

SOUTH ASIAN JOURNAL OF MANAGEMENT

- | | |
|---|------------|
| J G Sri Ranjith and Benjamin Widner | 7 |
| Sri Lanka's Garment Industry: Prospects for Agglomeration, Challenges and Implications for Regional Development | |
| Roshna Varghese | 23 |
| Voluntary Annual Report Disclosures of Manufacturing Companies in India and Their Linkages with Organisational Demographics | |
| Santosh Kumar Tripathy and Namita Rath | 44 |
| Practice of Corporate Social Responsibility in NALCO and the Perceptions of Employees and the Public: A Case Study | |
| Sanuwar Rashid and Heikki Matilla | 62 |
| Study on the Scope and Opportunities of Category Management for Aligning the Supplier-Retailer Business Strategy | |
| Malay Biswas | 90 |
| Exploring the Relationship Between Terror Threat Perceptions and Coping Strategies: A Post-26/11 Assessment | |
| Rohit H Trivedi, Jayesh D Patel and Jignasa R Savalia | 121 |
| Pro-environmental Behavior of Consumers: A Taxonomy and Its Implications for the Green Marketer | |
| Case Study | |
| Tenzin Yeshi | 133 |
| Recruitment Challenges of a Government in Exile: A Case Study | |
| Book Reviews | 141 |



AMDISA
A SAARC
RECOGNISED BODY



SOUTH ASIAN JOURNAL OF MANAGEMENT

Vol. 18, Issue No. 4
October-December 2011

Editor
Mathew J. Manimala

**SOUTH ASIAN
JOURNAL OF MANAGEMENT**

Vol. 18, Issue No. 4
October-December 2011

Editorial Board

Editor

Dr. Mathew J Manimala
Indian Institute of Management,
Bangalore, India.
E-mail: manimala@iimb.ernet.in

Associate Editor

Ms. K Poomima Wasdani
E-mail: associate.editor.sajm@gmail.com

Assistant Editor

Ms. Kokila Jayasree
E-mail: assistant.editor.sajm@gmail.com

Members

Dr. Walter Good
University of Manitoba, Manitoba, Canada
E-mail: wgood@us.monitoba.ca

Dr. Mohan Kaul
Commonwealth Business Council, London
E-mail: mkaul@abcnet.org

Prof. Abdul Mannan
University of Liberal Arts Bangladesh,
Dhaka, Bangladesh
E-mail: abman1971@gmail.com

Prof. Gunapala Nanayakkara
Postgraduate Institute of Management—
International Center, Dubai

Dr. R D Pathak
University of South Pacific
Suva, Fiji, E-mail: pathak_r@usp.ac.fj

Prof. Khawaja Amjad Saeed,
Hailey College of Banking & Finance,
University of the Punjab, Lahore, Pakistan,
E-mail: kamjadsaeed@yahoo.com

Copyright © 2011, AMDISA

AMDISA

University of Hyderabad Campus
Central University Post Office
Hyderabad 500046, India
Tel: 91-40-64543774/5226
E-mail: amdisa@amdisa.org
Website: www.amdisa.org

To subscribe, please write to AMDISA
at the above address.

This Journal or any part thereof may not be reproduced in any form without the written permission of the Publisher, AMDISA. All data, views, opinions, etc., that are published in this journal are the sole responsibility of the individual authors. Neither the Publisher nor the Editor is in any way responsible for them.

ISSN: 0971-5428

Printed by Yashoda Graphics at M/s. Carol Creative Communications, #49-403/A/2, Padma Nagar Phase II, Chintal, Hyderabad 500054, Andhra Pradesh, India.

Contents

J G Sri Ranjith and Benjamin Widner	7
Sri Lanka's Garment Industry: Prospects for Agglomeration, Challenges and Implications for Regional Development	
Roshna Varghese	23
Voluntary Annual Report Disclosures of Manufacturing Companies in India and Their Linkages with Organisational Demographics	
Santosh Kumar Tripathy and Namita Rath	44
Practice of Corporate Social Responsibility in NALCO and the Perceptions of Employees and the Public: A Case Study	
Sanuwar Rashid and Heikki Matilla	62
Study on the Scope and Opportunities of Category Management for Aligning the Supplier-Retailer Business Strategy	
Malay Biswas	90
Exploring the Relationship Between Terror Threat Perceptions and Coping Strategies: A Post-26/11 Assessment	
Rohit H Trivedi, Jayesh D Patel and Jignasa R Savalia	121
Pro-environmental Behavior of Consumers: A Taxonomy and Its Implications for the Green Marketer	
Case Study	
Tenzin Yeshi	133
Recruitment Challenges of a Government in Exile: A Case Study	
Book Reviews	141

Sri Lanka's Garment Industry: Prospects for Agglomeration, Challenges and Implications for Regional Development

J G Sri Ranjith* and Benjamin Widner**

The purpose of this paper is to critically assess the relocation of garment industry 'industrial localization' from Colombo metropolitan area to suburban areas as a strategy for regional development. The government of Sri Lanka offered various tax incentives, tax holidays and abatements supplemented by market expansion strategies globally for achieving this goal. The advantages of this move is expected through agglomeration benefits forming industrial expansion in major cities in outlying regions, while stimulating rural sector through product differentiation and forming backward and forward linkages in the garment industry. The paper assesses the prospects of the Sri Lanka's garment industry to achieve the economies of agglomeration and its implications for regional development. The analysis of the factors that attract investment, location of industrial plants and their links to suburban and rural areas are discussed based on various regional modeling theories and tools. Finally, the paper explores the potentials as well as challenges faced by the garments sector in view of its competency as a regional development strategy. It concludes that although some of the necessary conditions are in place the sufficient conditions are yet to be satisfied in order to achieve the regional development goals through localization of the garment industry.

INTRODUCTION

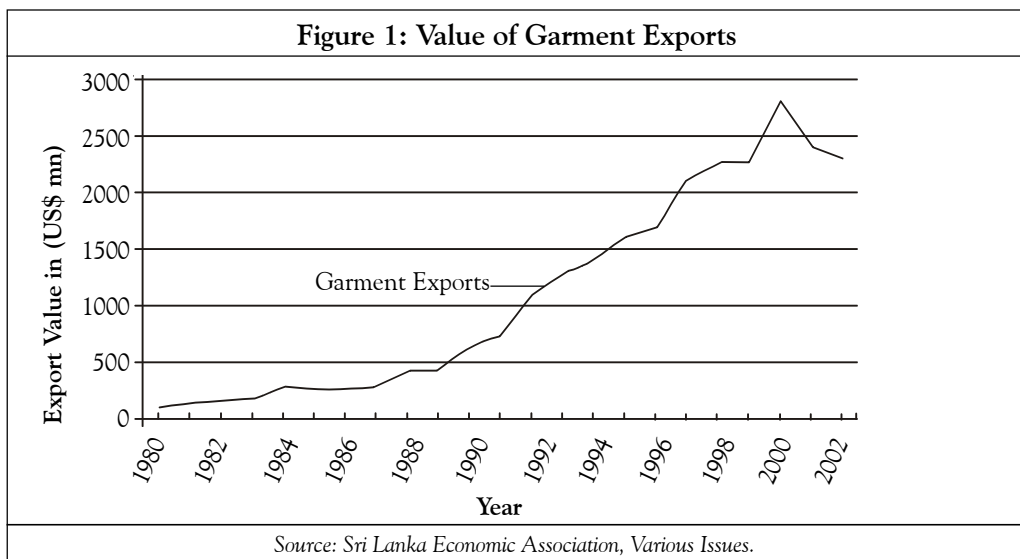
Sri Lanka has been a developing country for over more than five decades despite many comparative geographic advantages and development opportunities. During 1960s and 1970s, Sri Lanka implemented Import Substitution Industrial policy as its main strategy for the national economic development. Thereafter, moving along the global trend, the economic policy was shifted towards Export-oriented Outward-looking Industrial policy. With this policy change, some of the foreign exchange controls and trading restrictions were relaxed and the economic activities were made more responsive to the international market. Under

* Senior Lecturer, Department of Economics and Statistics, University of Peradeniya, Peradeniya (KY 20400), Sri Lanka. E-mail: sriranj@nmsu.edu

** Assistant Professor, Department of Economics and International Business, New Mexico State University, PO Box 30001/MSC3CQ, Las Cruces, NM 88003-8001, US; and is the Corresponding Author. E-mail: bwidner@ad.nmsu.edu

the open economic policies, incentives such as tax and tariff concessions, Free Trade Zones (FTZs)¹ were offered to attract and stimulate industrial investments of both local and foreign investors (Sivananthiran, 2007). As a result, producing small to medium-sized international textiles and apparel became a profitable industry for Sri Lanka due to the concessions offered by the government and the availability of low-cost, energetic, and young workforce. With this background Sri Lanka finds its ability to penetrate and exploit a number of niche markets as a supplier to international clothing brands. Thus, garments industry started growing as a reliable supplier of quality garments at competitive prices and became the largest contributor to the export revenue of the country. Also the sector upholds ethical practices backed by legislation, thus being identified as a producer of “garments with no guilt”.

The quota system which was fashioned by industrialized countries under the Multi-Fiber Agreement (MFA) in 1974 as a temporary arrangement to protect their domestic garment industries from the onslaught of cheap imports from low-wage countries, many of the South Asian countries including Sri Lanka came under quota-based exports. The favorable factors within the country and export market that commensurate with appropriate financial and trading policies made the textile and garment industry a driving force to an economic boom in the following two decades (Kelegam and Epaarachchi, 2001) (Figure 1). The tremendous achievements over this period were mainly highlighted in terms of employment generation, volumes of export and foreign exchange earnings. It is estimated that the garment sector in 2005 itself provided direct employment to approximately 340,000 people, 87% of which were women. Another 600,000 workers were indirectly dependent on the industry through employment in a range of support and related service occupations (Sivananthiran, 2007).

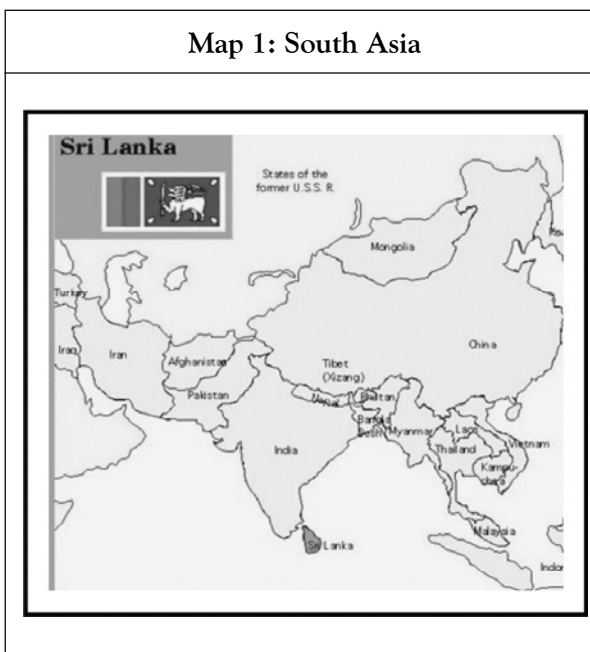


¹ Terms such as Export Processing Zones (EPZs), Free Trade Zones (FTZs), Special Economic Zones (SEZs) and Export Processing Factories (EPFs) refer to similar concepts with variations in policy prescriptions and objectives.

With the fast growing trend, garment industry has become Sri Lanka's largest export industry since 1980s and 1990s. It is also the country's largest net foreign exchange earner since 1992. Total value of export earnings in the sector was at \$2,424 mn accounting for more than 50% of the total export earnings. The contribution to the Gross Domestic Product (GDP) was 5.3% in 2002 (Dheerasinghe, 2003; and Kelegama, 2005).

According to the geographic distribution, most of the establishments of the garment industries were located with high concentration in the Colombo Metropolitan area in the Western Province of Sri Lanka. In its first phase the designated reserved area in the province known as Export Processing Zone (EPZ) (an industrial estate usually a fenced-area of 10 to 300 hectares specializing in manufacturing for export) was used to locate all the garment industries (Hancock, 2009). The infrastructure in the national capital Colombo and its metropolitan is well-developed by developing-country standards such as transport, electricity, telephone, financial institutions, head offices of public administration, airport, and harbor are available for efficient functioning of economic activities. Under this situation most of the agglomeration impacts were mostly confined to this area only and there were hardly any spillover/trickle-down effects on other regions. According to Census (2005), Western Province *per capita* income grows at a rate nearly three times faster than the rest of the country mainly due to its industrial development, and integration with the global market (wholesale, retail trade, transport and communication facilities). For this reason, although urban poverty has been reduced substantially over the post-trade liberalization industrial policy the rural poverty has hardly experienced any reduction over the subsequent period of trade liberalization (Ofstad, 2000).

Considering the above scenario, the government designed policies and implemented programs to relocate the garment production factories to regional cities and semi-urban areas as a measure of distributing agglomeration benefits across other regions as well. However, these attempts were apparently successful but not to the expected level due to the inherent structural weaknesses and limitations of garment industry itself and emerging trends in the global market for garment products. In addition to that, the favorable export market that has been prevailed for the Sri Lankan



garment products over the last decades is gradually being highly competitive. Considering this background, the paper intends to explore the underlying causes for current trend, future prospects, challenges and their implications for realizing regional agglomeration impacts of garment industry.

The next section of the paper explains some of the theoretical overview on the causes for attraction and expansion of garment industry in South Asian countries (Map 1). The following sections are extensively devoted to the case of Sri Lankan garment industry, its localization program and its outcomes. Finally conclusion is made with some important policy implications.

THE STATE OF THE SRI LANKAN GARMENT INDUSTRY

Among the several reasons, there are primarily two distinct situations that have caused rapid expansion of garment industry in South Asian countries in general, which have no resource endowment or historical tradition of garment exports (Joshi, 2002). These two situations were mainly caused by relocation of manufacturing platforms in South Asia from other Asian countries including larger neighbors within the region largely due to availability of Quotas for export to the US and the European Union (EU) markets; and the second reason is low wages and ease of entry and exit in these countries for operating garment manufacturing (Joshi, 2002; and Kelegama, 2005). Under the above scenario, being a South Asian country, Sri Lanka started gaining comparative advantage from the garment industry over many other exports and industrial productions. In its initial development phase, most of the garment industries were highly concentrated in large-scale factories within the FTZ in Colombo metropolitan area (Dheerasinghe, 2003; and Hancock, 2009). With these movements, by 1992, the garment industry had become the largest foreign exchange earner in the country (\$400 mn)—overtaking the tea industry (Kelegama, 2005). The government of Sri Lanka strongly assumed that garment industry would continue to grow in its subsequent phases of expansion and thrive for long-term benefits in multidimensional perspectives in realizing the development goals.

THE PROSPECTS

Sri Lanka is a labor-surplus economy, growth of garment industry in past few years have generated large quantities of manufacturing employment, particularly for female workers in the metropolitan area. The contemporary economic and trading policies were much favorable to the garment firms in taking the advantage of a large supply of domestic cheap labor (Saman and Fritz, 1999), particularly the young women in semi-urban and rural areas experience the dramatic shift to formal employment and associated experiences such as moving from their villages to work, living in boarding houses in large industrial areas and 'managerialism' associated with export-oriented manufacturing (Hancock, 2009).

Compared with other countries in South Asia, Sri Lanka has no natural resource endowment while India and Pakistan are both amply endowed with cotton production. For this reason, the industry is heavily dependent on imported raw materials. Roughly 80% of the woven fabrics and 50% of the knitted fabrics are imported. Nevertheless, Sri Lanka is the only country, which has markedly moved up in the value chain. Excepting for Sri Lanka, very few garment export items from South Asia fetch high value. For instance, in 1978, the industrial sector accounted only for 15% of export earnings; and by 1998, it had increased to 75% (Kelegam and Epaarachchi, 2001).

Sri Lanka is also the only outsourced apparel manufacturing country in Asia having signed up to 30 of the ILO conventions (ILO, 1996). During the growth period of the industry, Sri Lanka has enjoyed a relatively assured export market for garments through bilateral agreements mainly with the US and the EU. Most garment manufacturers are geared to produce standard, low value added garments for the major markets under export quotas. More than 60% of the total garment exports were based on quota exports, and Sri Lanka's dependence on quota exports has been increasing since 1995 (Joshi, 2002). It stands out as a reliable source that pays fair wages to its workers while discouraging sweat shops and child labor in its businesses. Table 1 shows that the relative annual wages in Sri Lanka is high among the other countries in South and East Asia. However, compared to the developed countries the wages in Sri Lanka is much lower.

Countries	Wages	Productivity	Share of Wages (%)
Bangladesh	340.9	890.1	38.3
India	627.5	3,146.1	19.9
Nepal	–	–	–
Pakistan	1,553.5	3,236.1	48.0
Sri Lanka	653.1	1,876.1	34.8

Source: Central Bank of Sri Lanka, Annual Reports

When considered the industrial structure and the mode of production of garment industry, there are some specific characteristics worth noting in order to understand its prospects for national as well as regional development. One of the main reasons for the attractiveness of investment on labor-intensive garment industry is the availability of low-wage labor. Particularly, this applies to unskilled young and middle aged women who find it difficult to get employment in the rural agricultural sector. Therefore, the designated employment opportunities made available in the garment industry are mostly attributed to be low in quality and less in productivity (since workers from rural areas are apparently with zero opportunity cost). Also, employing women was considered cheaper, as they are less likely to be involved in unions, and have greater nimbleness and patience for the monotonous work of assembly operations. Many gender-related barriers have been reported in the literature in relation to women working in EPZs (Lynch, 2002; and

Lynch, 2007). These include a lack of accommodation to issues such as long hours, childcare, pregnancy and maternity leave, wage discrimination, poor working conditions, violence and sexual harassment (Engman *et al.*, 2007). While it is difficult to generalize when not all EPZs are structured in the same way, many of the issues are common in all EPZs to varying degrees due to the nature of the work and productivity levels expected (Hancock, 2009). Therefore, the footloose nature of the industry implies hiring workers from remote areas gain no additional benefits, but able to recover the costs of their capital expenditures quickly by meeting quota requirements, when wages begin to rise and tax incentives begin to expire, they would readily switch their focus to another country (Saman and Fritz, 1999; and Edwards, 2007). In addition to that, emerging social and environmental issues in relation to agglomeration diseconomies and increasing cost of land and infrastructure made implications for some policy reforms. This phenomenon causes government policy makers to design policies to consider localizing garment industry rather than hiring low-cost labor from remote areas. Some of the important aspects considered in this regard are briefly discussed in the following section.

PRODUCTIVITY AND JOB QUALITY

With the expansion of garment and textile as a profitable industry, the competitive pressure among firms shifted towards cost reducing strategies. The labor-intensive nature of the industry naturally finds putting more pressure on labor as the only available option. Labor costs are approximately amounted to 15-20% of the overall cost (Dheerasinghe, 2003; and Kelegama, 2005). Although, measures are needed to consider on labor saving strategies with the expansion of the industry, the competitiveness has been mostly focused on low-cost labor and policy driven incentives. Therefore, limitations are experienced inherently in the mode of production. As a result, the state of job quality has been leveraged by the firms over the past decades. Therefore, the issues concerning employment in the garment industry emerged in many facets. They are mainly stated as:

- How sustainable are the jobs in the garment industry?
- How important is productivity in enhancing competitiveness of the industry?
- How does job quality in the garment industry affect its productivity and competitiveness?

The unsatisfied working conditions are known to be as long working hours, cramped working and living conditions away from home, absence of basic facilities (such as adequate toilet facilities, meal breaks and crèche for childcare). Also lack of workers' rights such as leave, retirement benefits, safety concerns has often been noted (Hancock, 2009). These conditions can be expected to worsen further, as price competitiveness becomes primary concern of the manufacturer. Nonetheless, low wages may not necessarily make a manufacturer more competitive in the long run. With low wages and adverse working environment, not only productivity is expected to suffer but also retention of skilled workers becomes harder.

The rising competitive pressures in the post-MFA environment forced South Asian countries to examine their strategies in dealing with the competition. They may choose to take the 'low road' of price competitiveness based on low wages and low quality or the 'high road' of quality-based competitiveness with emphasis on quality, branding and higher value. Thus, the strategy of low road may take them on a downward spiral of further reducing not only wages and prices but also towards deterioration of overall job quality for the workers. As it is, there are numerous instances of the workers in the garment industry, particularly female workers, having endured harsh working conditions, environment and exposure to workplace hazards.

RATIONAL FOR INDUSTRIAL LOCALIZATION

According to the Sri Lankan experience, the massive expansion of the garment industry during 1990s in the Western Province led to have both economies and diseconomies of agglomeration impacts. The costs were mainly on health, pollution, congestion, crime and social problems. Also the high competition among industries lead to make high cost of land, high cost of living of workers and other externalities in the Western Province. However, alternative locations were considered inferior on most accounts, with poorer facilities, less reliable infrastructure, longer distance and poorer communication with international harbor/airport, and generally less conducive industrial environments (Ofstad, 2000). The agglomerating forces usually brings the benefits of urban life that can be seen both in the quantity of people living in those areas and the wage premium paid to workers living in urban areas (Glaeser, 1998). Hanson (1996) finds that controlling for education and experience, workers in agglomerated regions earn higher wages. However, with regard to the situation in Sri Lanka, the workers in the garment industry were not benefitted and unable to survive since they occupied low productive and unskilled type of jobs. Therefore, wage increase was not an option as the garment industry is a relatively low skilled and highly labor-intensive operation (Kelegama, 2005). Also even if the firms decide to offer higher wages, the increments are most likely to be offset by the higher cost of living in the metropolitan area. Nonetheless, higher wages must also imply greater productivity. After all, if workers were not more productive, the option is—firms would leave cities and hire elsewhere (Glaeser, 1998).

Apart from the neoclassical approach to labor supply, there are several other factors that made workers less attractive to work in the garment factories, particularly in the developing countries context. One of the most important factors affecting the productivity of labor is poor working conditions. In many of the factories, especially those belonging to the small and medium category, hazardous factory layout with cramped workspace for the workers are not conducive to improving output. Some factories also lack basic facilities such as canteens, toilets, etc., and in many cases, regular breaks for using these facilities are not provided. Within the factory itself, a common problem for many of the female workers has been unethical sexual harassment (Lynch, 2002; Kelegama, 2005; Rupasinghe, 2006; and Hewamanne, 2008). Not adequately compensating for all these difficulties made workers unhappy and deteriorated the quality of workers.

Referring to this static nature of the industry's mode of production, the relocation of garment factories in regional town centers was suggested by the then regime as a rational strategy for minimizing the deteriorating working environment of the workers and for distributing agglomeration impacts to regional levels. Also the government assumed that localization of the industry would increase the employment opportunities as well as save the fraction of expenditures from their meager salary that incurred when they work in the city. Therefore, policies were designed to stimulate for pushing the industrialization into rural areas (Belinda, 2010). While maintaining the management, marketing and designing functions at the Western Province which can be considered as the center, some of the processing activities were shifted to outlying regional towns and suburban areas at

provincial levels (Map 2). This pattern of localization of industries has been experienced by many other countries such as Mexico, China, Taiwan and Korea with the agglomeration impacts (Hanson, 1996). The government therefore proposed incentive packages for localization of the garment industries across other provinces and regional town centers. Thus programs were designed for this move with the help of implementing agencies in the 1990s. The next section explores more details on the industrial localization program.

Map 2: Sri Lanka and Its Provinces



THE RELOCATION (LOCALIZATION) OF THE GARMENT INDUSTRY

In 1992, with the establishment of a government statutory board known as Board of Investment (BOI) for the enhancement of the garment industry, incentive packages such as tax incentives and tax exemptions were offered to expand the industry in massive scale (Kelegama, 2005). Considering the fact that industries have been concentrated in the Western Province, measures were taken to regionalize the industries in the successive periods. Special efforts were made to promote zones outside Colombo, and certain complimentary incentives were offered to the investors under this scheme. These include additional tax holidays, concessionary turnover tax, and lower ground rent. As a result, today there are about 12 new EPZs with 300 enterprises within the bonded zones and 1,200 establishments receiving similar benefits outside the zones (Sivananthiran, 2007). Table 2 shows the employment generated under this scheme in each of these zones in all the provinces by gender.

