root level i.e., the industrial activities. The approach has been to influence the activities at the basic level of production from where the problem seems to originate. In order to effectively address the issue, the Governments are amending their environmental policies and making it mandatory for the organizations to meet the minimum prescribed level of standards across the entire chain of industrial activities right from the material sourcing till the final dispose of the product even after the consumption.

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On the other hand, the proactive and environmentally sensitive organizations have displayed their voluntary commitment to address this challenge as a part of their social responsibility. The organizations, irrespective of nature and geography, have taken up the issue of environmental protection and sustainable development very seriously and there has been increasing trend of addressing the associated challenges by incorporating it at the focal point of their respective CSR vision and policies. However, the level and approach of implementation of the CSR policies vary from organization to organization, depending on how well it is integrated to their strategy formulation and implementation framework. The experience shows that the effectiveness in accomplishing the CSR objectives depends largely on whether it is considered as a separate programme, or as a way of doing the business activities. Because of this reason, the CSR has gradually evolved as one of the important strategic dimension in the organizations.

The function of Procurement and Supply Chain Management has also witnessed significant changes in its approach during the last one decade. Realizing the potential to contribute significantly towards the social responsibility dimension of the organizations, the function started evolving with inclined growth towards the 'green procurement' or 'sustainable procurement' premises. A number of studies show how the challenges of sustainable development are increasingly being addressed by supply chain management professionals (Sarkis, 2001; Svensson, 2007; Carter and Rogers, 2008).

Objective

Looking at the ever increasing importance of this socially important issue, the present paper has been conceptualized. The concept paper aims to explore and analyze the evolving green procurement across the different societies. The specific objectives of the study may be summarized as;

(i) To analyze the evolving green procurement practice;

(ii) To identify the elements, affecting the degree of adoption of green procurement ;

(iii) To identify the linkage between long-term CSR strategy and green procurement orientation at functional level; and

(iv) To develop a generic framework for effective implementation of green and environmentally sensitive procurement in any organization.

Research methodology

The present concept paper is the first one in the planned series of two papers and is based on the findings of the study being undertaken currently by the researchers. The study has been divided into two parts: the first one reviews the selected secondary literature relevant to the theme of the study and aims to conceptualize the generic model for effective implementation of the green management practices in any organization. The second part of the study aims to test the developed model in the real business situation by applying and measuring its impact in the case sample, selected by the researchers. The present concept paper is finding of the first part of the study. The study is observational by methodology and provides a suitable foundation in terms of the conceptual model and a set of hypothesis, to be used in later part of the study. In order to create the synergistic research efforts in cross context comparison of the present model within the same time while the second part of the study is being undertaken, the paper is presented. The conceptualized model, which is based on the extensive review, further aims to generate a fresh approach of treating the green procurement as a major contributor to the CSR objectives accomplishment of the organizations. The comparison of the results generated through application of the model in the different context would certainly enable to refine and modify it.

Literature review

Green purchasing is often referred to as environmentally preferable purchasing. Green Procurement is also known as environmentally friendlier, "ecological or eco-responsible procurement", involves making decisions not to purchase goods, suppliers and services that are harmful to the environment. Procurement that incorporates environmental consideration thus has a meaningful role to play in promoting environmental awareness and cleaner production, by favoring goods and supplies that are environmentally friendlier and less harmful to human health and ecological system (SIDA, 2002). It's the selection and acquisition of products and services that minimize environmental impact throughout the course of the manufacturing, transportation, use, and recycling or disposal lifecycles (Rizza, 2008). Governments, decision makers, suppliers, purchasers and industry are the main stakeholders of a green procurement program or Green Public Procurement is the process by which public authorities seek to reduce the environmental impact of the goods and services that they buy. Another related term, sustainable procurement,' which is used synonymously in this context, is defined as "a process whereby organizations meet their needs for goods, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organization, but also to society and the economy, whilst minimizing damage to the environment" (Procuring the Future, Sustainable Procurement Task Force, 2006). Sustainable procurement (SP) is procurement that is consistent with the principles of sustainable development, such as ensuring a strong, healthy and just society, living within environmental limits, and promoting good governance (Walker and Brammer, 2009).

Green Procurement is the purchase of environmentally friendly products and services, the selection of contractors and setting of environmental requirements in a contract. Also known as green or environmental purchasing, green procurement compares price, technology, quality and the environmental impact of the product, service or contract. Green procurement policies are applicable to all organizations, regardless of size. An effective green procurement system requires proper integration with company's CSR policies and Environmental Management System (EMS). Japanese organizations like Fujitsu, Ikea and Japanese Travel Bureau (JTB) are good examples of this. A survey reports that most of the executives accept the fact that businesses should play active role in tackling environmental related issues (The McKinsey Quarterly, 2008).

One common trend across the global boundaries in development of the green procurement adoption has been the active role of the Government in promoting the concept. In most of the cases, one can find that due to environmental policy of the respective Governments, the organizations, particularly the public sector organizations, initiated the move. However, with the time the concept was received well across the sections of the organizations. However, this trend is just indicative in nature and can not be considered as any sound basis for generalizations.

The concept of 'Green Procurement' rests mainly on three broader dimensions: environmental social and economic concerns. Environmental concerns are the dominant macro-level justification for sustainable procurement; born out of the growing 21st century consensus that humanity is placing excessive demands on available resources through unsustainable but well-established consumption patterns. This is a sufficiently influential issue that environment-centric procurement (green procurement) is sometimes seen to stand alone from sustainable procurement. Examples of green procurement efforts in the environment dimension range from the purchase of energy-saving light bulbs to the commissioning of a new building from renewable-sourced timber via organic food being served in a workplace canteen. The ultimate green procurement is the avoidance of the purchase altogether. Sustainable procurement is also used to address issues of social policy, such as inclusiveness, equality and diversity targets, regeneration and integration. Examples include addressing the needs – whether employment, care, welfare or other – of groups including ethnic minorities, children, the elderly, those with disabilities, adults lacking basic skills, on green environment, Socially sustainable procurement is sometimes amalgamated with economic issues under a "socio-economic" header and, in a similar fashion to affirmative action. On a macroeconomic level, it can be argued that there are economic benefits in the form of efficiency gains from incorporating whole-life costing into decision-making. Here the major innovation is that there is no longer consideration on acquisition costs alone, but the full life cycle cost, which includes anticipated cost of use or maintenance as well as retiring and recycling costs.

There have been a number of studies contributing to the literature development in the field of environmental considerations and corporate social responsibility (Porter, 1991; Palmer et al. 1995; Porter et al., 1996; Lee and Ball, 2003, Hart, 2005). Most of these study aim to fit the environmental and social responsibility of the organizations under the traditional wisdom of doing the business. The studies further show how the competitive priorities of the organizations may be pursued by simultaneously focusing on the environmental considerations.

Many organizations worldwide are making an effort to purchase products and services that are less harmful to local and global environments. Both public and private sector organizations are implementing purchasing practices that include environmental (and social) considerations for green procurement. These activities are part of a broader movement toward more sustainable forms of production and consumption. Internationally, government procurement markets in 1997 accounted for 5–18% of GDP within OECD member countries. In North America, governments (all levels) spent US$3 trillion out of the total US$11 trillion economy in 2002.

Because of their significant buying power, governments have realized that public green procurement practices can result into cost savings from reduced energy consumption, resource use, and material management. They also reap more qualitative benefits. In the private sector green procurement is seen as a means towards improving their products and operations from environmental perspective to reduce risk, total cost of ownership and improve supply chain performance.

The adaptation of the concept has benefited many countries at large. For example; in North America there have been a number of quantifiable benefits measured from green procurement. Cost savings and risk reduction are perhaps the most universal across all types of industries and organizations. Qualitative benefits such as improved image, brand or ability to meet policy commitments is another key benefit and is of highly significant (Global Environmental Management Initiative. 2001).

The experience in Australia and New Zealand suggests that there has been much to gain from the implementation of sustainable procurement practices by their governments. Some of the benefits of sustainable procurement which has been identified include reduction in adverse environmental, waste to landfill, decreases air and water pollution, more efficient use of public resources, reduced costs through greater energy efficiency, stimulation of local and global markets to innovate and produce more sustainable products etc.

The concept can be successfully adopted in the different types of organizations, irrespective of the nature and the size. Lee (2009), on the basis of the studies conducted on two Korean Small and

Medium Enterprises (SMEs), concluded that SMEs can make themselves greener by making strategic and organizational changes. For greener management, the factors of organizational structure, innovation capability, human resources, cost savings and competitive advantage can influence organizational change. The paper identifies the need for further research in order to identify how management practice might reduce negative sustainability impacts.

Another important study conducted to measure the adoption of green management practices in Korean Electronics Industry (Lee and Kim, 2009) concludes that "environmental" pressures and standards are widely accepted and implemented for supply management in the Korean electronics industry. However, "social" pressures and standards are still not commonly used and there is a lack of implementation in the entire supply chain in the industry. The study identifies that the main reason for adopting CSR standards is to identify risks and problems in the supply chain, and to avoid or at least reduce the consequences for the final manufacturer.

A study conducted on the adoption of sustainable procurement practices in public sector undertaking in the United Kingdom concluded that there is significant variation across public sector agencies in the nature of sustainable procurement practice. The study suggests that although the Cost has been found to be the leading barrier to sustainable procurement, and top management support can facilitate its effective adoption (Walker et al., 2009). Another study on local Government procurement practices in the United Kingdom (Preuss, 2009) concludes that at an aggregate level, local government procurers have adopted a wide range of initiatives to address all three aspects of sustainability but these are condensed into a typology of sustainable supply chain management for the public sector.

The benefits from the Green Procurement are many, but at the same time, require a sound framework to adopt and implement it at the organizational level. In order to completely create a green culture in the organizations, Olson (2008) suggests for developing green procurement strategy in the organizations. A green strategy for an enterprise – public or private, government or commercial – is one that complements the business, operations, and asset strategies that are already well understood and often well articulated by the enterprise. A green strategy fundamentally helps an enterprise make decisions that have a positive impact on the environment. The principles that form the basis of a green strategy should lead a business to make decisions based on solid business logic and make good business sense.

The issues in the integration of green-management with the supply-chains have also been studies from the supplier participation perspective (Vachon and Klassen, 2006). The study shows that technological integration with primary suppliers and major customers is positively linked to environmental monitoring and collaboration.

In a study on CSR-Supply Chain interaction, Anderson and Larson (2009) summarizes that practising CSR in supply chains requires that CSR is embedded within the entire organisation, including subsidiaries abroad and offshore suppliers. It includes employee training and sharing of experience, training of key personnel at the supplier level, positive incentives for suppliers in the form of long-term contracts and enlarged purchasing orders, and regular auditing of suppliers' performance.

Looking at the different studies across the different countries in the different types of organizations, many of the thought provoking issues arise regarding the development of effective management framework for integrating green and sustainable procurement at functional level in any organization. Some of the important conclusions from the above studies can be summarized as under;

1. Irrespective of the geographical or sector/industry context, the organizations worldwide are innovating and experimenting to adopt the green management practices.
2. In most of the cases, the political/legal/regulatory framework of the country acts as a catalyst in promoting the adoption of the green procurement practices.
3. The practitioners agree on the need for integration of the supply chain function with the CSR framework of their respective organizations.
4. There are number of conceptual models to address the issue of integration of supply chain with the corporate strategy but there is no generic framework for aligning the function in view of the traditional strategic management models.

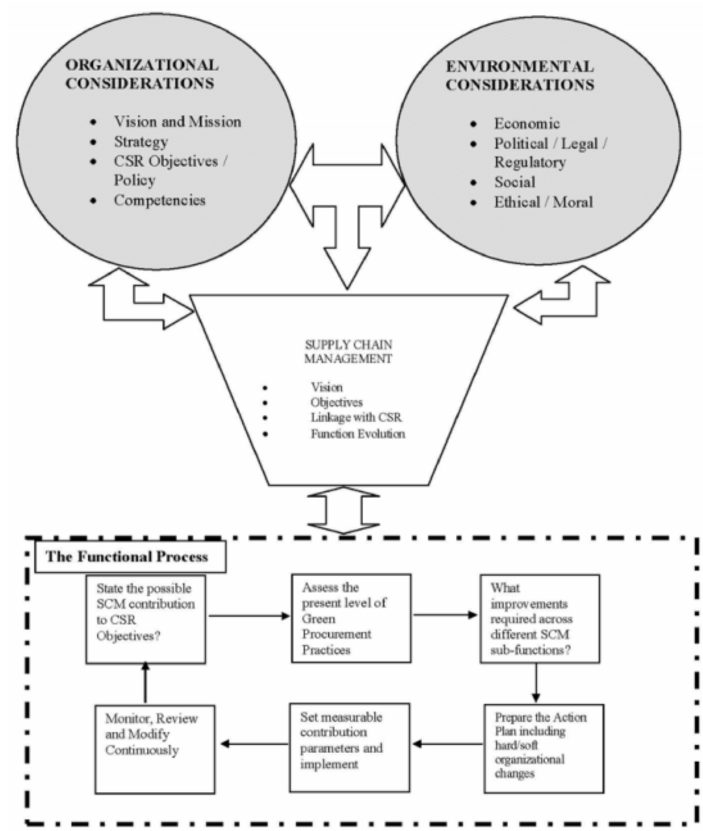
Despite the rising need for, and trend to, adopt the sustainable green procurement practices, the review pinpoints at the significant literature gap in terms of conceptualizing the strategic role of supply chain management in accomplishment of the organizational CSR objectives. Keeping in view the existing knowledge gap, the succeeding section of the paper attempts to explore to develop a generic framework for this purpose. The efforts have been made to incorporate the emerging requirements in the light of widely recognized Strategic Management models.

Aligning supply-chain to CSR: Strategic approach

Prior experiences, and studies on the subject show that the green procurement, concept or orientation, is often considered to be independent variable and their practices be the dependent variables. This might be due to the very basic reason that the practice is measured according to the type of orientation adopted by the organization in the given context. However, the orientation of the organization towards adopting the green or sustainable approach to procurement and/or supply chain depends on the degree of clarity in understanding units' contribution to the accomplishment of the organization's CSR objectives. Therefore, it becomes quite interesting when we trace the interrelationship among the strategically significant components right from the organization's overall vision or mission to the functional plans and implementation. One can easily observe that the dependent variable at one level becomes the independent variable for analysis at the next level. When the analysis is focused on one level or unit, often the issues are analyzed following the piece-meal approach and thus, creating a challenge for analysis of the real responsible factors. Therefore, the proposed model aims to systematically conceptualize the interrelationship among the different strategic management components, as relevant for the adoption of green or sustainable supply chain function in the organizations. The proposed model also presents the way of implementing the green procurement strategies at the functional level with consideration of the linkages at other levels.

The proposed framework can be conceptually considered to be comprising of the two major parts. The upper half of the Figure -1 represents how the supply chain objectives and strategies may be formulated at the functional level under the influence of the relevant environmental forces and organizational level plans and strategies. The lower half of the model highlights the operational mechanism for implementing green management strategies at the functional level, which is often displayed and recorded as the practice side of the green of sustainable supply chain management. However, both the parts work together and any change in one part of the system would naturally trigger the changes in the other. For analysis of how the green management practices are adopted, implemented and evolved over a period of time, consideration of all the components of the model are desirable.

Figure 1: Proposed framework for the green supply chain management



These are just a suggested set of analytical questions and do not aim at posing any restriction. Based on the specific need of the organization, other questions or considerations may also be included. Similarly, at the next level i.e., the functional level of Supply Chain Management, the analysis must be made to determine the level of awareness at the functional level towards its expected role and contribution in accomplishment of the overall sustainable or environmentally sensitive CSR objectives of the organizations. The level of awareness at the functional level and functional evolution stage, in terms of its ability to deal with the complex and strategically integrated issues in the organizations, are two major determinants that affect the effectiveness of the functional strategy and the action plans relating to green supply chain management. The different studies have proposed the different parameters to measure the evolution stages of the function in the organization. However, in the present context it is proposed that while measuring the evolution stage of the supply chain management function, it should not be restricted in any terminology or stage because of the multiple and complex realistic situation within the organization, like the market characteristics, the varying requirement of the different supply chains in the different product lines, the different product life cycle stages and the list continues. Therefore, it is suggested that the stage of the evolution may be conceptualized on a continuum ranging from 'static and inward-looking supply chain orientation' to 'strategic and outward-looking supply chain orientation'. In order to measure the position of the function on this continuum, the manager's perceived judgment seems to be a better methodology with considerations of the important parameters like;

- Strategic decision making autonomy at the functional level;
- Perception of the top management about the function's contribution to strategic objectives;
- Knowledge and skills of the functional level managers; and
- Degree of integration with the other functions.

The functional objectives and strategies may be analyzed by the following given framework;

- Do we have measurable functional objectives for Green Procurement?
- How do we pursue the green and sustainable supply chain approach? As embedded to the function or as a separate programme.
- Do we have the mechanism to learn from our earlier green supply chain management experiences?
- Do we understand the social, economic and technological dimensions of the functional plans and objectives?

Finally, at the operational green supply chain management level, it takes the form of process management approach and relies mainly on how we identify the gap between the existing green supply chain management requirements and the present capabilities in the function. Based on the level of the gap, the green management policies and strategies may be prepared. The strategies are tailored according to the present context of the organization with the broader objective to contribute to the organizations' environmental concerns and CSR objectives. The process requires continuous monitoring of the changes in the trend in terms of changing green supply management requirements. The monitoring and evaluation of strategies and their implementation are also important in order to continuously refine it in the given cyclic process. However, the analysis should never miss the major assumption of any strategic analysis that 'nothing is stable'. Depending on the changes in the environmental factors, organizational factors and other functional variables, the meaning of 'sustainable' and 'green' may be interpreted differently in the different context. In order to be realistic, it is suggested that the perception of these words and expected functional contribution to realize them must be clearly spelled out and shared with different stakeholders within and outside the organizations.

Conclusion

The fast growth of industrial development worldwide has led to the rising problem of environmental pollution. During last two decades, the different organizations and Governments have constantly expressed their concern towards this highly significant and sensitive issue. The different organizations, profit as well as non-profit, have also come forward and are now trying to adopt the practices that will not affect the environment in an adverse manner. In order to effectively implement these practices, the organizations have tried to link to their broader strategic and CSR frameworks. But the linkage alone can not guarantee the effective implementation of any plan and policy in a desired way. There needs to be a clear framework for not only planning and devising strategies, but also to ensure that how these strategies are going to be implemented effectively, and that's too with due consideration that no two organizations have the same context specific factors.

References

Andersen, M. and Larsen, T. (2009), “Corporate social responsibility in global supply chains”, Supply Chain Management: An International Journal, Volume 14 • Number 2 • 2009 • 75–86.

Baines, T., Kay, G., Adesola, S., & Higson, M. 2005, "Strategic positioning: an Integrated decision process for manufacturers", International Journal of Operations & Production Management, vol. 25, no. 2, pp. 180-201.

Carter, C.R. and Rogers, D.S. (2008), “A framework of sustainable supply chain management: moving toward new theory”, International Journal of Physical Distribution & Logistics Management, Vol. 38 No. 5, pp. 360-87.

European Commission’s Handbook (2004), ‘Buying Green – A Handbook on Environmental Public Procurement.

Hart, S. (2005), “Innovation, creative destruction and sustainability”, Research Technology Management, September-October, pp. 21-7.

Hawthorne,L. (2001),” Business Environment Report”, Student Assignment, BA (Hons) Business Enterprise, year 2, Manchester Metropolitan University Business School .

Hill, T. (1993), “Manufacturing Strategy”, McGraw-Hill.

Isaac, R.(1998), “Green Logic: Ecopreneurship,”Theory and Ethics, Sheffield: Greenleaf .

Johansen, J. & Riis, J. O. (2005), "The interactive firm - towards a new paradigm. A framework for the strategic positioning of the industrial company of the future", International Journal of Operations & Production Management, vol. 25, no. 2, pp. 202- 216.

Lee, K. and Kim, J. (2009), “Current status of CSR in the realm of supply management: the case of the Korean electronics industry”, Supply Chain Management: An International Journal, Volume 14 • Number 2 • 2009 • 138–148.

Lee, K. (2009), “Why and how to adopt green management into business organizations? The case study of Korean SMEs in manufacturing industry”’Management Decision, Vol. 47 No. 7, 2009, pp. 1101-1121

Lee, K-H. and Ball, R. (2003), “Achieving sustainable corporate competitiveness: strategic link between top management’s (green) commitment and corporate environmental strategy”, Greener Management International, Vol. 44, Winter, pp. 89-104.

McKinsey & Company (2008), “How companies think about climate change: a McKinsey global survey”, The McKinsey Quarterly, February,2008.

Nicholas, Bayiro. (2009), “Barrick Tanzania North Mara Mine probed on pollution allegation” Dow Jones Newswire (July 7th 2009).

Olson, E. G. (2008), “Creating an enterprise-level ‘green’ strategy, Journal of Business Strategy , Vol. 29, NO. 2, 2008, pp. 22-30.

Palmer, K., Oates, W. and Portney, P. (1995), “Tightening environmental standards: the benefit-cost or the no-cost paradigm?”,Journal of Economic Perspectives, Vol. 9 No. 4, pp. 119-32.

Porter, M. (1991), “America’s green strategy” , Scientific American, Vol. 264 No. 4, p. 168.