Table 2: Provincial Distribution of Garment Establishments and Numbers of Employees – 2000

Province	Establishment		Employment	
	Number	Percentage	Number	Percentage
Western	638	72	181,329	65
Southern	51	6	19,488	7
Central	54	6	17,056	6
Eastern	8	1	3,512	1
North Western	60	7	22,398	8
North Central	21	2	10,426	5
Uva	20	2	6,559	2
Sabargamuwa	36	4	15,419	6
Northern	3	–	634	–
Total	891	100	276,821	100

Source: Board of Investment (2000)

LOCALIZATION OF GARMENT FACTORIES UNDER '200 GARMENT FACTORY PROJECT'

Under the localization of the garment industry to regional town centers and other provinces a 200 Garment Factory Project (GFP) was designed to encourage investors to locate factories outside the Western Province. In 1992, the governmental campaign in this program was to solve the problem of rural unemployment in the country while simultaneously building the country's capacity to join the global economy (Hewamanne, 2008; and Zaman, 2008). In this connection, FTZs have been set up where investors can enjoy various taxes and quota incentives (Logistic, 1998). To make this effort successful, BOI offered further attractive incentive package including tax incentives, tax holidays, duty-free importation, and access to offshore finances to entice garment producers to move to rural areas under the 200 GFP. Furthermore, a textile quota board was established in the same year to streamline the allocation of quotas for the garment industry, including those coming under the 200 GFP. As a result the total exports of garments (gross) in 1997 was amounted to \$2.1 bn or 45% of total export earnings (Ofstad, 2000).

This Program enticed well-established garment producers to open a rural branch and, in addition, new enterprises with no background in garment production came into operation to make use of the quotas. One condition of the 200 GFP was the employment of at least 500 workers in each factory. Under GFP, 154 factories were in operation in rural areas providing 76,821 employment opportunities and six factories had closed down or been merged by 1996 (Kelegama, 2005; and Sivananthiran, 2007). However, according to the figures shown in Table 2, although some dispersion of the industries has been experienced, the relative concentration is still higher in the Western Province.

THE ASSESSMENT OF THE LOCALIZATION IMPACTS AND THE FUTURE TRENDS IN THE GARMENT INDUSTRY

According to the above sections, the countrywide massive expansion of the garment industry and commensurate agglomeration impacts in the starting and second phases led to have some re-emerging move about industrial location. The effort has been practiced over the last decade or so. Thus, it is important to make an assessment on this regional development approach as to understand what are the justifications of launching such a development approach? What aspects have been successful? and what experience have we gained from this practice?

Although Sri Lanka expected to achieve initial step of industrialization with some regional agglomeration impacts from localizing the garments industry the objectives have not been successfully achieved to the expected level (Table 3).

The number of unemployed relative to employed laborers in the garment factories has been higher in most of the other provinces than the Western Province regardless of the industrial localization programs. Currently there are major concerns over the impediments and constraints for making garment industry that need drawing special attention. Some of these are external factors that are related to global market competition and institutional influences and others are internal factors and inherent features of the garment industry itself within the country such as poor backward and forward linkages and lack of value addition, low productivity, social and political problems such as low quality jobs, feminization, and alarming increase in the violation of human rights (Hancock, 2009). These features influence directly and indirectly as obstacles for realizing the regional agglomeration effects. Some of these problematic aspects are explained in the following section.

Province	Establishments	Employment	Unemployment
Western	638	181,329	160,236
Southern	51	19,488	102,931
Central	54	17,056	93,778
Eastern	8	3,512	–
North Western	60	22,398	46,853
North Central	21	10,426	26,672
Uva	20	6,559	26,414
Sabargamuwa	36	15,419	60,294
Northern	3	634	–
Total	891	276,821	517,177
<i>Source: Board of Investment (2000); Department of Census & Statistics in Sri Lanka (2000)</i>			

Deterioration of Job Quality: Due to the poor recognition for garment factory workers in Sri Lanka, they are known derogatorily as 'Juki girls' after the brand name of the Japanese sewing machines at which they work (Hewamanne, 2008). Owing to the rumored behavior of garment workers in the city of Colombo, and especially in the nearby FTZs, the nickname has strong connotations of sexual promiscuity, and they are being victimized by violence and sexual harassment (Lynch, 1998). Low wages and low job quality made a bad impression for workers to continue with garment factory jobs. Box 1 explains evidence and some experiences of factory workers in Central Province.

Structural Weaknesses of the Garment Industry in Sri Lanka: Despite the growth in apparel exports during the last two decades, the development of backward and forward linkages has been poorly performed as a result the level of value addition remains low. Also lack of a solid raw material base is considered as another major factor that is weakening Sri Lanka's competitive strength among its major competitors in Asia. The industry is heavily dependent on imported raw materials and accessories. For instance, fabrics and accessories account for more than 70% of the cost of production. This is a major constraint to the development of this industry (Dheerasinghe, 2003). Thus, special attention has been placed on the establishment of textile processing zones to develop backward linkages in the apparel industry, but no successful measures are taken yet. In addition, the import of raw materials results in delayed lead time, which has become another serious threat to

Box 1: Evidence to the Deteriorating Job Quality

Under the 200 GFP in the early 1990s, the Super Light Garment Industries located in a remote village in the Central Province is typical in maintaining the job quality. The Super Lights enjoyed Board of Investments (BOI) concessions, such as a five-year tax holiday, duty-free imports of raw materials and capital goods, and exchange control exemptions under the GFP. However, it is not a large factory, employing around 250 workers, with 90 machine operators and 130 helpers, mostly female.

A worker at the factory told the World Socialist Web Site (WSWS) that harsher working conditions have been gradually imposed over the past year. Production managers were changed at least six times during 2005, and each demanded increased productivity. Now there is a new threat to cut the monthly attendance bonus of workers if targets are not fulfilled.

Prior to the termination of the quota system, the factory owner had boasted that he had no problems because the factory had "enough orders". But, the worker explained, "the tune was later changed". The owner convened a meeting at the beginning of 2005 to warn employees about the abolition of quotas and to call for quality and speedy work to retain buyers. He repeated the warning in the middle of the year. "In recent months, management claims that the factory was running at a loss, as well as paying wages late. Last November's wages were not paid by November 22, workers walked off". A small note was circulated among them, saying "[A]ren't you ashamed to work even though you have not been paid your due wages!"

The walkout, however, points to the growing discontent among apparel workers not only in this factory but throughout the industry. (Rupasinghe, 2006)

Source: <http://www.wsws.org>

the international competitiveness of the industry (Kelegam and Epaarachchi, 2001). Furthermore, emphasis is needed on resolving the issues in relation to inadequate infrastructure, the rising costs of labor and raw materials, the lack of skilled labor, the lack of technically qualified personnel (Sivananthiran, 2007). Because of the inherent structural weaknesses, the 200 GFP, aimed at establishing a garment factory in every Province throughout the country, and was able to operate 154 such factories by 1996. This may be practically the only effective measure undertaken to diversify industry, but many entrepreneurs felt coerced into participating, and very few of these locations have brought any secondary industry along or created any industrial 'environment' (Ofstad, 2000).

Low Productivity: Labor costs as a cost factor differ considerably between the various industries and lines of production. Their share in overall production costs is highly important in labor-intensive production processes, which cannot be replaced by machines or robots, either for technological or for economic reasons. As experience shows, the accurate handling of flexible raw materials such as fabric and leather by machines poses difficult problems to the engineers of such machinery, and proves to be extremely expensive. It is therefore predicted that most of this production will tend to remain labor-intensive in the foreseeable future (Rupasinghe, 2006). Therefore, it is unlikely to gain any improvement in the mode of production in the industry. In addition, with the abolition of the quota system, Sri Lanka lost the guaranteed shares of the world market too. As in other countries, it is the workers in the Sri Lankan clothing plants who are bearing the brunt as companies drive down labor costs to protect profits and retain markets (Rupasinghe, 2006). Therefore, the current situation clearly shows that unless measures are taken to improve the productivity of labor the sustainability of the garment industry is highly doubtful.

The Loss of Comparative Advantages: Sri Lanka continues to lose its comparative advantages on textiles and garment products due to some political reasons too. For instance, over the last three decades, Sri Lanka was involved in a long-term internal war against the LTTE, a terrorist group. In May 2009, the LTTE was finally defeated and the internecine war came to an end. Armed with Generalized System of Trade Preferences+ (GSP+) status, the major garment factories looked to expand their operations in the Northern Province—where war was carried out—and provide jobs to the local people. However, the country has been caught up in the politics of the global garment industry. So, it is with more than a little irony that on July 5, 2010 the EU announced that Sri Lanka is to lose its GSP+ status with effect from August 15, 2010. The reason given was human rights violations which occurred in the closing months of the fight against the LTTE (Just-style, 2010).

The EU recently launched its trade instruments under the WTO—the GSP+ against Sri Lanka due to alarming increasing rate of human rights violation. The EU is Sri Lanka's number one export partner, and according to the Commission's most recent figures, the textile industry accounts for more than 55% of the value of Sri Lanka's

exports to the EU. The EU announced that Sri Lanka's GSP+ status is suspended in response to overwhelming evidence that the government was falling well short of its obligations under a number of key international conventions (Dennison, 2010). Countries must respect these obligations in order to qualify for preferential access to EU markets. This decision threatens many thousands of jobs in the Sri Lankan textile industry and consequently the standard of living of many. The Sri Lankan government has failed to understand the serious repercussions of its decision not to accept EU conditions that would have extended the GSP+ duty-free trade scheme for another six months. The country's real losers will be workers who desperately need factory jobs and the government does not seem to place sufficient value to those jobs.

THE CHALLENGES AHEAD OF TIME

Marketing Issues

At the starting phase of the garment industry, European Commission favorably supported Sri Lanka's exports by reducing the tariffs for EU countries. However, EU is now in the process of withdrawing concessionary zero-rated duty tariffs for imports from Sri Lanka. The quota arrangements under MFA have terminated in a phased manner by the end of the year 2004. Once the preferential trade tariff is withdrawn, garments exported from Sri Lanka will attract duty of 9.6% in Europe, making them more expensive and less competitive. As result, despite its exceptional industry, Sri Lanka's global garment export market share has declined steadily since the quota phase out in 2005—from 1.07% in 2004 to 0.96% in 2008 (WTO, 2009). According to SLAE (2010), garment export has been in a rapid declining trend since the first three months of 2010 as -28.13%, -10.84% and -10.64% respectively. The continuous declining trend in market has made Sri Lankan garment manufacturers fear that multinational brands will then move their orders to other cheaper countries. Under the above scenario, it is imperative that certain proactive measures are taken to improve productivity, competitiveness or marketing and job quality in the garments industry in Sri Lanka.

MEASURES TO BE CONSIDERED

The enhancement of productivity is seemingly an important area that needs to be considered for revitalizing the garment industry in Sri Lanka. Increasing the productivity is necessary not only for improving the competitiveness and the market viability of products but also for gaining due recognition and quality of the employment in this sector. Furthermore, managerial skills and expertise will need improving the quality of products, finding new markets, connecting with effective and efficient transport systems. Building new networks, partnerships with other countries or firms would also be an important measure in this regard.

Also in dealing with the regaining of EU concessions, Sri Lanka should consider accepting some of the conditions that are conducive for improving labor relations and

protecting labor rights. Furthermore, it is imperative to take course of action to stop violation of human rights. Policies need to be formulated to distribute the benefits of economic development to all the community groups living in different provinces in the country by allowing them also to participate in the economic development process. Giving the assurance of the Sri Lankan government to EU and other related international organizations over its commitment to address the issues that created this situation would be an effective way to solve the current problem.

If a garment manufacturer decides to adopt the strategy of improving productivity through high value addition and high quality, it can be pursued through a combination of various measures given below:

- Investments in new technology and equipment
- Upgradation of skills among the workers
- Improvement in production organization and processes
- Carrying out productivity campaigns and emphasis on quality improvement

CONCLUSION: PROSPECTS AND POLICY RECOMMENDATIONS

The paper mainly focused on the possibility and potentials for dispersing agglomeration benefits of the garment industry across regions through industrial localization policy. Regardless of the fast growing trend in the employment generation and foreign exchange earnings over the past several decades this effort apparently has been a failure. This is not solely due to the weaknesses of the programs or policy designed, but mostly due to the structural weaknesses of the industry itself and various external factors that can hardly be controlled by the government or its policies within the country.

However, under the emerging trend for Sri Lanka's exports in the global market, it is imperative that certain proactive measures are taken to improve productivity, competitiveness and job quality in the garments industry in Sri Lanka.

It is also imperative to take necessary course of actions to protect human rights of the citizens, maintain political stability, and law and order to regain comparative advantage for the products in the international market. Also it is essential to improve the working conditions and due recognition to the workers for generating a long lasting skilled pool of labor in the industry. Political stability and maintaining peace in the country is important in order to get tariff concessions from international institutions particularly for marketing the products.

REFERENCES

1. Belinda L (2010), "Review of Caitrin Lynch's 'Juki Girls, Good Girls: Gender and Cultural Politics in Sri Lanka's Global Garment Industry'", *Global Labour Journal*, Vol. 1, No. 1, pp. 205-206.

2. BOI (Board of Investment) (2000), "Provincial Distribution of Garment Establishments", available at: <http://www.boi.lk/2009/index.asp>. Accessed on 2010, from Board of Investment, Sri Lanka.
3. Census (2005), "Annual Estimates of Gross Domestic Product", available at: <http://www.statistics.gov.lk/HIES/index.htm>. Accessed on May 2, 2010 from Department of Census and Statistics in Sri Lanka.
4. Central Bank of Sri Lanka Annual Reports (Various Issues), Central Bank of Sri Lanka, Colombo.
5. Dennison S (2010), "Europe, Sri Lanka and the Generalized System of Trade Preferences", available at: http://ecfr.eu/content/entry/commentary_the_price_of_principle. Accessed on April 11, 2010.
6. Dheerasinghe R (2003), "Garment Industry in Sri Lanka: Challenges, Prospects and Strategies", *Staff Studies of Central Bank of Sri Lanka*, pp. 33-72.
7. Edwards M E (2007), *Regional and Urban Economics and Economic Development: Theory and Methods*, Auerbach Publications, New York.
8. Engman M, Onodera O and Pinali E (2007), "Export Processing Zones: Past and Future Role in Trade and Development", OECD Trade Policy Working Papers, No. 53, OECD Publishing.
9. Glaeser E L (1998), "Are Cities Dying?", *Journal of Economic Perspectives*, Vol. 12, No. 2, pp. 139-160.
10. Global Logistics and Shipping (PVT) Limited, Colombo, Sri Lanka, Available at: <http://www.glslogistics.com/sri%20lanka/economic.html>
11. Hancock P (2009), "Export Processing Zones (EPZs), "Globalisation, Feminised Labour Markets and Working Conditions: Study of Sri Lankan EPZ Workers", *Labour and Management in Development*, Vol. 10, pp. 1-22.
12. Hanson G H (1996), "Agglomeration, Dispersion, and the Pioneer Firm", *Journal of Urban Economics*, Vol. 39, No. 3, pp. 255-281.
13. Hewamanne S (2008), *Stitching Identities in a Free Trade Zone: Gender and Politics in Sri Lanka*, University of Pennsylvania Press, Pennsylvania.
14. Joshi G (2002), "Garment Industry in South Asia, Rags or Riches?: Competitiveness, Productivity and Job Quality in the Post-MFA Environment", South Asia Multidisciplinary Advisory Team (SAAT) ILO, New Delhi.
15. Just-style (2010), available at: http://www.just-style.com/analysis/sri-lanka-a-victim-of-global-garment-politics_id108235.aspx. Accessed on September 28, 2010.

16. Kelegama S (2005), "Ready-Made Garment Industry in Sri Lanka: Preparing to Face the Global Challenges", *Asia-Pacific Trade and Investment Review*, pp. 51-67.
17. Kelegam S and Epaarachchi R (2001), "Productivity, Competitiveness and Job Quality in Garment Industry in Sri Lanka", ILO-SAAT, New Delhi.
18. Lynch C (2002), "The Politics of White Women's Underwear in Sri Lanka's Open Economy", *Social Politics*, pp. 87-125.
19. Lynch C (2007), *Juki Girls, Good Girls: Gender and Cultural Politics in Sri Lanka's Global Garment Industry*, ILR Press, New York.
20. Lynch Caitrin and Walsh Seamus (1998), "Juki-That's Not My Name", *Public Culture*, Vol. 10, No. 2, pp. 313-317.
21. Ofstad A (2000), "Economic Growth, Employment, and Decentralised Development in Sri Lanka", Chr. Michelsen Institute Development Studies and Human Rights, Bergen, Norway.
22. Rupasinghe W (2006), "Oppressive Conditions in a Sri Lankan Garment Factory", available at: <http://www.wsws.org/>. Accessed on April 21, 2010.
23. Saman K and Fritz F (1999), "Impediments to Promoting Backward Linkages from the Garment Industry in Sri Lanka", *World Development*, Vol. 27, No. 8, pp. 1445-1460.
24. SLAE (Sri Lanka Exporters Association) (2010), [srilanka.apparel.com](http://www.srilanka.apparel.com), available at: http://www.srilanka.apparel.com/index.php?option=com_content&task=blogsection&id=6Itemid=95. Accessed on October 3, 2010, from Monthly Export Performance.
25. Sivananthiran A (2007), "Promoting Decent Work in Export Processing Zones (EPZs) in Sri Lanka", available at: <http://www.ilo.org/public/french/dialogue/download/epzindonesie.pdf>. Accessed on April 15, 2010.
26. UNIDO (1998), *International Yearbook of Industrial Statistics*, United Nations Industrial Development Organization, Edward Elgau Publishing Ltd, Cheltenham, UK.
27. WTO (2009), *International Trade Statistics 2009*, available at: http://www.wto.org/english/res_e/statis_e/its09_toc_e.htm, Accessed on March 10, 2010.
28. Zaman K (2008), *Book Reviews*, in C Lynch (Ed.) *Juki Girls, Good Girls: Gender and Cultural Politics in Sri Lanka's Global Garment Industry*, pp. 505-506, Sage Publishers, Ithaca, NY.

Voluntary Annual Report Disclosures of Manufacturing Companies in India and Their Linkages with Organisational Demographics

Roshna Varghese*

This paper reports on voluntary disclosure practices of Indian manufacturing companies and relates the extent of disclosure to company size, profitability, extent of international operations and nature of industry. Voluntary disclosure varies with regard to different items and across companies. And extent of disclosure is significantly and positively related to company size and profitability.

INTRODUCTION

Corporate disclosure is of great significance in the accomplishment of financial accounting objectives and in contributing to the efficient allocation of resources through sound economic decisions. The quality of corporate disclosure influences to a great extent the quality of investment decisions made by the investors. With improved corporate disclosure practices, the investors' interest is protected against securities fraud and his confidence in the securities market is developed and maintained (Singhvi, 1967; and Meek *et al.*, 1975). This in turn, eases the problem of raising long-term capital funds through the securities market (Lal, 2005). Management must engage and interact with investors and capital market intermediaries to project a clear and compelling picture of the company's prospects, which in turn should help both analysts and institutional investors become more effective monitors of firm's performance (Hutton, 2004).

In the long run, adequate disclosure is expected to enhance the market price of a company's share in the investment market, which in turn will have a favorable impact on the company's cost of capital (Lal, 1985; and Foster, 2002). Further, increased disclosure would prevent fraud and manipulations and would minimize chances of their occurrences and all investors would be treated equally as far as the availability of significant financial information is concerned. Meaningful disclosure of information

* Assistant Professor, Rajagiri College of Social Sciences, Rajagiri Valley Campus PO, Kakkanad, Kochi, Kerala 682039, India. E-mail: roshnavarghese@gmail.com

has been inevitable in the context of changing profile of corporate ownership, with the increasing flow of foreign investment, preferential allotment of shares to the promoters of companies and the emerging role of mutual funds in the securities market. The fact that companies are raising capital outside India through American Depositary Receipts (ADRs)/Global Depositary Receipts (GDRs) further strengthens the need for improving the quality of corporate disclosure on a continuous basis.

Besides investors, present and prospective employees may use the financial reports to assess the risk and growth potential of a company, their job security and promotional possibilities, which in turn will affect the allocation of human capital in the economy. Also disclosure is significant from the point of view of large number of other potential users including creditors, customers, legislators and above all the public at large.

High quality financial reporting contributes to the reputation of a firm in its product market as a dependable organization to do business transactions. Further, better corporate disclosure practices are instrumental in enhancing brand name and reputation, creating a cohesive corporate culture, mitigating frauds, and in avoiding litigations and fines (Narayanaswamy, 2006). Hence, it is inevitable that significant material information is disclosed in corporate annual reports. The corporate disclosure environment has also undergone a rapid change due to the advancement of new communication technology, emergence of international competitive forces and strong financial markets. With the introduction of liberalization concepts all over the world, the objectives of financial statements lie on greater movement towards a market driven governance of measurement and disclosure standards.

Information about a corporation can be disclosed to investors in several ways, but the annual report to stockholders is considered as one of the most important sources of information to investors for several reasons. Corporate annual report is considered as the most effective means of communicating to the various user groups and carries the relevant financial and non-financial information about the corporate performance. Therefore, the inclusion of the useful voluntary information will add more value to it. It will also reflect to what extent the corporate unit is concerned with transparency in its activities.

Corporate entities disclose a variety of information, which are of mandatory and voluntary in nature. Corporate managements have, by and large, enhanced the meaningfulness of the annual reports by improved disclosure. But most of the Indian companies disclose in their annual reports the information, which is required by the law, and the information required to be disclosed by the law falls short of what is desired by the investors (Singhvi, 1967). Indian companies in general are hesitant to disclose voluntary information in their annual reports. There exists 'deficiency' in the aspect of 'what has been disclosed' and 'what is expected to be disclosed' (Rathinam, 1996).

The present study analyses the quality of voluntary reporting by Indian companies in their annual reports. It explores the relationship between corporate disclosure and

certain corporate attributes like size, profitability, income from abroad, extent of foreign shareholding, international listing and nature of industry. The study also examines the disclosure of certain contemporary issues in financial reporting. The findings of the study will have practical utility to investors and other stakeholders, corporate management, accounting and auditing professionals, government and regulatory authorities, accounting educators and the public at large.

BACKGROUND

The pioneer study on measuring corporate disclosure through index of disclosure has been conducted by Cerf (1961). He analyzed the annual reports of 527 companies by applying an index of disclosure consisting of 31 items. He concluded from his study that a positive relationship existed between the disclosure scores and asset size, number of stockholders and rate of return. Singhvi (1967) compared corporate disclosure through annual reports in India with that of US, for the period 1964-1965 by using an index of disclosure consisting of 34 items. The study remarked that most of the Indian companies disclose in their annual reports the information, which is required by the law, and the information which is required by law falls short of what is desired by investors. Buzby (1974) measured the disclosure of 39 selected informational items in the annual reports of 88 small and medium-sized companies. It was found that the correlation between the relative importance of the items and their extent of disclosure was small. The author, on the basis of this study, concluded that the companies should give due consideration to information needs of the users of financial statements while deciding on the items to be included in the annual reports. The study observed that there existed a case for expansion in the extent of disclosure in the annual reports of small and medium-sized companies.

Firth (1979) studied the impact of size, stock market listing and auditors' firm size on voluntary disclosure in corporate annual reports. He included 48 items of information in his index, none of them were required by the law to be disclosed in the annual report. The weighted index was applied to the annual reports of three samples of companies and a disclosure index was calculated for each company. He concluded that both the size of the company (measured by sales turnover and capital employed) and stock market listing were related to the extent of disclosure, but auditors' firm size had no impact on disclosure.

Chow and Wong-Boren (1987) made an attempt to know the voluntary financial disclosure practices of 52 listed Mexican Corporations and whether the extent of disclosure was related to firm's size, financial leverage and the proportion of the assets in place. This study differs from the other studies that it has considered both the weighted and the unweighted scores in analysing the disclosure practices of companies in a non-Anglo-American country. The study concluded that the extent of disclosure was significantly associated only with the size variable. Ahmed and Courtis (1999) performed a meta-analysis on the 29 studies that had analyzed associations between

the corporate attributes and disclosures through the annual reports since the year 1961. The main objective of this study was to identify the underlying factors that could have moderated the apparent variation in the results reported in the past studies.

Shankar (1972) conducted a study to examine the adequacy of corporate reporting in the Indian annual reports, as compared to the annual reports of foreign countries, such as, US, Germany, UK and Japan. The study termed the Indian annual reports, as 'artificial and discontinuous' and stressed on the role that shareholders and accounting professionals could play in improving them.

Seshan and Gujrathi (1980) carried out a survey of the financial reporting practices followed by 200 public limited companies in India. Based on the analysis, the authors concluded that many companies were not disclosing the accounting policies and the supplementary financial statements in their annual reports and laid emphasis on the inclusion of these statements in the annual reports. Lal (1985) examined the disclosure practices of 180 manufacturing companies in the private sector for the years 1965 and 1975. The study also made an attempt to examine the impact of four company characteristics, viz., asset size, earnings margin, nature of industry and the association with a large industrial house, on the quality of disclosure. The regression results revealed positive associations between the extent of disclosure and size of the company (as measured by assets), earnings margin, nature of industry and the association with a large industrial house. However, the 'size of the company' possessed a better association with the extent of disclosure than the other three variables. Vasal (2006) examined the quality of corporate financial reporting by drawing a sample from the Central Public Sector Companies (CPSCs) for a period of four years from 1988 to 1991. He analyzed the corporate reporting under three major heads—extended corporate reporting, extended financial reporting and extended social reporting. Size, age, profitability, review of accounts and industry were found as significant determinants of corporate reporting in all the sample years. It is also found that actual disclosures on the information items were not in harmony with the relative importance of the items to the users of annual reports.

RESEARCH DESIGN

MEASUREMENT OF CORPORATE DISCLOSURE

The most important aspect for the measurement of level of disclosure in the annual reports is the selection and application of an appropriate tool. In the literature, two different methods have been used for measuring the level of disclosures—index of disclosure method and content analysis. In the present study, the method of disclosure index has been used owing to its wider use and for the practical difficulties involved in using the content analysis method.

A disclosure index is essentially an extensive list of items that may be disclosed through the annual reports. In the disclosure index method, one can compute disclosure

score of each corporate annual report in terms of an absolute number or as a relative (proportion or percentage) one. Further the score may be 'weighted' or 'unweighted'. In this study unweighted relative scoring method is adopted. Unweighted disclosure scores are used for several reasons. First is the subjectivity that would be involved in assigning weights when user preferences are unknown and when different user groups are likely to assign different weights to similar items. In addition, it has been suggested that companies better at disclosing 'important' items are also better at disclosing 'less important' items. Thus, companies would be scored the same way regardless of whether items are ranked or unranked. In addition, Chow and Wong-Boren (1987) and Vasal (2006) find almost identical results using weighted and unweighted disclosure scores.

The index of disclosure in the present study consists of 92 items of information, which are of voluntary in nature. This index is developed according to the information needs of the users in the present day context.

CONSTRUCTION OF INDEX OF DISCLOSURE

For the purpose of analysing voluntary disclosure practices of Indian companies, an index of disclosure consisting of 92 items of information, which should appear in an ideal annual report, was constructed. The selection of various items for the construction of index was based on the detailed review of the Companies Act, 1956, scanning of the annual reports of the companies which have got the award from Institute of Chartered Accountant of India (ICAI) for their best presented published accounts has been done, discussion with practitioners like chartered accountants and a review of disclosure indices developed in the past research studies (Choi, 1974; Buzby, 1975; Firth, 1979; Lal, 1985; Chow and Wong-Boren, 1987; and Vasal, 2006) have been done to ensure that the selected items of information are useful in making investment decisions and measuring corporate performance.

SCORING OF ITEMS

Each item in the index of disclosure has been assigned a score of either 0 or 1. If an item, which is applicable for a company is disclosed in its annual report, the item is assigned a score of 1. In case of non-disclosure of an applicable item, score 0 is given. For calculating company-wise and item-wise disclosure scores, a score sheet for all items were prepared for each annual report separately for the years 2002-03, 2003-04 2004-05. To calculate company-wise disclosure score, the score of each annual report is summed up to form a grand total. This total represents the score obtained by a given annual report. As all the items of information may not be applicable to each company, a maximum applicable score has been computed in respect of companies. In the final step of scoring process, the actual score attained by a company is divided by company's maximum applicable score. This quotient is multiplied by 100. The resulting percentage is a company's disclosure percentage. This represents, as a percentage, the extent to which a given company discloses that, what it is required to disclose in its annual report. For computing the item-wise disclosure, the scores assigned to a particular

item in the score sheets of all the companies were added to get the grand total. This total is divided by the number of companies to which that particular item is applicable. Then this quotient is multiplied by 100 to get the item-wise disclosure.

SELECTION OF SAMPLE

The companies in the study are included in the Bombay Stock Exchange Directory-2002 (BSE 500) which contains a list of 500 companies which represent all major industries of the economy. BSE 500 companies represent nearly 93 per cent of the total market capitalization of BSE Limited. Market capitalization of BSE is around 90 per cent of all India market capitalization. This means that BSE 500 companies ideally represent the total population of listed companies in India. It was decided to concentrate on BSE 500 companies on the premise that these companies are most likely to represent the best current accounting practice in India. Accordingly 70 manufacturing companies belonging to different industries from the BSE 500 companies were included for the purpose of the study. The annual reports of these 70 companies for the years 2002-03, 2003-04 and 2004-05 have been examined for the study (Table 1).

S. No.	Industry	N	Per cent
1.	Automobile	6	8.58
2.	Cement	5	7.14
3.	Chemicals	6	8.58
4.	Computer Hardware Industry	4	5.71
5.	Diversified	5	7.14
6.	Electrical Goods and Electronics	7	10.00
7.	Engineering	5	7.14
8.	Fertilizers	5	7.14
9.	Pharmaceuticals	11	15.71
10.	Refineries and Petrochemicals	6	8.57
11.	Steel and Metals	5	7.14
12.	Sugar and Tea	5	7.14
Total		70	100.00

ITEM-WISE DISCLOSURE

It is normally felt that corporate reporting is a variable to be adjusted or manipulated by management in support of its strategies and goals subject to whatever statutory constraints exist. That is why it is becoming imperative to study the level of disclosure in the annual reports of companies under study.

The 'item-wise disclosure score' has been calculated for each item included in the index of disclosure by dividing the number of companies disclosing a particular item by the total number of companies for which the item is applicable. For determining (non)applicability of each informational item to the sample companies, an inquiry into the business profile of sample companies was conducted by referring to the published data sources (Table 2).

The various items included in the index of disclosure can be categorized into strategic and non-strategic informational items. Strategic disclosures are those which reveal strategic approaches and include general corporate characteristics, corporate strategy, research and development, and future prospects information. These are forward-looking statements and reveal the long-term prospects information about a company.

Non-strategic disclosures are backward-looking information and can be financial and non-financial items of information in a corporate annual report. Financial disclosures include financial review information, operating results, foreign currency information and stock price information. Non-financial items consist of information about directors, employee information, social responsibility and value added statement.

S. No.		2002-03	2003-04	2004-05	Average
Voluntary Financial Information					
1.	Highlights of the Past 5 to 10 Years	74.29	75.71	78.08	76.03
2.	Current Ratio	28.57	30.00	26.03	28.20
3.	Acid Test Ratio	12.86	11.43	8.22	10.84
4.	Inventory Turnover Ratio	10.00	8.57	12.33	10.30
5.	Distribution of Revenue (Graphical/Chart/Pictorial Information)	27.14	27.14	26.03	26.77
6.	Dividend Payout Ratio	17.24	22.03	18.03	19.10
7.	Net Worth	67.14	71.43	64.38	67.65
8.	Amount of Intangible Assets	28.99	31.88	41.67	34.18
9.	Details of Intangible Assets	27.54	31.88	41.67	33.70
10.	Break Up of Operating Expenses into Variable and Fixed	0.00	0.00	0.00	0.00
11.	Return on Capital Employed	38.57	37.14	36.99	37.57
12.	Aging of Debtors	12.86	11.43	13.70	12.66
13.	Selling, Distribution and Administrative Expenditure	37.14	39.13	32.88	36.38
14.	Fresh Purchase and Sales Value of Investments	89.71	89.71	91.43	90.28

Table 2 (Cont.)

S. No.		2002-03	2003-04	2004-05	Avarage
15.	Sources of Non-Operating Income and Expenses	97.14	98.57	98.63	98.11
16.	Amount of Non-Operating Income and Expenses	97.14	97.14	97.26	97.18
17.	Accounting Treatment of Non-Operating Income and Expenses	85.71	85.51	91.78	87.67
18.	Amount of Cash	100	100	100	100.00
19.	Receivables – Loans and Advances	100	100	100	100.00
20.	Marketable Securities – Cost, Current Market Value	100	100	100	100.00
21.	Ratio of Gross Profit to Sales	18.57	17.14	17.81	17.84
22.	Ratio of Net Profit to Sales	31.43	34.29	30.14	31.95
23.	Debt Equity Ratio	60.00	59.42	56.34	58.59
24.	Price Level Adjusted Statements	0.00	0.00	0.00	0.00
25.	Book Value per Equity	38.57	37.14	35.62	37.11
26.	Cost of Goods Sold	5.71	5.80	2.74	4.75
27.	Breakdown of Cost of Goods Sold	5.71	2.90	2.74	3.78
28.	Advertisement and Publicity Expenses	61.43	61.43	63.01	61.96
29.	Pricing Policy	7.14	8.57	8.22	7.98
30.	Number of Share Holders	87.14	91.43	89.04	89.20
31.	Share Holding Pattern	87.14	90.00	94.52	90.55
32.	Details of Earnings in Foreign Exchange	98.57	98.57	100.00	99.05
33.	Contribution to National Exchequer	17.14	20.00	17.81	18.32
34.	Market Value of Shares	95.71	97.14	98.61	97.15
35.	Related Party Disclosures	92.86	100.00	98.59	97.15
36.	Corporate Governance Report	95.71	98.57	98.63	97.64
37.	Stock Exchanges (where stocks are listed)	95.71	98.57	98.63	97.64
Voluntary Non-Financial Information					
38.	Human Resource Accounting	4.29	2.86	1.37	2.84
39.	Social Accounts	1.43	1.43	0.00	0.95
40.	Economic Value Added	12.86	12.86	12.33	12.68
41.	Matching of Budgeted Performance with Actual Performance	4.29	5.71	6.85	5.62
42.	Number of Employees	74.29	71.43	71.23	72.32
43.	Occupational Group of Employees	15.71	10.00	10.96	12.22

VOLUNTARY ANNUAL REPORT DISCLOSURES OF MANUFACTURING COMPANIES IN INDIA AND
THEIR LINKAGES WITH ORGANISATIONAL DEMOGRAPHICS

Table 2 (Cont.)

S. No.		2002-03	2003-04	2004-05	Average
44.	Names of Senior Executives	54.29	51.43	52.05	52.59
45.	Status of Senior Executives	42.86	38.57	35.62	39.02
46.	Shares held by Senior Executives	5.80	4.41	4.23	4.81
47.	Particulars on Directors	94.29	100.00	98.63	97.64
48.	Shares held by Directors in the Company	11.59	19.12	15.49	15.40
49.	Shares held by Directors in the Subsidiary Companies	0.00	0.00	1.56	0.52
50.	General Statement on Industrial Relation	80.00	78.57	73.97	77.51
51.	Productivity	7.14	7.14	6.85	7.04
52.	Rate of Absenteeism	0.00	1.43	0.00	0.48
53.	Strikes and Lockouts	81.16	77.94	74.29	77.80
54.	Workers' Participation in Management	2.86	2.86	1.37	2.36
55.	Amount Spent on HRD Program	0.00	0.00	0.00	0.00
56.	Description of HRD program	51.43	51.43	50.68	51.18
57.	Amount Spent on Employee Welfare Activities	95.71	97.14	95.89	96.25
58.	Employees Pension and Retirement Benefits	95.71	97.14	95.89	96.25
59.	Information on Labor Contracts	14.29	14.29	8.22	12.27
60.	Loans and Advances to Employees	55.71	54.29	49.32	53.11
61.	Description of Major Products	90.00	91.43	89.04	90.16
62.	Share of the Company in the Market of Its Major Products	23.19	23.19	19.18	21.85
63.	Quality Initiatives	20.00	20.00	23.29	21.10
64.	Information about Major Plants/Units	98.28	98.28	95.00	97.19
65.	Information about Performance Budgeting	0.00	0.00	0.00	0.00
66.	Description of Social Activities Undertaken	41.43	47.14	45.21	44.59
67.	Amount Spent on Social Activities	47.14	44.93	41.10	44.39
68.	Use of Charts and Diagrams	54.29	54.29	63.01	57.20
69.	Review of Current Year's Performance – Descriptive Information	100.00	100.00	100.00	100.00
70.	Index/Contents to the Annual Reports	84.29	85.71	91.78	87.26
71.	Graphs of Production/Sales/Profits, etc.	48.57	47.14	50.68	48.80
72.	Photo of Men at Work/Factory/Products, etc.	57.14	55.71	61.11	57.99
73.	Map Showing Network of Activities	11.43	8.57	9.59	9.86

Table 2 (Cont.)

S. No.		2002-03	2003-04	2004-05	Average
74.	Employees of Weaker Section/Physically Handicapped Persons	12.86	14.29	13.70	13.62
75.	Measures to Control Environmental Pollution	60	58.57	57.53	58.70
Voluntary Strategic Information					
76.	Capital Expenditure for the Future Period	0.00	1.43	1.37	0.93
77.	Forecast of Next Year's EPS	0.00	0.00	0.00	0.00
78.	Cash Flow Projections	0.00	0.00	0.00	0.00
79.	Profit Forecasts	0.00	0.00	0.00	0.00
80.	Sales Forecasts	1.45	1.43	0.00	0.96
81.	Trends of Product Prices for at Least the Most Recent Five Year Period	1.43	0.00	1.37	0.93
82.	Sales to Major Customers	8.57	4.29	4.11	5.66
83.	Information about Arrears of Sales Order	2.86	4.29	5.56	4.24
84.	R&D Expenditure for Future Period	0.00	1.49	0.00	0.50
85.	Narrative History of the Company	12.86	5.71	9.59	9.39
86.	Corporate Objectives and Profile	14.29	15.71	19.18	16.39
87.	Organization Chart	2.86	1.43	5.48	3.26
88.	Major Industry Trends	100.00	100.00	100.00	100.00
89.	Future Expansion Programs	31.43	31.43	24.66	29.17
90.	Major Factors Affecting Next Year's Performance	67.14	71.43	69.86	69.48
91.	Corporate Mission	20.00	15.71	20.55	18.75
92.	Opportunity, Threats, Risks and Concerns	71.43	74.29	79.45	75.06

Table 2 shows that while companies are fairly doing well in disclosure of financial items, they were below the minimum level with respect to strategic items disclosure. Some of the strategic items were not disclosed by any of the companies. It leads to assertion that there are inter item variation in disclosure depending upon the nature of items.

CORPORATE ATTRIBUTES AND THE EXTENT OF DISCLOSURE

The analysis of company-wise disclosure is essential for knowing the inter firm variability in disclosures during the period of study. The company-wise disclosure has been calculated by dividing the total score obtained for a company's annual report in a particular year by the total score applicable to that company using an index of disclosure. The extent of disclosure in annual reports varies from company to company which

prompts the researcher to hypothesize that there may be many factors which could contribute to the variation. The assumption here is that the extent of disclosure in annual reports is not an independent variable, rather it is likely to be influenced by several company specific factors (Wallace, 1988; Chander, 1992; Owusu-Ansah, 2005; and Vasal, 2006). It is generally argued that knowledge of the relationship between the extent of disclosure and the company characteristics would facilitate in formulation of the appropriate corporate disclosure policies. To quote Buzby (1975) “to the degree that the extent of disclosure in some, if not all, annual reports is considered inadequate, some purposeful action must be taken. Knowledge of the relationship between the extent of disclosure and company characteristics would play a role in selecting a proper course of action”. In short, the identification of factors influencing the extent of disclosure would help corporate managements, regulators, investors and other interested groups in taking a proper course of action in their respective areas of decision making. Hence the researcher has made an attempt to identify and determine the extent to which corporate attributes influence the extent of disclosure in corporate annual reports.

The present study has explored the relationship between the extent of disclosure and selected company characteristics for a sample of 70 Indian manufacturing companies. The company characteristics considered are:

- Size of a company
- Profitability of a company
- Extent of international operations which includes income from abroad, extent of foreign shareholding and international listing status
- The nature of industry

The data relevant for analysis have been collected, primarily, from the annual reports of a sample 70 Indian companies for a period of three years, 2002-03, 2003-04 and 2004-05 supplemented by other sources. Statistical techniques are used to examine the influence of company characteristics on extent of disclosure. Multiple regression analysis has been used to study the influence of independent variables (select corporate attributes) on dependent variable (extent of voluntary disclosure). The following regression model has been used for this purpose:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \sum_{j=6}^{16} \beta_j X_j + \varepsilon$$

where,

Y = Extent of voluntary disclosure

α = Intercept

- β_1 = Regression coefficient of size
 X_1 = Size, measured as log of total assets
 β_2 = Regression coefficient of profitability
 X_2 = Profitability
 β_3 = Regression coefficient of income from abroad
 X_3 = Income from abroad
 β_4 = Regression coefficient of foreign shareholding
 X_4 = Foreign share holding
 β_5 = Regression coefficient for dummy variable international listing status
 X_5 = International listing status – dummy variable
 β_j = β_6 to β_{16} = Regression coefficients for industry dummy variables
 X_j = X_6 to X_{16} = Industry dummy variables, and
 ε = Regression residual

Results obtained by applying the above model to the sample data have been tested for their statistical significance. While *t*-test has been used to test the significance of the regression coefficients for each of the explanatory variables, overall significance of the model has been tested in terms of the adjusted R^2 and *F*-test values. Results obtained by applying the regression model have tested the assertion that extent of disclosure is influenced by the selected corporate attributes.

The company characteristics examined are size, profitability, extent of international operations and the nature of industry.

COMPANY SIZE

A number of possible reasons have been advanced in the literature in support of an *a priori* expectation that the extent of disclosure is positively associated with the size of the firm (Buzby, 1975; Lal, 1985; and Cooke, 1989). These reasons do cover a broad range of possibilities which taken as a group might lead one to an expectation of a positive association between the two variables. One such reason is that the accumulation and dissemination of information is a costly affair and perhaps the smaller firms may not possess the necessary resources for collecting and presenting an extensive amount of information. Large firms generally make diversified products and distribute them over large geographical areas. Thus they require a relatively large volume of internal data in order to keep management informed about operations. The existence of this data for internal decisions may lower the cost of supplying it to the public. Secondly, larger firms, as compared with smaller firms make more extensive use of the securities market for external financing of their operations. Large firms may be more aware of

the potential benefits of adequate disclosure because an increase in investor confidence would be relatively more important to them. A third reason might be that smaller firms may feel that fuller disclosure of their affairs put them at a competitive disadvantage with larger firms in their industry. Finally, larger firms are more closely watched by various government agencies. It is possible that these firms may believe that better reporting will tend to lessen undesired pressures from the government.

In the present study, size has been measured using total assets of a company for a particular year.

H₁: Larger the size of a company, greater will be the extent of disclosure.

PROFITABILITY

The variation in the extent of disclosure among companies can be explained to some extent by the differences in the profitability of the companies. Some possible reasons for expecting such a behavior are as follows. First, profitable and well run firms have incentives to distinguish themselves from less profitable firms in order to raise capital on the best available terms. One way to do this is through voluntary information disclosure. Thus more profitable firms can be expected to disclose more voluntary accounting information. Secondly, when profitability is high, management has incentives to disclose more information to serve its own interests, in order to support the continuance of its positions and their compensation. On the other hand, when the profitability is low, the management may disclose less information in order to cover up the reasons for losses or declining profits.

In other words, higher profitability implies that a company may feel less threatened by the potential misuse of the additional disclosures by its competitors. Rather, a more competitive company may signal the message of its strengths by resorting to more voluntary disclosures. Conversely, companies with lower profitability may not disclose much information due to the fear that greater disclosure may erode or compromise their competitiveness further in the market. Hence it is expected that companies with higher profitability are likely to be disclosing more information.

In the present study, profitability has been defined and measured as the ratio of net profit to total assets, i.e., Return on Total Assets (ROTA), and has been considered for the purpose of studying the relationship between profitability and the disclosure score.

To examine the direction and significance of relationship between profitability measured in terms of ROTA and the extent of disclosure, the following hypothesis has been formulated and tested.

H₂: Profitability of a company and the extent of disclosure are directly related.

EXTENT OF INTERNATIONAL OPERATIONS

The corporate reporting system is a function of the economic, legal and political institutions in a country. There have been major changes in corporate disclosure in

India since the economic reforms and globalization began in the early 1990s. There are several possible reasons to assume that the corporate disclosure is influenced by the extent of international operations. Since 1991, Indian companies have depended to a great extent on the capital market for raising resources. Financial reporting has been influenced by Foreign Institutional Investment (FII), Foreign Direct Investment (FDI), and listing in overseas stock exchanges.

As firms go multinational, they face new demands for information beyond those faced at home (Choi and Mueller, 1992). The increased internationalization of operations results in a larger proportion of foreign stakeholders in the company. Also, Indian firms listed on overseas stock exchanges are subject to detailed disclosure requirements as specified by the relevant exchanges. Thus, the variety of information demanded can be expected to increase, resulting in an increased level of voluntary disclosure.

To study the relationship between the extent of disclosure and the extent of international operations of a company, three factors have been considered:

- 1) Income derived by a company from abroad measured as a ratio of sales from outside India to total sales in a particular year.
- 2) Extent of foreign shareholding in the capital structure of a company excluding the holdings by foreign promoters. It includes the shareholdings by FIIs and Overseas Corporate Bodies (OCB).
- 3) International listing status, indicated using 0 or 1 dummy variables depending upon whether the company is domestic only, or internationally listed, respectively.

To know the significance of relationships, three hypotheses have been formulated and tested.

H₃: There is a positive and significant relationship between income derived by a company from abroad, extent of foreign shareholding & overseas listing status and the extent of disclosure.

NATURE OF INDUSTRY AND DISCLOSURE

Differences in the extent of disclosure in corporate annual reports may occur due to companies belonging to different industries (Verrecchia, 1983). The degree of competition within an industry may influence the quantum and quality of information disclosed by the companies belonging to that industry. In case of acute competition, companies may fear that their competitors may be benefited from greater disclosure. Therefore, companies within an industry conceal certain information from their competitors. For example, because of the nature of their products and their research and development, chemical companies are likely to be more sensitive about disclosures to competitors and the public than companies in certain other industries (Meek *et al.*,

1995). Another view is that in order to maintain a healthy relationship between the company and the investing community, each company within an industry may try to ensure that its annual report is as informative as those of its rivals. Hence, industry membership may exert influence on the extent of disclosure in corporate annual reports.

In order to examine the association between nature of industry and the extent of disclosure in corporate annual reports, 11 industry dummy variables have been used. Each of these dummy variables has been assigned a value of 1 for all those companies that fall in the industry group represented by it. Values of all the 11 dummy variables are 0 for the benchmark industry group 'automobiles'. The dummy variables represent the following industries:

X_6 = Cement	X_7 = Chemicals
X_8 = Computer Hardware	X_9 = Diversified
X_{10} = Electrical Goods and Electronics	X_{11} = Engineering
X_{12} = Fertilizers	X_{13} = Pharmaceuticals
X_{14} = Refineries and Petrochemicals	X_{15} = Steel and Metals
X_{16} = Sugar and Tea	

To examine the relationship between the nature of the industry and the extent of disclosure, the following null hypothesis has been formulated and tested.

H_{04} : *The nature of the industry affects the extent of disclosure.*

MULTIPLE REGRESSION ANALYSIS

The variation in disclosure scores across sample companies has been explained by taking 16 explanatory variables in a single regression model. The results of the regression analysis have been shown in Tables 3, 4 and 5.

S. No.	Variable	Expected Sign	Coefficients	t-Values	Sig.	Collinearity Statistics VIF
	Intercept		9.477	1.080	0.285	
1.	Size	+	2.538	2.926	0.005	2.493
2.	Profitability (ROTA)	+	0.306	3.139	0.003	1.438
3.	Income from Abroad	+	0.146	2.673	0.010	1.462
4.	Foreign Share Holding	+	-0.319	-1.748	0.086	1.972
5.	International Listing	+	0.729	0.240	0.811	1.328
6.	Cement	?	4.907	1.095	0.278	1.896
7.	Chemicals	?	-2.904	-0.687	0.495	1.993
8.	Computer Hardware Industry	?	-2.473	-0.524	0.603	1.711

Table 3 (Cont.)