Porter, M. and van der Linde, C. (1996), “Green and competitive: ending the stalemate”, in Welford, R. and Starkey, R. (Eds), The Earthscan Reader in Business and the Environment, Earthscan, London, pp. 61-77.

Preuss L. (2009), “Addressing sustainable development through public procurement: the case of local government”,Supply Chain Management: An International, Journal Volume 14 • Number 3 • 213–223

Rizza, M.N. (2008), ‘Lean and clean with green purchasing, AMR research, (Available on AMR Research as accessed on 16.02.2010 http://www.amrresearch.com/default.asp)’

Sarkis, J. (2001), “Manufacturing’s role in corporate environmental sustainability – concerns for the new millennium”, International Journal of Operations & Production Management, Vol. 21 Nos 5/6, pp. 666-86.

SIDA (2002), Swedish International Development Cooperation Agency (SIDA’s) policy for green procurement for cooperating partners, Department for Natural Resources and the Environment, Stockholm Sweden.

Svensson, G. (2007), “Aspects of sustainable supply chain management (SSCM): conceptual framework and empirical example”, Supply Chain Management: An International Journal, Vol. 12 No. 4, pp. 262-6.

Vachon, S. and Klassen, R.D. (2006), “Extending green practices across the supply chain: The impact of upstream and downstream integration”, International Journal of Operations & Production Management, Vol. 26 No. 7, 2006, pp. 795-821

Walker, H. and Brammer, S. (2009), “Sustainable procurement in the United Kingdom public sector”,Supply Chain Management: An International Journal, Volume 14 • Number 2 • 2009 • 128–137

Websites: (As accessed on 16.02.2010)

http://www.burscrep.co.za

http://www.sida.se

http://ec.europa.eu/environment/gpp/pdf/buying_green_handbook_en.pdf

http://ec.europa.eu/environment/gpp/index_en.htm

http://www.meti.go.jp/english/index.html

Effect of Personality Traits and Emotional Intelligence on Leadership Effectiveness

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Abstract

Present study reports the impact of personality traits and emotional intelligence on leadership effectiveness. The study was conducted on 140 IT professionals working in firms located in northern India. It was hypothesized that neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness personality traits and emotional intelligence would significantly predict leadership effectiveness among IT professionals. NEO Five Factor Inventory, Schutte's emotional Intelligence scale and GE Leadership Effectiveness Survey were used to assess personality traits and leadership effectiveness among IT professionals. The findings revealed that openness to experience emerged as best predictor of leadership effectiveness followed by conscientiousness, emotional intelligence, agreeableness, and extraversion. The findings suggest that personality traits and emotional intelligence are significant predictors of leadership effectiveness. However, different traits play differential role in predicting the leadership effectiveness.

Keywords Personality traits, Emotional intelligence, Leadership effectiveness

Introduction

There are certain basic qualities or characteristics that most people associate with leadership. Some of these include self-reliant, independent, assertive, risk taker, dominant, ambitious, and self-sufficient. Most people would agree that people who posses these attributes are often labeled as "leaders". Effective leadership can be categorized in the following way. An effective leader is someone who motivates a person or a group to accomplish more than they would have otherwise accomplished without that leader's involvement. We can liken this to the sporting arena where a team is comprised of individual players; each with certain skills, but the team is honed into a finely tuned instrument by virtue of the coach orchestrating them into a cohesive unit. In this manner, and only with the proper motivation and care, will this group of individuals get into a team and accomplish more together than they ever could on their own merits.

The great Victorian era historian Thomas Carlyle commented that "the history of the world was the biography of great men" (Carlyle, 1907, p. 18). This "great man" hypothesis—that history is shaped by the forces of extraordinary leadership—gave rise to the trait theory of leadership. Like the great man theory, trait theory assumed that leadership depended on the personal qualities of the leader, but unlike the great man theory, it did not necessarily assume that leadership resided solely within the grasp of a few heroic men. Terman's (1904) study is perhaps the earliest on trait theory in applied psychology; other discussions of the trait approach appeared in applied psychology in the 1920s (e.g., Bowden, 1926; Kohs & Irle, 1920). Cowley (1931) summarized well the view of trait theorists in commenting that "the approach to the study of leadership has usually been and perhaps must always be through the study of traits" (p. 144).

Five-Factor model of personality

Consensus is emerging that a five-factor model of personality (often termed the Big Five) can be used to describe the most salient aspects of personality (Goldberg, 1990). The first researchers to

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replicate the five-factor structure were Norman (1963) , Tupes & Christal (1961), who are generally credited with founding the five-factor model. The five-factor structure has been recaptured through analyses of trait adjectives in various languages, factor analytic studies of existing personality inventories, and decisions regarding the dimensionality of existing measures made by expert judges (McCrae & John, 1992). The cross-cultural generalize ability of the five-factor structure has been established through research in many countries (McCrae & Costa, 1997). Evidence indicates that the Big Five are heritable and stable over time (Costa & McCrae, 1988; Digman, 1989).

The dimensions comprising the five-factor model are Neuroticism, Extraversion, and Openness to Experience, Agreeableness, and Conscientiousness. Neuroticism represents the tendency to exhibit poor emotional adjustment and experience negative affects, such as anxiety, insecurity, and hostility. Extraversion represents the tendency to be sociable, assertive, active, and to experience positive affects, such as energy and zeal. Openness to Experience is the disposition to be imaginative, nonconforming, unconventional, and autonomous. Agreeableness is the tendency to be trusting, compliant, caring, and gentle. Conscientiousness is comprised of two related facets: achievement and dependability.

The Big Five traits have been found to be relevant to many aspects of life, such as subjective well-being (e.g., DeNeve & Cooper, 1998) and even longevity (Friedman et al., 1995). One of the most popular applications of the five-factor model has been to the area of job performance, in which eight meta-analyses have been conducted. The overall conclusion from these studies is that the validity of personality as a predictor of job performance is quite low. However, at the time these studies were conducted, no well-accepted taxonomy existed for classifying personality traits. Consequently, it was not possible to determine whether there were consistent, meaningful relationships between particular personality constructs and performance criteria in different occupations. One could easily substitute “leadership” for “job performance” in the above quotation. Thus, just as the five-factor model has provided a valuable taxonomy for the study of job performance, so it might for the study of leadership.

Relationship of big five traits to leadership

Below, we consider possible linkages between personality and leadership. We organize this discussion according to each of the Big Five traits. We then consider overall relationships between the Big Five traits and leadership, the issue of relationship with lower order personality constructs to leadership.

Neuroticism

Lord et al.’s (1986) meta-analysis revealed a corrected correlation of .24 between measures of adjustment and leadership perceptions on the basis of a relatively small number of studies cumulated in their analysis. This estimate, however, could not be distinguished from zero. Bass (1990), in his review, indicated that almost all studies on the relationship of self-confidence—indicating low Neuroticism—to leadership “were uniform in the positive direction of their findings” (p. 69). Hill and Ritchie (1977) suggested that self-esteem—another indicator of low Neuroticism (Eysenck, 1990)—is predictive of leadership: “It appears that there is convincing evidence for the inclusion of self-esteem as an important trait of both superior and subordinate in analyzing leadership effectiveness” (Hill & Ritchie, 1977, p. 499). Evidence also indicates that neurotic individuals are less likely to be perceived as leaders (R. Hogan et al., 1994). In light of this evidence and these arguments, we would expect that Neuroticism is negatively related to leader emergence and leadership effectiveness.

Extraversion

In Bass's (1990) review, results linking Extraversion to leadership were inconsistent. In early studies (those completed between 1904 and 1947), Extraversion was positively related to leadership in five studies and negatively related in three, and there was no relation in four. Other reviews, however, suggest that extraverts should be more likely to emerge as leaders in groups. Extraversion is strongly related to social leadership (Costa & McCrae, 1988) and, according to Watson and Clark (1997), to leader emergence in groups. R. Hogan et al. (1994) noted that Extraversion is related to being perceived as leader like. Extraverts tend to be energetic, lively people. Kirkpatrick and Locke (1991) commented, "Leaders are more likely than non leaders to have a high level of energy and stamina and to be generally active, lively, and often restless" (p. 50). Adjectives used to describe individuals who emerged as leaders in leaderless group discussions included active, assertive, energetic, and not silent or withdrawn (Gough, 1988). These are the characteristics of extraverts. Indeed, Gough (1990) found that both of the major facets of Extraversion—dominance and sociability—were related to self and peer ratings of leadership. Considering this evidence, Extraversion should be positively related to both leader emergence and leadership effectiveness, although somewhat more strongly to leader emergence.

Openness

Bass (1990) listed the traits that were the best correlates of leadership, originality—a clear hallmark of Openness—topped the list. Openness correlates with divergent thinking (McCrae, 1987) and is strongly related to both personality-based and behavioral measures of creativity (Feist, 1998; McCrae & Costa, 1997). Creativity appears to be an important skill of effective leaders. Creativity was one of the skills contained in Yukl's (1998) summary of the skills of leaders, which was based on Stogdill's (1974) earlier review. Research indicates that creativity is linked to effective leadership (Sosik, Kahai, & Avolio, 1998), suggesting that open individuals are more likely to emerge as leaders and be effective leaders.

Agreeableness

Conceptually, the link between Agreeableness and leadership is ambiguous. On the one hand, cooperativeness tends to be related to leadership (Bass, 1990), and Zaccaro et al. (1991) found that interpersonal sensitivity was related to leadership. That altruism, tact, and sensitivity are hallmarks of an agreeable personality would suggest that leaders should be more agreeable. On the other hand, agreeable individuals are likely to be modest (Goldberg, 1990), and leaders tend not to be excessively modest (Bass, 1990, p. 70). Furthermore, although it often is considered to be part of Extraversion (Watson & Clark, 1997), many scholars consider affiliation to be an indicator of Agreeableness (Piedmont, McCrae, & Costa, 1991). Need for affiliation appears to be negatively related to leadership (Yukl, 1998). These factors suggest that Agreeableness would be negatively related to leadership. In light of these conflicting justifications, the possible relationship between Agreeableness and leadership is ambiguous.

Conscientiousness

Bass (1990) commented, "Task competence results in attempts to lead that are more likely to result in success for the leader, effectiveness for the group, and reinforcement of the tendencies" (p. 109). We know that Conscientiousness is related to overall job performance (Barrick & Mount, 1991), and this suggests that Conscientiousness will be related to leader effectiveness. Furthermore, initiative and persistence are related to leadership. Kirkpatrick and Locke (1991) noted, "Leaders must be tirelessly persistent in their activities and follow through with their programs" (p. 51). Because conscientious individuals have more tenacity and persistence (Goldberg, 1990), it is expected that conscientious individuals will be more effective leaders.

Linking emotional intelligence to leadership effectiveness

Prior research has explored the concept of emotional intelligence, which is the ability both to know one's own emotions and to read others' emotions as well (Davies, Stankov, & Roberts, 1998; Zadel, 2008). Work by Goleman (1995; 1998) has assessed the link between emotional intelligence and leadership ability. Goleman researched and analyzed 188 companies (primarily large and global organizations), to determine the personal capabilities among leaders which appeared to drive outstanding performance within these organizations, and to what degree they did so. Personal capabilities were clustered in three categories: technical skills, such as accounting and engineering; cognitive skills like analytical reasoning; and competencies demonstrating emotional intelligence (EI), such as the ability to work with others and effectiveness in leading change

According to Goleman's research, emotional intelligence proved to be twice as important as technical skills and cognitive abilities for leadership jobs at all levels of an organization. Intellect remained a driver of outstanding performance, and cognitive skills such as big picture thinking and long-term vision were also important, but mainly as "threshold capabilities": entry level requirements for executive positions. Goleman (1998) listed five components of emotional intelligence that an effective leader exhibits: self-awareness, self-regulation, motivation, empathy, and social skill. Self-awareness means having a deep understanding of one's emotions, strengths, weaknesses, needs, and drives, as well as their effect on others. Characteristics of a self-aware individual include self-confidence, realistic self-assessment, and a self-depreciating sense of humor. Self-regulation is the ability to control or redirect disruptive impulses and moods and the propensity to suspend judgment--to think before acting. Characteristics include trustworthiness, integrity, and comfort with ambiguity, and openness to change. Motivation, the third component, is defined as a passion to work for reasons that go beyond money or status, with a propensity to pursue goals with energy and persistence. Characteristics of a motivated emotionally intelligent leader are strong desire to achieve, optimism--even in the face of failure--and organizational commitment. Empathy, the fourth component, is the ability to understand the emotional makeup of other people, with skill in treating people according to their emotional reactions. Characteristics include service to clients and customers, cross-cultural sensitivity, and expertise in building and retaining talent. Social skill, the final component of EI, is proficiency in managing relationships and building networks, with an ability to find common ground and build rapport. Characteristics include effectiveness in leading change, persuasiveness, and expertise in building and leading teams.

Research on emotions in the workplace suggests that emotions may drive many productivity gains, innovations, and accomplishments of individuals, teams and organisations (Cooper, 1997). Individuals with high Emotional Intelligence are said to be more effective at leading and managing others and fostering positive attitudes amongst employees. Furthermore, individuals high on EI are also said to be good organisational citizens and better overall performers (Sosik and Megerian, 1999; George, 2000; Palmer, Walls, Burgess, & Stough, 2001). Recent Emotional Intelligence research (see Caruso, Mayer, & Salovey, 2002; Sosik & Megerian, 1999) suggests that Emotional Intelligence plays an important role in leadership effectiveness. George (2000), states that EI enhances a leader's ability to recognise and solve issues facing them and their organisation. Specifically, he proposes that leaders high on Emotional Intelligence are able to accurately recognize emotions and are more able to determine whether emotions are linked to work opportunities or obstacles. Therefore, they can effectively utilize their emotions in their decision-making process (George, 2000). Furthermore, Caruso et al. (2002) argue that leaders who are able to use emotions to guide decision-making are able to motivate their employees, and encourage open-minded idea generation, decision-making and planning, because they can consider multiple points of view. Additionally, a leader high in Emotional Intelligence, who is able to accurately appraise how their employees feel, can use this information to influence their employees' emotions to ensure that they are receptive and supportive of the organisation's goals (Caruso et al., 2002; George, 2000).

In Bradford's analysis (1984) successful leaders not only has ability to motivate, control, and coordinate subordinates but also brings them into the decision process. The leader's effectiveness is associated with drive, motivation, honesty/integrity, self confidence, intelligence, and emotional intelligence, all of which can be developed through experience, training, and analysis. Such training helps managers understand themselves and others, understand the emotional traits of others and the implication of these traits for work performance, build EQ in themselves and others, and effectively relate to a wide variety of people. In "Executive EQ," Cooper and Sawaf (1997) also demonstrate the difference emotional intelligence can make in the success of a career or organization. A primary source of motivation, information, feedback, personal power, innovation, and influence, EI helps in decision making , strategic and technical breakthroughs, open honest communication, trusting relationships and teamwork, customer loyalty, and. creativity and innovation. By helping the manager to acknowledge and understand the feelings of themselves and others, to appropriately respond to the emotions, and to effectively apply them, EI contributes greatly to success in work and everyday life. The high level of self-awareness associated with EQ enables leaders to display self-confidence and earn respect and trust from followers. Through self regulation they can objectively consider the needs of others despite their own immediate feelings. Leaders, who are able to maintain balance, keep themselves motivated, optimistic, and hopeful are positive role-models to help motivate and inspire others. The ability to empathize with others and to manage interpersonal relationships also contributes to motivate and inspire their subordinates. EQ enables leaders to recognize and respect followers with feelings, opinions, and ideas, to treat them as persons with unique needs, and abilities. Empathic leaders use their social skills to help followers to grow and develop, to enhance their self images and senses of self-worth, and help their followers to meet their needs and achieve their goals.

Exactly how, and to what extant personality traits and EI accounts for effective leadership is currently unknown. Despite much interest in relating personality traits and EI to leadership effectiveness there is little research published that has explicitly examined the relationship. Knowledge regarding exactly how personality traits and EI relates to leadership may lead to significant advances in leadership training and development programs, and the ability to select potentially effective leaders. The aim of the present study was to explicitly examine the relationship between personality traits, EI and leadership effectiveness.

Objective

To determine the best predictors of leadership effectiveness from different personality traits and emotional intelligence.

Hypothesis

Neuroticism, Extraversion, Openness to Experience, Agreeableness, Conscientiousness and emotional intelligence will be predictors of leadership effectiveness.

Instruments

- NEO five factor inventory (Costa and (McCrae1992), a 60 item version of the NEO PI-R was used in the present study. It is scored for five dimensions (Neuroticism, Extraversion, and Openness to Experience, Agreeableness, and Conscientiousness).

- Schutte's Self Report Emotional Intelligence Test (SSEIT, 1998), a 33 item self-report measure of emotional intelligence was used in the present study.
- GE Leadership Effectiveness Survey Tool, a 30 item scale for measuring leadership effectiveness was used in the present study

Sample

The total sample of the study included 140 professionals from IT firms of northern India. The sample was selected on the basis of purposive sampling technique.

Result and Discussion

Table 1: Summary of regression analysis between personality traits, emotional intelligence and leadership effectiveness

Model	R	R Square	B	Beta	T	Sig.
Openness	0.463	0.214	0.926	0.392	5.965	0.000
Conscientiousness	0.612	0.374	0.637	0.286	4.002	0.000
Emotional Intelligence	0.642	0.413	0.433	0.193	2.666	0.009
Agreeableness	0.666	0.444	0.429	0.158	2.463	0.015
Extraversion	0.680	0.463	0.394	0.149	2.181	0.031

Dependent variable: Leadership effectiveness

Table 1 depicts that when independent variables entered in the regression model with leadership effectiveness as a criterion, openness itself contributed 21.4% of the variance. A significant increase of 16.00% was obtained in R square when it was entered along with conscientiousness in the regression model accounting for 37.40% of the variance. A significant increase of 3.9 % was found in the R square when these variables were entered along with emotional intelligence in regression model accounting for 41.30% of the variance. A significant increase of 3.1 % was found in the R square when these variables were entered along with agreeableness in regression model accounting for 44.4 % of the variance. A significant increase of 1.9 % was found in the R square when these variables were entered along with extraversion in regression model accounting for 46.3 % of the variance.

These results suggest that Extraversion is the most important trait of leaders and effective leadership. Of the Big Five traits, Openness to Experience is the most controversial and least understood. One of the problems is that, with a few exceptions, such as creativity and sociopolitical attitudes (cf. McCrae, 1996), Openness has not been related to many applied criteria. Openness to Experience does appear to be related to leadership: In business settings, it—along with Extraversion— was the strongest dispositional correlate of leadership. When Bass (1990), listed the traits that were the best correlates of leadership, originality—a clear hallmark of Openness—topped the list. Research indicates that creativity is linked to effective leadership (Sosik, Kahai, & Avolio, 1998), suggesting that open individuals are more likely to emerge as leaders and be effective leaders. Nature of job in IT industries requires originality, creativity, imagination and insightfulness. People with these characteristics are more likely to be effective leader.

Result suggests that Conscientiousness is a strong predictor of leadership effectiveness. We know that Conscientiousness is related to overall job performance (Barrick & Mount, 1991), and this suggests that Conscientiousness will be related to leader effectiveness. Furthermore, initiative and persistence are related to leadership. As Kirkpatrick and Locke (1991) noted, "leaders must be tirelessly persistent in their activities and follow through with their programs". IT sector employee's Competent, organized and achievement striving attitude contributes for effective leadership.

By helping the manager to acknowledge and understand the feelings of themselves and others, to appropriately respond to the emotions, and to effectively apply them, EI contributes greatly to success in work and everyday life. The high level of self-awareness associated with EQ enables leaders to display self-confidence and earn respect and trust from followers. Through self regulation they can objectively consider the needs of others despite their own immediate feelings. Leaders, who are able to maintain balance, keep themselves motivated, optimistic, and hopeful are positive role-models to help motivate and inspire others. The ability to empathize with others and to manage interpersonal relationships also contributes to motivate and inspire their subordinates. EQ enables leaders to recognize and respect followers with feelings, opinions, and ideas, to treat them as persons with unique needs, and abilities. Empathic leaders use their social skills to help followers to grow and develop, to enhance their self images and senses of self-worth, and help their followers to meet their needs and achieve their goals.

Conceptually, the link between Agreeableness and leadership is ambiguous. On the one hand, cooperativeness tends to be related to leadership (Bass, 1990), and Zaccaro et al. (1991) found that interpersonal sensitivity was related to leadership. That altruism, tact, and sensitivity are hallmarks of an agreeable personality would suggest that leaders should be more agreeable. On the other hand, agreeable individuals are likely to be modest (Goldberg, 1990), and leaders tend not to be excessively modest (Bass, 1990, p. 70). Agreeableness may be weakly correlated with leadership because it is both a hindrance (agreeable individuals tend to be passive and compliant) and a help (agreeable individuals are likeable and empathetic) to leaders.

These results suggest that Extraversion is an important trait of leaders and effective leadership. As expected, results also confirmed that Extraversion was more strongly related leader effectiveness. In past studies Extraversion was strongly related to social leadership (Costa & McCrae, 1988) and, according to Watson and Clark (1997), to leader emergence in groups. R. Hogan et al. (1994) noted that Extraversion is related to being perceived as leader like. Extraverts tend to be energetic, lively people. Kirkpatrick and Locke (1991) commented, "Leaders are more likely than non leaders to have a high level of energy and stamina and to be generally active, lively, and often restless" (p. 50). Adjectives used to describe individuals who emerged as leaders in leaderless group discussions included active, assertive, energetic, and not silent or withdrawn (Gough, 1988).