S. No.	Variable	Expected Sign	Coefficients	t-Values	Sig.	Collinearity Statistics VIF
9.	Diversified	?	2.599	0.561	0.577	2.028
10.	Electrical Goods and Electronics	?	5.624	1.385	0.172	2.113
11.	Engineering	?	3.381	0.751	0.456	1.917
12.	Fertilizers	?	-1.022	-0.222	0.825	1.993
13.	Pharmaceuticals	?	-1.523	-0.387	0.701	2.926
14.	Refineries and Petrochemicals	?	-1.380	-0.269	0.789	2.929
15.	Steel and Metals	?	-0.718	-0.147	0.883	2.239
16.	Sugar and Tea	?	1.190	0.269	0.789	1.845
	Adj. R ²		0.332			
	F (16, 53)		3.139 (0.001)			
Note: VIF – Variance Inflation Factor.						

Table 4: Multiple Regression Results: Voluntary Disclosure and Corporate Attributes 2003-04

S. No.	Variable	Expected Sign	Coefficients	t-Values	Sig.	Collinearity Statistics VIF
	Intercept		11.834	1.389	0.171	
1.	Size	+	2.600	3.205	0.002	2.143
2.	Profitability (ROTA)	+	0.085	2.205	0.016	1.371
3.	Income from Abroad	+	0.094	2.303	0.025	1.418
4.	Foreign Share Holding	+	-0.261	-1.690	0.097	1.659
5.	International Listing	+	2.075	0.670	0.506	1.446
6.	Cement	?	-0.098	-0.022	0.982	1.915
7.	Chemicals	?	-3.104	-0.746	0.459	2.019
8.	Computer Hardware Industry	?	-7.521	-1.648	0.105	1.671
9.	Diversified	?	-1.043	-0.222	0.825	2.175
10.	Electrical Goods and Electronics	?	3.219	0.830	0.410	2.016
11.	Engineering	?	3.949	0.934	0.355	1.766
12.	Fertilizers	?	-3.109	-0.706	0.483	1.914
13.	Pharmaceuticals	?	-2.709	-0.724	0.472	2.762
14.	Refineries and Petrochemicals	?	-1.046	-0.213	0.832	2.828

Table 4 (Cont.)

S. No.	Variable	Expected Sign	Coefficients	t-Values	Sig.	Collinearity Statistics VIF
15.	Steel and Metals	?	-1.883	-0.401	0.690	2.176
16.	Sugar and Tea	?	-0.627	-0.144	0.886	1.877
	Adj. R ²		0.288			
	F(16, 53)		2.741 (0.003)			
Note: VIF – Variance Inflation Factor.						

Table 5: Multiple Regression Results: Voluntary Disclosure and Corporate Attributes 2004-05

S. No.	Variable	Expected Sign	Coefficients	t-Values	Sig.	Collinearity Statistics VIF
	Intercept		8.623	0.974	0.334	
1.	Size	+	2.558	3.058	0.003	2.331
2.	Profitability (ROTA)	+	0.263	2.709	0.009	1.448
3.	Income from Abroad	+	0.068	1.429	0.159	1.589
4.	Foreign Share Holding	+	-0.224	-1.401	0.167	2.211
5.	International Listing	+	1.671	0.526	0.601	1.485
6.	Cement	?	2.279	0.511	0.612	1.918
7.	Chemicals	?	-0.799	-0.189	0.851	2.031
8.	Computer Hardware Industry	?	2.294	0.483	0.631	1.765
9.	Diversified	?	0.294	0.065	0.948	1.949
10.	Electrical Goods and Electronics	?	1.177	0.291	0.773	2.147
11.	Engineering	?	6.034	1.409	0.165	1.769
12.	Fertilizers	?	-0.539	-0.123	0.903	1.862
13.	Pharmaceuticals	?	1.945	0.530	0.598	2.594
14.	Refineries and Petrochemicals	?	4.241	0.926	0.359	2.389
15.	Steel and Metals	?	-0.105	-0.023	0.982	2.048
16.	Sugar and Tea	?	4.272	0.981	0.331	1.829
	Adj. R ²		0.260			
	F(16, 53)		2.513 (0.006)			
Note: VIF – Variance Inflation Factor.						

Multiple regression results have shown that coefficients of size, profitability, Income from abroad, foreign shareholding and international listing are positive. On the other hand, coefficients of industry variables were found to have positive and negative signs.

The coefficients of profitability (ROTA) and size have been found statistically significant at 5 per cent level of significance for all the three years of study. Income from abroad is also have statistically significant coefficients at 5 per cent level of significance for the years 2002-03 and 2003-04. All other variables have been found to have statistically non-significant coefficients. The results support the hypotheses H_1 and H_2 .

The results have revealed the following points:

- Size, profitability and income from abroad were the three important determinants of corporate disclosure.
- There is a positive and statistically significant relationship between the profitability of a company, as measured by ROTA, size and the extent of disclosure for all the three years of study.
- Income from abroad has a positive and statistically significant relationship with the extent of disclosure for the years 2002-03 and 2003-04.
- Other variables like foreign shareholding and international listing status are found to have statistically non-significant relationship with the extent of disclosure for all the three years of study.
- Analysis reveals that there are differences in the mean disclosure scores of the companies belonging to different industries. But regression analysis has shown that nature of industry does not influence significantly the extent of disclosure of a company during the period of study.

Overall significance of results has been examined by using values of F -test and adjusted R^2 . The F -values are 3.139, 2.741 and 2.513 respectively for the years 2002-03, 2003-04 and 2004-05, which were found significant at 5 per cent level of significance. Thus, the overall regression model is valid. Also, the values of adjusted R^2 were 0.332, 0.288, and 0.260 for 2002-03, 2003-04 and 2004-05 respectively.

Standard diagnostic tests were also performed on the variables and error terms. The results were tested for multicollinearity using Variance Inflation factor (VIF). The values of VIF were less than 10 for all the coefficients for the period of study as shown in Tables 3, 4 and 5. Thus there is no problem of multicollinearity across the independent variables. Also Kolgomorov Smirnov Goodness of fit test was performed on the regression residuals to test whether the residuals are normally distributed. The values of K-S Z-statistics 0.855, 0.619 and 0.522 respectively for the years 2002-03, 2003-04 and 2004-05 revealed that the residuals are normally distributed. Further,

Durbin-Watson statistics are all in the region of two. Results of these tests have revealed that estimated regression model has satisfied the assumptions of classical regression model and it can be relied upon.

For identifying the order of importance of independent variables in explaining the variation in disclosure scores, dependent variable was regressed by using forward step-wise procedure. Results had revealed that the following three variables entered in the model during all the three years of study—size, profitability, and income from abroad. These finding revealed that size, profitability and international listing status are the most important and consistent determinants of corporate disclosure.

The multiple regression results have provided additional evidence of a statistically significant relationship between corporate attributes and the extent of disclosure in annual reports of Indian companies. Thus it can be concluded that inter firm variations in the extent of disclosure in annual reports are explained by firm characteristics to a certain extent.

IMPLICATIONS OF THE STUDY

The analysis revealed that there are wide variations in disclosure scores across different information items. There are items which have not been disclosed by any of the companies during the period of study.

Multiple regression analysis was applied for estimating the relationship between six corporate attributes and the extent of disclosure in corporate annual reports. Here an attempt has been made to explain the variations in disclosure across the sample companies. It was found that profitability of a company, measured in terms of ROTA has a positive and statistically significant relationship with the extent of disclosure. It can be inferred that higher the profitability, greater will be the disclosure in the annual reports to a certain extent. And big sized companies tend to disclose more than comparatively small or medium-sized companies.

Income derived by a company from abroad also has a positive and statistically significant relationship with the extent of disclosure for the years 2002-03 and 2003-04. It implies that when a company goes for international transactions, in order to comply with overseas requirements the company discloses more in their annual reports than companies focussed on domestic markets. Other variables like international listing status and foreign shareholding are found to have statistically non-significant relationship with the extent of disclosure. Further, though there are differences in the mean disclosure scores of the companies belonging to different industries, it was found that nature of industry does not influence significantly the extent of disclosure in annual reports of Indian companies.

It can be concluded that there are variations across companies and items in terms of disclosure in the annual reports of Indian companies. The disclosure of certain items were not all satisfactory for the period of study. It was also found that size, profitability and income from abroad are the major variables in explaining the variation across sample companies.

REFERENCES

1. Ahmed K and Courtis J K (1999), "Associations Between Corporate Characteristics and Disclosure Levels in Annual Reports: A Meta Analysis", *British Accounting Review*, Vol. 31, No. 1, pp. 35-61.
2. Buzby S L (1974), "The Nature of Adequate Disclosure", *The Journal of Accountancy*, Vol. 137, No. 4, pp. 38-47.
3. Buzby S L (1975), "Corporate Size, Listed Versus Unlisted Stocks and the Extent of Financial Disclosure", *Journal of Accounting Research*, Vol. 13, No. 1, pp. 16-37.
4. Cerf A R (1961), *Corporate Reporting and Investment Decisions*, The University of California Press, California.
5. Chander S (1992), *Corporate Reporting Practices in Public and Private Sectors*, Deep and Deep Publications, New Delhi.
6. Choi F D S (1974), "European Disclosure: The Competitive Disclosure Hypothesis", *Journal of International Business Studies*, Vol. 5, No. 2, pp. 15-23.
7. Choi F D S and Mueller G G (1992), *International Accounting*, Englewood Cliffs, Prentice-Hall, NJ.
8. Chow C W and Wong-Boren A (1987), "Voluntary Financial Disclosures by Mexican Corporations [Electronic Version]", *The Accounting Review*, Vol. 62, No. 3, pp. 533-541.
9. Cooke T E (1993), "Disclosure in Japanese Corporate Annual Reports", *Journal of Business and Accounting*, Vol. 20, No. 4, pp. 521-535.
10. Firth M (1979), "The Disclosure of Information by the Companies", *Omega*, Vol. 7, No. 2, pp. 273-280.
11. Foster G (2002), *Financial Statement Analysis*, 2nd Edition, Pearson Education, New Delhi.
12. Hutton A (2004), "Beyond Financial Reporting – An Integrated Approach to Disclosure [Electronic Version]", *Journal of Applied Corporate Finance*, Vol. 16, No. 4, pp. 8-16.
13. Lal J (1985), *Corporate Annual Report: Theory and Practice*, Sterling Publishers Pvt. Ltd., New Delhi.
14. Lal J (2005), *Corporate Financial Reporting: Theory and Practice*, 2nd Edition, Taxmann Allied Services (P) Ltd., New Delhi.
15. Meek G K, Roberts C B and Gray S J (1995), "Factors Influencing Voluntary Annual Report Disclosure by US, UK and Continental European Multinational

- Corporations [Electronic Version]”, *Journal of International Business Studies*, Vol. 26, No. 3, pp. 555-572.
16. Narayanaswamy R (2006), “Globalisation and Indian Accounting Standards”, *The Chartered Accountant*, Vol. 54, No. 7, pp. 962-974.
 17. Owusu-Ansah S and Yeoh J (2005), “The Effect of Legislation on Corporate Disclosure Practices [Electronic Version]”, *Abacus*, Vol. 41, No. 1, pp. 92-109.
 18. Rathinam B I (1996), “Corporate Disclosure Practices in India”, Doctoral Dissertation, University of Madras.
 19. Seshan S A and Gujrathi M R (1980), *A Survey of Financial Reporting Practices in India*, IIM, Ahmedabad.
 20. Shankar T (1972), “Making Corporate Practices More Communicative”, *Economic and Political Weekly*, Vol. 7, No. 41, pp. 164-168.
 21. Singhvi S S (1967), “Corporate Disclosure Through Annual Reports in the United States of America and India”, *The Journal of Finance*, Vol. 23, No. 3, pp. 551-552.
 22. Vasal V K (2006), *Corporate Reporting in India: Financial and Social Performance Disclosures*, New Century Publications, New Delhi.
 23. Verrecchia R E (1983), “Discretionary Disclosure”, *Journal of Accounting and Economics*, December, pp. 179-94.
 24. Wallace R S O (1988), “Corporate Financial Reporting in Nigeria”, *Accounting and Business Research*, Autumn.

Practice of Corporate Social Responsibility in NALCO and the Perceptions of Employees and the Public: A Case Study

Santosh Kumar Tripathy* and Namita Rath**

Corporate Social Responsibility (CSR) is a growing phenomenon in the corporate world today and has become a buzzword. Involvement of employees in extension of CSR of a company is also on rise. This provides employees an HR opportunity to contribute to business success, employee satisfaction and performance. The authors believe that the employees and the public are the two key stakeholders of a company. Their role and involvement in the CSR activities of the company is crucial to make CSR inclusive and participatory. This paper makes an attempt to peep into the CSR culture and practice of an Indian company—National Aluminium Company Limited (NALCO), a leading Public Sector Undertaking (PSU) based in Odisha; and seeks to unfold the level of awareness of CSR among the employees and the neighborhood communities affected by the spillover effect of company's plants and operation. The study also covers their perception of the employees and public towards CSR activities undertaken by the company.

INTRODUCTION

The concept of Corporate Social Responsibility (CSR) and its significance has drawn the attention of the corporate leaders of the world (Jamali and Mishrak, 2007). It is a much discussed topic among the industry and academic circle today; and has gained momentum in the last two decades. Many corporations encourage employees to write about their community service in the annual evaluation report and also expect potential employees to be active in the community and to show leadership. In India, CSR is not just viewed as an opportunity to build a corporate image and character (Shanmugam, 2006), but also to demonstrate the 'human face of business' (Holme and Watts, 2000) and it is increasingly realized that CSR should engage with local communities and work together to build an inclusive society.

Way back in 1980s, when nomenclature like CSR was hardly talked about and was in focus, National Aluminium Company Limited (NALCO) took up its moral

* Professor, Department of PM & IR, Utkal University, Vanivihar, Bhubaneswar, Odisha, India. E-mail: santoshtripathy.skt@gmail.com

** Faculty HR, Academy of Management Studies (AMS), Puda Sasan, Kausalya Ganga, Bhubaneswar, Odisha, 751002, India. E-mail: rath_namita@rediffmail.com

responsibility towards society and has given top priority to social sector development (*Parichaya*, 2008). It has played a catalytic role in general improvement of quality of life through peripheral development of the surrounding villages. The company so far has spent around ₹136.87 cr in peripheral development like creation of infrastructure in the surrounding villages, provision of drinking water, plantation, education, health, promoting sports and culture, etc. (*Parichaya*, 2010). In fact, NALCO was adjudged as the best Public Sector Enterprise (PSE) of 2008 for its CSR activities by Think Odisha Leadership Award. The company has proved itself to be a responsible corporate citizen and its CSR activities are cited as an example for upcoming companies in Odisha (*Parichaya*, 2008).

In fact, employees and public are two key stakeholders of a company. The basic objective of this paper is to throw some light on their awareness, role and perception of CSR to gauge the level of infiltration of CSR in India, though no generalization can be made out of a single study. Under these contexts this present study makes an attempt to peep into the policy and practices of CSR of NALCO, a Central Sector PSU basically based in the state of Odisha; and to bring forth the level of awareness of CSR among the employees of NALCO and the public; and their perception towards CSR activities of the company.

THE CONCEPT OF CORPORATE SOCIAL RESPONSIBILITY

CSR is a concept whereby organizations consider the interest of society by taking responsibility for the impact of their activities on customers, employees, shareholders, communities and environment in all aspect of their operations. This obligation is seen to extend beyond the statutory obligation to comply with legislation and sees organizations voluntarily taking further steps to improve the quality of life for employees and families as well as for local community and society at large (Ratnam, 2006).

CSR as a concept means being ethical towards stakeholders, i.e., not harming or hurting any stakeholder (Carroll, 1979; Sethi, 1979; Waddock, 2004; Wood, 1991; and Jones, 2005). It means at minimum being legally compliant to the rules of the land (Carroll, 1979; and Sethi, 1979). CSR has a dominant goal to better the condition of various stakeholders (Steiner, 1972; Sethi, 1979; Riordan *et al.*, 1997; Fukukawa and Moon, 2004; and Waddock, 2004).

STUDY OF LITERATURE

A cursory glance at the literature of CSR provides an ample evidence of growing importance of CSR in India and world.

Melynyte and Ruzevicius (2008), in a study have examined the relationship between CSR and HRM and the situation in Lithuanian companies—how employees are willing to engage in the CSR activities. They observed that CSR provides HR with opportunities. It provides a further opportunity to contribute to business success and

employee satisfaction and performance. It also provides additional opportunities to contribute to community wellbeing.

Pradhan (2008) opined the CSR is a buzzword in the corporate world today; more and more companies are waking up to the concept of social accountability rather than just overall financial success. Now, the importance of CSR has grown to such an extent that even before the land is acquired and foundation stone is laid for a project, the Company launches its CSR activities in that area. Thus, it is assumed by the companies that a solid foundation of CSR is a precondition of building a strong business empire.

Menon (2006) observes that, today in India, there is a new army of volunteers who are emerging from offices, canines and boardrooms and spilling out on to the streets. IBM, for example, encourages volunteerism amongst its employees through its On Demand Community Program. Fifteen percent of IBM employees volunteer with various NGOs and IBM projects, including CRY, Association of People with Disabilities and Parikrama, for which employees provide skill building activities, mentoring, administration support and technology training.

Konana (2006) stated that many corporations in the US allow employees to write about their community service as part of their annual evaluation report. Most corporations in the US expect potential employees to be active in the community and to show leadership. Interviewing processes emphasize community work. The benefits are in terms of building a positive image, encouraging social involvement of employees, which in turn develops a sense of loyalty to the organization. It helps to bond employees as a team and with the organization, which, in turn, helps in creating a dedicated workforce who are proud of their employer. It helps them to operate in a friendly manner while adding to their brand value, image and reputation; increased ability to attract and retain employees.

Bansal et al. (2008) describes how to translate good intentions into real results and improve firm's CSR performance. Everyone judges companies, whether one invests in them, buy from them, work for them, or just live near them, it is difficult not to form an opinion. The most visceral of all judgments pertain to the firm's moral actions—the kind that either do great good or great harm to people.

Murti Mohan (2005) observes that over 10 years, people have increasingly begun to appreciate that the success of a business is inextricably tied to the welfare and stability of the community. 'People' and 'planet' also have a part to play alongside 'profit'. That view calls for a new corporate logic, in which caring for employees, communities and the environment is not only seen as morally correct, but also the best approach for continuity and profitability.

Elkington (1998) opined that a corporate organization must address, what calls the triple bottom line—companies being responsive not just to financial /economic interests, but to society, and the environment. CSR need to focus on the social, environmental, and financial success of a company—the triple bottom line.

Planning Commission (2007) says that CSR needs to be fully integrated into its policies and culture. CSR should engage with local communities and work together on common strategies to ensure that solutions are found while keeping in view of the national priorities and the development paradigm. The corporate sector should respect human rights and take into consideration the impact of its economic decisions, especially in situations like setting up of Special Economic Zones (SEZs). Companies along with governments need to ensure adequate and culturally sensitive rehabilitation and resettlement of displaced persons, wherein local people are partners in the process and find viable alternatives/livelihoods.

Centre for Corporate Research & Training (2003) studied large sized Indian companies, more specifically the companies that were included in the National Stock Exchange's (NSE) broad based index—S&P CNX NIFTY, during January 2003. The study revealed that although many companies are aware of CSR and benefits, the concept is yet to become a part of core business strategy.

CSR is not about philanthropy. It is not just about visiting orphanages and giving money to the destitute. It is about building inclusion (Shanmugam, 2006). In fact, corporate philanthropy is giving way to CSR (Bhowmik, 2004). CSR is a corporate strategy for survival, not undertaken for mere 'feel good factor' (Gopinath and Murlidhar, 2006).

STRATEGIC CSR AND NALCO

Strategic CSR is the philosophy of integrating CSR into firm's strategic perspective and operations (Werther and Chandler, 2006). According to Burke and Logsdon (1996), if CSR becomes strategic to a company then it should be close to the mission or vision of the organization, receive priority from the management. Strategic CSR initiative should have both the observability of a CSR activity as well as the firm's ability to gain recognition from both the internal and external stakeholders. CSR is strategic to NALCO. It is revealed from its mission statement of NALCO. Among other things, the mission of NALCO declares:

- To satisfy the customers and shareholders, employees, and all other stakeholders.
- To be a good corporate citizen, protecting and enhancing the environment as well as discharging social responsibility in order to ensure sustainable growth.

NALCO from its inception has been careful about it and followed it meticulously. CSR has always remained in the top agenda with the management. Today, it is viewed as a benchmark company for its CSR activities in Odisha (Parichaya, 2008).

CSR POLICY OF NALCO

For NALCO, CSR is a responsibility not charity as revealed from the website of the company. As a policy, NALCO has been allocating 1% of its net profit of the year for

peripheral development activities of the succeeding year since 2002-03. Earlier, from 1998-99 it was allocating 0.5% of its net profit for the purpose. At the time of distress and natural calamities the company has responded immediately to help the needy people by way of financial contribution to Chief Ministers Relief Fund, Prime Minister's National Relief Fund or direct distribution of relief materials like clothing, medicines, dry food, etc., in addition to operating free community kitchen at sites.

NALCO has undertaken peripheral development activities in the districts of Angul and Koraput, where its plants and facilities are located by placing funds with Rehabilitation and Peripheral Development Advisory Committees (RPDAC) constituted by Government of Odisha under the chairmanship of Revenue Divisional Commissioners (RDC). These committees prepare the annual peripheral development projects for the respective regions and also monitor their implementation. The company has allocated ₹136.87 cr through this medium by the end of the financial year 2010.

The composition of the RPDAC is as follows—Chairman: Revenue Divisional Commissioner under whose jurisdiction the district comes; Member Convener: Collector and District Magistrate; Members: All MPs (Lok Sabha) of the concerned districts, all MPs (Rajya Sabha) whose nodal district comes under the project, all MLAs of the concerned district, President Zilla Parishad; Chairpersons of the affected Panchayat Samities; representatives of two NGOs working in the area, to be nominated by the Chairman; representatives of two local women Self Help Groups working in the area, to be nominated by the Chairman, two persons nominated by Chairman from the displaced and affected families, Project, Director, District Rural Development Agency (DRDA), sub-collector(s) concerned, land acquisition officer/special land acquisition officer concerned, representatives of NALCO having decision-making power.

PERIPHERAL DEVELOPMENT

The peripheral developmental activities undertaken by NALCO are divided into two categories—constructional activities and non-constructional activities.

Constructional Activities: Construction of rural roads, culverts, bridges, construction and renovation of rural schools, community halls, development of public places, parks, development of primary health centers, drinking water schemes like supply of piped drinking water, digging of tube wells, open wells, water harvesting, schemes development and renovation of village ponds, etc.

Non-Constructional Activities: Arranging health camps, mobile healthcare services, animal health camp, awareness program on environment, health and hygiene, *krishi mela*, village sanitation programs, arranging rural games, sports and cultural activities.

Item-wise expenditure on peripheral development by NALCO up to 2007-08 reveals that 36% of the funds have been utilized for development of infrastructure, followed by 21% of funds for provision of drinking water, 20% for community developmental

works, 12% in creating educational facilities, 5% for provision of healthcare, another 5% for social welfare programs and just 1% in developing environment.

SOCIAL RESPONSIBILITY

NALCO has comprehensively addressed the problems of rehabilitation of displaced families with adequate compensation, housing and providing them all amenities of decent life. Infrastructure development is high on agenda. It is also contributing for the advancement of culture, sports and education generously.

Besides undertaking various constructional activities, the company also organizes health camps, animal health camps, science exhibitions, rural sports, and provision of water supply through tanker to periphery villages. Community participation in innovative farming, pisciculture, social forestry and sanitation programs have led to employment and income generation for the local people in many significant ways. Apart from this the company has come forward to encourage sports, arts, culture and literature of the state.

ENVIRONMENTAL RESPONSIBILITY

In recognition of the interests of the society in securing sustainable industrial growth, compatible with a wholesome environment, NALCO assigns high importance to promotion and maintenance of a pollution-free environment in all its activities. Since inception, it has taken adequate steps for pollution control and effective environment management. It has adhered to strictest environmental norms imposed by State Pollution Control Board. It has got ISO 14000 certifications for all of its operations alumina refinery, smelter plant, bauxite mines and captive power plant.

The company received Indira Priyadarshini Vrikshamitra Award from Government of India for its contribution in the field of afforestation and wasteland development. The 960 MW captive thermal power plant of the company also received the prestigious Indira Gandhi Paryavaran Puraskar for the year 2000 from Government of India for its outstanding contributions in the field of environment management. Besides these, the company and its units have received various national, state and institutional awards for excellence in safety and environment management.

Shortcomings of the CSR policy and change of strategy:

Placing of funds with Rehabilitation and Peripheral Development Advisory Committees (RPDAC) for periphery development works had many shortcomings within it. These are as follows:

- No objective assessments of community needs were made by the implementing agencies.
- Involvement of the primary stakeholder was not given due importance.

- Expenditure for peripheral development spread much beyond the periphery areas.
- There was inordinate delay in implementation of projects.
- Accountability and sustainability was found to be lacking.

In fact, NALCO had no much say over what peripheral development works to be done, where and how much to be spent on which schemes. Discussion with the officials of NALCO has revealed that CSR initiatives by NALCO was underplayed by political and bureaucratic decision making, in which local politicians try to take political mileage.

With the attack of Maoist on NALCO's bauxite mines at Panchpatmali in the district of Koraput on April 12, 2009, the company was quick to realize that the local people are not with the company, since without their support Maoists could not have done it. This event became an eye opener for NALCO authorities. To overcome the shortcomings of its CSR policy, NALCO Board decided to set up a Foundation for implementing its own vision of CSR. The Foundation came up on July 28, 2010, under the Indian Trusts Act, 1882. The Foundation's objective is to focus CSR activities in the 15 km radius of NALCO mines and plants so as to endear people and would be spending 1% of its profits through it, beyond 1% given to RPDAC for peripheral development (Annual Report, 2009-10).

NALCO Foundation has adopted a project-based accountability approach (as against a donor-based approach adopted earlier), by ensuring participation of the primary stakeholders, at the grassroots, in the decision making process. The Foundation aims to ensure community participation, accountability, sustainability and measurable results.

For last one year the Foundation is focused on NALCO's Mines & Refinery Complex at Damanjodi, Smelter & Power Complex at Angul, proposed mining areas at Pottangi (Koraput), Gudem (Visakhapatnam) and K R Konda (East Godavari district) of Andhra Pradesh. For the year 2010-11, an amount of ₹8.14 cr and for the year 2011-12, an amount of ₹10.69 cr has been allocated to NALCO Foundation. One important feature of the fund is that the unutilized fund at the end of a year is not lapsable. A team of five Project Managers have been inducted in to the Foundation from Institute of Rural Management, Anand (IRMA) to undertake need assessment and baseline surveys to identify the projects.

OBJECTIVE OF THE STUDY

The objective of this paper is to explore the following:

- The level of awareness of term CSR among the employees of NALCO and public.
- What do the employees of NALCO and public mean by the term CSR?
- To what extent the employees of NALCO and public are aware of NALCO's involvement in CSR?

- How do they rate NALCO in developing communities around it and espousing social causes?
- Perception of employees of NALCO and public on the motive behind spending on CSR by NALCO.

METHODOLOGY OF STUDY

This paper forms a part of a doctoral thesis. The research design for the study is exploratory and causal in nature. It is an empirical and analytical study based on primary and secondary data.

The first phase of this research is the exploratory phase. In this phase, Deputy General Manager (DGM) (Administration), NALCO in charge of CSR management and planning were subjected to an in depth qualitative interview through a structured questionnaire for gaining insight of the CSR initiatives of NALCO and to capture the policies and practices of CSR by the PSU.

In the second stage, a pilot study was done to test the usability and validity of the schedules/questionnaires for the two stakeholders of NALCO, i.e., the employees and the neighborhood community.

In the third stage, the opinions and views of the employees of NALCO and the general public in the peripheral areas of NALCO plants, regarding the CSR activities was elicited by a questionnaire by visiting personally and discussing with them. To elicit the views and opinions of the stakeholders of NALCO, data were collected from respondents based on judgment sampling method.

Angul and Damanjodi are the two foci of the study, where the spillover effect of NALCO operation is largely felt. Hence, the study also involves field visit and discussion with knowledgeable people to ascertain the facts collected through secondary sources and to have a firsthand feeling about the different CSR initiatives undertaken by NALCO at Angul and Damanjodi.

SOURCES OF DATA

- Primary Source: Interviewing and discussion with executives and non-executives of NALCO. Visiting and observing CSR activities of NALCO. Eliciting the views and comments of the employees and public about the CSR policy and practices through different questionnaires/schedules.
- Secondary Sources: Published books and reports. Manuals and reports on CSR activities and achievements (website of NALCO).

SAMPLE DESIGN AND SIZE

The study is based on 376 respondents, out of which 218 respondents are the employees of NALCO and rest 158 are the public belonging to Bhubaneswar, Angul and Damanjodi (Table 1).

Place	Respondents		
	NALCO (%)	Public (%)	Total (%)
Bhubaneswar	89 (41)	55 (35)	144 (38)
Angul	72 (33)	61 (39)	133 (35)
Damanjodi	57 (26)	42 (27)	99 (26)
Total	218 (100)	158 (100)	376 (100)

The different respondents were given different questionnaires/schedules designed for them. This present study is based on a survey that was conducted in different locations of NALCO from December 2009 to May 2010.

FINDINGS OF THE STUDY

To ascertain whether the awareness/views/opinion of the employees of NALCO and the public significantly differ or not, Chi-Square (χ^2) Test has been done.

The χ^2_s value has been calculated and compared with the critical χ^2_c at 5% level of significance. When, the χ^2_s was found to be smaller than the χ^2_c ; H_0 was accepted, otherwise rejected.

AWARENESS OF THE TERM CSR AMONG THE RESPONDENTS

H_0 : There is no significant difference in awareness of the term CSR between the employees and the public.

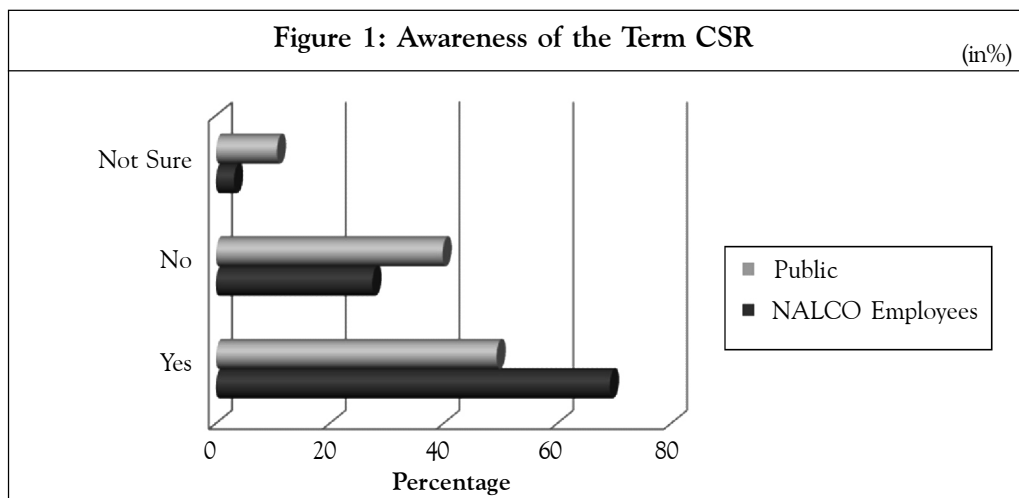
H_1 : There is significant difference in awareness of the term CSR between the employees and the public.

Here, H_0 is rejected. There is significant difference in responses of the employees of NALCO and the public regarding awareness of the term CSR. Table 2 reveals that 69% of employees of NALCO and 49% of respondent public have come across the term CSR before this study. About 28% in NALCO and 40% of public have not ever

Options	Respondents		χ^2_s
	NALCO (%)	Public (%)	
Yes	151 (69)	78 (49)	18.405
No	67 (28)	63 (40)	
Not sure	7 (3)	17 (11)	
Total	218 (100)	158 (100)	

Note: χ^2_c at 5% level of significance is 1.386.

come across the term CSR. This indicates that the awareness of the term CSR is more among the employees of NALCO as compared to the public living around its vicinity. It is also alarming to note that 31% of the employees and 51% of public are ignorant about the concept when the company has been nurturing CSR since inception (Figure 1).



MEANING OF CSR AS UNDERSTOOD BY THE RESPONDENTS

H_0 : There is no significant difference in understanding of the term CSR between the employees and the public.

H_1 : There is significant difference in understanding of the term CSR between the employees and the public.

Here, H_0 is rejected. Hence, there is significant difference between the employees of NALCO and the public regarding understanding of the term CSR.

Table 3 shows which activities are perceived as CSR activities by the respondents.

- Only 4.1% of the employees of NALCO and 11.4% public say CSR is – (A): Welfare measures for employees.
- Only 0.5% of employees of NALCO and 3.8% of public view CSR as – (B): Obligation to the Government.
- Only 0.9% of NALCO employees and 0.6% of public believe it to be – (C): Obligation to shareholders.
- Among the respondents 6.4% of NALCO employees and 5.7% of public understand it as – (D): Producing quality products, operating ethically and morally.
- As high as 66.5% of NALCO employees and 57.6% of public understand it as – (E): Peripheral development works, engaging in environmental protection, giving charity/donations.

Table 3: Meaning of CSR as Understood by the Respondents

Options	Respondents		χ^2_s
	NALCO (%)	Public (%)	
(A) Welfare measures for employees	9 (4.1)	18 (11.4)	14.810
(B) Obligation to the Government	1 (0.5)	6 (3.8)	
(C) Obligation to shareholders	2 (0.9)	1 (0.6)	
(D) Producing quality products, operating ethically and morally	14 (6.4)	9 (5.7)	
(E) Peripheral development works, engaging in environmental protection, giving charity/ donations	145 (66.5)	91 (57.6)	
All the above (ABCDE) taken together	12 (5.5)	5 (3.2)	
Some combinations of A,B,C,D and E	35 (16.1)	28 (17.7)	
Total	218 (100)	158 (100)	

Note: χ^2_c at 5% level of significance is 5.348.

- Only 5.5% of NALCO employees and 3.2% public understand it as – ABCDE.
- About 16.1% of NALCO employees and 17.7% of public view it to be – some combinations of A, B, C, D and E.

Thus, CSR is popularly believed to be peripheral development works, engaging in environmental protection, and giving charity/donations.

AWARENESS ABOUT NALCO'S INVOLVEMENT IN CSR AMONG THE RESPONDENTS

H_0 : There is no significant difference in awareness about NALCO's involvement in CSR between the employees and the public.

H_1 : There is significant difference in awareness about NALCO's involvement in CSR between the employees and the public.

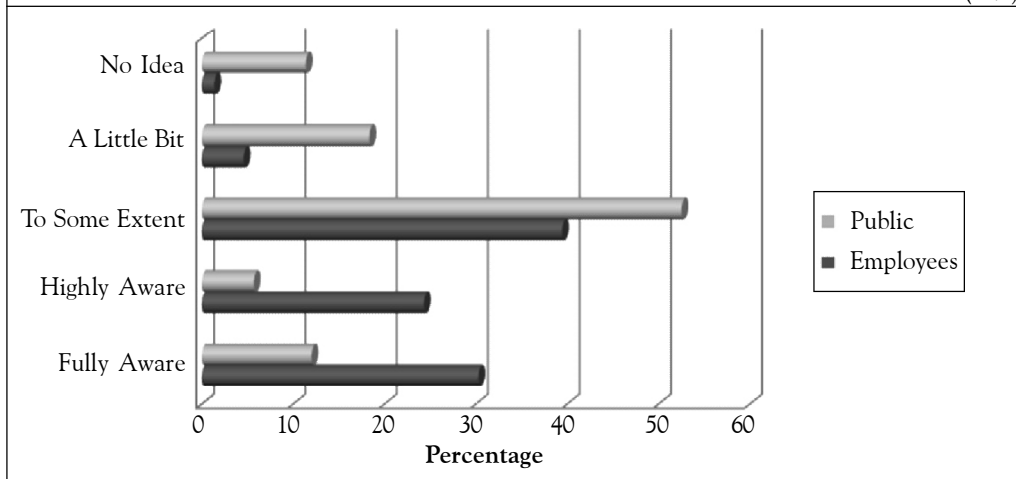
Here, H_0 is rejected. Hence, there is significant difference in the level of awareness among the employees of NALCO and the public regarding NALCO's involvement in CSR. Table 4 shows that 30% of employees of NALCO and 12% of public say that they are fully aware of NALCO's involvement in CSR activities. About 24% employees and 6% of public are highly aware, 39% of employees and 53% of public are aware to some extent; 5% in NALCO and 18% of public are aware about it a little bit. Only 1% of employees and 11% of public are ignorant about NALCO's involvement in CSR activities (Figure 2).

Table 4: Awareness About NALCO's Involvement in CSR Among the Respondents

Options	Respondents		χ^2_s
	NALCO (%)	Public (%)	
Fully Aware	66 (30)	19 (12)	69.43
Highly Aware	53 (24)	9 (6)	
To Some Extent	86 (39)	83 (53)	
A Little Bit	10 (5)	29 (18)	
No Idea	3 (1)	18 (11)	
Total	218 (100)	158 (100)	

Note: χ^2_c at 5% level of significance is 3.357.

Figure 2: Awareness of NALCO's Involvement in CSR Activities (in%)



MOTIVE BEHIND SPENDING ON CSR

H_0 : There is no significant difference in views regarding motive behind spending on CSR between the employees and the public.

H_1 : There is significant difference in views regarding motive behind spending on CSR between the employees and the public.

Here, H_0 is rejected. Hence, there is significant difference between the views of the employees and the public regarding NALCO's motive behind spending on CSR. Table 5 shows that 3% of employees and 14% of public are of the view that NALCO's motive behind spending on CSR is to gain popularity and acquiring a brand image. About 15% in NALCO and 13% of public think that CSR is undertaken to win the hearts of the people and operate peacefully. As high as 70% of employees and 61% of

Table 5: Views of the Respondents Regarding the Motive Behind Spending on CSR

Options	Respondents		χ^2_s
	NALCO (%)	Public (%)	
Gain popularity and acquiring a brand image	6 (3)	22 (14)	19.87
To win the hearts of the people and operate	32 (15)	21 (13)	
It is the responsibility and right things to do, as an obligation	153 (70)	96 (61)	
I don't know	11 (5)	14 (9)	
Some combinations of 1, 2 and 3	16 (7)	5 (3)	
Total	218 (100)	158 (100)	

Note: χ^2_c at 5% level of significance is 3.357.

public are of the opinion that CSR is the responsibility of NALCO and it should be done as an obligation.

PARTICIPATION OF EMPLOYEES IN CSR

Participation of employees in the CSR activities of a company is crucial in extension of CSR of the company which leads to development of empathy among employees and makes them proud of their company for contributing to society. Table 6 reveals the case of involvement of employees in CSR of NALCO.

H_0 : There is no significant difference in views regarding involvement of employees in the CSR activities between the executives and non-executive of NALCO.

H_1 : There is significant difference in views regarding involvement of employees in the CSR activities between the executives and non-executives of NALCO.

Here, H_0 is rejected. Hence, there is significant difference between the ratings of involvement in the CSR activities among the executives and non-executives of NALCO.

Table 6 shows to what extent the employees are involved in social causes by NALCO. About 13% say that they are very actively involved in social causes, 35% say that they are active, 39% say that they occasionally participate in it. 11% say they rarely involve themselves in CSR activities and 1% does not participate in it. It also reveals that 9% of executives and 18% of non-executives are very active in CSR activities whereas 30% of executives and 42% of non-executives are active. About 45% of executives and 31% of non-executives say that they occasionally participate in it. As high as 14% of executives and 9% of non-executives say they rarely involve themselves in CSR activities, and 2% of executives do not involve themselves in CSR at all.

Table 6: Involvement of Employees in the CSR Activities

Options	Employees			χ^2_s
	Executive (%)	Non-Exec. (%)	Total (%)	
Very active	11 (9)	17 (18)	28 (13)	11.67
Active	38 (30)	39 (42)	77 (35)	
Occasionally	56 (45)	29 (31)	85 (39)	
Rarely	17 (14)	8 (9)	25 (11)	
Not at all	3 (2)	0(0)	3 (1)	
Total	125 (100)	93 (100)	218 (100)	

Note: χ^2_c at 5% level of significance is 3.357.

ENGAGEMENT OF LOCAL PEOPLE IN DEVELOPMENTAL ACTIVITIES

Engagement of local people in CSR activities provides an opportunity to the company to demonstrate its care and concern for them and makes them aware of CSR. In order to explore this aspect, the people of Angul and Damanjodi where NALCO has its plants were asked to express their opinion on it.

H_0 : There is no significant difference in opinions of the public belonging to Angul and Damanjodi on engagement of local people in developmental activities by NALCO.

H_1 : There is significant difference in opinions of the public belonging to Angul and Damanjodi on engagement of local people in developmental activities by NALCO.

Here, H_0 is rejected. There is significant difference in the opinions of the public belonging to Angul and Damanjodi on engagement of local people in developmental activities undertaken by NALCO. Table 7 shows that about 5% of public opined that

Table 7: Engagement of Local People in Developmental Activities Undertaken by NALCO

Options	Public			χ^2_s
	Angul (%)	Damanjodi (%)	Total (%)	
Yes	2 (3)	3 (7)	5 (5)	42.52
Sometimes	6 (10)	8 (19)	14 (14)	
Rarely	29 (48)	16 (38)	45 (44)	
No	13 (21)	5 (12)	18 (17)	
I don't know	11 (18)	10 (24)	21 (20)	
Total	61 (100)	42 (100)	103 (100)	

Note: χ^2_c at 5% level of significance is 3.357.

NALCO engages local people in developmental activities and 14% say such engagement takes place sometimes. About 44% opined about rare engagement and 17% opined that no such engagement takes place. As high as 48% public of Angul and 38% in Damanjodi complain that NALCO rarely engages local people in it. About 21% in Angul and 12% in Damanjodi say that NALCO does not engage in it.

OBSERVATION

- The study reveals that around 70% of employees and 50% of public are aware of the term CSR, even though NALCO is pursuing CSR almost for 30 years. The researchers feel that peripheral development by placing funds with RPDACs which did not involve the primary stakeholders has resulted in low level of awareness among public regarding CSR. Similarly, lack of opportunity on the part of the employees to participate in CSR activities along with lack of effective communication regarding CSR activities by the company has resulted in low level of awareness of CSR among them.
- Employees and public have an idea that CSR is peripheral development works, engaging in environmental protection, giving charity/donations, as almost 67% of employees and 58% of public have expressed so. Only 6% of employees and 3% public understand the concept of CSR in its totality, i.e., welfare measures for employees, obligation to the Government, obligation to shareholders, producing quality products, operating ethically and morally and peripheral development works, engaging in environmental protection, and giving charity/donations.
- Awareness of NALCO's involvement in CSR by its employees is found out to be only 54% and for public it is 18%, though another 39% of employees and 53% of public have opined that they have some knowledge of it. The main reason of this can be attributed to the fact that delegating peripheral development works to RPDACs have resulted in non-involvement of the primary stakeholders of the company.
- Overwhelmingly it is believed that CSR is the responsibility of a company and it should be done as an obligation as 70% of employees and 61% of public expressed their views so.
- Employee's involvement in CSR is found out to be 13% only. This is due to the donor based approach to CSR by NALCO, where no scope exists for employees to be involved in it.
- The study reveals that local people are hardly engaged in CSR activities. Only 5% of the respondent public opine that company engages local people in the developmental works.

CONCLUSION

The study takes the researchers to believe that even though the Indian companies are involved in CSR, the awareness of CSR among the employees and the public remains to be at a low level; and CSR is perceived in a narrow horizon of peripheral development work, measures for environment protection, giving charity/donations, etc. This necessitates 'CSR Education' not only for the employees and the public, but also to the budding managers emerging out of B-Schools. Employee's involvement in CSR should be taken up as a matter of HR policy. Companies need to create space for employees in their CSR programs; and recognize community leadership among its employees so that the employees would come forward to shoulder societal responsibility along with the responsibility at work place. This will not only add value to the company, but also to the concerned employees in terms of personal satisfaction. In fact, in Indian context, CSR has a much larger role to play in bridging the glaring inequality that exists between the people within the plants and outside.

REFERENCES

1. Bansal P, Maurer C and Slawinski N (2008), "Beyond Good Intentions: Strategies for Managing Your CSR Performance", *Ivey Business Journal* (January), Featured in *The Globe & Mail*, March 10, 2008 and the *Financial Post*, August 25, 2009.
2. Bhowmik Samyukta (2004), "Corporate Philanthropy is Giving Way to CSR", *Business Standard*, December 4-5, Kolkata.
3. Burke Lee and Logsdon Jeanne M (1996), "Corporate Social Responsibility, Pays Off, Long Range Planning", Vol. 29, No. 4, pp. 437-596.
4. Carroll A B (1979), "A Three-Dimensional Conceptual Model of Corporate Performance", *Academy of Management Review*, Vol. 4, No. 4, pp. 497-505.
5. Elkington J (1998), *Cannibals with Forks: The Triple Bottom Line of 21st Century Business (Conscientious Commerce)*, New Society Publishers, Gabriola Island, BC, Canada.
6. Fukukawa Koyoko and Moon Jeremy (2004), "A Japanese Model of Corporate Social Responsibility, A Study of Website Reporting?", *Journal of Corporate Citizenship*, Vol. 16, pp. 45-59.
7. Gopinath Mohan and Murlidhar S (2006), "Corporate Social Responsibility – Alternative Perspectives", Proceedings of the International Conference on Corporate Social Responsibility, St. Joseph's College of Business Administration, Bangalore, pp 1-20.
8. Holme R and Watts P (2000), "Corporate Social Responsibility: Making a Business Sense", World Business Council for Sustainable Development.

9. Jamali D and Mirshak R (2007), "Corporate Social Responsibility (CSR): Theory and Practice in a Developing Country Context", *Journal of Business Ethics*, Vol. 72, pp. 243-262.
10. Jones Marc T (2005), "The Transnational Corporation, Corporate Social Responsibility and the 'Outsourcing' Debate", *The Journal of American Academy of Business*, Vol. 6, No. 2, pp. 91-97, Cambridge.
11. Konana Prabhudev (2006), "Towards Corporate Social Responsibility", available at: <http://www.hindu.com/2006/03/09/stories/20060309054320000.htm>
12. Melynyte O and Ruzevicius J (2008), "Interconnectedness of Corporate Social Responsibility and Human Resource Management: Are Lithuanian Employees Willing to Engage in Social Activities?", *Economics and Management*, p. 164.
13. Menon Nikhil (2006), "Why Volunteer? Time Ascent", *TOI*, July 26, Wednesday, p. 10.
14. Murti Mohan (2005), "People, Planet and Profit – Three P's of Corporate Social Responsibility", *The Hindu Business Line*, July 18.
15. *Parichaya* (2008), Newsletter of National Aluminium Company Limited, p. 2, June-July.
16. *Parichaya* (2010), Newsletter of National Aluminium Company Limited, p. 4, March-May.
17. Planning Commission, (2007), "Corporate Social Responsibility (CSR)", Report of the Steering Committee on Voluntary Sector for the Eleventh Five-Year Plan (2007-12), Government of India.
18. *Pradhan* (2008), Newsletter of National Aluminium Company Limited, p. 2, June-July, 2008.
19. Ratnam C S Venkata (2006), "Corporates That Care – A Special Feature on CSR-Part II", *Times of India*, March 17, 2006.
20. Riordan Christine M, Gatewood Robert D and Bill Jodi Barnes (1997), "Corporate Image: Employee Reactions and Implications for Managing Corporate Social Performance", *Journal of Business Ethics*, Vol. 16, No. 4, p. 401.
21. Sethi S P (1979), "A Conceptual Framework for Environmental Analysis of Social Issues and Evaluation of Business Response Pattern", *Academy of Management Review*, Vol. 4, No. 1, pp. 63-74.
22. Shanmugam Raja (2006), "Corporate Social Responsibility in Mind Tree – A Perspective", Proceedings of the International Conference on Corporate Social Responsibility, pp. 63-68, St. Joseph's College of Business Administration, Bangalore.