Conclusion

The results of this study show that, overall, Extraversion, Conscientiousness, agreeableness, Openness and emotional intelligence are useful in relation to leadership. The findings revealed that openness to experience emerged as best predictor of leadership effectiveness followed by conscientiousness, emotional intelligence, agreeableness, and extraversion. Overall, the findings suggest that personality traits and emotional intelligence are significant predictors of leadership effectiveness. The findings of the current study provide preliminary evidence for the relationship between personality traits, EI and leadership effectiveness. Understanding precisely how personality traits and EI relates to leadership effectiveness may have several implications for human resources practitioners and leadership search firms, particularly in the area of selection and leadership development. Specifically, aspects of personality and EI identified as underlying attributes of effective leaders may provide additional selection criteria for identifying potentially effective leaders. Collectively, the results provide support for the relevance of the five-factor model and emotional intelligence in leadership research. Neuroticism has failed to predict leadership effectiveness in this study.

References

Barrick, M. R., & Mount, M. K. (1991), "The Big Five personality dimensions and job performance: A meta-analysis", Personnel Psychology, 44, 1–26.

Bass, B. M. (1990), "Bass and Stogdill's handbook of leadership", New York: Free Press.

Bowden, A. O. (1926), " A study of the personality of student leaders in the United States", Journal of Abnormal and Social Psychology, 21, 149– 160.

Bradford, D & Cohen, A .(1984), "Managing for excellence: the guide to developing high performance organizations",John Wiley, New York.

Carlyle, T. (1907), " On heroes, hero-worship, and the heroic in history", Boston: Houghton Mifflin.

Caruso, D. R., Mayer, J. D. and Salovey, P. (2002), " Emotional intelligence and emotional leadership", In Riggio, and Murphy, S. (Eds.).

Cooper, R. & Sawaf, A. (1997), "Executive EQ: Emotional Intelligence in Business" ,London,Orion.

Cooper, R. K. (1997), " Applying emotional intelligence in the workplace", Training and Development, 51, 31-38.

Costa, P.T. Jr; and McCrae, R.R. (1992), "Revised NEO Personality Inventory (NEO-PI-R) and NEO five factor (NEO-FFI),"Inventory Professional Manual, Odessa, FL:PAR.

Cowley, W. H. (1931), "Three distinctions in the study of leaders",Journal of Abnormal and Social Psychology, 26, 304–313.

Davies, Michaela., Lazar. Stankov, and Richard, D. Roberts. (1998), "Emotional Intelligence: In search of an elusive construct," Journal of Personality and Social Psychology, Volume 75:4, 989-1015.

DeNeve, K. M., & Cooper, H. (1998), "The happy personality: A metaanalysis of 137 personality traits and subjective well-being", Psychological Bulletin, 124, 197–229.

Digman, J. M. (1989), " Five robust trait dimensions: Development, stability, and utility", Journal of Personality, 57, 195–214.

Eysenck, H. J. (1990), " Biological dimensions of personality", In E. Pervin (Ed.), Handbook of personality (pp. 244–276). New York: Guilford Press.

Feist, G. J. (1998), "A meta-analysis of personality in scientific and artistic creativity", Personality and Social Psychology Bulletin, 2, 290–309.

Friedman, H. S., Tucker, J. S., Schwartz, J. E., Martin, L. R., Tomlinson-Keasey, C., Wingard, D. L., & Criqui, M. H. (1995), "Childhood conscientiousness and longevity: Health behaviors and cause of death", Journal of Personality and Social Psychology, 68, 696–703.

George, J. (2000), " Emotions and leadership: The role of emotional intelligence", Human Relations, 2000, 53, 1027-1050.

Goleman, Daniel. (1995), " Emotional intelligence", New York: Bantam Books.

Goleman, Daniel (1998). Working with emotional intelligence", New York:Bantam Books.

Gough, H. G. (1988), " Manual for the California Psychological Inventory", Palo Alto, CA: Consulting Psychologists Press.

Gough, H. G. (1990), " Testing for leadership with the California Psychological Inventory", In K. E. Clark & M. B. Clark (Eds.), Measures of leadership (pp. 355–379). West Orange, NJ: Leadership Library of America.

Hill, N. C., & Ritchie, J. B. (1977), " The effect of self-esteem on leadership and achievement: A paradigm and a review",Group and Organization Studies, 2, 491–503.

Hogan, R., Curphy, G. J., & Hogan, J. (1994), " What we know about leadership: Effectiveness and personality", American Psychologist, 49, 493–504.

Kirkpatrick, S. A., & Locke, E. A. (1991), " Leadership: Do traits matter? ", Academy of Management Executive, 5, 48–60.

Kohs, S. C., & Irle, K. W. (1920), " Prophesying army promotion", Journal of Applied Psychology, 4, 73–87.

Lord, R. G., De Vader, C. L., & Alliger, G. M. (1986), " A meta-analysis of the relation between personality traits and leadership perceptions: An application of validity generalization procedures", Journal of Applied Psychology, 71, 402–410.

McCrae, R. R. (1987), " Creativity, divergent thinking, and openness to experience", Journal of Personality and Social Psychology, 52, 1258– 1265.

McCrae, R. R., & Costa, P. T., Jr. (1997) , "Personality trait structure as a human universal",American Psychologist, 52, 509–516.

McCrae, R. R., & John, O. P. (1992), " An introduction to the five-factor model and its applications", Journal of Personality, 2, 175–215.

Norman, W. T. (1963), " Toward an adequate taxonomy of personality attributes: Replicated factor structure in peer nomination personality ratings", Journal of Abnormal Psychology, 66, 574–583.

Palmer, B., Walls, M., Burgess, Z., & Stough, C. (2001), " Emotional intelligence and effective leadership",Leadership and Organisation Development, 22, 5-10.

Piedmont, R. L., McCrae, R. R., & Costa, P. T., Jr. (1991), " Adjective check list scales and the five-factor model", Journal of Personality and Social Psychology, 60, 630–637.

Schutte, N.S., Malouff, J.M., Hall, L.E., Haggerty, D.J., Cooper, J.T., Golden, C.J., et al. (1998), " Development and validation of a measure of emotional intelligence",Personality and Individual Differences, 25, 167-177.

Sosik, J. J., and Megerian, L. E. (1999), "Understanding leader emotional intelligence and performance: The role of self-other agreement on transformational leadership perceptions", Group and Organisation Management, 24, 367-90.

Sosik, J. J., Kahai, S. S., & Avolio, B. J. (1998), " Transformational leadership and dimensions of creativity: Motivating idea generation in computer-mediated groups", Creativity Research Journal, 11, 111–121.

Stogdill, R. M. (1974), " Handbook of leadership", New York: Free Press.

Tupes, E. C., & Christal, R. E. (1961), " Recurrent personality factors based on trait ratings (Technical Report ASD-TR-61-97)", Lackland Air Force Base, TX: U.S. Air Force.

Watson, D., & Clark, L. A. (1997)\, " Extraversion and its positive emotional core", In R. Hogan, J. A. Johnson, & S. R. Briggs (Eds.), Handbook of personality psychology (pp. 767–793). San Diego, CA: Academic Press.

Yukl, G. (1998), " Leadership in organizations", Upper Saddle River, NJ: Prentice Hall.

Zaccaro, S. J., Foti, R. J., & Kenny, D. A. (1991), " Self-monitoring and trait-based variance in leadership: An investigation of leader flexibility across multiple group situations", Journal of Applied Psychology, 76, 308–3,15.

Zadel, Aleksander. (2008), "Do Emotionally Intelligent Leaders Have More Satisfied Employees?" International Journal of Management and Enterprise Development, Volume 5:5, 590-608.

An Empirical Study of Consumer Behaviour in Mobile Phone Market in Bhutan

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Abstract

The mobile phone market is one of the dynamic markets that have been growing by leaps and bounds in the last decade. Although the manufacturers conduct a lot of market studies, their outcomes are not made available to the public. Therefore, consumer behaviour of mobile phone is an open area for study. The paper attempts to identify the factors that influence the purchase of mobile phones by the youth in Bhutan. It uses factor analysis as a tool to identify the factors that influence the consumer behaviour. This paper surveyed 254 Bhutanese consumers and looked at their motives to purchase new mobile phones. The outcome of the study identifies five accountable factors while making the purchase of a mobile phone by the youth community.

Keywords Consumer behaviour, Mobile phones, Purchase, Bhutan

Introduction

This paper is an attempt to study the factors that affect consumer behaviour as well as to gather information about the mobile phone users. Although it is apparent that there are large players in the telecommunication sector who constantly conduct market research, the results obtained from such study are kept en camera and not for public viewing. Therefore, consumer behaviour in the mobile industry is a less unexamined area for the academician.

On this basis, this paper first describes the trends in the information and telecommunication (ICT) sector in order to highlight the issues relating to consumer behaviour. This is followed by a review of recent studies concerning factors that seem to affect the choice of a mobile phone. Finally, the paper reports the survey findings and discusses the managerial and theoretical implications.

Review of literature

These days are the most interesting times to study consumer behaviour in the mobile industry as changes are happening around. There has been changes and challenges needed for new mobile (e.g., Bradner, 2002; Wagstaff, 2002), currently there is the trend of shifting from second generation mobile phones to third generation in the mobile industry. It means that mobile phones will not be an instrument used for speaking only but a tool that allows a variety of new services such as high bandwidth internet access, multimedia messaging service (MMS) and video conferencing. We are currently witnessing a shift from modem connection to wireless internet connection by using w-lan and GPRS network. The real advantage of 3G mobile services relates to faster broadband speed internet connection.

In order to identify the amount of self-knowledge while purchasing a mobile phone, 94 consumers were surveyed by Riquelme (2001). The study emphasised on six attributes viz., phone features, connection fee, access cost, mobile to mobile phone call charge rates, other call rates, and free calls. The study showed that with prior experience of a product their choices can be relatively predicted but overestimates the features of the phone, call rates and free rates and underestimates the importance of monthly fee, mobile to mobile call rate and connection fees.

The factors affecting the brand decision in the mobile phone industry in Asia was examined by

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Liu (2002). It was concluded that the choice of cellular phone is characterised by two distinct attitudes to brands: attitude towards the mobile phone brand on one hand and attitude towards the network on the other. While price and connectivity were found to be the main factors on choice of networks, mobile phone brands were affected by new features such as memory capacity and SMS option.

These and other issues are discussed and analysed next with data on Bhutanese consumers. Bhutan is a mountainous country where laying and maintaining land lines is a very difficult task. The adoption of mobile phones has been a boon as it has enhanced the people's access to information and has had far reaching impact on rural development and good governance. The then only mobile service B-mobile was established in November 2003 with only 2,225 subscribers. Now, private parties like Tashi cell has entered the market and as on 2010, there are 2,51,000 subscribers.

Description of the survey data and methods

The data was collected by means of a questionnaire from selected educational institutions in Bhutan in October 2009. There were three target groups in the survey. The first group consisted of secondary school students aged around 18. The second group comprises of college students mainly aged 18 to 25. The third group consisted of faculty members from school and colleges. Their age varied from 22 to 50 although most were between 28 to 45 years of age. The data consisted 254 questionnaire, of which 176 were from male respondents and 78 from female respondents. Almost all students possess a mobile phone and they predominantly use pre-paid mobile services. The respondents were selected on the basis of non-probabilistic and convenience-sampling technique. Convenience sampling has been used because the consumers are at the right place and at the right time. To find the factors influencing the purchase of a mobile phone, 14 statements were used and the respondents were asked to rate on a five point rating Likert scale. Since consumer behaviour concerning the choice of a mobile phone is not known in theory i.e, no commonly accepted knowledge of the factors influencing consumers' decision making exist, thus the results obtained have some limitations and should be treated provisionally.

Results

Various studies on consumer behaviour have shown demography to be the main factor which influences the adoption of technology based product or services (Agarwal and Prasad, 1999). Demographic profiling shows that 69.29 % of the sample is male while the remaining 30.71% are female. In order to identify the factors responsible for the choice of mobile phones from the 254 respondents, statistical tools were used. The correlation matrices extracted are shown in Table 1. Determinant of the correlation matrix was also obtained in order to test the multicollinearity or singularity. The determinant of the matrix is found to be 0.011 which is greater than 0.00001 and thus proves that multicollinearity is not a problem. Kaiser-Meyer-Oklin (KMO) and Barlett's test of sphrecity produces the Kaiser-Meyer-Oklin measure of sample adequacy. The value of KMO is found to be 0.676 which is greater than 0.5 and found that the sample is adequate for testing. The extraction method used is principal component analysis. The inter-operability of factors can be improved through rotation of the matrices. The rotation of the matrix maximizes the loadings of each variable on one of the extracted factors while minimising the loadings on all other factors. Orthogonal rotation varimax is used by considering the factors to be independent. The latent roots with more than eigenvalue 1 (one) are to be considered significant and the rest are disregarded.

The second table lists the eigen values associated with each factor before extraction, after extraction and as well as after rotation. Before extraction, it has identified 14 linear components within the data set. The eigen value associated with each factor represents the variance explained by that linear component and in terms of percentage of variance explained is also displayed (e.g., factor 1 explains 24.307% of total variance). Then, it extracts all factors with eigen values greater than 1, which leaves us with 5 factors. The eigenvalues are displayed in the columns labelled Extraction Sum of Squared Loadings (without those factors whose value is less than 1). In the third part of the table Rotation Sums of Squared Loadings, the eigenvalues after rotation are displayed. Rotation has the effect of optimising the factor structure and one consequence for these data is that the relative importance of these five factors is equalized. Before rotation, factor 1 and 2 accounted for considerably more variance than after rotation (3.403 and 2.547 before rotation and 2.555 and 2.326 after rotation). The other three factors increased their eigenvalues after rotation (1.543, 1.175 and 1.023 before rotation increased to 1.860, 1.493 and 1.456 after rotation respectively).

Subsequently Table 3 explains the table of communalities before and after extraction. Principal component analysis works on the initial assumption that all variations are common; therefore before extraction, the communalities are all 1. The extraction row reflects the common variance in the data structure meaning 61.8% of the variance associated with statement 1 is common or shared variance. The amount of variance, in each variable that can be explained by the retained factors is represented by the communalities after the extraction.

Table 1: Correlation matrix

		S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	
Correlation	S1	1.000	.350	.547	-.018	.278	.390	.235	.455	.002	-.016	-.036	.207	.203	-.011
	S2	.350	1.000	.256	.098	.407	.179	.048	.530	.181	.139	.016	-.095	-.160	.152
	S3	.547	.256	1.000	-.197	.021	.526	.440	.368	-.104	-.155	-.144	.371	.408	-.057
	S4	-.018	.098	-.197	1.000	.050	-.264	-.218	.011	.235	.377	.162	.084	-.389	.175
	S5	.278	.407	.021	.050	1.000	.013	.033	.332	.405	-.115	.057	-.164	.000	.276
	S6	.390	.179	.526	-.264	.013	1.000	.411	.196	-.029	-.063	-.260	.411	.411	-.120
	S7	.235	.048	.440	-.218	.033	.411	1.000	.153	.000	-.133	-.344	.285	.514	-.137
	S8	.455	.530	.368	.011	.332	.196	.153	1.000	.193	.202	.144	.084	-.010	.040
	S9	.002	.181	-.104	.235	.405	-.029	.000	.193	1.000	-.007	.180	.031	-.105	.181
	S10	-.016	.139	-.155	.377	-.115	-.063	-.133	.202	-.007	1.000	.124	-.056	-.423	-.090
	S11	-.036	.016	-.144	.162	.057	-.260	-.344	.144	.180	.124	1.000	-.376	-.214	.386
	S12	.207	-.095	.371	.084	-.164	.411	.285	.084	.031	-.056	-.376	1.000	.301	-.149
	S13	.203	-.160	.408	-.389	.000	.411	.514	-.010	-.105	-.423	-.214	.301	1.000	-.072
	S14	-.011	.152	-.057	.175	.276	-.120	-.137	.040	.181	-.090	.386	-.149	-.072	1.000
Sig. (1-tailed)	S1		.000	.000	.421	.001	.000	.004	.000	.493	.430	.346	.010	.011	.452
	S2	.000		.002	.137	.000	.022	.296	.000	.021	.060	.429	.145	.037	.044
	S3	.000	.002		.013	.406	.000	.000	.000	.122	.041	.053	.000	.000	.261
	S4	.421	.137	.013		.289	.001	.007	.452	.004	.000	.035	.175	.000	.025
	S5	.001	.000	.406	.289		.444	.354	.000	.000	.100	.262	.033	.496	.001
	S6	.000	.022	.000	.001	.444		.000	.014	.372	.239	.002	.000	.000	.090
	S7	.004	.296	.000	.007	.354	.000		.043	.500	.068	.000	.001	.000	.063
	S8	.000	.000	.000	.452	.000	.014	.043		.015	.012	.053	.173	.458	.329
	S9	.493	.021	.122	.004	.000	.372	.500	.015		.471	.022	.367	.120	.021
	S10	.430	.060	.041	.000	.100	.239	.068	.012	.471		.083	.268	.000	.156
	S11	.346	.429	.053	.035	.262	.002	.000	.053	.022	.083		.000	.008	.000
	S12	.010	.145	.000	.175	.033	.000	.001	.173	.367	.268	.000		.000	.048
	S13	.011	.037	.000	.000	.496	.000	.000	.458	.120	.000	.008	.000		.209
	S14	.452	.044	.261	.025	.001	.090	.063	.329	.021	.156	.000	.048	.209	

Determinant = .011 .

Table 2: Total variance explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumula-tive %	Total	% of Variance	Cumulative %
1	3.403	24.307	24.307	3.403	24.307	24.307	2.555	18.251	18.251
2	2.547	18.190	42.497	2.547	18.190	42.497	2.326	16.613	34.864
3	1.543	11.022	53.519	1.543	11.022	53.519	1.860	13.286	48.149
4	1.175	8.394	61.913	1.175	8.394	61.913	1.493	10.664	58.814
5	1.023	7.304	69.217	1.023	7.304	69.217	1.456	10.403	69.217
6	.761	5.435	74.652						
7	.684	4.883	79.535						
8	.623	4.449	83.984						
9	.536	3.829	87.813						
10	.471	3.362	91.175						
11	.380	2.714	93.889						
12	.311	2.220	96.110						
13	.294	2.101	98.211						
14	.251	1.789	100.000						

Extraction Method: Principal Component Analysis.

Table 3: Communalities

	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14
Initial	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Extraction	0.62	0.69	0.75	0.75	0.77	0.58	0.53	0.68	0.71	0.7	0.75	0.78	0.72	0.69

Extraction Method: Principal Component Analysis.

The component matrix before rotation is displayed in Table 4. This matrix contains the loadings of each variable into each factor. By default SPSS displays all loadings, as requested to suppress loadings less than 0.45 which are represented by blank spaces. At this stage SPSS has extracted five factors from the 14 linear factors.

Table 4 :Component matrixa

	Component				
	1	2	3	4	5
S3	.785				
S6	.748				
S7	.692				
S13	.674				
S1	.591				
S12	.539				
S2		.728			
S8		.695			
S5		.648			
S10			.729		
S9		.492		.622	
S4				.477	
S11					.542
S14			-.468		.487

Extraction Method: Principal Component Analysis.
a. 5 components extracted.

The following Table 5 displays the rotated component matrix also known as the rotated factor matrix which is a matrix of factor loadings for each variable onto each factor. The matrix contains the same information as in component matrix except that it is calculated after rotation. In this table, factor loadings less than 0.45 are not displayed and the variables are also displayed in order of size of their factor loadings.

Interpretation

Table 5:Rotated component matrix[a]

Motive	Brand Choice	Attributes	Product Information	Market Accessibility	Influences
S12. I always take my own decision while choosing a mobile phone.	.819				
S3. I consider and give importance to the brand image of the mobile phone while purchasing.	.663				
S6. I like mobile phones which has the latest technology enabled.	.651				
S13. I was more influenced by the advertisement/media.	.592				
S7. I give importance to the audibility of the mobile phone.	.574				
S8. I give importance to the properties of the mobile phone.		.794			
S2. I firmly believe in the guarantee/warrantee to be provided.		.786			
S1. I always checkout the prices of mobile phone.		.653			
S4. I don't consider the external look of the mobile phone while purchasing.			.782		
S10. I do not require the demonstration/knowledge of the mobile phone.			.753		
S9. I prefer to buy the mobile phone which is readily available in the local market.				.816	
S5. I purchase mobile phone where installment/easy loan facility is provided.				.693	
S11. I purchased the mobile phone due to the influence of my friends.					.795
S14. I was recommended by the salesman/saleswomen to buy a particular mobile phone.					.777

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 11 iterations.

The final step in the analysis is to look into the content of questions that load the same factor to try to identify common themes. Brand choice and price were regarded as the most important motives affecting the decision to purchase current mobile phone model among the respondents as displayed. According to the survey close to 65 percent and over 70 percent, for brand choice and attributes respectively, felt that brand and product attributes had affected their decision making at least relatively much. Brand choice might have dominated the decision making in the sample more than it does for the whole population, as the average respondent in the target groups are youth and wants the most fancy product in the market. Influence by friends and salespersons were regarded as the least important motive.

A factor analysis (Table 5) of the 14 statements suggests that five factors were chosen in terms of eigen value of more than 1.0. The Barlett's test of sphrecity was adequately significant indicating correlation between the variables. The first factor analysis presented in this paper satisfied the above mentioned tests also. The identified factors represent 55 percent of the variances of the variables. The first factor can be called brand choice as the highest loadings relate to five variables relating to decision making, brand image, latest technology, audibility, and media. The second factor exhibits largely loadings for three variables relating to product attributes. Mobile phone properties, guarantee/warrantee schemes, and price had the highest loadings for the second factor. The third factor product information is defined by two items relating to variables look of the phone and requirement of product knowledge. The fourth factor is the market accessibility which is exhibited by the factor loadings of ready availability in local market and financing is available. The fifth factor is the influences by the peer groups and recommendations from the salespersons at the point of purchase.

Conclusion

This exploratory study was conducted to increase our current understanding of consumer behaviour. It has attempted to cast light on the unexamined area of mobile phone purchase. Mobile phones have changed the way how people have been communicating. People are just at a button away to link and talk to someone even in a developing country like Bhutan. Several studies have been undertaken to make mobile phones readily available to the consumers and it is imperative to understand what the young customers really perceive on a mobile phone. The study particularly emphasizes to increase the in-depth understanding of the young customers regarding the mobile phone market. It throws a light on the methods of factors influencing on the choice of a mobile phone by a young customer.

The main results of the study indicate that brand choice plays an important role in the choice of mobile phone. The customers seems to be aware of which brands are preferable in terms of product attributes like battery life, looks, signal reception, product features, technology etc. The other factor which needs to be looked into by the manufacturers is the price factor the consumers are aware of , the prices for the different models of phones and their capability, and they would like to utilise the warranty and guarantee schemes which are provided at the time of purchase of mobile phones. Although these warrantees and guarantees honoured in Bhutan, are studies that can be undertaken for further research. Although billboards and hoardings are not allowed in Bhutan, the analysis has shown that the customers were influenced by advertisements made primarily in print media and television, as well as by peer groups and, to some extent, by the salespersons at the point of purchase. These influencers also play an important role in the choice of purchase of mobile phones. Thus, purely from the marketing point of view, the implication of the finding is that Bhutanese youth are influenced by brand choice to a large extent and by the influences, while purchasing a mobile phone.

References

Agarwal, R, and Prasad, J.(1999), “ Are individual differences germane to the acceptance of new information technologies?”, Decision Science, 30(2), 361-391.

Bhutan Information, Communications and Media Act 2006.

Bhutan Portal http://www.bhutan.gov.bt/government/newsDetail.php?id =509%20&%20cat Retrieved on 12-5-2010.

Bradner, Scott .(2002),” Giving away their future”, Network World, Aug 26, 19 (34), 28.

Enhancing Good Governance: Promoting efficiency, transparency and accountability for Gross National Happiness – Cabinet Secretariat, 1999 http://www.raa.gov.bt/ contents/aar/aar 2002/ Back ground.pdf. Retrieved on 24-5-2008.

Executive Summary http://www.budde.com/Research/Bhutan-Telecom-Mobile-and –nternet.html. Retrieved on 12-5-2000

Hair, J.F., Anderson, R.E., Tatham, R.L., and Black, W.C. (1995), “ Multivariate data analysis with readings”, NJ: Prentice Hall.

Harmon, H. H. (1976), “ Modern factor analysis (3rd ed., revised)”, Chicago: The University of Chicago Press.

Kline, P. (1993), “ An easy guide to factor analysis”, New York: Routledge.

Kuensel Online http ://www.kuenselonline.bt Retrieved on 24-5-2008

Kuensel Online http://www.kuenselonline.com/modules.php?name=News& file=article&sid Retrieved on 12-5-2010.

Liu, C. M. (2002). The effects of Promotional Activities on brand decision in the Cellular Telephone Industry. The Journal of Product & Brand Management, 11(1), 42-51.

Report on Bhutan E-Readiness Assessment (The Division of Information Technology). GMCT Information and Communication Technologies, Thimphu, Bhutan 30 June 2003.

Riquelme, H. (2001). “Do consumers know what they want?” Journal of Consumer Marketing 18(5), 437-448.

Wagstaff, Jeremy, (2002), SMS: Keep it plain and pithy, Far Eastern Economic Review, 165 (37), 40-41.

New Course Design for Total Customer Satisfaction: Application of Quality Function Deployment (QFD) in Postgraduate Programme Restructuring at Faculty of Commerce, Mzumbe University

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Abstract

Many universities in developing countries like Tanzania are striving to improve quality of their programmes/ courses as a means of attracting students from foreign countries. Very few universities in developing countries have managed to enroll students from foreign countries. In essence students are not motivated to join universities in developing countries due to among other things; quality of the programmes/courses offered. There is inherited problem that university from lesser developing countries can not manage quality of their courses due to lack of teaching facilities and world class lecturers to teach in these universities. Application of some techniques like QFD has shown an impressive progress in the whole process of capturing the voice of customers and translating it into the actual thing in both manufacturing and services industries. Basically this paper attempts to introduce the application of QFD in designing academic programmes in lesser developed economies and the findings are presented and discussed there in.

Keywords QFD, Quality education, Higher education operations, New course development

Introduction

Quality Function Deployment (QFD) began four decades ago in Japan with the objective of efficiently deliver and thus, create value to the customers by listening to voices of customers throughout the process of product/service development (MAZUR 1996). The concept was developed by two renowned Professors; Shigeru Mizuno, Yoji Akao and Tadashi Yoshizawa in the late 1960s (Afferson 2007). The purpose was to develop quality assurance mechanisms that would fit and match customer satisfaction into the design of the product before it was manufactured. They organized them into a detailed and comprehensive system to assure the voice of customer is heard through combination of quality and customer satisfaction in the new product and services. (Mizuno, Shigeru and Akao 1994, Akao 1990, Yoshizawa et al 1989).

Since 1983 the concept had been acquired and implemented by large firms in both America and Europe. They discovered that the QFD concept was powerful tool and adapted the approach to fit their environment. Large American firms for instance used cross-functional teams and engineers to improve the quality of the products and services and the manufacturing process (Akao 1983, Kogure at al1983,). In 1985, Glenn Mazur used QFD to develop his Japanese translation Business and experiencing the revenue increases by 285% in the first year, 150% in the second year and 215% the end of third year. (Mazur 2004)

Quality Function Deployment is customer driven, focusing mainly on customer requirements (Marwa 2008, Afferson 2008) and transforming these requirements into products and services to meet the needs and wants of the customers. Zairi , M. et al. (2005), as quoted Karabatso, who initially quoted Sullivan in 1986 as saying "QFD is the mechanism to deploy the customer desires vertically and horizontally throughout the company." Sullivan (1986) proposed six key terms associated with QFD as

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summarized by Zairi et al 2005 into four requirements of customer's wants, translating customers wants into technical aspects(How's) and the second requirement needs the third requirement of QFD the formulation of teams(quality teams) to translate the desires of customers into technical specification in designing products and services. The teams are then assisted significantly by matrices or tools in their decision on transforming the technical specification into products/services. Generally, QFD is the step by step process of capturing the voice of customers into goods and services. It referred to as a competitive tool, communication tool, marketing tool, design tool, planning tool and quality tool (Reynolds 1992, Kathawala et al 1994, Fowler 1991, Potter 1994, Slinger 1992, Sullivan 1988, McElroy 1989, Ealey 1987).

The significance of the concept in improving the performance of the organization is of maximum, as propounded by Clark and Fujimoto 1991 that, the competition in today's business environment is intensified by customers who are sophisticated and demanding high quality products for less. The relationship between the quality of the product and satisfaction is strong such that the success of organizations in the market place depends much on the ability of the company in meeting and exceeding customer's wants and needs. (Bermowiski 1996, Brecka 1994). A successful company is the one which knows its customers and the factors that drive customers in the market place. The one who can differentiates itself from others in terms product quality and be able delight its customers sustainably (Fierman 1995, Stewarts 1995, Denton 1990).

Review of literature

The application of QFD in universities and other higher learning institutions started in as early as the late 1980s. Glenn Mazur reported that, the earliest user of the concept was known as Ermer at the Mechanical Engineering department of the University of Wisconsin-Madison in 1991. He went on saying that, the chairman of the university was using the approach to assess the needs of his school. Krishnan and Houshmand used the concept to balance research and teaching at the department of engineering at Cincinnati. They tried to identify customers of the university services and found customers such as Businesses and students and their needs were translated into product features like communication skills, practical knowledge and general knowledge. (Krishnan at al 1993). The product features identified, were further translated into process features such as presentation and delivery system, lab experiments and project reports. Other identified users of the concept in academia were Hillman and Pronka of Wayne state University in the USA (Grimes at al 1991). Their findings showed the strong relationship between the needs of the industry and employability of the graduates.

QFD approach was also applied in Europe to improve the quality of education in European institutions. One notable example on the uses of the concept to higher learning is the application of QFD at the University of Aston's Department of Vision Science, as reported by Clayton (Clayton, 1993). The concept has also been applied in Sweden in developing the mechanical engineering program that meet the needs of the changing industries in Sweden. Seow Christopher and Tony Moody in 1996 used the approach at the University Portsmouth in the UK to design the M.Sc. Courses in Total Quality Management.

The approach has also been tested in Japan's higher education as Akao, Nagai and Maki have systemized the process for identifying and analyzing both internal and external customers of higher education using QFD, to identify and improve critical and conflicting needs between internal and external evaluators of higher education (Akao et al 1996). The model for evaluation external and internal evaluators is a useful tool in the application of QFD in universities and other higher learning institutions to assist in capturing the voice of both identified and non identified customers/consumers of the services.

The QFD methodology in higher education: MZUMBE's experience

This experiential paper summarizes the use of different methodologies in translating the requirements of MZUMBE University customers, both internal as well as external. The paper elaborates how the requirements of the customers have been translated into the design requirements of the M.Sc courses within the faculty of Commerce. The paper explains how the design requirements were translated into characteristics of the programmes and then the characteristics of the programmes were translated into operations modalities and finally how the control measures were established in the specific operations and control.

The elements of house of quality (HOQ) were used in the process of developing programmes at the faculty. These elements are; customer needs/expectations on the new courses, specific features of the programmes according to design requirements, importance of customers expectations (expectations were ranked according to their importance to customers), planning matrix (this contained the a competitive analysis between our programmes with other universities relative to customer's expectations).The relationship was established between the customers need and features of the programmes, then the team established the relationship between the features of the programmes and their correlation effects.

Akao 's concept of university evaluators was also applied partly especially after graduation by asking stakeholders(employers) on how do they view our graduates from faculty of commerce relative to graduates from other higher learning institutions, both from the country and neighboring countries. Internal evaluators were also involved in capturing the voice of internal customers in the design of new courses. Internal customers comprised students, teachers, administrators and other faculty members.

Developing new customer focused M.Sc. programme

Mzumbe University Faculty of Commerce comprises of four departments;

- Department of Accountancy and Finance (DAF)
- Department of Business Administration (DBA)
- Department of Procurement and Logistics Management (DPLM)
- Entrepreneurship and Development Centre (EDC)

The faculty has courses for both undergraduate and postgraduate students. At postgraduate level the faculty has MBA divided into four options; marketing, banking and finance, corporate management and procurement &logistics management.

Rationale for designing new programmes

It was realized within the University that the four existing MBA options namely, Corporate Management, Banking and Finance, Marketing and Procurement & Logistics Management were not adequately differentiated. In most cases there were only one or two courses out of 16 that differentiated any two programmes. A formal internal programme review was launched and it revealed that the MBA programme did not provide sufficient theory courses for any of the intended specializations and those student entry qualifications were so diverse that it would be impossible to bring them to a common theoretical footing for the necessary specialization.

Vrije University, Amesterdam (VUA) professors, participating in a project, reviewed the programme structure, options and syllabi and concluded, inter alia, that the reading lists were too long for each subject and outdated. They also questioned relevance of a number of concepts for the Tanzanian local business environment.

A formal stakeholder survey was therefore launched in Dar es Salaam to discover potential client needs for the programme. This included banks, government offices, executive agencies, processing/production organizations and ICT oriented business companies. Respondents in these organizations included MU MBA alumni and MBA/MPA graduates from other institutions, HRM personnel and company directors.

Stakeholder needs

It was found that most of the University' graduates and graduates from other national institutions in general lacked skills in problem analysis, communication, presentation and report writing. Most of the MU-MBA alumni also observed both topic gaps and overlaps in our programmes. Those who had attended as Executive MBA students also expressed their frustration in working with fellow students who could not share anything in group discussions for lack of experience in senior positions (FOC 2008).

Company directors were divided between their need for specialization and generalization. Some desired that their heads of departments should specialize in a relevant discipline while others desired that such heads should be more generalist to prepare for higher level responsibilities. It was concluded that both objectives are important. Other findings are flexibility in conducting courses, delivering skills by lecturers; minimum entry requirements should be adjusted. This was a first step in applying QFD in designing new programme at the faculty of commerce (MZUMBE 2008)

The above stakeholder's needs could be viewed and summarized as the needs of customers in terms of the programmes developed at the faculty. The second step after knowing the needs of the customers was to translate the needs of the customers to the design specification of the courses (Kimeme 2008).

Translating the needs of stakeholders into design specification of the courses

The FoC strategic posture is that "Less is more" in the sense that it is possible to offer more (depth) in a few subjects that are carefully selected to constitute a programme. This means that more exercises, more presentations and more theory can be offered in each of the selected subjects. Thus, the originally 16 subjects offered in four quarters for mainstream MBA and 15 subjects offered in five quarters for Executive MBA were reduced to 10 subjects to be offered in two semesters. The number of references for each subject were also reduced. (Kimeme 2008)

Task forces and outcome

Task forces comprising of subject matter experts in the FoC and VUA were formed to re-design the MBA so that it gives the corporate or generalist nature required by business managers and to create specialist programmes (M. Sc.) required by functional heads or academicians. The design specifications were identified with a help from VUA University in the Netherlands. The team used House of Quality techniques to translate the needs of the customers into the design specification of the courses.

The first step was to align these needs and assign its significance weight and importance as follows;

1. Communication skills
2. Analytical skills

3. Flexibility
4. Fewer courses
5. Duration of the courses
6. Cost of the courses
7. Presentation skills
8. Report writing skills
9. Employability
10. Ability to conduct research

Those needs arranged according to their relative significance were then translated and matched with design specifications basing on the resources availability and strategic posture of the faculty "fewer is more." The relationship between the needs and courses features were established and it was discovered that the features of the newly established courses strongly correlated with what the customers need. What actually FoC had in mind was to have varieties of courses in the faculty that meet and exceed the expectation of the customers. The faculty believed in generalist of the courses and specialization.

The team also tried to rating the customers' complaints on the existing programmes, not meeting the expectation of stakeholders and found that the students/graduates did not have analytical, presentation and communication skills among other problems. In comparison stakeholders viewed the graduates from Mzumbe University as just other graduates from other universities in the country. These complaints helped the team to identify the weaknesses in the programmes housed at the Faculty of Commerce, and it was a fantastic feedback for future planning.

Outcome of quality function deployment (QFD)

QFD Team formulated at the faculty of commerce completed its task by making presentation of their findings to both internal and external stakeholders. In an analyst point of view the step by step process of QFD was undertaken. Mainly, stakeholders requirements were translated into design requirement of the courses, the design requirements were further translated into courses features. The features of the courses were then developed into actual operation/delivery and at last the operations were translated into control.

The elements of House of Quality (HOQ) were fully used by the team in capturing the voice of customers as stipulated above. Basically the requirements of the customers were identified and assigned their relative significances. These needs were then translated to the design requirements and relationship established to determine the features of the new courses.

The outcome of the process was the establishment of new five M.Sc. programmes at the faculty of commerce Mzumbe University as follows;

1. M.Sc-Marketing Management (M.Sc-MM)
2. M.Sc-Entrepreneurship (M.Sc-Ent.)
3. M.Sc-Accounting and Finance (M.Sc-AF)
4. M.Sc-Baking Management and Finance (M.Sc-BMF)
5. M.Sc-Procurement and Supply Chain Management (M.Sc-PSCM)

Conclusion and direction for future research

Mzumbe university aspires to become a centre of excellence in management science for knowledge acquisition and adaptation through training, research, consultancy, public service and outreach activities in Africa and beyond by the year 2015. (MZUMEB 2008) To achieve this vision the university through its faculties and departments has to strive on bringing in quality and apply QFD techniques throughout its value chain. Quality Function Deployment (QFD) undertaken by the FoC is a starting point towards achieving the mission and vision.

Whether QFD in design and developing MSc was successful or not, it is too early to say, however, this is the first time in Tanzania's education history for an institution to design and develop programmes by looking at what is actually demanded by the customers. MSc programmes at the faculty are the products of QFD application in higher learning institutions. The early signal of this process is the overwhelming increase in the number of applicants of masters' programmes at the faculty. The faculty has received significant number of applications in its history. The challenge is to the faculty to expand its capacity as only one eighth of the applicants will be admitted in the coming academic year.

There is no doubt that the FoC is heading its way to become world class institution. Designing programmes originated from customers themselves is significantly ahead of its competitors. Customer's voice is captured, heard and translated into customer oriented programmes. Customers have a wide range of choice than ever before.

Due to the nature of this study and type of data collected for the study together with shortfalls of applying the tools for QFD such as House of Quality (HOQ), there is a need in the future to conduct a research in the area by incorporating more universities and higher learning institutions on how they design programmes of study. Also that, Tanzania higher learning environment is a bit different with its counterparts in many aspects, in view of this, it is of paramount importance in the future to conduct a cross sectional and comparative studies that will cuter for many countries so as to see how different countries view QFD in Higher Education.

References

Afferson, M. (2008)," Quality function deployment", student's study manual: University of Bradford, School of management-UK

Akao, Yoji. (1990), " Quality function deployment: Integrating customer requirements into product design", (Translated by Glenn Mazur). OR: Productivity Press.

Akao, Yoji (1983), " Company –Wide QC and quality deployment"' Chicago, IL: The Cambridge

Akao, Yoji, Kazushi Nagai, & Nobuhiro Maki. (1996), " QFD concept for improving higher Education", Proceedings of ASQC"s 50th Annual Quality Congress pp. 12-20.

Bemiwiski, K. (1996), " Leaders on leadership; Quality progress," January, pp. 43-45.

Brecka, J. (1994), "The American customer satisfaction Index; Quality progress,", October. pp. 41-44

Clayton, M. (1993), " QFD-Building quality into english universities", Transactions from the seventh symposium on Quality Function Deployment, Novi, Michigan, MI: QFD Institute pp. 171-178.

Clark, K.B., Fujimoto, T. (1991), " Product development performance strategy", Organization and Management in the World Auto Industry, Harvard Business School Press.

Denton, D.K., (1990), " Enhance competitiveness and customer satisfaction", Here's one approach; IE, May, pp. 24-30.

Ealey, L.(1987), " Bad name for a great system", Automotive Industries, Vol. 167, July, pp.21.

Ermer, Donald S. (1995), " Using QFD becomes an educational experience for students and faculty", Quality Progress Vol. 28 No. 5 May pp. 131-136

Fieman, J.(1995), "Americans can't get no satisfaction", Fortune, December 11, pp. 94-97.

Fowler, C.T. (1991), QFD-Easy as 1-2-3; 1991 SAVE (Society of American Engineers)", National Business Office, Vol. 26 1991 pp177-182

Ginn, D. Zairi, M. (2005), " The role of QFD in capturing the voice of customers", University of Bradford, School of Management, Working paper Series No, 05/33, September 2005.

Grimes, Michael, James Malmberg and Ginger Labine (1991), " Integrating the customer's voices to improving Educational services through Quality Function Deployment. Transactions from sixth symposium on QFD, Novi, Michigan. MI: QFD Institute.

Hillman, Jonathan and Francis Pronka (1995), " Using QFD for curriculum design", Transactions from seventh symposium on Quality Function Deployment, Novi, Michigan. MI: QFD Institute, pp. 179-182

Karabatsos, N. (1988), " Listening to the voice of customer",Editorial, Quality Progress, June , pp. 5 .

Kathawala, Y., & Motwan, J. (1994), " Implementing quality function deployment, A system approach", The TQM Magazine, MCB University Press, Vol. 6, No 6 pp. 31-37

Kimeme, J. (2008), "Masters programmes at the faculty of commerce", at www. Mzumbe. ac.tz/external. Accessed on 12/06/2008

Krishnan, Mahesh and Houshmand, A. A. (1993), " QFD in academia: Addressing customer requirement in the design of engineering curricula", Transactions from the fifth symposium on Quality Function Deployment, Novi, Michigan. MI: QFD Institute pp. 505-530.

Kogure, Masao and Akao, Yoji (1983), "Quality function deployment and company wide quality control in Japan", Quality Progress, Vol. 16, No. 10. October pp. 25-29.

Marwa, S. (2008), " Total quality management," Student's study manual: University of Bradford, School of management-UK.

Mazur, Glenn (1993). QFD for service industries: from voice of customer to task deployment", Transactions from the fifth Symposium on Quality Function Deployment, Novi, MI, June.

Mazur, Glenn. (1996)., "The future of TQM: A North American perspective," Hinshitsu Vol. 26 No 2. pp. 10-19 JSQC.