23. Steiner G A (1972), "Social Policies for Business", *California Management Review*, Vol. 15, No. 2, pp. 17-24.
24. Waddock Sandra (2004), "Parallel Universes: Companies, Academics, and the Progress of Corporate Citizenship", *Business and Society Review*, Vol. 109, No. 1, pp. 5-42.
25. Werther William B and David Chandler (2006), *Strategic Corporate Social Responsibility: Stakeholders in a Global Environment*, p. 49, Sage Publication, London.
26. Wood D (1991), "Corporate Social Performance Revisited", *Academy of Management Review*, Vol. 16, No. 4, pp. 691-718.

WEBSITES

1. <http://www.nalcoindia.com>; Accessed on November 7, 2008
2. <http://www.tathya.in/news/story.asp?sno=3711> dated 14.12.2010
3. <http://www.tathya.in/2009/story.asp?sno=3825> dated 14.12.2010

Study on the Scope and Opportunities of Category Management for Aligning the Supplier-Retailer Business Strategy

Sanuwar Rashid* and Heikki Matilla**

Today's fragmented and intensely competitive market place is an obstacle for retailers and suppliers to do business in a traditional way. Even customers have never been more sophisticated. In this perspective, thousands of ideas has already been brought though articles, journals and books and thousands of seminars has been held to define a new way of managing business. Just as tremendous heat and pressure create diamond, these uncertainties and competitive challenges has produced a new marketing idea known as category management that offers a wealth of opportunity for those who can adopt with this systematic approach. In this paper, some definition and structure-oriented phases as well as the challenging areas of category management are mentioned. In the next step, a perfect scenario through different stages starting from zero is brought out to show how retailers and suppliers can overcome the power game and collaborate with each other. Finally, it has been shown that a trustworthy relationship, coupled with in-store implementation of category management, can create a win-win situation for both retailers and suppliers. Therefore, this paper defines the way of increasing profitability by taking into account all the factors that influence it on the shop floor and focusing on products with a high circulation, creating regular customers by focusing the product supply to target consumers and developing in-store marketing through space management and well-instructed product display.

INTRODUCTION

We would like to begin by clarifying some words that we believe need to be clarified as these are the frequent using words and hold the identity of role players of this paper. We use the term 'consumer' when we aim at retail, which is known as 'shopper' from retailer side. Though shopper and consumer not always bear the same meaning, for example, parents are the shopper for baby food while baby is the consumer; we use the term shopper, consumer and customer to define the same role. In the same way, we use

* Textile Engineering Department, Southeast University, Dhaka, Bangladesh, and is the Corresponding Author. E-mail: sanuwar_69@yahoo.com

** Materials Science Department, Tampere University of Technology, Finland. E-mail: heikki.r.mattila@tut.fi

the term supplier to define manufacturer's perspective. Though there are some significant difference between supplier and manufacturer, for example, supplier can outsource his brand from a foreign country as a branded marketer; we use the terms supplier, manufacturer and producer to define the same role. Therefore, the respective usage of this multiple words bear the same significance in this paper.

BACKGROUND

Today's market is competitive and volatile than ever. All retail segments including fashion industry are facing new challenges to survive in this market. The number of products in market place increased by 16% per year between 1985 and 1992 while the shelf space increase by only 1.5% per year during the same period (Gérard and Gürhan, 2007). In that situation, it was not possible for retailer and supplier to manage the complexity of business process by performing their existing role and job description. So they were thinking about the change of their roles. Category management became the key player for changing the role of supplier and retailer in 1980s and in 1990s, Wal-Mart successfully applied this new theory for bringing its supercenter format which converts retailer's general merchandise store into a full-line grocery store under a single roof (ACNielsen *et al.*, 2005). But now in 2010, both retailer and supplier are managing their business process with a perplexing complexity. Now consumers are no longer sophisticated and the competition is stiffer than ever. The marketplace becomes fragmented rapidly. Therefore, this paper addresses the recent challenges that the retailers and supplier faces to adopt them with category management and digs deeper to figure out these challenges and find out opportunities for perfect collaboration between suppliers and retailers which will ultimately keep their sales growth in a satisfactory position.

PROBLEM DISCUSSION

Nowadays, consumer deserves to have things as per his/her wish. It means that mass marketing is replaced by mass customization. Only meeting consumer needs is not enough to win the competitive advantage. In this situation, there is no alternative to meet the requirement and demand of consumer in an effective way. To achieve this goal, supplier and retailer need to contribute their efforts to understand consumer needs. Therefore, it is necessary for supplier and retailer to generate the growing interest in understanding the consumer demand and in defining the purchasing behavior of consumers. To make them (supplier and retailer) aware, category management represent the method of managing the complexity raised in consumer needs and shopping behavior. So, we can subject category management to minimize the lack of connection between consumer who come to market and, the supplier and retailer who go to market in attempts to meet consumer needs. Every fashion product should be categorized on the basis of customer understanding, market data, trend analysis and sales information. Then the objectives of category management comes into action: Increasing profitability by taking into account all the factors that influence

it on the shop floor and focusing on products with a high circulation, creating regular customers by focusing the product supply to target consumers and developing in-store marketing through space management and well-instructed product display. Consumer value and satisfaction are fundamental to build consumer loyalty and shopper loyalty and to increase sales and category profitability.

Therefore, it is important to realize category management in a true sense and retailer should emphasize more on consumer demand to collaborate with supplier for its perfect implementation. This paper will provide substantial study on how supplier and retailer can overcome the opportunism and power game by category management while taking into account the answer of following questions:

- How CM allows retailers and manufacturer to adapt quickly to marketplace changes?
- How retailer and manufacturer can collaborate with each other without searching the opportunity and hiding information and how their role in business could be redefined to bring out a win-win situation?
- What are the main areas covered by CM to maximize the profit of retail shop and where is the focus of CM?
- How a successful implementation could be established in retail shop, are there any supporting tools to do so?
- What is the next challenge of CM (More evaluation or successful implementation)?
- Could it be suitable for cloudy marketplace of near future?

THE LITERATURE REVIEW

CATEGORY MANAGEMENT

Retailers of US like Safeway, Kroger, Albertson's and Publix first practiced category management in early 1990s. And SUPERVALU, the first wholesaler brought the process to small independent retailers. On the other hand, Coca-Cola and Philip Morris was the key player from manufacturer side to support category management (ACNielsen *et al.*, 2005). In no time, category management was promoted enthusiastically and became a must-have process for retailers and supplier as it covers a versatile area of their business process (Harris and McPartland, 1993).

First of all, it is a philosophy of managing retailer's and supplier's business and treat product categories as strategic business units for the purpose of planning and achieving sales and profit target. As an example, there are too many individual brands or items to manage strategically each one. Category management is the way of managing retail operation by classifying the assortment of retailer into categories on the basis of consumer preference, not just on the basis of individual brands or items.

The second element regarding its definition is that it is a process through which suppliers and retailers jointly develop strategic category plans. These plans are usually set on annual basis to measure their financial performance at the category level.

And the third element is that the category management is an organizational concept that integrates the responsibility of both parties for buying and merchandising decisions. Now category manager comes in to play for integrating procurement, pricing and merchandising of all brands in a category and jointly developing and implementing category-based plans with manufacturer to enhance the outcome of both parties.

On the basis of above discussion we can say that category management insist on retailer's category rather than manufacturer's or supplier's brand and it is a process that involves managing product categories as business units and customizing them on a store by store basis to satisfy consumer needs and preferences.

EVOLUTION OF CATEGORY MANAGEMENT

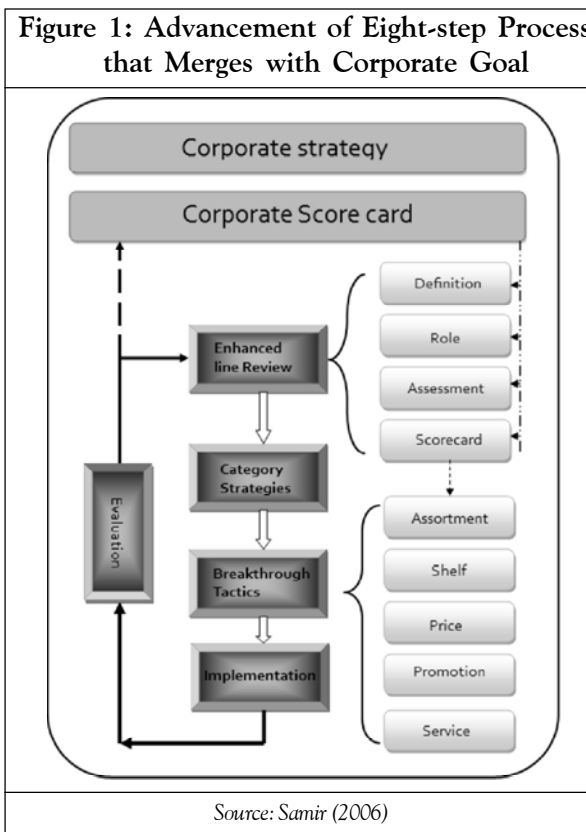
The standard eight step process was invented at the very beginning stage of category management which provided the structural frame to the practitioners at that time. It is now considered as a starting point to implement category management in business process.

Over the years, according to the convenience of retailer, category management elaborated its area in a more effective and efficient way and nowadays it has been merged with the total business process in a way that each category performance directly affects the overall growth of an organization. This concept is simplified in Figure 1.

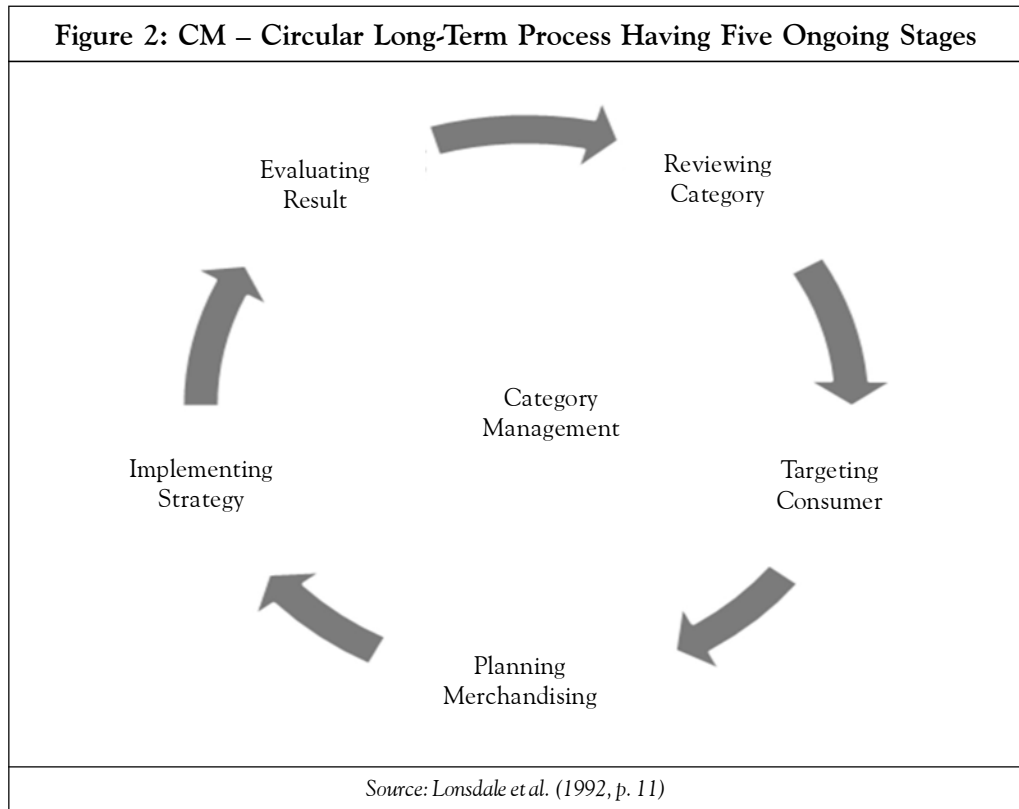
But the limitation of eight steps and the modified version of eight step process are that they did not specifically denote the job criteria of retailer and supplier while their work should be synchronized to achieve customer satisfaction.

To assign the role of retailer and supplier from their own perspective, category management finds itself in a circular long-term process rather than linear short-term process. It

Figure 1: Advancement of Eight-step Process that Merges with Corporate Goal



involves five ongoing stages which flow naturally into the next. These stages are oriented in a way that it will be suitable for both parties to adapt quickly to market place changes. Figure 2 shows these ongoing stages.



The concept of each stage is same for both retailer and supplier but they have different tasks to do in each stage and a successful combination of their tasks can achieve the target of a category.

RESEARCH AREA OF CATEGORY MANAGEMENT

Now I have a wish to discuss more about the difficulties and opportunities related with product category as well as range, information, relationships and product focus vs. customer focus.

Product Category and Range

Customers usually search for the retailing shop where retailers create comprehensive offer by categories. For doing this retailer define category based on consumer buying behavior in order to differentiate itself from other retailers (Dupre and Gruen, 2004). But according to Dussart (1998), definition of category is something that arise a problem. For retailers and suppliers, it is hard to reach in mutual agreement to select a range of products in single category. For example, shampoo should be accompanied by health and beauty products or it could have a separate category of hair.

The effective range of different products include the right items with variety but not duplication, streamlining the entire range of category based on consumer preferences (TPG-Nordic, 1996). Retailers can reduce their cost and increase their profits by updating its range (Kurt Salmon Associates, Inc., 1993). But it is hard to implement this concept in stores. Because category manager fear that streamlining of the range will result in bad reputation of stores to customer as the number of product variant is reduced. But a survey of examining consumer's experience by reducing the range has shown us that 25% reduction in range does not affect consumer's experience as long as the favorite products and product category space in the store had not been effected (Broniarczyk *et al.*, 1998).

Reducing the presence of products that are temporarily out of market is another objective of the process of category management. Many retailers believe that the problem is not so critical because most consumers choose to buy substitute products when the product they are planning to purchase is temporarily out of stock and they continue to make their purchases at the same store (Corsten and Gruen, 2004). There is a study involving 71,000 consumers in 29 countries conducted by Corsten and Gruen (2004) in order to see how consumer react in practice when a product is temporarily out of deal. The survey showed that 7-25% consumers continued to shop by purchasing a substitute product from the same category while 21-43% chose to go to another store to buy the specific product that was temporarily out. According to author, this effect results 4% sales decrement of typical grocery store. And the reason of temporarily run-out of product from stores was examined in the same study conducted on 600 retail shops of 29 countries. It was found that 72% of these goods which were temporarily out of stock related to the error committed by retailers like overdue orders, small orders, and poor sales projection while only 28% problems were caused by the suppliers (Corsten and Gruen, 2004).

Nowadays, it becomes hard to manage the range of products for a specific category because of product development process. We have found a statistical data (Saguy and Moskowitz, 1999) regarding the inflation of product of same category; The US launch about 20,000 new products annually although perhaps 1100 to 1200 products are counted as real news. 33% of product innovations are assessed as successful, 25% are deemed unsuccessful which are rapidly disappeared from market and the rest 42% of product follows the declining sales figures. Still now there is no significant standard to measure how successful the newly launched product is. But consumer and consumer's satisfaction should be the focus of each part of business, in every aspect of product development and product launch process (Saguy and Moskowitz, 1999).

Information

The development of category management comes in to reality by the faster communication channels and the ability to share data coupled with the development of analytical software applications. Evaluation of sales and demographic data to

determine who buys what in a particular category? where they buy it and how often? and how much they spend?, working as a strong toolkit for category management. It is also the responsibility of retailers and suppliers to optimize their collaboration with the help of information, technology and application. By capitalizing on information, technology and applications, category management enables them to provide customers with the product they want and when they want them, at competitive prices. But there are problems concerning information sharing when supplier want to access retailer's information on consumer. For example, it may be difficult for any specific supplier to share information about new products, planned campaigns and product development with retailer when his competitor engages with this retailer. The information sharing is going to be more difficult when retailer possess large product range of its own brand in each category, often direct copies of supplier's market leading product (Gruen and Shah, 2000).

Relations

Category management is not just a traditional buying and selling relationship between supplier and retailer, it is a pure trustworthy process. Actually category management is a collaborative project based on trust where neither party should have power over the other (Dapiran and Hogarth-Scott, 2003). But in reality, there is no way to avoid the truth of power game. Dapiran and Hogarth-Scott (2003) has investigated the power relationship between retailers and manufacturers. According to Dapiran power is something that is not negative for all the time. It can give a party some space to take initiative. For example, supplier can be appointed as a category leader by retailer for a particular category. In this case category leader has the power over retailer. This power does not necessarily oppose to cooperation and trust; even this could be the important factor to build a relation between retailer and supplier. For example, supplier has certain power which is based on specialized knowledge of products and customer, while retailer has different type of powers. With this power of two sides Dapiran has made a two dimensional matrix of power strategy (Figure 3). The suitability of specific

Figure 3: Modification of the Power Matrix Approach			
Dependence on Supplier	High	<p style="text-align: center;">3</p> <p style="text-align: center;">Withdrawal of Power Through Their Own Brand</p>	<p style="text-align: center;">2</p> <p style="text-align: center;">Expertise of Power by CM</p>
	Low	<p style="text-align: center;">4</p> <p style="text-align: center;">Transaction Focus</p>	<p style="text-align: center;">1</p> <p style="text-align: center;">Coercive Power</p>
		Low	High
Retailer's Market Share			
<i>Source: Dapiran and Hogarth-Scott (2003)</i>			

power strategy depends on how retailer is dependent on the supplier and the market share that retailer has.

In an environment where the concentration of retailers is high and the dependence on producers is low (1) retailers exercising coercive power, for example by threatening to exclude the product from its range. This is an option that leads to low costs and low profits for retailers. Retailers will move to a more costly approach, namely, expertise power through Category Management (2), if they are forced into it, because they rely on their producers. If there is low concentration of retailers, combined with a high dependence on producers (3), retailers will prefer to develop their own brands. The fourth power strategy is based on the traditional sales and buying relationship (4) (Dapiran and Hogarth-Scott, 2003).

The application of category management must be seen as a fundamental process for the company, requiring new organizational forms and new approaches. There must be cooperation between the formal organizations, different companies with different corporate cultures for a long time. It also requires a partnership that looks beyond its own gain and instead focusing on the work from the mutual holistic perspective.

ROLE OF BUSINESS PARTNER TO ADOPT CM

ROLE OF RETAILER TO EVOLVE FIVE STAGES OF CM

At first, retailer should define his mission and determine the public image on the basis of his business characteristics; whether he is low/high promotion driven retailer or he does strictly an upscale business. He may be a price leader or he offers niche of low price. Then he should address some issues such as customer positioning, competitive positioning and supplier positioning.

After this, he should establish company-wise financial goals like Gross Margin (GM), Gross Margin Return on Investment (GMROI). Then his mission and marketing strategy coupled with financial plan will provide the outline for category management.

After establishing the framework of category management, he needs to ensure the suitability of individual category to fit with the whole corporate scorecard. The Figure 7 of literature part show the way of doing it.

But it is not easy to define individual category. Because the definition of category from retailer's perspective maybe quite different from manufacturer's experience. Even the way customers expect it could be something else.

For example, retailer may define jeans shirt and jeans pant for men in one category. But manufacture might see them as separate category. Even customer can want to get jeans shirt in shirts category and for the pant it could be same. Anyway, retailer should give more weight on customers' perception which can be determined by analyzing market research data provided by third parties.

After defining product category, it is important and sensitive to identify the sub-categories within each category. These small product groups have great influence on overall category performance. For example, if a retailer treats ladies underwear in a single category, he should keep in mind that both bra and panty having same set will belong to single sub-category where as bra and panty having no set will be placed in different sub-categories.

After defining product categories and identifying the key sub-categories, retailer will be ready to match the performance of individual categories with company's mission as well as overall marketing and financial objectives.

Then a retailer should evaluate the strategic role of each category like category's position in retailer's store versus the marketplace as a whole, as well as the volume, market share, short-term and long-term growth possibilities to established sales profit and market share objectives of each category.

Now it's turn of category manager to come in to action for achieving these objectives. He is subjected by the retailer not only to size up the marketplace and determine the tactics to meet category's standard goals but also to follow up these initiatives.

Restructuring Organizational Setup

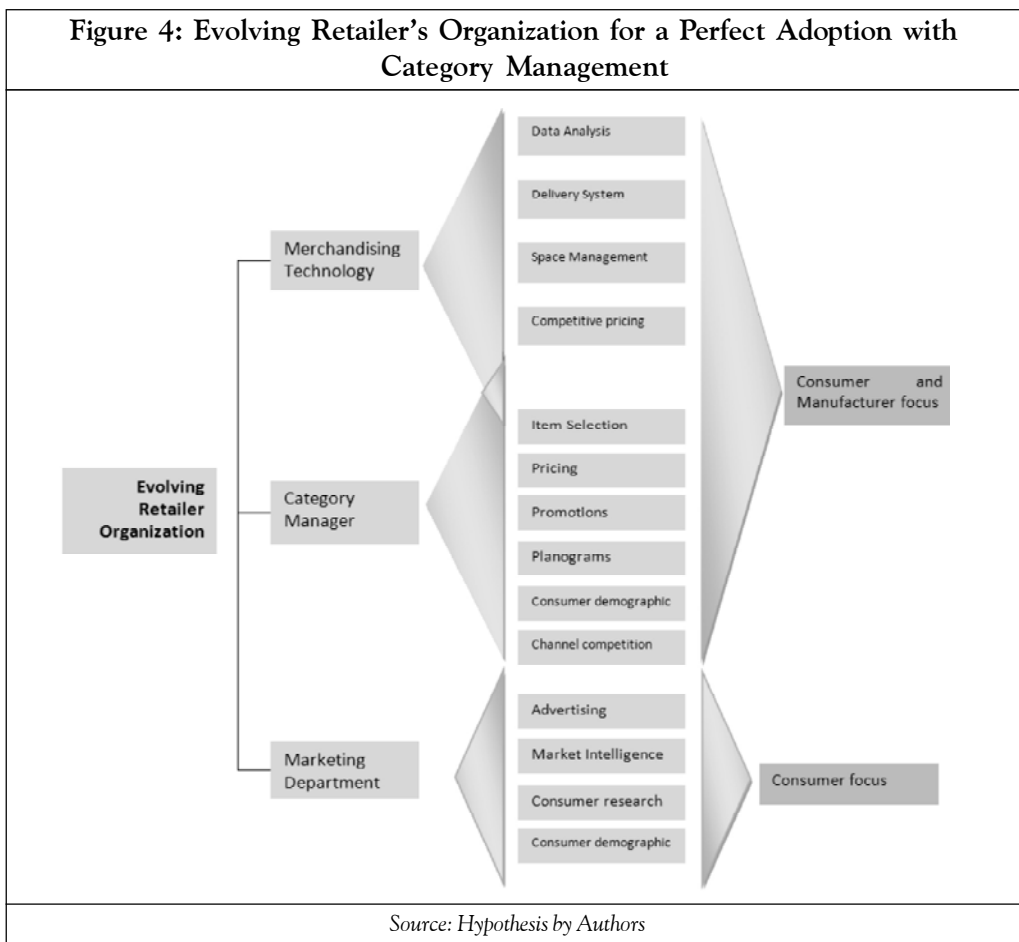
To develop category management in retailer's business process, it is necessary to shift in a new approach where category manager will be a substitute for both buyer and merchandiser. It is true that there shouldn't be any standard or unique organizational setup for category management. Setup depends on company's size, mission and corporate culture. But every retailer's organization should be organized in a way of giving support to category manager to execute the following activities for surfacing category management in a better way:

- Buying and merchandising functions including pricing, promotion, shelf-space management should be managed by category managers of each individual category.
- Category manager should be given the authority to manage product category as business units and customizing them on a store by store basis to satisfy customer. He should also be considered for evaluating the progress of each specific category, making appropriate adjustment to bring out expected result which will be matched with the corporate financial goal.

Therefore, to allow category manager for playing the ultimate role, we can comprehend the evolving retailer organization as follows (Figure 4):

Concentration on Five Stages

We have mentioned in literature part about the five ongoing stages of category management. We are now going to dig deeper to comprehend the role of retailer to



strengthen five ongoing stages where a perfect synchronization of these stages make the overall process effective.