McElroy, L.P. (1989), "QFD, building the house of quality", Automotive Industries, January, pp. 63-73.

Mizuno, Shigeru and Akao, Y. (1994), " QFD: The Customer-Driven Approach [Translated by Glenn Mazur]. Tokyo: Asian Productivity Organization .

Mzumbe. (2008), " Capability statement: at www.mzumbe.ac.tz/external. Accessed on 12/06/2008

Potter, M. (1994), "QFD as a marketing tool", MBA Thesis, Management Centre, University of Bradford, December 1994

Reynolds, M. (1992), " Quality assertive companies to benefit from recovery", Electrometric, February, pp.19.

Seow, Christopher & Tory Moody, (1996), "QFD as a tool fir better curriculum design", Proceedings of ASQC's 50th Annual Quality Congress, pp. 21-28.

Slinger, M. (1992), " To practice QFD with success a new approach to product design", Kontinuert Forbedring , Copenhagen, 20-21 February.

Stewart, T.(1995), " After all you've done for your customers, why are they still NOT HAPPY?", Fortune, December 11, pp. 90-93.

Sullivan, Lawrence P. (1988), "Quality function deployment",Quality Progress. Vol 19 No. 6, June, pp.39-50.

Yoshizawa, Tadashi et. al .(1989), " High quality software development through QFD",Compiled by the information processing promotion industry Association Technology centre: Tokyo Computer age.

An Analysis of Financial Position and Various Elements of Asset and Liability Management (ALM) in Indian Banking Industry

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Abstract

The success of any organization depends upon the fact that how efficiently it uses its assets and maintains sound solvency position. This is possible only with help of effective Asset and Liability Management (ALM). Asset liability management is an approach that provides institutions with protection that makes such risk acceptable. Asset-liability management models enable institutions to measure and monitor risk, and provide suitable strategies for their management. It is, therefore, appropriate for institutions (banks, finance companies, leasing companies, insurance companies, and others) to focus on asset-liability management when they face financial risks of different types. Asset-liability management includes not only a formalization of this understanding, but also a way to quantify and manage these risks. Present paper is an attempt to analyse various component of ALM based on accounting ratios in Indian banking industry during the period of 2003 to 2005. As the representative of banking industry SBI,PNB, ICICI and HDFC have been selected.

Keywords Asset-liability management, Accounting ratio, Risk, Solvency

Introduction

It is generally accepted that risk is a fact of life and hence firms have to account for risk when making decisions on output levels or prices. This is particularly true for the banking industry. Since banks are traditionally in the business of issuing loans and taking deposits, they are in contrast to ”normal” firms, exposed to a number of very special risks. For example, the risk of borrower’s default and the risk of changes in market prices for certain financial products and services may be considered as the most important ones. Moreover, it is also acknowledged that by issuing loans and taking deposits, banks perform a number of very important functions in the economy as allocation of funds and provision of liquidity etc.

Asset and liability management (ALM) is the act of planning, acquiring and directing the flow of funds through a financial organization to generate adequate and stable earnings, maintain adequate liquidity and steadily build capital, while taking reasonable and measured business risks. So basically, ALM is the sum of the financial risk management of any financial institution. This includes:

1) Setting policy
2) Structuring of loan re-pricing and maturity schedules
3) Undertaking financial hedge positions
4) Budgeting capital
5) Measuring internal profitability
6) Contingency planning
7) Analysis of the impacts of unexpected changes in interest rates
8) Competition
9) Economic growth

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Basically, Asset and liability management is essentially a risk management technique designed to earn an adequate return while maintaining a comfortable surplus of assets beyond liabilities. It involves various methods used by organisations in coordinating the management of assets and liabilities in a manner that adequate returns may be earned.

Objectives of the study

1. To study the importance of ALM (Assets and Liabilities Management) and its applications in the Indian banking industry.
2. To study the importance of ratio analysis and explore its uses in accessing the ALM (Assets and Liabilities Management) in the Indian banking industry.
3. To analyze the liquidity, solvency and profitability of the public and private sector banks taken into consideration
4. To perform time series analysis and cross sectional analysis for the selected banks using ratio analysis
5. To analyse the Profit after Tax (PAT) and the Non-Performing Assets (NPA) performance for the selected banks
6. To study the trends of the selected banks over a period of 5 years

Research methodology

Type of research: The research methodology is descriptive in nature as it involves fact-finding enquiries and reporting of what has happened or what is happening.

Data: Secondary data has being used for the analysis.

Source of the secondary data: The source for the data is mainly the CMIE (Centre for Monitoring Indian Economy) Database. Other sources include RBI publications, Books and, Newspapers.

Statistical Tools: The statistical tools used for the study and the analysis; include graphs, tables and ratios.

ALM in the Indian Banking Industry

In its normal course, banks are exposed to credit and market risks in view of the asset-liability transformation. There has been a wide range of changes at a fast pace in the Indian financial markets due to its liberalisation over the last few years and growing integration of domestic markets with external markets. Therefore, the risks associated with bank's operations have become complex and large, thus requiring strategic management. Banks are now operating in a fairly deregulated environment and are required to determine on their own, interest rates on deposits and advance, in both domestic and foreign currencies on a dynamic basis.

The interest rates on bank's investments in government and other securities are now market related. Also, intense competition for business involving both the assets and liabilities together with increasing volatility in the domestic interest rates as well as foreign exchange rates, has brought pressure on the management of banks to maintain a good balance among spreads, profitability and long-term viability. Handling these pressures requires structured and comprehensive measures and not just ad hoc action.

The Management of banks has to base their business decisions on a dynamic and integrated risk management system and process, driven by corporate strategy. Banks are exposed to several major risks in the course of their business including credit risk, interest rate risk, foreign exchange risk, equity / commodity price risk, liquidity risk and operational risks. Banks need to address these risks in a structured manner by upgrading their risk management and adopting a more comprehensive Asset-Liability Management (ALM) practices than has been done before by other procedures.

ALM, among other functions, is also concerned with risk management and provides a comprehensive and dynamic framework for measuring, monitoring and managing liquidity, interest rate, foreign exchange and equity and commodity price risks of a bank that needs to be closely integrated with the bank's business strategy. It involves assessment of various types of risks and altering the asset-liability portfolio in a dynamic way in order to manage risks. For this very reason, in the year 1998, the Reserve Bank of India (RBI) forwarded guidelines for implementing ALM systems in banks. Based on the feedback received from various banks, the final guidelines were revised by the RBI, and implemented from the year 1999. The following analysis was performed and results interpreted thereof for the analysis of ALM-

Table 1: Current ratio

Banks	Mar 2003 12 Months	Mar 2004 12 Months	Mar 2005 12 Months	Mar 2006 12 Months	Mar 2007 12 Months	Mar 2008 12 Months
SBI	4.04	4.21	5.63	6.48	9.56	8.52
PNB	13.06	10.98	8.01	14.15	19.20	17.68
ICICI	10.33	10.32	10.16	9.75	13.79	16.28
HDFC	5.02	3.70	6.37	5.92	6.11	6.73

Source: CMIE data base 2008 (Financial Report of Individual Banks)

It can be seen from the above table that ICICI had a constant current ratio of 10.3:1 till the year 2005 and latter increased to 16.28:1 in the year 2008. As the ideal ratio should be 2:1, it can be seen that ICICI has high liquidity and hence is in a more comfortable position to pay its current obligations as it becomes due. Also SBI started off with a good ratio of 4.04:1 in the year 2003 and kept increasing with the highest ratio in the year 2007. Hence the margin of safety for SBI is also good for its creditors.

The current ratio for HDFC has fluctuated over the years, which means it had variations in its current assets with the best liquidity position in the year 2008 and a ratio of 6.73:1. The current ratio for PNB has shown a wide disparity over the years with a sudden decline over the period of 2003-05. It had the least value of 8.01:1 in the year 2005. This implies that the bank used most of its current assets to successfully pay-off its short-term obligations. PNB has the highest ratio of 19.20:1 in the year 2007, which implies a very high liquidity level for the bank and possibly the availability of idle assets, which should be invested properly for profit yield in the future.

Comparatively, PNB and ICICI have a very high degree of liquidity, which implies they are in a good position to pay their short-term debts. The higher the current ratio, the greater the margin of safety for the creditors. But a very high ratio can also mean that the bank funds are unnecessarily tied up in current assets while a very low ratio indicates the banks failure to meet its current obligations, which can result in a bad credit image. Hence there is a need to strike a proper balance between liquidity and lack of liquidity. The current ratio of HDFC is good as it shows a good trade-off between its current assets and current liabilities, although it is the least among the four banks over the given period. The current ratio for SBI is also good when compared to the other four banks. It has maintained an ideal ratio initially with some fluctuations over the given period. Hence PNB and ICICI show a good financial position. Although even HDFC and SBI have also maintained a sound financial position by meeting their short-term obligations on time as is evident from the current ratios.

Table 2: Quick ratios

Banks	Mar 2003 12 Months	Mar 2004 12 Months	Mar 2005 12 Months	Mar 2006 12 Months	Mar 2007 12 Months	Mar 2008 12 Months
SBI	4.01	4.16	5.59	6.47	9.50	8.47
PNB	13.00	10.88	7.98	14.06	19.09	17.52
ICICI	10.12	10.04	9.85	9.46	13.50	15.90
HDFC	4.99	3.68	6.34	5.87	6.05	6.70

Source: CMIE data base 2008 (Financial Report of Individual Banks)

The quick ratio measures the ability of a firm to meet its current liabilities using its liquid (quick) assets. An asset is liquid if it can be converted into cash immediately without a loss of value (usually within a month). The quick ratio is a more penetrating test of liquidity than the current ratio. From the above table it can be seen that there is a considerable amount of fluctuations in the quick ratio for all the banks. There might be several reasons for that. An ideal quick ratio is 1:1 but that also depends on the nature of the firm and its internal policies.

It can be seen in the table that PNB has a high quick ratio over the year though there is a sharp dip in the year 2005 with a ratio of 7.98:1 over the following years it increases sharply with the greatest ratio of 19.09:1 in the year 2007. This simply implies that PNB has abundant amount of cash and book debts and hence it can meet its obligations within a very short period of time. The quick ratio for ICICI is constant initially with a comfortable amount of quick assets and then rises over the period 2007-08. The quick ratio for SBI increases smoothly over the period 2003-07 with the greatest ratio of 9.50:1 in the year 2007 and then a sudden decline in the year 2008. This could imply that it used its quick assets to pay its creditors as the debts became due, while, the quick ratio for HDFC has fluctuated over the given period with the least ratio of 3.68:1 in the year 2004. Comparatively it can be seen that PNB has the highest quick ratio which means that it can immediately converts its debtors, bill receivables into cash when a need arises to pay its debts and also ICICI has also maintained a comfortable amount of liquid assets to pay its debtors on time, though in comparison to PNB and ICICI, HDFC and SBI have a lower quick ratio. Nevertheless it still indicates a ratio above the ideal ratio hence they are also in a good position to meet their current obligations using their liquid assets if a need arise. All the banks show a good safety margin for their lenders, which can be seen from their satisfactory quick ratios. This implies that the creditors have confidence in the banks to lend them loans since they receive their debts on time.

Table 3: Total assets to debt ratio

Banks	Mar 2003 12 Months	Mar 2004 12 Months	Mar 2005 12 Months	Mar 2006 12 Months	Mar 2007 12 Months	Mar 2008 12 Months
SBI	16.34	13.49	11.88	9.51	7.62	7.41
PNB	23.78	16.93	15.28	12.37	21.17	12.80
ICICI	1.27	1.72	2.25	3.08	4.07	3.93
HDFC	7.82	8.23	6.29	10.23	10.27	11.16

Source: CMIE data base 2008 (Financial Report of Individual Banks)

The total assets to debt ratio measures the extent to which the long term loans are covered by the assets which indicates the margin of safety available to providers of long term loans. A higher total assets to debt ratio is considered more ideal as it implies the use of lower debts in financing the assets. As it can be seen from the above table that ICICI started of with a ratio of 1.27:1 in the year 2003 and constantly increased to a ratio of 4.07:1 in the year 2007. This indicates that ICICI previously used a large part of its debts to finance the assets but till 2007, the financial condition became much stable. The ratio for PNB started off high enough (23.78:1) which implies that PNB is least dependent on debts to finance its assets which is an indication of a very sound financial condition as it has enough funds to sponsor itself. After the year 2003 the ratio declined sharply till the year 2006, which implies a decline in its total assets either due to sale or depreciation. SBI had a good ratio of 16.34:1 in the year 2003 but later declines smoothly till the year 2008 which means there is a constant decline in its total assets and uses a larger amount of its debts to finance its assets hence is more dependent on its creditors. The ratio for HDFC has fluctuated over the entire given period with the highest ratio of 12.80:1 in the year 2008. When the four banks are compared, PNB appears to be the most comfortable as far as the financing of its assets is concerned. While ICICI requires some improvement as it initially has a very low total assets to debt ratio. This implies that it needs to improve its operating conditions so that it can improve on its assets and dependency on creditors. SBI is also less dependent on creditors though its condition has deteriorated over the years and it also need to decrease its liabilities. HDFC has a sound financial health and is also less dependent on creditors. Overall ICICI needs an improvement on its assets financing so that it can improve on its debts burden. PNB is the least dependent on its creditors. Likewise HDFC and SBI also have a good position with less dependence on creditors.

Table 4: Proprietary ratio

Banks	Mar 2003 12 Months	Mar 2004 12 Months	Mar 2005 12 Months	Mar 2006 12 Months	Mar 2007 12 Months	Mar 2008 12 Months
SBI	2.21	2.02	1.71	3.06	2.52	4.35
PNB	6.36	6.01	7.02	7.68	7.37	5.95
ICICI	6.13	8.17	6.67	7.81	9.37	6.97
HDFC	10.26	8.27	10.64	9.83	8.66	11.73

Source: CMIE data base 2008 (Financial Report of Individual Banks)

This ratio shows how much proportion of the total assets in the firm, is funded by the owners or the shareholders of the firm. A higher ratio is a better indication for the firm as it is less dependent on the external sources for its funding. As it can be seen from the above table the proprietary ratio for HDFC though high enough has fluctuated over the given period. It has the maximum ratio of 11.73:1 in the year 2008. Hence it has been in a very good financial condition as it is not dependent on external funds. The proprietary ratio for ICICI has also fluctuated over the given years with sharp inclines and dips and a least value ratio of 6.13:1 in the year 2003. But still is good enough as it is satisfactorily high. The proprietary ratio for SBI is not that satisfactory as it varies over the given years with the least ratio of 1.71:1. This implies that most of its total assets have been financed by debts from creditors. Hence a lower safety margin is available to its lenders and, therefore, it needs to improve on its operations and reduce its liabilities. The proprietary ratio for PNB improved constantly over the period 2004-06 before declining in 2007-08. This means that its dependency on the lenders have increased over the years and has to improve on its operations. Comparatively HDFC and ICICI has the least dependence on external funds. Followed by PNB and the most dependent is SBI. A low proprietary ratio is a danger signal for the lenders. The operation has to improve in order to gain faith of creditors for further loans in the future. There exists a large amount of variance in the ratios of all the banks for the given period.

Table 5: Return on investment ratio

Banks	Mar 2003 12 Months	Mar 2004 12 Months	Mar 2005 12 Months	Mar 2006 12 Months	Mar 2007 12 Months	Mar 2008 12 Months
SBI	16.46	14.16	11.22	9.70	8.12	9.13
PNB	11.21	10.83	9.82	6.86	7.39	8.68
ICICI	2.82	11.53	11.50	8.16	7.61	8.17
HDFC	13.16	11.99	9.26	9.21	9.97	10.45

Source: CMI data base 2008 (Financial Report of Individual Banks)

The return on Investment ratio reflects the overall profitability of the business. It is calculated by comparing the profit earned and capital employed to earn it. A higher ratio indicates a higher profitability for the business. It can be seen from the above graph, that SBI had a very high rate of return overall, with the highest ratio of 16.46:1 in the year 2003. This implies that the capital employed in the business has been used efficiently though there was a constant decline in the year 2007. The profitability for HDFC is also very good though it has fluctuated over the years with the highest ratio of 13.16:1 in the year 2003. ICICI had a very low profitability in the year 2003. There was a very sharp increase in its profitability of the bank in the year 2004 as indicated by the ratio of 11.53:1. This implies that the capital employed by the bank has been used very efficiently, possibly by investing in a high yield short term investments. HDFC had a high rate of profitability over the entre period with the highest ratio of 13.16:1 in the year 2003.PNB also has a high profitability ratio over the years. Though there is a decline in the ratio till the year 2006 with a least ratio of 6.86:1. Comparatively, among the four banks SBI and HDFC has the highest profitability when compared to the other two banks. This indicates how efficiently the capital employed in the business is being used for high yields. Except ICICI all the banks had the maximum profitability ratio in the year 2003. Also, there is a wide disparity between the ratios for the bank overall the profit earned is high.

Table 6: Earning Per Share (EPS) Ratio

Banks	Mar 2003 12 Months	Mar 2004 12 Months	Mar 2005 12 Months	Mar 2006 12 Months	Mar 2007 12 Months	Mar 2008 12 Months
SBI	58.99	69.94	81.78	83.72	86.28	106.54
PNB	31.74	41.78	44.72	45.64	48.84	64.97
ICICI	11.72	19.67	26.55	27.21	28.54	34.58
HDFC	13.74	17.89	21.46	27.80	35.73	44.86

Source: CMI data base 2008 (Financial Report of Individual Banks)

This ratio shows the profitability of the firm on a per-share basis. It can be seen from the above table that SBI has a good earning per share ratio. It starts from around Rs 58.99 and increases over the years with the maximum value of Rs 106.54 in the year 2007-2008. This implies that the bank has high profits and can declare dividends on its equity share. The ratio for PNB is also good and increases over the years as well. This simply implies that the bank has been making enough profits over the year. The ratio for HDFC has also increased over the given period with the maximum value of Rs 44.86 in the year 2008.

The ratio for ICICI was low in comparison of leading public sector bank but later on improved considerably. Comparatively ICICI had the best profits on a per-share basis for its shareholders. This also means that after distributing dividends among the preference shareholders, the equity shareholders still had a good profit margin. Similarly PNB also made good profits to have the capacity to declare increasing dividends for its equity shareholders over the given years. The ratio for HDFC and ICICI are almost the same though HDFC still has a better dividend for equity. Also all the banks have the maximum dividend declaration for its equity shareholders in the year 2008. This implies that both the public and private sector banks made enough net profit even though there has been financial recession worldwide.

Profit after tax (PAT) and Non-performing assets (NPA)

a) Profit After Tax (PAT): Profit after tax is the net profit earned by the company after the deduction of all the expenses like interest, depreciation and tax. The higher the profit after tax the more profitable is the business and the higher the profit after tax the more the ability of a business to declare dividends for its shareholders.

Table 7: Profit after tax

Banks	Mar 2003 12 Months	Mar 2004 12 Months	Mar 2005 12 Months	Mar 2006 12 Months	Mar 2007 12 Months	Mar 2008 12 Months	Average
SBI	3,105.0	3,681.0	4,304.5	4,406.7	4,541.3	6,729.1	5353.52
PNB	842.2	1,108.7	1,410.1	1,439.3	1,540.1	2,048.8	1677.83
ICICI	258.3	1,206.2	1,637.1	2,005.2	2,540.1	3,110.2	2151.41
HDFC	387.6	509.5	665.3	870.8	1,141.5	1,590.2	1032.96

Source: CMIE data base 2008 (Financial Report of Individual Banks)

SBI has registered a high PAT throughout the entire period with the maximum value of Rs 6729.1 crore in the year 2008. Also ICICI has registered a good increase in its PAT over the successive years with the maximum profit of Rs 3110.2 crore in the year 2008. While the PAT for PNB has increased little, nevertheless in the year 2008 it showed an improvement over the previous years with a PAT of Rs 2048.8 crore. The PAT for HDFC is the least among the four banks but has improved over the given years with the maximum value Rs 1590.2 crore in the year 2008. On an average SBI has the best PAT (in crores) of Rs 5353.52, followed by ICICI of Rs 2151.41, PNB of Rs 1677.83 and HDFC of Rs 1032.96. Therefore SBI and ICICI have registered the highest profits among the four banks.

b) Non-Performing Assets (NPA): Non-performing assets also called non-performing loans, are loans made by a bank or finance company on which repayments are not being made on time. A loan is an asset for a bank as the interest payments and the repayments of the principal create a stream of cash flows and it is from the interest payments that a bank makes its profits. Banks usually treat assets as non-performing if they are not serviced for some time. Once a payment becomes really late (usually 90 days) the loan is classified as non-performing. A high level of NPA may be a sign of problems but this needs to be looked in the context of the type of lending being done. Some banks lend to higher risk customers than others and, therefore, tend to have a higher proportion of non-performing debt. They also can compensate such risks by charging borrowers higher interest rates.

Table 8: Gross NPA (closing balance)

Banks	Mar 2003 12 Months	Mar 2004 12 Months	Mar 2005 12 Months	Mar 2006 12 Months	Mar 2007 12 Months	Mar 2008 12 Months
SBI	13506.07	12667.21	12455.73	9628.14	9998.22	12837.34
PNB	4980.06	4670.13	3741.34	3138.29	3390.72	3319.3
ICICI	5013.03	5027.38	3047.59	2770.43	2222.59	4126.06
HDFC	265.45	335.61	439.17	508.89	657.76	906.97

Source: CMIE data base 2008 (Financial Report of Individual Banks)

The accumulation of NPA is not a good indication for the banks as that implies a possibility of increase in bad debts if the loans are not recovered. As it can be seen from the above table that the NPA for SBI is maximum in the year 2003 with a value of Rs 13506.07 crore. There is an improvement over the period as the NPA declined till the year 2006, which implies that the bank received the due interest on its NPA. The NPA had a sharp increase again in the year 2008. Also the NPA for ICICI declined constantly over the period 2004-07 with the least value of Rs 2222.59 crore in the year 2007 before an increase in the year 2008.

The NPA for PNB also declined till the year 2006 with the least value of Rs 3138.29 crore in the year 2006. The NPA for HDFC has increased over the years with the least value of Rs 265.45 crore in the year 2003 and the maximum value of Rs 906.97 crore in the year 2008. This implies that the bank has not been able to receive the interest and the principal sum on the due date. The bank should take care to ensure that it does not lend money to risky borrowers. So that it can reduce on its NPA and improve the liquidity that is held in the NPA. Such step will lead to improvements in the performance of the banks. Comparatively, SBI has the highest NPA though it has reduced over the period. High value of NPA indicates a risky position for the bank, as there is every possibility of its cash being struck and converted into bad debts. The bank may also not have adequate liquidity if such huge amount of cash has converted into NPA. The NPA for ICICI and HDFC has decreased over the years too, which also indicates a reduction in their current assets. The NPA for HDFC is the least and it has increased over the years. Though the interest rates may be high for the banks yet the banks should keep a check on its lending trends to keep a check on their NPA.

Table 9: Average values

	Public Sector Banks		**Private Sector Banks**	
Average Values	**SBI**	**PNB**	**ICICI**	**HDFC**
Current Ratio	7.69	16.62	14.13	6.77
Quick Ratio	7.64	16.50	13.77	6.72
Total Assets to Debt Ratio	13.25	20.47	3.26	10.80
Proprietary Ratio	3.17	8.08	9.02	11.88
Return On Investment Ratio	13.76	10.96	9.96	12.81
Earning Per Share Ratio	97.46	55.55	29.66	32.30
Dividend Per Share Ratio	18.55	10.36	10.38	7.39
Profit After Tax (Rs. Crore)	5353.52	1677.83	2151.42	1032.96
Gross Non-Performing Assets (Closing Balance in Rs Crore)	14218.54	4647.97	4441.42	622.77

Source: CMIE data base 2008 (Financial Report of Individual Banks)

It can be seen from the Table No. 9 that SBI and HDFC on an average have a good liquid ratio (Current and Quick Ratio), which implies that their short-term solvency is good. The average ratio for

PNB and ICICI are relatively high then the ideal ratio of 2:1 for current ratio and 1:1 liquid ratios. So either they have a lot of idle current assets or depending on the size of their operations they have a comfortable amount of cash at hand to meet loans and payments on due time. The average solvency ratio for HDFC is very good as the high ratios indicate the less dependency of the bank on external funds for financing its assets. HDFC is more dependent on its internal funds for the financing of its assets. The average total assets to debt ratios are good for SBI and PNB while it is not that good for ICICI.

This implies that ICICI uses higher debts for the financing of its assets and hence a little risky financial position for its lenders. Hence it needs to reduce its liabilities and increase its assets with the proprietor's funds. Also the proprietary ratio on an average is good for PNB and ICICI but is low for SBI. This implies that SBI is more dependent on external funds for its asset's financing. The average profitability ratio is good for all the banks. But SBI gives a higher dividend per share with a higher earning per share. Also the profit after tax on an average shows that SBI is the most profitable while comparatively HDFC has the least average net profit. As far as the NPA is concerned, on an average SBI has lent the most NPA, followed by PNB and ICICI and the least by HDFC.

Conclusion

From the research work carried out so far, it can be concluded that among the four banks taken under consideration, SBI on an average is the most profitable as far as the returns, earning/ share, dividend/ share and the net profit is concerned. It is also known that SBI is the largest public sector bank in India and mostly it finances the assets from external funds and also since it lends a lot the liquid ratios are low which implies the ALM also needs an improvement to reduce its current liabilities and increase its current assets. But overall, SBI's financial performance is good which implies its ALM is good as they are managing its assets and liabilities very well though they have to keep a check on its NPA. PNB has a good liquid ratio, which indicates a good ALM in the aspect of availability of short-term cash. Also it uses low debts for its assets financing and hence the creditors will have more faith in the bank's capability to meet its debts on time, which again shows a good ALM. The dividend/share is also good which means the shareholders made a good profit and the bank made a satisfactory net profit. So overall its ALM is good but needs to keep a check on its NPA as well.

Among the private sector banks taken into consideration, on an average, there is variance in the ratios calculated. In terms of the short-term solvency ICICI is better than HDFC, hence the ALM of HDFC needs to make plans to increase its current assets and reduce the current liabilities for improvement in that aspect. While as far as the assets funding is concerned HDFC is more dependent on the internal funds by the proprietors and also uses lower debts for financing its assets, which means a higher safety margin for the lenders. Here ICICI needs an improvement on its ALM so that it can reduce the debts and maintain adequate liquidity to meets its cash need on time. HDFC has a higher earning/share while ICICI gives a higher dividend to its equity shareholders. Also the net profit and NPA of ICICI is higher than that of HDFC. This implies that the ALM of ICICI has to keep a check on its NPA. While a lower NPA for HDFC means that HDFC does not lend to risky borrowers or receives its payments on time. Therefore it can be seen how important ALM is in any bank and can be concluded that the overall financial performance for any bank depends a lot on the credibility of its ALM team.

Reference

Bisht, N. S., Mishra, R. C. & Belwal, R.(2001), “Liberalization & its effect on Indian banking”, Finance India, 16(1), 147-152.

CMIE (2008), “Data Base on Indian Banks”.

Das, A.(1999), “Profitability of public sector banks: A decomposition model”, RBI occasional Papers, 20.

Dr Y. V .Reddy, Governor RBI, (2004) “Banking Sector in Global Perspective”, - Inaugural address at Banker’s Conference, New Delhi, 10

Ganeshan, P, (2001),“Determinants of profit & profitability of public sector banks In India: A profit approach”, Journal of Financial Management & Analysis, 14(1),

Henry Engler and James Essinger, (2000),” The future of banking”, London: Pearson Education Ltd.,

IBA Bulletin, (2005), “Database on Indian Banking 2001-2004”, Special Issue, Indian Banking Association.

Pandey, I. M, (2008), “ Financial management”, Vikas Publishing House Pvt. Ltd, New Delhi, 109.

Prasanna Chandra, (2007),” Financial management theories and practices”, Tata McGrawhill publication.

Rakesh Mohan, (2006) ,“Financial reforms and monetary policy: The Indian Experience, June 2,

Ram Mohan T. T. (2002), “Deregulation & performance of public sector banks”, Economic & Political Weekly, Issue on Money, Banking & Finance, Feb, 393.

Reserve Bank of India, (2009), “Report on trend and progress of banking in India 2006-07”, Available from www.rbi.org, Accessed in November,

Rishi, M, and Saxena, S. C. (2004), “Technological innovations in the Indian banking industry: The late bloomer”, Accounting, Business & Financial History, 14, 339-353.

Sarkar, J. (1999), “Indian banking sector: Current status, emerging challenges & policy imperatives in a globalized environment” India: A Financial Sector for the Twenty-first Century ed. James A. Hanson, Sanjay Kasturia, Oxford University Press, 71-131.

Sathye, M.(2005), “Privatization, performance, and efficiency: A study of Indian banks”, Vikalpa, 30(1), 7-16.

Shanmugam, K.R. and Das, A.(2004), “Efficiency of Indian commercial banks during the reform period”, Applied Financial Economics, 14, 681-686.

Tab Bowers, Greg Gibb and Jeffrey Wong ,(2003), “Banking in Asia”, Singapore: John Wiley & Sons Asia Pte Ltd.,

The Banker, (2004), “ Top 1000 World Banks”. London: Financial Times Business Ltd., July.

Verma, S. and Verma, S. (1999).“Determinants of profitability of SBI group, other nationalized & foreign banks in India”, Banking & Financial Sector Reforms in India, ed Amlesh Banerjee & S. K. Singh, 1999, Deep & Deep, New Delhi.

A Case Study of the Marketing Problems of Small Scale Industries

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Abstract

The small scale industries play a significant role in the economic development of the country by stimulating entrepreneurial skills, generating employment opportunities and contributing to export. In India, the industry has shown creditable progress in terms of output, employment, export etc. during the last decade. The progress has been hampered as the industry faces various problems relating to production, marketing, finance and personnel. The present study examines the marketing problems of small-scale industries working in the district of Varanasi. The study opines that the marketing problems has arisen mainly due to cut throat competition from other industries, adoption of cost oriented pricing, lack of advertisement, non branded products etc. The paper is empirical in nature based on primary data collected from the survey of 101 SSI units operating in Varanasi.

Keywords Small scale industries,Production, Marketing, Finance, Personnel

Introduction

Marketing occupies a critical role in the economic development of a country. It acts as a multiplier of development. It mobilises latent economic energy, contributes to the rapid development of entrepreneurs and managers, and finally, makes possible economic integration and fuller utilization of whatever assets and productive capacity an economy already possesses. It also determines firm's commercial ability to prosper in a competitive environment, contributes to the development of a flourishing industrial society, revolutionises the life of people both as human beings and as consumers and converts the limited human needs into unlimited wants and further to actual demand. In particular, the tempo of industrialization banks greatly on the advancement of marketing tools and techniques. The pace of the development of small scale industries also hinges on the soundness of marketing practices and policies. The tools and techniques of marketing helps in widening and diversifying the market by creating awareness, providing information, generating conviction and impelling to action.

The small-scale industry is the hub of many economic activities in a developing country like India. It has emerged over the years as a highly vibrant and dynamic industry of the Indian economy. Within a decade these industries have showed commendable progress in terms of employment, number of units, output and export. During the period under study, the employment provided by the small-scale industries recorded 1.38 times growth; the number of units registered 1.32 times rise; their output showed 2.66 times increase; and their exports registered three fold growth. Thus, if we go by these figures of growth of small-scale industries in India, we may apparently come to the conclusion that they do not face any marketing problems at all. While these figures speak volumes about the performance of small-scale industry as a whole, they may not disclose the marketing problems faced by individual units in various segments. Again, they may not disclose the impact of opportunities lost.

Methodology

Objective: The present study purports to examine the marketing problems of small-scale industries working in the district of Varanasi. In particular, the study aims at:

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1. To assess the problems regarding situation analysis, marketing objectives and selection of target market.
2. To identify the problems regarding 4 P's i.e., Product, Price, Place (distribution) and Promotion.
3. To evaluate the problems regarding implementation and control.

Scope: The present study is fundamentally exploratory and descriptive in nature and is a case study of small-scale industries located in the Varanasi district. The small-scale units covered in this study belong to thirteen industries, namely Banarasi saree, powerloom saree, embroidery, saree printing, ready-made garments, hosiery, food, wood, chemicals, engineering, zaree, glass beads and enamelling.

Period: The study covers a ten-year period starting from 2000 onwards.

Sample: The samples have been taken from the register of the industries maintained by the District Industry Centre (DIC),Varanasi on the random basis. Initially, a sample of 250 units belonging to different categories were taken, but in the course of survey it was observed that a large number of units have disappeared from the actual place of work. It may be noted that every year several units are registered with the DIC but due to one reason or the other most of them could not survive on sound footing and eventually die in due course of time. Further, there were units which could not response our queries satisfactorily. At last, we had to satisfy with only 101 units which could response our queries in a satisfactory manner.

Tool: Questionnaire has been used to collect data from the respondents. However, secondary data have also been used wherever found necessary. First of all, structured questionnaires were supplied to sampled units. In addition, other research techniques like personal interviews; observations etc. have also been adopted for the purpose of obtaining valued information.

Marketing problems of small scale industries

For the purpose of analysing marketing problems in a better way the present study groups these problems keeping in view the major components of marketing planning. As stated earlier, the major steps involved in marketing planning are: situation analysis, marketing objectives, selection of target market, composition of marketing mix and implementation and control. With a view to identify marketing problems categorically, the questionnaire supplied to the sample units contains questions regarding these problems It may be noted that none of the sample units could disclose their marketing problems as required for the present study. All most all the sample units stated mainly their general problems. According to them, the major problems are: lack of finance, lack of raw materials, lack of infrastructural facilities, lack of government support, high cost of production, lack of skill workers, lack of training facilities etc. Ultimately, no other alternative than adopting a virtual indirect approach of eliciting the view of the sample units on their marketing problems was left. Under an imaginary condition, we have discussed different issues including the marketing issues of the industries. Apart from this, we have also discussed the marketing problems with a few knowledgeable persons of the city of Varanasi though in general. In the course of these discussions, we could get the impression that none of the small-scale units ever go in deep to identify the problems relating to marketing. Everywhere they find other problems except marketing. For example, every small-scale unit has opined that there is tough competition in the market; the other units producing the same products are their rivals and the foreign goods are the main competing products etc. None of the units have expressed the views that the product quality, the designs, the price, the channel members, the promotional techniques of other units are the major competitive factors for them. Perhaps, the small-scale units consider the individuals as their competitors, and competition not as the marketing problem. The marketing problems discussed below are based on the discussion with the entrepreneurs and knowledgeable persons. The problems of marketing are presented on the line of marketing planning. Thus, problems relating to situation analysis, marketing objectives, selection of target market, product policies and practices, pricing policies and practices, distribution policies and practices and promotion policies and practices as also the problems relating to implementation and control have been presented. It may be mentioned here that these problems may be taken as illustrative not as conclusive form.

(i) Problems regarding situation analysis

As stated earlier, marketing planning begins with an analysis and evaluation of the situation under which a marketer works or intends to work. The situation analysis concerns with an in-depth analysis of different environmental conditions and firms own strengths and weaknesses etc. If a firm fails to make an appropriate analysis of environmental situation, it is not possible to design an appropriate marketing planning. The small-scale industries operating in Varanasi possess a very little knowledge and understanding of the environmental forces within which they work. The lack of awareness about different situations prevailing in the market makes the marketing strategy planning of the small-scale industries weak and less effective. The shortcomings in this regard have been taken as the major problems relating to environmental conditions of the small-scale units which are put as under:

1. Lack of relevant information of demographic features.
2. Lack of relevant information regarding economic factors.
3. Lack of relevant information about appropriate technology.
4. Lack of sufficient entrepreneurial skills and talents.
5. Lack of eagerness to ascertain socio-cultural influences.
6. Unnecessary reliance on traditional methods and approaches.
7. Lack of seriousness to ascertain the changing pattern of customers' buying behaviour.
8. Insufficient information about actual and potential competitors.
9. Lack of information regarding key competitors' planning and strategies.

It is, thus obvious that the major situational problems of the small-scale industries of Varanasi are: insufficient information about demographic features, lack of appropriate information regarding economic factors, such as, rate of economic growth, increase in per capita income, consumption pattern, per capita disposable and discretionary income, lack of eagerness to gather information about appropriate technology, etc. It is also evident that entrepreneurs engaged in the small-scale industries are deficient in entrepreneurial skills, talents, visions, initiative and innovativeness. This is apparently clear from the fact that these entrepreneurs unnecessarily rely on traditional methods and approaches. For example, since most of the entrepreneurs are shadowed by middlemen's. Similarly, the entrepreneurs are not very much serious with regard to ascertaining the changing pattern of customers' buying behaviour. Apart from the above, the entrepreneurs have insufficient information about actual and potential customers; they lack information regarding their key competitors' planning and strategy with regard to marketing strategy, such as, the way of selecting target markets and the methods of concentrating on them; the product policies and strategies, pricing methods and policies etc. In this connection, it is important to note that none of the entrepreneurs possess the statistics regarding competitors' sales volume. It appears that these situations exist because none of the small-scale units have an efficient management team. As a result, these units lack appropriate production and financial plans.

On the basis of above facts, it may be concluded that so far as the situation analysis is concerned, the entrepreneurs are extremely poor. They need to realize that without marketing planning no other plans are going to succeed as expected. As a result, the growth and prosperity of their units would remain a mere dream. In real terms, a few percentage points increase in sales and profit are not the real index of business success. It is, therefore, necessary that the entrepreneurs engaged in small-scale industries should take initiative, though gradually to formulate marketing strategic planning and for that very purpose they should make a critical appraisal of environmental conditions. They should assess the economic conditions on factual basis. They should possess required information about their existing and potential customers and finally they should gather relevant information about their existing and potential competitors as also about key competitors. Now-a-days, much more information can be obtained through electronic media which can be availed of even on payment system. Thereafter, on the basis of information so gathered, they should assess their own strengths and if they find any deficiency, efforts should be made to remove such deficiencies.

(ii) Problems regarding marketing objectives

For effective marketing planning it is essential to determine marketing objectives. No doubt, the small-scale industries working in Varanasi possess their marketing objectives but these objectives are not based on suitable standards. For example, customer satisfaction, profit maximization, increasing sales and building image of the enterprise are the major objectives of these units. These objectives appear to be of short term nature. The small-scale units identify the same objectives as their business goals. What is required is that marketing objectives should be based on the strengths and opportunities of the enterprise and these objectives should match with their marketing activities. In a true sense, the small-scale industries operating in Varanasi have the following problems regarding the marketing objectives:

1. Lack of understanding of setting marketing objectives.
2. Lack of expertise to make a permutation and combination of marketing objectives keeping in view the changing scenario of the market.
3. Lack of appropriate co-ordination between marketing objectives and other objective of enterprise.
4. Lack of realization of the role of marketing objectives in the progress and prosperity of the enterprise.

(iii) Problems regarding selection of target market

In modern times, the selection of target market is one of critical decision making areas for the marketer. Selection of target market helps in developing product planning and strategy, setting prices of the product, selecting suitable channels of distribution and holding potential and existing customers. Without exactly knowing the customers, it becomes difficult to assess performance and level of customers' satisfaction. As a matter of fact, the entrepreneurs engaged in the small-scale industries in Varanasi are of the opinion that they select target markets. But it appears that their selection of target market is not based on sound footings. The problems which stand in the way of selecting target market may be summarised as under:

1. Insufficient information about the potentiality of market.
2. Lack of information regarding distribution of population according to age, sex, income, family size, education etc.
3. Lack of adequate knowledge about life style and personality of customers.

4. Lack of information about user's status, usage rate, benefits sought attitudes, etc.
5. Insufficient understanding and expertise of procedure of segmenting market.
6. Unnecessary reliance on past experience and practices regarding the selection of market.
7. Lack of appropriate data for measuring the efficacy of different markets.
8. Lack of eagerness and enthusiasm in searching new and high potential markets.

(iv) Problems regarding to product policies and practices

Product policies and practices occupy an important place in marketing mix strategy. Decisions regarding various aspects of products facilitate in product planning, price fixing, selection of channels of distribution and designing promotional campaign. These decisions are essential for the marketers of different categories. The small-scale industries operating in Varanasi also develop their product policies and strategies on the basis of past experience and traditions. These industries do not formulate their product policies on the basis of modern tools and techniques of marketing. The major problems standing in the way of designing appropriate product policies and practices may be summed up as under:

1. Lack of appropriate product planning and strategy based on chosen market segments.
2. Lack of quality raw materials and accessories.
3. Lack of suitable product specifications, grading and standardization.
4. Lack of appropriate techniques for evolving different qualities of product for satisfying different categories of customers.
5. Lack of design development facilities in the unit.
6. Lack of appropriate strategy regarding product items, product lines, and product mixes.
7. Inadequate information of competitor's product planning and strategies.
8. Lack of a systematic and regular programme for product innovation and development.
9. Lack of appropriate branding policies.
10. Lack of awareness about the role of packaging.
11. Lack of modern packaging facilities in the unit.
12. Inappropriate labelling policies and practices.

(v) Problems regarding pricing policies and practices

As is known to us, pricing is a vital constituent of marketing mix, which in turn, is an inseparable part of overall marketing planning. Decisions regarding pricing are important in several ways, such as, they are a vital motivational factor for the customers to buy the product and they act as the basis to measure the level of customers' satisfaction. In today's competitive business world pricing has become an important competitive tool. All this shows that an effective pricing policy helps in increasing sales and maximizing profit. It also helps in attracting and holding customers, and in protecting the enterprise from legal interventions. The small-scale industries of Varanasi have also been following specific pricing policies and strategies. However, if the total pricing scenario is analysed closely one may easily come to the conclusion that the pricing policies and strategies followed by the small-scale industries are not, in a true sense, in consonance with the modern marketing policies and practices. This is due to the fact that these pricing policies and strategies are not based on sound calculations. The major problems which weaken the pricing policies and practices of the small-scale industries may be put as under:

1. Inappropriate pricing planning and strategy.

2. Insufficient information about key competitors' pricing policies and practices.
3. Insufficient information regarding the prices of competitive products and of substitutes.
4. Low productivity.
5. Increasing cost of production due to rising material costs.
6. Undue reliance on traditional method of pricing.
7. Lack of integrated approach toward pricing strategy and policy.
8. Lack of long-term pricing objectives.
9. Lack of appropriate approach toward assessing price changes, if any.
10. Application of adhoc approach for computing final prices of different products.