Reviewing the Category: On the basis of previous sales data, category manager can get an assumption of customer preference. Then he usually offers pricing, promotion, advertising, couponing to boost up sales. In order to bring out new product in shop he needs to review the sales data of other product having same category. To assess the potential of new merchandising and marketing tactics he can ask supplier to give him adequate support. Even he could be allowed by the retailer to get help from third party analyzer. Retailer should permit category manager to utilize all internal and external resources to delineate the following factors (www.igd.com) which are much important for reviewing a category perfectly:

- Determine the market share of specific category
- Relevance of pricing and promotion of a category with its market share
- Competitiveness of subcategories in a category

- Proportional attribution of pricing, promotion, shelf-space allocation and product mix of a category in respect to the store
- Ensuring the uniformity of sales figure for each sub-categories of a category as much as possible.

Targeting Consumer: In this stage, category manager is going to focus on specific consumer group for each certain category while he has already taken the above factor of reviewing the category into account. He should explore the demographics, lifestyles and purchasing behavior of consumer against each category. He is subjected to investigate the consumer attitude for a product category. For doing the same, he can consider the consumers' income, occupation, education level, family size as well as how quickly they react against promotional and discount offer. Different application softwares are useful to scrutinize these characteristics of consumer. Retailer should allow him to access through marketing department to find the way of touching consumer whether it is media advertising or promotional offer.

Planning Merchandising: After defining the consumer groups, category manager will look upon the sales and profit goals for each category. To meet the sales and profit goals, he should go for strategic marketing and financial plan which have the relevance with strategic role of the organization. They must have some application software which can guide a category manager for doing so. As I know about *SAP for Retail* which is industry-specific application software from the software vendor SAP AG and is focused on global retailing industry. It is a set of software solutions that support demand management, merchandise management and planning and supply chain stores operations (Heike, 2008). Therefore, this kind of software not only help category manager to make a planograms regarding pricing, promotion, merchandising, shelf space management but also to project whether they will enable him to meet the profit goals for the category.

Implementing Strategy: To implement the strategy of single category that will perfectly be matched with corporate scorecard and corporate strategy, category manager from headquarters should collaborate with individual store personnel while the three earlier stages take place at headquarters. During this stage, the responsibility of category manager like product mix, pricing, merchandising tactics should synchronize with the responsibilities of store personnel like pricing changes, product stocking, display assembling and positioning. Therefore, category manager should let the store manager and employees know the way of implementing strategy. This communication between category manager and store employees will cover the area of merchandising plans, including Planograms; advertising plan, including products to feature in circulars; promotion plans, with display placement details; price changes including new shelf labels and cash-register prices; new products, with stocking instruction; and discontinued products with removal dates (Lonsdale *et al.*, 1992, p. 51).

Evaluating Results: As category manager has completed the above stages like reviewing each category, then defining the consumer groups for specific category, then drawing

a merchandising planograms and go ahead for implementing the overall tactics, now it's time to evaluate the outcome of his total initiatives.

During this stage, he will take a measure on his performance whether he has exceeded or fallen short. His evaluation will cover the performance of each individual store as well as the performance of his competitor. It will facilitate him to make a required adjustment to remain on track. He should have the foresight and creativity to make his business profitable.

ROLE OF SUPPLIER TO EVOLVE FIVE STAGES OF CM

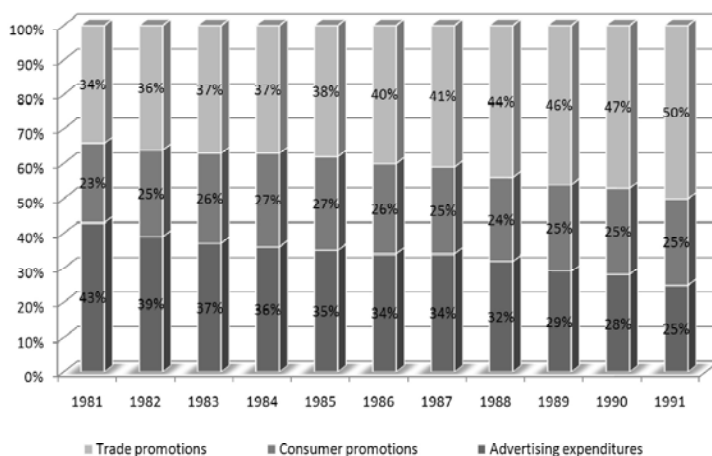
In our literature review part, we have mentioned with proper reference that two-third of purchase decision by customer are now made in stores. This trend, coupled with marketplace fragmentation, have changed the attitude of supplier and made them understand the need of effective merchandising and promotion of their product at store level. This fact habitually enforce supplier to collaborate with retailer as their long-term betterment lies into it.

Before the era of category management, manufacturer subjected trade promotions for the collaboration with retailer. Figure 5 shows that the average supplier spends 50% of his advertising and promotional budget on trade promotion.

This increased spending on trade promotion was devoted as incentives for retailer such as off-invoice allowance, co-op expense, consignment purchasing, special terms and creative market development funds. These initiatives belong to short-term lift in sales figure which may not persist for long-term period.

But the most significant matter was that the increased reliance on trade promotion of supplier was the sign of searching new opportunities of penetrating through retailer's organization. Therefore, it was the emergence of category management from

Figure 5: The Growing Interest of Manufacturer to Convince Retailer



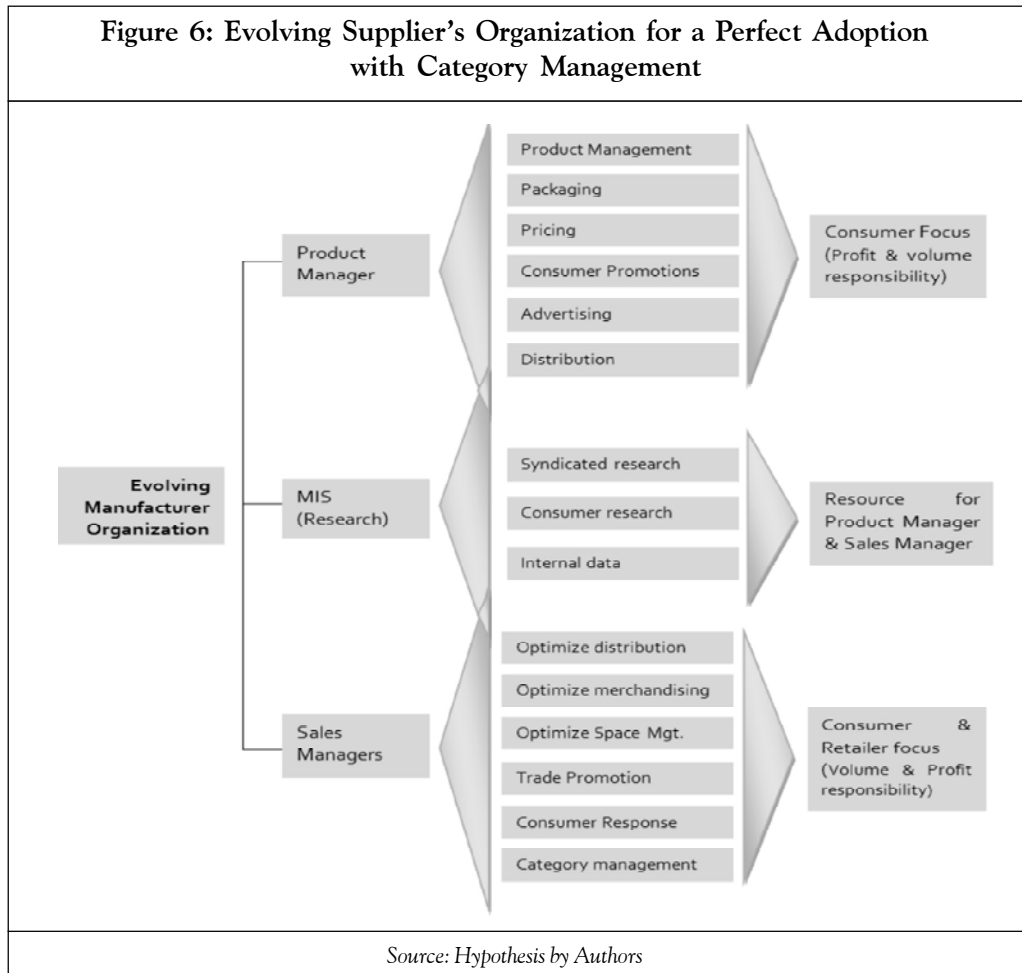
Source: Lonsdale et al. (1992, p. 100)

manufacturer side while they became interested to play their role for understanding consumer better and building long-term mutually beneficial relationships with retailers.

Adopting Team Approach by Restructuring Organization

After discovering the suitability of category management from their side, supplier looks upon organizational setup and thinking of its modification for perfect adoption.

Avoiding the era of department-wise performance, category management brings out the modification of organizational setup where the entire departments work in a unified team. And most likely Figure 6 represents it in a best possible way.



It means that the responsibilities of sales teams are becoming more closely aligned with marketing and marketing research team. Therefore, sales manager have an access on market research data of marketing department to make a more accurate prognosis on retailer’s demand. Even under the umbrella of category management, the setup of evolving supplier’s organization provides the stipulation of doing work together by these two departments to get a clear scenario of what is happening in retailers’ shop.

Concentration on Five Stages

Supplier should reorganize them to move towards the retailer's and consumer's convenience where all departments work as a unified team to achieve their individual goals. And this new marketing or selling approach will be easier when they shift themselves on the track of five stages which has been already discussed by retailer's perspective. Before shifting them on this track, they should define a category carefully because retailer may have another definition on category while the shoppers want to perceive a category in much different way. In this situation, supplier should give more weight on shopper's opinion.

Reviewing the Category: After defining a category, supplier should gather and integrate a broad range of data to create an overview of the category. This data will help him to evaluate his product's position against the competitor in a category. He should focus on following factor to make his evaluation more authentic:

- The ratio of his brand's market share to the total category volume
- How low or high his product's price level is compared to the total category volume
- Whose brand is the leader of market share and why his is not?
- Which products in a specific category or sub-category are preferred by shoppers and which products follow the downtrend
- Follow up the effect of trade promotion and other advertisements of specific products and the category as a whole
- The effect of supplier's brand on a category and vice versa

These factors will assist supplier to make a review on a specific category where his products belong to, and will open a door to search the opportunity and to hide his weaknesses compared to the other products of this category.

Targeting Consumer: In this stage, supplier will point out the specific type of consumers and will draw a strategy of responding the needs of this consumer group. Therefore, he can follow the three-steps to make his task easier (Lonsdale *et al.*, 1992, p. 114).

In first step, he will segregate the consumer groups both for the category and for the specific brand by their demographic profile. This profile is included with information such as income level, family size and age. On the basis of this information, supplier will define the target groups.

The second step includes the evaluation of these target groups. This evaluation will be done in terms of their lifestyles; what products do they buy? what stores do they shop at? and what leisure activity do they pursue? This information can yield a deeper understanding of the needs of target consumer as well as it can provide useful knowledge for the development of advertising aimed at target consumer.

After defining the target consumer group and their needs, supplier will concentrate on consumer motivation through promotion planning and media advertising. By analyzing data on consumer media preferences, the manufacturer can reach out to consumer in an effective way.

Planning Merchandising: This stage is oriented by product mix, pricing, promotion and shelf space allocation within a category. In this stage, supplier can use software to identify the particular retailer who does not carry his brand or any retailing shop where his particular brand is missing. These software applications enable supplier to recommend an optimum product mix in retailing shop by considering the volume and profit target of retailer. It is important for supplier to collaborate closely with retailers in this stage to execute mutually beneficial pricing and promotional strategies. This is much sensitive stage for manufacturer while he should not recommend that only competitors' item are delisted and only his items are added. He should consider the reality that his brand or brands are only a part of the category in retailing shop. Taken into account this truth, supplier's product manager and sales manager should merchandise their own brand with promotion tactics that will be competitive for long-term period. Shelf space allocation is one of the important facts that show how and where products should be displayed on the shelf within a category at individual stores. Some software applications enable supplier to assist the retailer for customizing planograms for specific types of stores.

Implementing Strategy: This is the challenging stage for supplier where he is subjected to motivate retailer to implement his planning and merchandising decision. Geared up by the first three stages, sales manager delivers his recommendation about product mix, pricing, promotions and shelf space allocation. And his argument should be supported by charts, tables, planograms and other graphical representation of Management Information System (MIS). To motivate retailer for taking a part of supplier's strategy implementation, sales manager should have data that shows how pricing and promotion strategies of his single brand will affect the brand itself as well as the performance of the category as a whole. His recommendation should be matched with retailer's financial objectives for a category which will encourage retailer to collaborate with supply partner to implement their strategy.

Evaluating Result: The overall performance of the specific category is evaluated here. This evaluation keep the circular process flowing naturally back into its first stage. Different software applications that are available in market can help supplier to estimate his present status compared to his target goals. Supplier can identify the sales figure of his brand in comparison with other brands of same category by automated computer system. This system will help them to identify the opportunities and unforeseen challenges in the marketplace. So they can review the category once again to optimize the growth from supplier's perspective.

IN-STORE IMPLEMENTATION

As they are now in a settlement to share and collaborate between them, it is the perfect time to come down in battle field: the retail shop, where they will find the output from customer and evaluate themselves, and reorganize their initiatives on the basis of this evaluation.

MAIN AREAS OF INTEREST WITHIN CM

After the adoption with category management in their business process retailer and supplier should focus on its perfect utilization. Because a perfect utilization of category management process will able them to approach for long lasting partnership which in turn keep them on a way of doing business like joint venture. As we have mentioned several times that it is a process which needs to be updated overtime to understand the whole business process not by their own meaning rather they should understand the shopper on continuous basis. In July 2006, an industrywide web poll where 393 category management practitioners participated, chose four main areas to foster the development of category management process which are discussed below (Minor Project Report, 2009).

Consumer Shopping Behavior

Every category should be defined and promoted on the basis of research data on identifying, understanding and meeting consumer and shopper needs. It is the more oriented phase of targeting consumers from the retailer and supplier side, a part of which was discussed in ongoing five stages process. Consumers know themselves as an arbiter of fortune for the company. Therefore they deserve to be cultivated in a loyal way by the side of business owner. Figure 7 can help the business owners to understand customers.

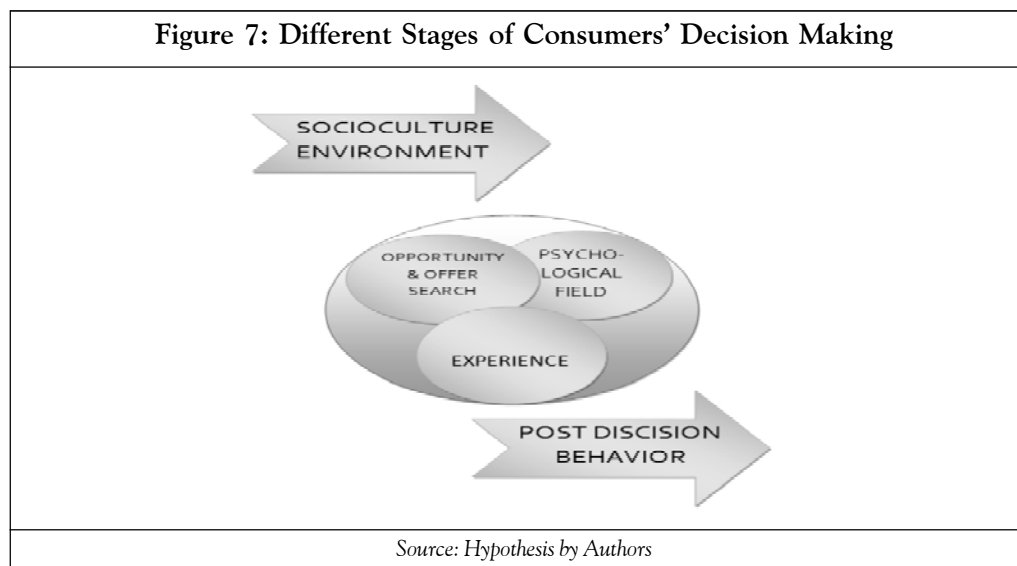


Figure 7 shows consumers are initially influenced by their sociocultural environment. It includes family, reference group, social class, sub-culture and culture which are known as external influence. Here consumer behavior is affected either for individual or in the context of group. For example, friends can influence what kind of clothing a man should wear or an organization can define the clothing for his employees.

After the effect of external influence, a consumer is supposed to buy the product. Then he is in his decision making stage where psychological field plays the ultimate role. This field covers the area of motivation, perception, learning and personality. In this stage, retailer and supplier can take the chance to motivate consumer for shopping from their defined category by analyzing the average lifestyle data of target consumer group. If the motivation clicks any consumer then he intends to search the opportunity like need recognition, promotion offer and evaluation of alternatives. This blurring situation of decision making, coupled with his previous experience, lead him to finalize his decision.

Therefore, the output is post-purchase behavior where he trails on the product whether it is good garments product or not and then buys it. If his post-purchase evaluation is good then he can repeat his buying or he can influence his friends to have it. This will give him more weight on his experience which in terms increases the reputation of the specific retail industry as well as the supplier.

It is also necessary to mention that besides demographic data, geography has also a tremendous affect on consumer's shopping behavior. Observation on consumer of different region of world shows the variation in their thoughts like how they select products? how they make decision? and what they look for? For example, some American manufacturers were anxious about low sales of their products in Japan. After a research they found that unlike American consumers, Japanese have a tendency to buy the brand specific product rather than product specific brand. They have to have the major brand like Mitsubishi or Proctor & Gamble in the product to be preferred by them (Lars, 2010).

Data Analysis and Role of Market Research







Market research on the basis of data analysis allows business owner to penetrate through consumer-insight. Strategic plans and tactics should be undertaken as a unified approach from retailer and supplier side and it should be proceeded through continuous follow up and data analysis on a category performance from different consumer perspectives, whether it is the way a consumer shops or how they use a product.

Packaging and Design Testing

Market research and corresponding data analysis plays an important role in the development and evaluation of product packaging, brand design, in-store fixtures which helps retailers and suppliers to get a better understanding on existing products or the developments of new products. The communication of products and brand

attributes to the consumer is largely dependent on the design and visual aspects. Market research data in regards to planning and designing processes of a product ensures that the real needs and desires of consumers are met. Market research could be carried out by workshop activities and by in-depth interviews to reveal the visual cues and communication aids for target consumer groups. Effective communication aids not only mean the modification of visual appearance of product but also it could be done by some words or sentences like brand promise which offers functional and psychological advantage to inspire consumer. For example, a fashion retailer brings a new product in market and inspire consumer in following way that the consumer perceive functional and psychological motivation for impulse buying (Figure 8).

Figure 8: Functional and Psychological Motivation to Stimulate Impulse Buying of Consumer

	Functional Motive	Psychological Motive
The price is 40% of regular price		
It never needs ironing		
Serving you since 1950		
It's all the rage- colored action ware and style		
A gift! she will treasure always		
Additional accessories will be supplied		

Source: Hypothesis by Authors

Price Testing

It is better to conduct a market research on consumers' perceptions about the price of a specific product or brand in comparison to other products in a category. Then the business partners have an idea on how consumer would react to a price change and it will help them to reorganize the price structure for a product of a category or for the whole category. Even the price of a specific category could be change in a certain store to observe the sales results compared to other stores. Due to price reduction, the increment in sales figures, coupled with the low profit per item, generate the overall growth of this product. And if this growth inclines toward the overall category performance then the reduced price could be finalized for the specific product. This same thing could happen for overall category as well.

Pricing for a category is also important for retailer-supplier relationship. We have found a market research which focus on how a shift to category management by retailer affects its price, sales and profitability in a competitive retail setting. The study was conducted on two competing common retailers who receive products from two competing national brand manufacturers. The research shows that one retailer's adoption of category management increases its average unit price of the category and reduces its sales volume and revenues. But the retailer still enjoys an increase in its gross margin profits as competing manufacturers' wholesale prices fall in the process (Basuroy *et al.*, 2001).

Effective Implementation and In-Store Compliance

Implementation and compliance is one of the main areas of category management process which determines whether a plan of in-store execution succeeds or fails. Latest research shows that only 37% of respondent are satisfied with the level of in-store implementation (Minor Project Report, 2009). As implementation and compliance is one of the biggest challenging areas of category management, some advanced manufacturers or suppliers are willingly to meet with their competitors to define category segmentation and decision hierarchy for their category. This minimizes the cost, time and duplication of efforts when they negotiate or collaborate with retailers as the category segmentation has already been resolved. From supplier side, it could be the milestone of effective implementation and in-store compliance if every supplier embraces this idea to date.

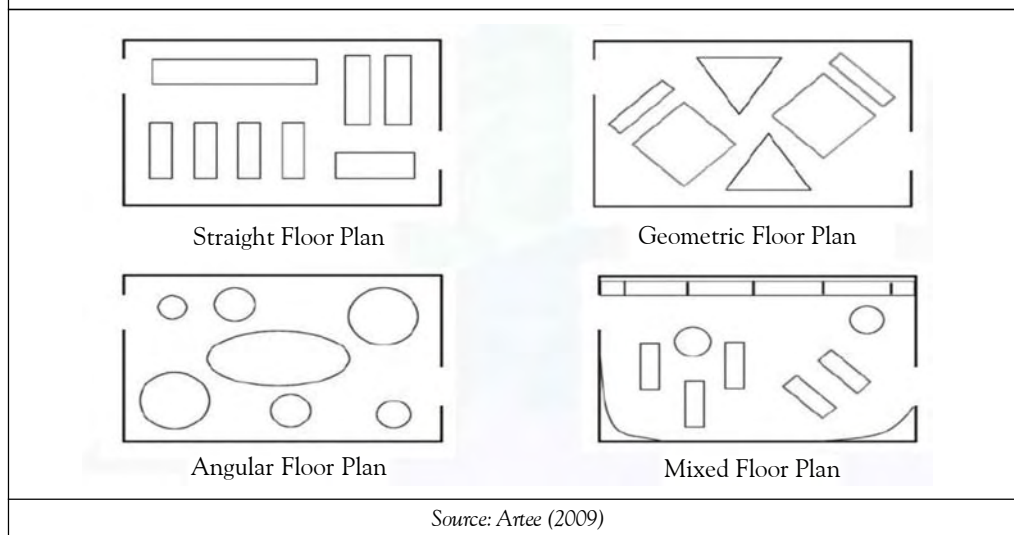
And from retailer side category manager should identify the fluctuation of performance of a category by analyzing Point of Sale (POS) data and implementing solution through additional sourcing, appropriate specification changes, substitution and better demand management. He should have continuous monitoring on following areas:

- Price Management: Monitoring of category indices and analytics on impending price changes.
- Supply-Market Monitoring and Reporting: Searching opportunities of improvement by analyzing market data and benchmarks.
- Continuous Cost Improvement: Optimization of cost through substitution, better compliance or additional sourcing.
- Supplier Performance Management: Monitoring supplier performance and driving quality and service improvements.

Ranging and Merchandising

After a perfect integration of retailers' and suppliers' activities, they need to think about the retail layout that will be suitable for consumer focused retail offer. Some example of retail layouts is shown in Figure 9.

Figure 9: The Different Layout Plan of Retail Shop Which Can Impact the Customer's Perception of the Store Positioning



Ranging and merchandising, throughout the layout plan, have an impact on shopper's ability to find a product in store. So range planning should be done in a way of fulfilling consumer expectations of on-shelf availability. And this is not easy to do as consumers often feel perplexing situation due to too many options. Every sub-category may have product of similar end use from different brands but ranging and merchandising should be done in a way that customer won't feel the wall of similar product. Retailer should take the following factors into account while they plan the ranging and merchandising:

- **Price Strategy:** Each segment of a category should have high to low price product with same or tends to same visibility.
- **Choice:** The depth and width of range in a category can initiate customer to choose a product by considering its competitive advantage compared to others.
- **Quality and Exclusivity:** To fulfill consumer's expectations and to differentiate from other competitor's offering.
- **Brand/Own Label Mix:** Ranging should be carried out by the perfect mix of brand and retailer's own label to generate an average impression of overall category.
- **Availability:** Shelf space should be allocated proportionally to accommodate all the products of different brand in a sub-category.

SUPPORTING TOOLS FOR CATEGORY MANAGEMENT

As discussed so far, the objective of category management is not focusing on retailer's offering as a collection of individual product to get a better view by customer. Rather

it is a process of managing 'each product categories as a strategic business unit' where the objective is to enhance business result by focusing on delivering consumer value. Robert Spector raised his voice in 2005 for the same issue (Robert, 2005):

"Category management began in the supermarket business, where big retailers of packaged goods learned that they could improve sales and profits if they could more efficiently administer all their different product classifications. The idea was to oversee the store not as an aggregation of products, but rather as an amalgam of categories, with each category unique in how it is priced and how it is expected to perform over time".