(vi) Problems regarding distribution policies and practices

We know that channel of distribution is the route through which product passes from the hands of manufacturers to the hands of consumers. The decisions regarding channels of distribution influence greatly the availability of right product in right condition at right time at right place which, in turn, affect the success of the marketer and the level of customers satisfaction. The small-scale industries operating in Varanasi follow, in a larger part, their traditional policies and practices regarding the channels of distributions. It appears that they do not have any high ambition for making the system of distribution effective and efficient. Now-a-days, when selling can be done 'online', the traditional methods are not going to benefit the small industries in the long run. The major problems relating to channels of distribution are as under:

1. Lack of appropriate distribution planning and strategy.
2. Lack of eagerness and enthusiasm to evolve a new pattern of distribution system.
3. Lack of information about genuine distributors/middlemen.
4. High expectation of middlemen with regard to credit.
5. Greater dominance of middlemen in the market.
6. Lack of appropriate planning and strategy relating to transportation, inventory, warehousing etc.
7. Virtual absence of effective distribution network in the individual unit.
8. Exploitation by middlemen.

(vii) Problems regarding promotional policies and practices

Like product, price and channels of distribution, promotion is a vital component of marketing mix. It is significant because it creates awareness and conviction in the mind of ultimate consumers. In fact, without knowledge and understanding no customer is going to buy a product particularly the product of durable nature. It is, therefore, imperative for the marketer to inform the target market about the relevant attributes of the product, the price at which the products are available and the place at which the products have been made available for buying. The onerous job of communication is performed by different constituents of promotion, such as, personal selling, advertising, sales promotion. The entrepreneurs engaged in the small-scale industries in Varanasi lack the awareness and understanding of the vital role played by different components of promotion. The major problems regarding their promotion policies and practices may be expressed as under:

1. Lack of long-term promotion objectives.
2. Lack of appropriate combination of different tools of promotion.

3. Undue reliance on personal selling.
4. Lack of appropriate advertising budget.
5. Insufficient funds for promotion.
6. High cost of promotion.
7. Lack of eagerness to reap benefits from the support measures provided by government and other agencies for promoting the products of small-scale industries.

(viii) Problems regarding implementation and control

As stated earlier, implementation and control is the last stage in designing a marketing plan. Without implementation a plan may simply be considered as a mental child and without control if a plan is implemented, it may be regarded as an errant boy. It means when a plan is formulated it needs to be implemented effectively and controlled efficiently. As regards the marketing of small-scale industries in Varanasi is concerned, it may be concluded that it is half heartedly formulated and scatteredly implemented. As a result, exercising control becomes difficult.

Conclusion

The preceding analysis reveals that the small-scale industries located in Varanasi have been facing huge marketing problems. It encompasses a host of problems in assessing environmental situation, in establishing marketing objectives, in formulating product policies and practices, in designing pricing policies and strategies, in evolving effective distribution system and in developing persuasive promotional policies and programmes. Besides, whatever marketing strategy planning is evolved, it is not also implemented and controlled in an effective manner. It appears that the small-scale industries located in Varanasi are weak and inefficient not only in formulating marketing planning but also weak in the implementation and control of such a plan. It is thus obvious that the entrepreneurs running the small-scale industries lack at least the expertise in the area of general management and the total quality management.

Effective management requires leadership plus administrative skills in planning, organising, directing and controlling the entire business operations. Because of limited financial resources and inability to hire professional managerial personnel, small-scale units lack specialisation in the execution of various functions of management. The majority of small-scale units are sole proprietorship organisations and as such these units are highly personal in nature, i.e., the single man's show. It is very difficult to take quick decisions in all respects and implementing these decisions promptly since the sole proprietor is neither a production oriented engineer nor sales oriented merchant. He has no time to look after other functions. Moreover, the majority of sole proprietors are illiterate or have low level of education and lack managerial skill. They also do not possess the qualities like motivation, sense of commitment and business morality. Consequently, the small-scale units suffer from dearth of efficient management and poor managerial skill resulting in sickness of units.

Thus, it is evident that SSI sector faces difficulties at every stage of their activities, whether it is buying materials for production, organising production, selling products in the market, they are put to a number of difficulties. No wonder than that their products are small in quantity and shoddy in quality. Therefore, more concerted efforts, particularly in the area of marketing, are required on the part of the Government, Entrepreneurs, Promotional agencies and Financial agencies, so that the growth rate of SSI sector can be accelerated further.

In spite of such weaknesses, no one can ignore the fact that the SSI sector has been playing a very significant and strategic role in Indian capital scarce and labour abundant economy of continental dimensions. “The role played by this sector in the rapid economic development of Japan, Korea, Taiwan etc. is well known. The latest example, however, comes from Italy where during the last 20 years the dynamic role played by the small-scale industries has transformed the nature of Italian economy from agricultural to industrial, and from a ‘sick child of Europe’ to one of the most vibrant countries of Europe.” In India, the SSI sector has not only performed well, but has performed better than organised industries in terms of growth, exports and employment generation. Though, neither the promotion of small-scale industries nor the large scale industries alone will contribute towards the industrial development of the country. For the rapid and healthy industrialisation of the economy what is needed is an admixture of both small and large scale sector. Therefore, the further development of small-scale industries must be seen as complementary to medium and large scale industries.

References

Drucker, Peter F. (1978), “Marketing and economic development”; in C.Glenn Walters and Donald P. Robin’s “Classics in Marketing”, Good year Publishing Company, Inc., Santa Monica, California, p. 69.

Drucker, Peter F. (1958), “Marketing and economic development”, Journal of Marketing, Vol. XXII No. 1, p. 252.

Rao, Gangadhara M., Heggde Odeyar D. and Yadapadithaya P.S. (1993), “Industrial economy – trends, problems and prospects”, (Part-I), Kanishka Publishing House, Delhi, pp. 296-97.

Sharma, A.P. (1996), “Marketing problems of small-scale industries”; Quoted in Neelmegham, S. (ed.); “Marketing in India – Cases and Readings”, Vikash Publishing House Pvt. Ltd., New Delhi, p. 240.

Staley and Morse (1965), “Modern small industry for developing countries”, McGraw-Hill, New York, p. 231.

Tuteja, S.K. (2001), “Small and medium enterprises in the digital era”, Laghu Udyog Samachar, New Delhi, Vol. XXV, No. 6 to 8, p. 3.

Reporting Intangible Assets: An Empirical Study of the Developing Economies

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Abstract

The purpose of financial reporting is to provide information that is useful for decision making. Recently, however, there has been a systematic decline in the usefulness of such information. Indeed, the current reporting model seems to be no longer sufficient mainly due to the fact that it ignores many of the non-financial intangible factors which are increasingly becoming important in determining corporate value and performance. That is, there is a need for the traditional reporting model to be modified or at least broadened to reflect Intangible Assets in order to enhance the usefulness of information being provided to different stakeholders.This study examines factors associated with the voluntary disclosure practices of the top 100 developing market companies in respect of information about Intangible Assets and to find the applicability of Lev's (Lev,2001) framework. Further, the extent of IA disclosure is associated with, industry type, and price-to-book ratio. Country-specific factors such as economic policy and legal system are also found to be significantly associated with IA voluntary disclosure levels.

Keywords Voluntary disclosures; Intangible assets; Lev's framework

Introduction

In recent years, the growth of the service sector, along with the dramatic increase in the number and size of international mergers and acquisitions, has made accounting for Intangible assets very significant. While the importance and the necessity of such assets in creating and maintaining corporate value have been widely accepted, traditional financial reporting frameworks unfortunately do not capture many of these value drivers due to the "non-physical" nature of intangible assets and the subsequent uncertainties associated with their "future benefits". It is not industrial value chain that creates value, it is innovation and constantly seeking new ways of meeting market demands. Companies can no longer differentiate themselves neither create competitive advantages, without intangible assets.

Despite widespread acceptance that intangible are critical to the future prospects of a business, they have traditionally been put in the too-difficult box – in terms of both their ongoing management and communicating their value. The fact that it can be difficult to obtain the information needed to manage and enhance the value of intangibles, together with the sensitivity of that information, have held many companies back. Financial reporting therefore should provide relevant information to current and future stakeholders, and consequently, any event that is likely to affect a company's current financial position or its future performance should be reported in its annual accounts. It has been argued, however, that the corporate reporting model has failed those for whom it intends and ought to serve best and, subsequently, neither the companies that report, nor the investors who listen, have fared well in recent years. There has been a systematic decline in the usefulness of information contained in the corporate financial reports to investors over the past 20 years. This has been attributed to two assertions that dominate discussions on today's corporate reporting practices. First, the economy in the 21st century is fundamentally different from the economy of the 1950s, resulting in what is now known as the "new economy". Second, traditional financial statements, based on a reporting framework developed mostly in the 1950s, therefore do not capture many of the value drivers that dominate the new economy.

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Unfortunately, almost all of these assets are absent from financial statements mainly due to the lack of ability of the current accounting standards to prescribe how to recognize Intangible Assets due to their "nonphysical" nature and the subsequent uncertainties associated with their "future benefits". The traditional accounting model, therefore need to be modified or at least broadened to reflect Intangible Assets, so as to enhance the usefulness of accounting information.

Objectives

- To examine the Intangible Assets Voluntary disclosure practices of the top 100 developing market companies.
- To investigate the variety, nature and extent of Intangible Assets voluntary disclosure practices.
- To study the relationship between corporate and country specific factors and level of Intangible Assets voluntary disclosure practices by the companies under the study.

Intangibles: A concern of reporting and accounting research

Accounting academics, regulators and other major stakeholders are grappling with the trade-off between the relevance of external financial reports and maintaining the reliability and verifiability of the information provided. Pressure to expand reporting of intangible assets threatens the reliability and verifiability principles that underpin most accounting reporting frameworks, given the contingent nature of some intangible assets. Regulators are faced with a conundrum. They want to promote public interest and investor confidence by ensuring that financial reports are based on verifiable data. On the other hand, they want to encourage financial reporting that is informative to stakeholders and promotes efficient resource allocation. To date regulators have maintained a conservative approach to the measurement and reporting of intangible assets

The concern over the relevance of conservative reporting practices has generated a considerable amount of research investigating intangible asset related issues. The concern is that intangible expenditures comprise a large and growing proportion of total investment and operating expenditures but that this is not reflected in financial accounting rules and external financial reporting practices. An additional concern is the impact of financial accounting regulation on the design of information systems designed to support internal management decision-making. Microeconomic and Macroeconomic evidence provide support for the premise that the level of, and proportionate expenditure on, intangible expenditures have been growing. Furthermore, both the accounting and economics literature demonstrates the important information role of intangibles at the enterprise level. For example, a large number of studies show intangible expenditures and assets are relevant to firm valuation, including research and development costs (see Lev 1999 "Intangibles at crossroads"), patents, brands and trademarks, customer satisfaction, and human resources (see Lev, 2001). However from an external financial reporting perspective, the evidence suggests that conservative accounting, which understates assets, reduces the quality of the financial statements and accounting earnings. This has flow-on effects for firm valuation.

The absence of intangible value in traditional accounting means that today's financial statement lack relevance. The balance-sheet may state "shareholder equity" at a fraction or a multiple of the intrinsic, economic or market value of a company. The income statement may not be indicative of the economic or shareholder value added over the reporting period. Day by day public is rapidly gaining access to most modern communication technologies. Entrepreneurs are able to draw on unprecedented scale economies and building vast empires, making great fortunes. As a result the government and public demand that these powerful new monopolists be held accountable under law. Every day there are new technological advances to which the old business model seems no longer to apply. Sure, today's world is different in myriad of ways from that of century ago.

The development of these intangible activities has created a challenge before monitoring authorities. General Acceptance Accounting Principles (GAAP) does not convey relevant and timely information about the innovation process- business model-critical to the survival and success of business enterprises. Investment in discovery /learning is by and large expensed immediately in financial reports, and most investment items (e.g. Employee training, investments in web based systems) are not even reported separately to investors. The observation of recent corporate practices shows that value creating implementation stage of the innovation chain (like the case of drug approval, patent grant, or a successful beta test of a software product) is all but ignored by the transaction-based accounting system. And even the commercialization stage, which generates recordable costs and revenues, is generally reported in a highly aggregated manner, defying attempts to evaluate the efficiency of the firm's innovation process, such as the assessment of return on R&D or technology acquisition, the success of collaborative efforts, and the firm's ability to expeditiously "bring products to the market. This failure to adequately reflect in a timely manner, important aspects of the innovation process is largely responsible for the decrease in the usefulness of financial reports.

Notwithstanding these trends, managers live in a world where intangibles remain under-recognized, under-managed and under-reported. While virtually every CEO is quick to point to human capital as the organization's primary asset, it is typically this asset that is first in the queue to feel the consequences of mergers and acquisitions. In government circles, measures of GDP are woefully inadequate in fully accounting for intangibles in national income accounts.

Difficulties encountered in trying to establish the real wealth and value of an organization has become a major challenge with the progress of the knowledge-driven economy. A new global economic order is emerging where the established norms of wealth-creation, investment and financial risk are called into question. As stated in a publication "ICT investment in the intangible economy", "The defining trend is the shift from tangible to intangible factors of corporate value and competitive advantage and this, in turn, has led to the emergence of a discrete intangible economy in its own right".

Methodology and scope

This paper examines the voluntary disclosure practices of the top 100 developing market companies regarding the variety, nature and extent of Intangible Assets using a disclosure index based on the Value Chain Scoreboard using content analysis as main tool narrative sections of the 2007 annual reports of the top 100 developing market companies were analyzed. A list of the top 100 developing market companies was obtained from Business Week, July 2003 issue, which is based on the performance during the previous financial year. Out of the 100 initial sample companies, 7 were eliminated due to unavailability of English annual reports, and subsequently, the final sample comprised 93 developing market companies. Traits shared by the top 100 developing market companies include good corporate governance, steady earnings performances, increasing brand values, and awareness of related Intangible Assets. These types of corporate information are likely to be demanded by potential global investors, and subsequently, the companies should answer the demand by voluntarily supplying the information.

Value chain scoreboard

For the purpose of the current study, the Value Chain Scoreboard was modified and used as the Intangible Assets disclosure index. The Scoreboard is based on the concept of a value chain of a corporation which reflects the "fundamental economic process of innovation, vital to the survival and success of business enterprises". According to Lev (2001), there are three phases to the value chain process within the corporation; Discovery and Learning, Implementation, and Commercialization.

- Discovery/Learning: In this phase new products (drugs, software, consumer electronics), processes (Internet-based supply or distribution channels), and services (risk management or internal control systems) are developed. These innovations are sometimes discovered internally by scientists and engineers (R&D), but increasingly are acquired from outside the organization. The discovery/learning process is sometimes an outcome of a systematic strategy (e.g., the scientific approach to product development), and other times the result of trial and error or sheer luck.
- Implementation: This phase is achieving the stage of technological feasibility of products and services, software products satisfying beta tests, or websites reaching a threshold number of unique visitors or repeat customers. Establishment of legally protected intellectual property rights, in the form of patents and trademarks often takes place during this phase.
- Commercialization: Bringing new products/services quickly to the market and earning above-cost of capital return on the investment caps the innovation process.

Table 1:Disclosure index

Discovery & Learning	**Implementation**	**Commercialization**
Research and Development	Patents, trademarks, and copyrights	Marketing alliances
Work force training and development	Licensing agreements	Brand values
Management processes	Government approvals	Customer churn and value
Infrastructure assets	Beta tests, working pilots	Online sales
Spillover utilization	First mover	Environmental reporting
R&D alliances and joint ventures	Online trading	Revenues, earnings, and market share
Customer integration	Major internet alliances	Innovation revenue
Supplier integration		Product pipeline and launch dates
Communities of practice		Expected efficiencies and savings
		Planned initiatives
		Expected breakeven and cash burn rate

Results and findings

In summary, the sample companies were found to report a variety of Intangible Assets information, both quantitative and qualitative with varying degrees of extensiveness, in the narrative sections of their annual reports. Companies engaged in voluntary disclosure practices to explain their Intangible Assets, often using pictures and diagrams to support their disclosures, and contrary to the belief that most voluntary disclosures are qualitative only in nature, most Intangible Assets disclosures were supported by quantitative (financial and non-financial) information of Intangible Assets item being disclosed.

Further, as expected, most companies disclosed Intangible Assets information stemming from the Discovery and Learning (86 companies) and Commercialization (84 companies) phases of the Value Chain – 94.50 % and 92.30 % of the sample companies respectively, while only 62 out of 91 sample companies (68.13%) voluntarily disclosed information on Intangible Assets stemming from the Implementation phase. It was also found that all of the Intangible Assets Disclosure Index items were being disclosed in annual reports by at least one of the sample companies.

Table 2: Number of companies disclosing IA information

Sample Companies	
IA Voluntary Disclosure in Annual Reports	**Number of Companies (%)**
Number of companies disclosing IA	91 (97.84%)
Phases of IA being disclosed	
Discovery and Learning	86 (94.50%)
Implementation	62 (68.13%)
Commercialization	84 (92.30%)

Evidence of improved voluntary disclosure

The previous research literature has argued that most of the voluntary disclosures regarding social and environmental activities of corporations are qualitative in nature and thus they may not be as useful in decision making processes of stakeholders compared to quantitative information recognized in financial statements. Surprisingly, however, the majority of Intangible Assets voluntary disclosures in the current study were quantitative and, further, companies provided monetary values for most of their quantitative disclosures. In particular, out of the 91 companies disclosing Intangible Assets stemming from the Commercialization phase, such as marketing innovation, market shares, and planned initiatives, 60 companies (71.42%) utilized quantitative measures, with 40 of these companies providing monetary values. This is somewhat expected since the Commercialization phase of the value chain shows the successful realization of the Intangible Assets implementation and, hence corporations are expected to reap the benefits of Intangible Assets financially. Not surprisingly, such benefits can be expressed in quantitative disclosures of Intangible Assets information.

Table 3:Nature of IA disclosure (quantitative vs. qualitative)

Types of IA disclosed in annual reports	**Number of companies with quantitative IA disclosure (%)**	**Number of companies with qualitative IA Disclosure (%)**
Discovery and Learning Phase (n =86)	54 (62.79%) Financial = 30 (55.56%) Non Financial =24(44.44%)	32 (37.20%)
Implementation Phase (n=62)	40 (64.51%) Financial = 10 (25%) Non Financial = 30 (75%)	22 (35.48%)
Commercialization Phase (n = 84)	60 (71.42%) Financial =40 (66.67%) Non Financial = 20 (33.33%)	24 (28.57%)

Further, 54 companies (62.79% of the 91 companies disclosing Intangible Assets from the Discovery and Learning phase) also used quantitative measures to describe Intangible Assets stemming from the Discovery and Learning phase. The results are consistent for Intangible Assets disclosures under the Implementation phase as well; 40 (64.51%) of the 62 sample companies disclosing Intangible Assets from the Implementation phase provided quantitative information. It is, however, worth noting that only 10 of these companies provided quantitative Intangible Assets information comprising monetary values. This suggests that although corporations are willing to disclose how much, in financial terms, resources were spent on Intangible Assets items such as research and development and workforce training and development(Discovery and Learning phase), and how much value, in quantitative terms, was created by Intangible Assets, represented by market share and customer churn and value (Commercialization phase), they are less willing to disclose quantitative information on the process involved in how they went about converting research and development and workforce training and development into market share and customer churn and value (Implementation phase).

The extent of voluntary disclosure as individual IA items across industry types

From the study of disclosures of the 28 individual Intangible Assets items, not surprisingly, 4 out of the top 5 items disclosed were from the Discovery and Learning phase, with "workforce training and development" being the most disclosed Intangible Assets item (16.57% of the total Intangible Assets disclosure). This result is perhaps due to companies responding to recent management studies which have emphasized the importance of human resource management in creating and maintaining successful corporations.

The second most extensively disclosed Intangible Assets item was "communities of practice", also under the Discovery and Learning phase. The large amount of voluntary disclosure devoted to this particular item may be due to the nature of the sample companies. The least extensively disclosed individual Intangible Assets items were innovation revenue (item #23), patent and know-how royalties (item #24) and cash burn rate (item #28), all from the Commercialization phase. The common characteristic of these items is that they are financial in nature which may be recognized in financial statements as part of corporate revenues. That is, any additional voluntary disclosure of such information would not require an extensive narrative disclosure.

In summary, the type of Intangible Assets being disclosed by sample companies varied greatly according to their industry type. Not unexpectedly, companies disclosing most on "workforce training and development" (Item 2 of the Intangible Assets Disclosure Index) and the impact of their activities on and subsequent preservation as part of "environmental reporting" (Item 21 of the Intangible Assets Disclosure Index) were from the Energy/Materials/Industrials industry group which primarily comprises manufacturing, construction, and mining companies. In general, these companies included quite a large section on how to maintain their environmental policies above and beyond what is perhaps required of them via regulations in order to satisfy their obligations and legitimize their activities to the community.

Conclusion

Above paragraphs examined the Intangible Assets information voluntarily being disclosed by the developing market companies using the Disclosure Index based on the Value Chain Scoreboard. Findings from the extensive content analysis show that, consistent with the proposition, the majority of the developing market companies are engaged in Intangible Assets voluntary disclosure practice. As expected, most companies (94.50% of the sample) disclosed Intangible Assets information stemming from the Discovery and Learning phase of the value chain, while only 68.13% of the sample developing market companies disclosed Intangible Assets stemming from the Implementation phase.

Findings of the content analysis also suggest that while most companies engaged in Intangible Assets voluntary disclosure practices, did not necessarily disclose information on a variety of Intangible items. Contrary to the popular belief that most of the corporate voluntary disclosures are qualitative only in nature, however, it was found that the majority of companies disclosed Intangible information with quantitative (both financial and non-financial) components. Findings also indicate that the variety and nature of Intangible Assets voluntary disclosures varied based on each sample company's country of origin and industry type.

With all above discussions beginning from definition to policy trends and disclosures of intangibles it becomes clear that we must now expand accounting, controlling-and management systems to a new level, to enable companies to optimize, manage and report on today's new value creating activities and processes because "What you can't measure you can't manage".

References

A Book-Keeping error. The Economist, Aug. 30, 2007. http://www.economist.com/finance/displaystory.cfm?story_id=9724324

Barth, M. E., Landsman, W. and Lang, M. (2005) "International accounting standards and accounting quality", SSRN Working Papers Series March, available at SSRN: http://ssrn.com/abstract=688041. Last accessed June 2007.

Bounfour, Ahmed, "The management of intangibles: The Organizations most valuable assets", Routledge Publications.

Choi, F. D. S., Frost, C. A. and Meek, G. K. (2002) International Accounting, and (4th ed.), New Jersey: Prentice Hall.

Damodaran A., (2002), "Investment valuation: Tools and techniques for determining the value of any asset", 2nd Edition, John Wiley & Sons

Francis, J., and Schipper, K., (1999), "Have financial statements lost their relevance?", Journal of Accounting Research, 37, 319-52.

Guha, K., and E. Callan, (2007), "Central banks' dilemma over information deficit", Financial Times, Aug. 16.

Hogner, R. H (1982), "Corporate social reporting: eight decades of development at US Steel", Research in Corporate Performance and Policy, Vol. 4 pp. 243–50.

Lev, B. (2001), "Intangibles: management, measurement and reporting", Washington, D C: The Bookings Institution.

Lev, B. (2003), "Remarks on the measurement, valuation, and reporting of intangible assets", FRBNY Economic Policy Review, September, pp. 17–22.

Porwal, L.S., (1999), "Accounting Theory: An Introduction", Tata Mcgraw Hill Publishing House.

Reddy, C.R., (2000), "Research Methodology in Social Sciences", Daya Publishing House.

Saudagaran, S. M. (2001) "International Accounting: A User Perspective", South- Western College Publishing.

Saudagaran, S. M. and Diga, J. G. (1997) "Financial reporting in emerging capital markets: characteristics and policy issues", Accounting Horizons, Vol. 11, No. 2, June, pp. 41–64.

Saudagaran, S. M. and Meek, G. K. (1997) "A review of research on the relationship between international capital markets and financial reporting by multinational firms", Journal of Accounting Literature, Vol. 16, p. 127–159.

Tripathi, P. C., (1985), "Research Methodology in Social Sciences", Sultan Chand & Sons.

Upton, Jr., W. S. (2001) "Business and financial reporting – challenges from the new economy", Financial Accounting Series: FASB.

Watson, A., Shrives, P. and Marston, C. (2002) "Voluntary disclosure of accounting ratios in the UK", British Accounting Review, Vol. 34, pp. 289–313.

Sickness in Small-Scale Industries: Causes & Remedies A Case Study of Manipur

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Abstract
Manipur, one of the eight north-eastern states of India is an industrially underdeveloped state. Large and medium scale industry is totally absent in this state. As per the annual report of Ministry of Micro, Small and Medium enterprises, Government of India, 2009-10, there are 60,625 small scale units in Manipur. SSIs are very important in this state as it plays an important role in redressing unemployment problem. But, of late, sickness in SSIs in Manipur is becoming a big problem. The causes of sickness differ from industry to industry. So far, the real or root causes have not been identified and corrective measures have been not taken on the basis of causes. Here, this paper tries to highlights the causes and remedies of industrial sickness of small scale industries in Manipur.

Keywords Sickness, Internal causes, External causes

Introduction
The importance of small scale industry has been increasingly recognized in Manipur as a solution for the problem of scarcity of capital and widespread unemployment and poverty. But it has not served it purposes, started turning sick increasing numbers. The causes of sickness differ from industry to industry. The real or root causes have not been identified and corrective measures have been not taken on the basis of causes. The percentage of population bellow poverty line is 3.76 lakhs as per 61st Round of the NSSO's Sample Survey (July 2004 to June, 2005). The government, NGOs and private sector are implementing programs aimed at improving governance and accountability of public institution to be able to better respond to the needs of the poor, assisting them economically through creating income and employment opportunities, and improving their access to better services. Employment creation is one of the most viable ways of reducing poverty levels in the country. This wins small scale industries an important place in the economy since the since of medium and large scale sector has crippled their abilities to absorb Manipur's surplus labour. The capital to labor ratio in the small sector is around one-fourth that large scale sector. Thus small scale sector also need less level of investment per job created, offering a rather an inexpensive way of accommodating excess labour in the rural and urban areas alike. Small scale sectors thus become tool of equitable wealth distribution throughout the state. If approached strategically, thousands of jobs could be created in the agro-based, handlooms and handicrafts industries etc. The present paper highlights the causes and remedies of industrial sickness of small scale industries in Manipur.

Literature review
An attempt is made here to review the existing literature on the subject of industrial sickness. Any literature available on the industrial sickness varies from individual researchers to committee reports, empirical studies to descriptive works and general to specific nature of studies. A brief review of literature in this concerned subject is given as follows:

Nalini V. Dave (1987) in her Ph.D. thesis in 1987 entitled "Industrial Sickness and Key Area of

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Management' have examined the strength and weakness of management practices in textiles units against the norms laid down by various authorities of management science. Bidani & Mitra (1982) in their book entitled "Industrial Sickness-Identification and Rehabilitation" have stated that industrial sickness develops gradually and is not an overnight phenomenon. Mathur (1999) made an attempt to identify the major causes of sickness in the small scale industries along with the contributory factors of the entrepreneurs and the commercial banks in the growing incidence of sickness in the small scale industries.

Bhatia and Batra (1997) in their book titled "Management of Sick Industries" had collected several papers contributed by experts in the field of industrial sickness. An effort was made in their book, to meet the requirements of Indian industries in managing and monitoring the industrial sickness.

Sahu and Mishra (1992) in their book entitled "The Critical Appraisal of Industrial Sickness" thoroughly examined the nature of sickness in Indian industries and outline a model to predict sickness in Indian corporate sector.

Panda & Meher (1992) made a study, which was interdisciplinary in character, exposing the problems of sickness in the SSI sector from multi-dimensional angles. The study took into account both economic and sociological factors that hinder the healthy functioning of the SSI units in an industrially under developed state like Orissa by undertaking intensive field study at one of the oldest and largest industrial estates of Orissa.

Gangwal(1990) analyses the causes of 119 sample sick SSI units financed by the Rajasthan state financial corporation and found that the broad reasons of sickness were delay in project implementation, the problems pertaining to the management of the functional areas of production, marketing, finance and personnel and external problems.

National Census of Small Scale Industries (1997) found that out of the 2, 99,186 units registered with the state district industries, as many as 32,315 or 11 percent were not traceable, another 66,161 or 22 percent were permanently closed. The closed units were grouped into five categories:

a) Cumulative mortality of units;
b) Units which have changed their addresses;
c) Units which were closed down permanently;
d) Units which could not be located because of incomplete addresses;
e) Units not in existence and units who have mis-utilized raw materials and other facilities.

Materials and methods

As a matter of fact, industrial sickness in the small scale industries in Manipur is an area of great concern nowadays. With an ever increasing population of the state and less scope for getting jobs in public sector, these small scale industries are the only hope of providing a source of livelihood to the local populace. In these present days of down-sizing and right-sizing in government jobs, a proper study of industrial sickness and finding its measures to stop it will be the only means of empowering the people for economic development.

We have selected 50 sample units from the rural areas of the state for the purpose of the study; those with 5 years' existence and not working at present have been taken for study. It had also been ensured to give equal representation to different types of industries and only those sick units earlier registered with Industries Department as an SSI have been selected for the study.

The data for the study have been collected mostly from the primary sources in April – July, 2007. An elaborate questionnaire was prepared for administering among the entrepreneurs. For the purpose of conversing the questionnaire one entrepreneur for each industry has been selected irrespective of the fact that some are partnership firms and some are proprietorship firms.

Results and discussion

Sickness in industrial undertakings usually arises due to a complex of factors present in the internal and external environments. Internal environment pertains to the factors within the control of management whereas external environment relates to the factors beyond the control of the management. Similar to these factors, for the present study, the causes of industrial sickness are broadly divided into the following heads:

- **Internal causes of sickness:**
  - a) Faulty project selection
  - b) Marketing problems
  - c) Financial problems
  - d) Production problems
  - e) Personnel problems
  - f) Others
- **External problems relating to banks and other financial institutions:**
  - a) Under-financing by banks
  - b) Over-financing by banks
  - c) Delay in disbursement of loans
  - d) Delay in detection of early symptoms of sickness
  - e) Delay in decision and action to rehabilitate the unit.
  - f) Others.
- **Sickness made by government:**
  - a) Change in government policies
  - b) Delayed in payment of bills by the government departments
  - c) Red-tapism by government officials
  - d) Others.
- **External problems:**
  - a) Raw-materials
  - b) Power
  - c) Marketing
  - d) Labour

e) Finance

f) Others

- **Other external problems:**

a) Fire, flood, other natural calamities

b) Other family problems

c) Social problems like strikes, bandhs, insurgents, extortions etc.

Taking into account the above mentioned causes of industrial sickness, an attempt is being made here to analyze the findings of the study as follows:

Internal causes of sickness

Table 1 shows the internal causes of sickness. 40 percent of the total sick units (20 units) had been caused by internal financial problems. It is followed by faulty project selection (24 percent) and marketing problems (20 percent). Production problems affected the units at the least (16 percent). And as far as internal causes of sickness are concerned, it is found that there is no personnel problem in the units studied for industrial sickness.

Table 1: Internal causes of sickness

Sl. No.	Internal causes of sickness	No. of respondents	Results in percentage
1.	Faulty project selection	12	24
2.	Marketing problems	10	20
3.	Financial problems	20	40
4.	Production problems	8	16
5.	Personnel problems	-	-
6.	Others	-	-
Total		50	100

Source: Field Survey

External causes of sickness relating to banks and other financial institutions

Availability of finances, that also in time, is very important for the smooth functioning of an enterprise. But, as can be seen from Table 2, 38.0 percent (19 units) of the sampled sick units under study suffered from the severe problem of delay in disbursement of loans by banks and other financial institutions. Delay in detecting early symptoms of sickness (20.0 percent) and delay in decision and action to rehabilitate the unit (18.0 percent) also affected the units at their troublesome days of sickness. It is also an interesting finding where 8.0 percent (4 units) of the sampled units had expressed an external problem due to over-financing by the banks.

Table 2: External problems relating to banks and other financial institutions:

Sl. No.	Causes of sickness	No. of respondents	Results in percentage
1	Under-financing by banks	8	16
2	Over-financing by banks	4	8
3	Delay in disbursement of loans	19	38
4	Delay in detection of early symptoms of sickness	10	20
5	Delay in decision and action to rehabilitate the unit.	9	18
6	Others.	-	-
Total		50	100

Source: Field Survey

External causes of sickness made by Government

Sometimes, Government itself becomes the villain of these unfortunate sick industries. It can be proved from the Table 3 that 58.0 percent of the total sampled units suffered from red-tapism by government officers (29 units). No doubt, change in government policies was also a major factor (26.0 percent) as far as industrial sickness is concerned. Delayed in payment of bills by the govt. departments also affected some of the sick units (8 percent).

Table 3: Sickness made by Government:

Sl. No.	Causes of sickness	No. of respondents	Results in percentage
1	Change in government policies	13	26
2	Delayed in payment of bills by the govt. departments	4	8
3	Red-tapism by government officials	29	58
4	Others.	4	8
Total		50	100

Source: Field Survey

External problems

Here, an attempt is made to ascertain the external problems being faced by the sick units. Table 4 shows that maximum of the sampled units (38.0 percent) faced the problem of power as the external problem which are beyond their control. They had to availed power generators, there by increasing the costs of products. 28.0 percent of the units opined marketing as the major external problem as against finance problem (18.0 percent) and raw-materials (16.0 percent). Interestingly, there was not even a single unit having the problem of labour among the sampled units.

Table 4: External problems

Sl. No.	External problems	No. of respondents	Results in percentage
1	Raw-materials	8	16
2	Power	19	38
3	Marketing	14	28
4	Labour	-	-
5	Finance	9	18
6	Others	-	-
Total		50	100

Source: Field Survey

Other external problems

Social problems like strikes, bandhs, insurgents, extortions etc. are acute external problems faced by the units. Economic blockades are so common on the two National Highway of Manipur. That's why it is not surprising to note that all the sample units, irrespective of its location, had expressed its uneasiness to cope up with all these external problems. Given the increasing insurgency problems in the state, outside entrepreneurs (innovative entrepreneurs) are hesitant to come to the insurgency stricken state for establishing their industrial units (Tomba, Kh: 2002).

Over and above the foregoing causes, it was found from the field survey that most of the sampled units lack financial discipline and information and hardly have they resorted to financial planning and forecasting with no long term prospective in mind. One hardly comes across among the units preparing cash flow statement. If any authority even wanted to rehabilitate these sick units, the financial statements of the units have to be analyzed. But in its absence, the process itself is big problem.

Another serious problem being faced by majority of the sampled units is that of competition from large scale industries, out of state and even from foreign countries. In the case of Manipur, recent development has shown that trade has become inextricably linked with the development process. Any prolonged disruption in trade can destabilize the standard of living of the people significantly. The pattern of development in the state has been such that it has come to depend extensively on imports from other states even for the minimal day-to-day requirements. A large, volume of goods including the daily necessities is imported into the state from different part of the country as well as from Myanmar via Moreh. There is no significant item of export from Manipur (Singh, Priyokumar: 2002).

Remedies of sickness

During the past few years, sickness in industries has become a very thought provoking and obvious offshoot of the modern jet age industrial society. It is, however, not a very recent phenomenon and certainly not peculiar only to India. It has become all pervading, touching all countries. But its recent growth and magnitude, recently, is so rapid that it has assumed unmanageable proportions in India in general and in Manipur in particular. It is a continuous process and painful reality of rapid industrialization which starts right from the very beginning of industrialization. The question, now, is how to safeguard properly and utilize effectively the sunken capital of the public and the private institutions in sick units.

It is nothing but a choice between opportunity cost for nursing sick units and closure of a large number of sick units thereby resulting into social lost of the economy and a dampening effect on the new ventures in Manipur.

Major reasons for industrial sickness in Manipur can be prevented if we ensure:

i) that the project is viable.

ii) that the approved and clearances for finance and the assistance are available in time under simplified procedures and one windows service.

iii) that there is no delay in clearance for importing capital goods and raw materials.

iv) that the project is implemented and commenced as per schedule.

v) that the action to modify the product mix is in time if there are changes in the market demand.

vi) that there is uninterrupted power supply for the industrial purpose.

vii) that the entrepreneurs are sincere, efficient and accountable and at the same time, punishment must be awarded for delay, negligence, mismanagement of mis-utilization of funds.

viii) that only the required number of manpower is recruited based on efficiency, skill and competency.

ix) that there are healthy and cordial labour relations.

x) last, but not the least, there is effective systems and controls at all levels of operations.

The following assistances and incentives will be very helpful in preventing the industrial sickness in Manipur keeping into consideration the above facts and figures,

a) no loan on the specific project till the project becomes economically viable

b) full exemption from custom duty on all capital imports

c) holiday on tax

d) transport subsidy

e) incentives for increased output

f) rewards and recognition for full capacity utilization

g) assistance in marketing of products

Suggestions

At the very outset, it has to be said that a strong determination is needed for dealing with the disease of industrial sickness. Otherwise, the same disease is definitely bound to spread to the whole industrial sector. In a state like Manipur where resources are very scarce, every effort should be made for its maximum utilization and the question of resources being kept idle and unproductive should not be tolerated. Otherwise, the ever increasing incidence of industrial sickness may threaten the whole socio-economic setup of the state in particular and the country in general. The following suggestions are made to prevent and avoid industrial sickness in Manipur:

- **Role of banks and other financial institution**

The steps to be taken to rehabilitate sick units are far more important than the establishment of units. In this context, banks and other institutions must play a significant role. In fact, the funds already invested in sick units can be realized if these units are revived. If they are not rehabilitated, then they may sink and have to be closed down.

In these regards, the following steps gather immense importance:

i) Banks and other financial institutions must undertake a careful project appraisal before assisting an industrial unit. At the same time, financial transactions of their clients must be closely monitored by sending questions and information instead of just receiving periodical but out dated returns from them.

ii) Banks must supervise the assisted units relating to debit and credit balances, forwarding and b made to sister concerns, relatives etc.

iii) One or two staff members of the banks and other financial institutions must be always in charge of periodical inspection of the assisted units so as to ensure its efficiency and proper review of production schedules, stock of raw materials and finished goods.

iv) Any sort of discrepancies in collecting information or from the unit should not be tolerated. The service of efficient financial analysts must be available to each bank branch at short notice.

v) As a general rule, banks and other financial institution must nominate directors in the industrial units, more particularly those which are likely to detect sickness.

vi) Utmost care must be taken in financing stocks of raw-materials and finished goods which are often affected by sharp price fluctuations.

vii) In case of overdrawing, the assisted firms needs to be suggested about its underlying problems and should also be ensured that remedial measures are initiated.

viii) Banks needs to be extra careful when they have to provide large funds to neglect and priority sectors. Such lending should not be at the cost of financial prudence (Simha, S.L.N.: 1978).

- **Role of the Government**

In a developing country like India, the Government is often a dominant stakeholder even in privately owned enterprises. The various tax relief and subsidies it provides its ownership or control of the institutions that finances organisations, its enterprises related policies stemming from its overriding concern with industrial development, etc. make it a major stakeholder even in minor enterprises. Its actions often affect the health of whole industries. New units come up through appropriate policies, tax incentives, subsidies, infrastructural facilities, etc. and they also disappear or get sick like a simple magic. The policies of financial and infrastructural support provided or withheld by the government is a determinant of health and sickness of many an industrial unit. Frequent changes in Government policies need to be avoided to reduce industrial sickness.

The Government can play a crucial role by ensuring adequate supply of power, transport and raw materials and taking care that its policies formulated to achieve certain social objectives do not affect the industrial units. The possibilities of creating a fund for the purpose need to be exposed.

- **The role of professionals**

Professionals such as financial analysts, project coordinators, accountants etc. has a big role to play in checking and signaling the industrial sickness through continuous study adopting different models for forecasting of sickness. It should be the joint efforts of accountants, engineers, marketing personnels and production people to avoid sickness and even if so happens, for revival of sick units. But in a small state like Manipur, small entrepreneurs cannot bear the cost of such professionals. In order to overcome such a problem, the state government should make a provision to establish consultancy cells in banks, other financial institutions, District Industry Centres and other Government Departments, consisting of professional in different fields of industrial operations. This will help in smooth functioning of industrial units and at the same time, helps in preventing and revival of the sick unit by closely monitoring the implementation of rehabilitation package.

- **Role of the entrepreneur**

To conclude, the role of the concerned entrepreneur is very important as far as to avoid industrial sickness. It is the sole responsibility of the concerned entrepreneur to avert sickness in the unit set up by him. This can be possible if the entrepreneur does his job properly while preparing his project work, if he understands and pays adequate attention to the deficiencies pointed out by the aspiring officials of the banks and other financial institutions, if he selects the required capital goods carefully, if he appoints only the efficient and required number of worker in time, if he implements his project within his estimated cost and as per time schedule.

References

Annual Report (2009-10), Ministry of Micro, Small and Medium Enterprises, Government of India.

Bhatia, B.S. & Batra, G.S. (1997), "Management of sick industries", Deep & Deep Publications, New Delhi.

Development Commissioner, Small Scale Industries, (1977), "Report on the census of small scale industries unit", Vol. I &II.

Mathur, B. Satish (1999), "Sickness in small scale sector", Concept Publishing Company, New Delhi,

Nalini. V. Dave (1987), "Industrial sickness and key areas of management", Deep and Deep Publications, New Delhi.

Sahu, P.K. & Mishra, D.P. (1992), "The critical appraisal of industrial sickness", Kanishkaublishing House, Delhi,

Simha, S.L.N. (Ed.) (1978), "Industrial sickness: Role of banks", "Credit Management (Planning, appraisal and supervision)", Institute for Financial Management, Madras, pp. 429-431

Singh, Priyokumar, Th.(2002), "Dynamics of trade in Manipur (1950-2006)", an unpublished Ph.D.Thesis submitted to Manipur University.

Singh, TombaKh. (2002), "Industrial sickness in Manipur- A case study of small scale industries", an unpublished Ph.D. Thesis submitted to Manipur University

S.N. Bidani and P.K. Mitra (1982), "Industrial sickness – Identification & rehabilitation", Vision Books, Delhi.

SubhashGangwal (1990), "New dimensions in industrial sickness", Subline Publications, Jaipur, p. 115.

Panda, R.K. &Meher, Raj Kishore (1992), "Industrial sickness : A study of small scale industries", Ashish Publishing House, New Delhi.