Therefore, to bring this truth out in the store, retailers should have to ensure the proper as well as uniform distribution of all products or brands within a category. For achieving these objectives they can get in touch with many consultancy firms that enable retailers to become best-run businesses, with robust flexibility. There are many well reputed firms all over the world who support retailers by providing different tools like software application while data synchronization functionality make necessary changes as simple, and error-free, as possible. Retail business solution firms like EPICOR (<http://www.epicor.com/pages/default.aspx>), SAP (<http://www.sap.com/index.epx>), APPULSE (<http://appulse.com/>), TOREX (<http://www.torex.com/>), ALDATA (<http://www.aldata-solution.com/>), etc., assist retailer by proving various tools which takes business profitability with customer satisfaction in to account. Some of these tools are listed in below.

Ranging Tools

Ranging tools make retailer capable to do space planning by considering many factors of uniform product mix. These tools help retailer to expose all products in a category in a best possible way by taking cash sales, unit sales and profit into account. Ranging tools have extended the capabilities of retailer by including wide range of data and external performance measures and this data can be synchronized with any space planning software to explore the maximum benefit.

Value Chain Analysis Tools

These tools measure the supply chain performance on the basis of Activity Based Costing (ABC). In order to identify the areas of inefficiencies and non-value added cost throughout the supply chain, ABC methodology deals with all the cost drivers and cost-based activities. It also covers the area of warehouse inventory and replenishment process.

Micro Marketing System

This system evaluates consumer's behavior and their preference in shop and then provides insight of potential performance for each category comparing to the actual. For doing this, it utilizes demographic and geodemographic data and shows the right

way of advertisement to achieve the best performance. This system can also be used for target marketing activities like leaflet drops or poster advertising to specific locations.

Customized Tools

For the sake of Information Technology, all kind of business data from order making to order delivery in store are available, and the customer demand on any specific brand or product is easily identified by POS data. Therefore, many companies generate their tools for in-store assembly of products that is tailored to their specific requirements. Every retailer's organization that has ability to access through large amount of data and variety of information resources can customize their own tools according to their convenience. For example, Pedigree Masterfoods, the company which have various food category not only for human beings but also for pet animals, has developed its own range management and space planning systems.

VISUAL MERCHANDISING

Visual merchandising is the activity of promoting the sale of goods, especially by their presentation in retail outlets. (New Oxford Dictionary of English, 1999)

Likely to its dictionary definition, it combines the area of products, store-environment and spaces into a stimulating and engaging display to encourage the sales of product or service. In fashion retailing, a successful output through visual appearance of a store has been come by the team effort involving the senior management, architects, merchandising managers, buyers, and the visual merchandising management team (Wikipedia). All of these related staffs integrate their idea to create a warm, friendly and approachable atmosphere for its potential customers. And for doing this, the overall display including color, lighting, space, product information, sensory inputs such as smell, touch, and sounds as well as technologies like digital displays and interactive installations should be done in a way that it motivates customer to hang out with the shop for a long time and encourage them to shop again from the same store. So, visual merchandising is a mixture of art and science that provides maximum sales growth to customer. We are now going to explain some factors to simplify the outlook of retail store that associate with visual merchandising.

Bulk Stacking

To get rid of slow selling product or the fashion products that has already been expired, this method it fruitful as it encourages shoppers for multiple purchasing. This technique creates the perception of value by offering multiple purchase in reduced price like "buy one get one free".

Category Signposts

Certain products should be shown up in a suitable place to indicate the placement of overall category relevant with this product. The positioning of these products assist customer to find the perfect location where the desired category is. For example, a set

of ladies underwear in a place of shop is indicated as a underwear category on that specific position.

Brand Blocking

Those customers, who are biased by brand, are always searching for their specific brand. Therefore, easily recognizable brand could be blocked in a specific place where all product of this brand is accumulated to represent the whole brand strength. This is the most important attribute for driving consumer choice. But in every category, the presence of the product of specific brand should be presented to maximize category strength.

Color Blocking

All products are blocked firstly by their color. Especially for fashion products, color blocking is more significant. Every product of a category should be blocked by its respective color. But the negative impact of color blocking is like same products having any specific color could be overstocked due to low sell and the same products having another specific color could be understock, leading to out of stock for high demand, resulting in consumer dissatisfaction.

Horizontal and Vertical Blocking

Actually, there is no rule to define which one is better but it is recommended to follow one blocking whether it is horizontal or vertical blocking. The suitability of using anyone of this blocking system depends on some factors like the layout of shop, which product this shop offers and on research data. For skimming through the product when the customer walks along the aisle, vertical blocking is more suitable. Here products are blocked together vertically into categories, sub-categories, segments and sub-segments to help consumer find the product they are looking for. In the same way, horizontal blocking helps customer to browse through the shelf to find what they are looking for. I have found a research paper of Procter & Gamble which has shown that vertical blocking helps shopper find products 23% faster than other techniques (Minor Project Report 2009, NIFT).

Store Clustering

Store clustering should be done on the basis of some retail function like assortment planning, space planning, pricing, promotion planning, store performance benchmarking, etc. Since no single clustering methodology can fulfill all the requirements of a retail shop, it must be aligned towards retailers' objectives. Nowadays, the retailers are becoming aware about store clustering to design their strategies as per store attributes. Store clustering strategies could be dependent on location and market type of stores like stores on a beach, or in a student area, or in an urban neighborhood.

DISCUSSION

THE FUTURE OF CATEGORY MANAGEMENT

According to earlier discussion, category management defines each product category as a strategic business unit where the reflection will be consumers' need rather than traditional trading concept of viewing and merchandising of overall products and brands. Establishing a collaborative relationship between trading partners is the must-have component of category management. Collaboration aligns strategies, systems, processes and people for cost reduction as well as serve consumer in a better way. Due to advancement of technology and modern logistics and eLogistics setup in business process, we have already achieved some advantage to cover those areas. But not to the extent required to avail the full featured benefit of category management. Moreover, a large number of retailers and suppliers are undermining the concept of collaboration by their behavior. For example, some retailers search the opportunity like charging slotting allowance, charging for category captaincies and diversion of products whereas some suppliers usually apply some marketing program and policy decisions, that erode retailer's profit and leads to inconsistent business practices across markets. A survey has shown that over 80% of retailers think suppliers are too brand-biased when participating in joint category planning (Minor Project Report, 2009). But we hope that those retailers and suppliers who synchronize themselves with the ongoing five stages will be able to reach the level of true collaboration.

And the greatest hope for future is that both retailers and suppliers realize the truth that they individually cannot avail sufficient resources to shift their focus toward consumers while the matter is making prediction for the future rather than looking backwards. After taking this reality in to consideration, a growing number of retailers are investing more on consumer research, upgrading marketing competencies, utilize the supplier's knowledge on consumers and encourage them to invest time and resources more on research area.

So, how the future looks like... for category management? The answer depends on some factors like how we can utilize this process while the objective is to touch the consumer. To foster the growth of category management, retailers should employ its knowledge of its customer, the way they shop and their purchasing behavior. In the same way, supplier should employ its knowledge of who purchases, who consumes, their wants, needs and behavior. Better future is waiting for them if they combine their knowledge and skills to provide the optimal category offer on the basis of the location of retail outlet and the demographic data of consumers. In-store environment is also important factor for future growth of category management as success is ultimately driven by the shopper's experience at the point of purchase which has also been discussed.

SUITABILITY OF CM IN CLOUDY MARKETPLACE

There is no doubt that the advancement of technology, applications and information has made category management effective for managing retail business. But a blurring situation is waiting for us as there will be an intensifying competition among retailers and the continued shifting of manufacturers' market-share war to the store level. Even retailers will strive harder to distinguish them from others by doing niche marketing. And manufacturer will want more and more to align their marketing efforts with retailers' niche strategies to enhance brand performance. As this trend will become the usual practice of near future, category manager will face new responsibilities requiring multiple skills in an increasingly fast-paced business environment. To tackle this blurring situation, category management will cause additional restructuring among suppliers and retailers and redefine their relationship even further. Therefore, category management business process will be more sophisticated to cover a widespread area of technology, application and information that will:

- Allow retailer at the headquarters level to customize merchandising plan for each individual store instead of groups of stores, as well as for individual categories within each stores.
- Enable manufacturer to monitor closely his own brand performance and optimize the merchandising and marketing plan of category for each channel.
- Provide customer specific purchase data that will represent the effect on the total customer transaction, overall store performance and overall company performance.
- Allow the use of artificial intelligence to manage and analyze the increasing data flow and to speed merchandising decision.

CONCLUSION

This paper struggles to simplify the complexity of overall process involved with category management. Examples have been drawn from every possible perspective to make us understand that category management is the wave of future in consumer packaged goods marketplace. We have revealed some potential for retailers and suppliers to do work together for catching the wave and ride it to future success. These potentials are the achievement of this paper and are mentioned below.

We avoided the term 'category captain' here though this term is known as one of the key role player and has been involved with category management since its beginning stage. Generally, retailers choose a specific supplier as a category captain for a specific category to get category insight and strategic recommendation. But the subsequent negative impact of having category captain to retailer is that he may restricts the competition of other brands in a category. Even he will have access to information on competitor's product and able to influence the category decision which in terms create

a bad reputation of this retailing organization to other suppliers. In order to remove this complexity, we have replaced the role of 'category captain' by 'category manager'.

Many business owners whether they are retailers or suppliers, still trying to implement the traditional eight step process to habituate with category management. There is no doubt that this process considers all the aspect of category and set parameters to measure a category success. But this process does not specify the respective role of retailers and suppliers. Therefore, we have focused on five ongoing stages of category management which precisely define the respective roles that the retailers and suppliers need to adopt while their target is same—boost up the category performance with consumer satisfaction.

In order to being able to perceive the benefit of category management, retailers and suppliers should bring some modifications in their traditional organizational setup. As like, retailer should reorganize their setup to reveal appropriate space for category manager while suppliers should reorganize their setup for market research which will give their product manager and sales manager better understanding on managing business. In this paper we have shown that how they can do it perfectly.

Collaboration between retailers' and suppliers' head office level is not enough while customers are looking for better service and comfortable environment of shopping in competitive prices. Therefore, we have discussed various space management and merchandising tools which stimulate the in-store environment. We have also discussed some tactics regarding visual merchandising to create a warm, friendly and approachable atmosphere.

Further Research: In our above discussion, we already have found that category management continues to be widely used by many companies across the retail sector. Suppliers and retailers accept this procedure as a must-have process in their business as it reduces their inefficiencies by collaborative planning and utilizing joint resources. In spite of many success and well-developed category plans, we need further research on implementation and compliance to reinforce rest of the process.

Earlier it is mentioned that technological advancement is the further opportunity for improving category management. Further research should be carried out based on sales data analysis that will assist category manager to evaluate the promotional offer by measuring the substitution effects of promotions or the variation in result on an individual store basis.

Store layout will be crucial to prevent shopper being intimidated by the scale of large store. Further research for innovation in terms of merchandising, store and fixture design will need to improve if retailers want to retain consumer loyalty. Even to mitigate the puzzling situation of consumer, many retailers and suppliers are developing shop-in-shop and category zoning environment.

Teenagers are the future supermarket shoppers. They use to visit specific areas and do impulse buying. It is the future challenge for business partner to understand them and offer them right product in a right place. Further research is very important in the sense to make retailers and suppliers one step ahead of teenagers in terms of product offer, retail environment and entertainment.

REFERENCES

1. ACNielsen, Al Heller and Karolefski John (2005), *Consumer-Centric Category Management: How to Increase Profits by Managing Categories Based on Consumer Needs*, December, John Wiley & Sons.
2. Arkader R and Frossard-Ferreira C (2004), "Category Management Initiatives from the Retailer Perspective: A Study in the Brazilian Grocery Retail Industry", *Journal of Purchasing and Supply Management*, Vol. 10, pp. 41-51.
3. Artee Roy (2009), "Category Management and Assortment Planning", KINDUZ Business Consulting, available at: <http://www.scribd.com/doc/13891342/Category-Management-and-Assortment-Planning-Presentation>. Accessed on 19th May.
4. Basuroy Suman, Mantrala Murali K and Walters Rockney G (2001), "The Impact of Category Management on Retailer Prices and Performance: Theory and Evidence", *The Journal of Marketing*, Vol. 65, No. 4, pp. 16-32.
5. Broniarczyk S, Hoyer W and McAlister L (1998), "Consumers' Perceptions of the Assortment Offered in a Grocery Category: The Impact of Item Reduction", *Journal of Marketing Research*, Vol. 35, No. 2, pp. 66-177.
6. Colacchio F, Tikhonova O and Kisis J (2003), "Consumer Response to Out of Stock: Decision Making Process and Influencing Factors", ECR Europe Conference, Berlin.
7. Corsten D and Gruen T (2004), "Stock-Outs Cause Walkouts", *Harvard Business Review*, pp. 26-27.
8. Dapiran P and Hogarth-Scott S (2003), "Are Co-operation and Trust Being Confused with Power? An Analysis of Food Retailing in Australia and the UK", *International Journal of Retail & Distribution Management*, Vol. 31, No. 5, pp. 256-267.
9. Dhar S K, Hoch S J and Kumar N (2001), "Effective Category Management Depends on the Role of the Category", *Journal of Retailing*, Vol. 77, pp. 165-184.
10. Dupre K and Gruen T (2004), "The Use of Category Management Practices to Obtain a Sustainable Competitive Advantage in the Fast-Moving-Consumer-Goods-Industry", *Journal of Business & Industrial Marketing*, Vol. 19, No. 7, pp. 444-459.
11. Dussart C (1998), "Category Management: Strengths, Limits and Developments", *European Management Journal*, Vol. 16, pp. 50-62.

12. Gérard P Cachon and Gürhan Kök A (2007), "Category Management and Coordination in Retail Assortment Planning in the Presence of Basket Shopping Consumers", *Management Science*, Vol. 53, No. 6, pp. 934-951.
13. Gruen T W and Shah R H (2000), "Determinants and Outcomes of Plan and Objectivity and Implementation in Category Management Relationships", *Journal of Retailing*, Vol. 76, No. 4, pp. 483-510.
14. Harris Brian and Michael McPartland (1993), "Category Management Defined: What it is and Why it Works", *Progressive Grocer*, Vol. 72, No. 12.
15. Heike Rawe (2008), *SAP for Retail*, Galileo Press, Bon, Boston.
16. Kurt Salmon Associates, Inc. (1993), *Efficient Consumer Response: Enhancing Consumer Value in the Grocery Industry*, Mercer Management Consulting.
17. Lars Perner (2010), "Consumer Behavior: The Psychology of Marketing", available at: <http://www.consumerpsychologist.com/>. Accessed on 19th May.
18. Lonsdale David, Struse Rudolph and Payack Paul J J (1992), *Category Management- Positioning Your Organization to Win*, NTC Business Books in Association with Nielsen Marketing Research and the American Marketing Association.
19. Maman Panda, "Consumer Buying Behavior of Godrej Appliance", available at: <http://www.scribd.com/doc/23888351/ppt-on-consumer-behaviour-on-godrej-appliances-by-maman>. Accessed on 19th May.
20. Minor Project Report (2009), "Category Management and Fashion Forecasting", NIFT Mumbai, available at: <http://www.scribd.com/word/23492083-Category-Management-Fashion-Forecasting-Project>. Accessed on March 20, 2010.
21. Robert Spector (2005), *Category Killers: The Retail Revolution and Its Impact on Consumer Culture*, Harvard Business School Press.
22. Samir Bhaloo (2006), "ACNielsen Consumer 360 Norway, Simplifying Complexity", available at: <http://www.acnielsen.no/events/documents/Bhaloo.pdf>. Accessed on 19th May.
23. Saguy I S and Moskowitz H R (1999), "Integrating the Consumer into New Product Development", *Food Technology*, Vol. 53, No. 8, pp. 68-72.
24. The Institute of Grocery Distributors, www.igd.com, available at: <http://www.igd.com/index.asp?id=1&fid=1&sid=6>. Accessed on 19th May.
25. The Partnering Group (TPG)-Nordic (1996), "Category Management Increased Customer Value in the Grocery Industry", Best Practices Report.

Exploring the Relationship Between Terror Threat Perceptions and Coping Strategies: A Post-26/11 Assessment

Malay Biswas*

Terror attack posits unique dissonance to human conscience, which is expressed in cognitive and emotive framework. The objective of the research is of two folds: Firstly, to examine as to how human being construe perception of terror threats in its cognitive and emotive framework. Secondly, indirectly inflicted by terror threats, how does human being deploys various coping strategies? The author used exploratory factor analysis and subsequently, covariance based structural equation modeling for confirmatory assessment of the framework. To examine various coping strategies, the author utilized component-based structural equation modeling or PLS path modeling approach. The author successfully identified four underlying dimensions, which represents cognitive and emotional framework in line with Shiloh et al. (2007). However, emotional factor did not appear as it was expected. Secondly, cognitive terror perception potentially produces wide range of coping strategies, such as wishful thinking, detachment. Terror research in Indian context is still nascent and hardly represented in academic journals. This research prepares the ground for further critical discourse, which will enable practitioners to extend professional services in tune with emotional status of individuals.

INTRODUCTION

Terrorism is indeed a serious international issues as it affects a large number of human habitation (Hirst *et al.*, 2009; and Watson *et al.*, 2011) Terrorism is not new to India—sporadic incidents of terror attacks are now a reality (Mukhopadhyay, 2004). However, terror research in behavioral science is relatively new to academic world in India. In international arena, a recent review (Reid and Chen, 2007) indicates that large amount of research data is available on terrorism and related research domains. ‘invisible college of terrorism’ researchers, having diverse academic background, have contributed to the expansion of terrorism research, for example, from psychology (Zeidner, 1993, 2005 and 2006; Pyszczynski *et al.*, 1997; and Stein *et al.*, 2004), mass communication (Gordon, 2005), computer science (Hollywood *et al.*, 2004, Sun *et al.*,

* Faculty Member, Indian Institute of Management, Rohtak 124001, Haryana, India.
E-mail: malay.biswas@iimrohtak.ac.in

2005; and Desouza *et al.*, 2007), medicine (Morse, 2003; and Almogly and Rivkind, 2007), defence strategy (Singh, 2002; and Mukhopadhyay, 2004), economics (Brock *et al.*, 2005; and Levy and Galili, 2006), biotechnology (Durodie, 2004), and forensic science (Yavuz *et al.*, 2004) to name a few.

It has been seen that those parts of the world, which are often touched by the violence of terrorism, or having strategic interests in the affairs of the world terrorism, takes leading role in terrorism research. For example, countries such as Israel, US and 'Think Tank' like Rand Corporation, provide good amount of research data on terror. In India, though terror studies at political level has been seen (Singh, 2002); however, academic discourse on psychological arena is scarce. Recently, a Harvard case study by Deshpandé and Raina (2011) captured heroic efforts of Taj Mahal Hotel (Mumbai) employees to rescue guests of the hotels. Thus, it appears that terrorism research in India is relatively at its nascent stage. While on 26/11 night, hurriedly looking for requisite psychological instruments on terror research, electronic search for India specific data produced almost negligible academic works, which can support my research quests and initiatives. Thus, it is believed that this present research work will significantly contribute in generation of interest and advancement of the terror research in India.

Definition of terrorism is controversial as it has political connotation and depends upon the perspectives, the author subscribe to. A broader range of definition I have adopted: "Terrorism is a strategy deliberately intended to inflict overpowering fear on people whose business is not political violence in any shape or form." (Booth, 2008, p. 1). This adequately positioned me to understand my research questions. Terror act is generally committed to generate fear in the mind of common people, forces governments to divert resources for non-developmental purpose. There could be domestic as well as foreign operators to achieve political objectives, etc. Starr (1969) found that the public is 1,000 times more willing to accept voluntary risk, such as skiing than involuntary risk. Terror attack presents involuntary risk to human being—hence, it is important to examine as to how human mind deals with terror threats.

IMPORTANCE OF TERROR DISCOURSE

Time to time, waves of terror attacks are gradually touching every nation. Looking at the occurrence of terror attacks or impending threat to terror attacks; it is difficult to find immaculate nations, free from this problem. Footprint of terror attacks are seen in Europe, Asia, Africa and American Continents. Terror attacks are the means of making political statements and serve other multipurpose interests of various factions, groups and enemy nations. Continued exposure to terror leads to widespread economic consequences such as, reduction in the per capita annual consumption by 5% in 2004 (Eckstein and Tsiddon, 2004) and other substantial economic effect on the economy (Bruck and Wickstrom, 2004). Thus, economic consequences of terror attack could pose serious problem to nations; for example, diversion of fund from government investment spending to government expenditure (Blomberg *et al.*, 2004), stock market implications of terror attack (Carter and Simkins, 2002), etc.

Terror attacks not only cause economic ill-effects, but also have potential to imprint a mark on human mind whether exposed to it directly or indirectly. Wide range of syndrome has been reportedly found; post 9/11, sleep disorder, increased drinking and smoking, and rising help seeking behavior, etc. Encounter with mortality often provides fertile ground for human actions and engagements. Terror threats and human action/inaction provide enriching discourses. Impending terror experience reminds human mortality and is believed to trigger wide variety of human actions. Psychological impact on human mind is colossal. For example, in response to September 11 attack to US, Greenberg *et al.* (2004) reported several interesting facts. They reported that to reduce the terror risk, common citizen is ready to sacrifice civil liberties. They also reported that using national sample in US, people also experienced strong feeling as a result of the terror attack. They reported anger, fear, depression, sadness, etc. These affected simple human activities, such as difficulty in sleeping, spent more time close to home, avoid travelling to certain cities and travelled less by air. However, in New York sample, strongest feeling was suspicion, angry, patriotism, anxiety and sadness; most of the respondents in their studies avoided public events; handled mail differently. Their research indicates that those, who will feel strongly to these emotions, will likely to sacrifice invasion to the privacy by the government and will engage in behavior. A few recent studies such as Morgan *et al.* (2011) reported that 9/11 attack in US created a number of positive (e.g., an increase in charitable donations) and negative social consequences (e.g., discrimination against individuals of Middle Eastern decent). Due to ripple effect or spilled over effect, individuals who got indirect exposure to terror attack (media exposure, cleaning up debris, etc.) also experienced a variety of post traumatic stress responses (Neria *et al.*, 2011). This echoed in Bloomfield's (1998) articulation that with each death, "a heavy stone dropped into a pool of water, with ripples extending far and wide." (Bloomfield, 1998, observed in context of Northern Island conflict, p. 13). Interestingly, terror attacks are in fact, directed to create maximum disruption of ordinary life by invoking fear and anxiety which in turn leads to wide range implications in psychological, social, political, and economic consequences (Silver and Mathew, 2008).

THEORETICAL UNDERPINNING FOR TERROR PERCEPTION

Why does terror attack is so significant for human cognition and emotion? Following are few theoretical underpinning, forwarded by various leading researchers, to advance our understanding.

TERROR MANAGEMENT THEORY

Terror management theory argues that death in a relationship network or direct (i.e., losing parent)/indirect exposure to it reminds human its own mortality and perceived life threat. Generally, human mind wants to reside in the positive side cushioned with sense of security and engagement in different activities involving

consumption and relationship. Threat to this mental model often causes anxiety, leading to re-evaluation of its meaning the world carries (Pyszczynski *et al.*, 1997; and Burke *et al.*, 2010).

JUST FAIR WORLD THEORY

Human attempts to interpret their world as just and fair and predictable. In a just, fair and predictable world, human action, directed to life enhancing activities and projects are undertaken as it appears to be meaningful. In an untimely death due to terror attack, it appears to be so unfair and unjustified and derives new line of meaning (Lerner, 1980; and Hafer and Begue, 2005).

MEANING MAKING PROCESS

Human mind attempts to interpret the world in a specific ways, influenced by personality, values, attitude, situational requirement, etc. Constant encounter with frequently encountered world provides stable meaning as per the convenience of the mental faculties. However, terrorist attack often disrupts this meaning making process and raises questions about previously held stable viewpoints. "These constructions are likely to vary in their valence, intensity, salience and degree of self relevance." (Maguen *et al.*, 2008, p. 23).

SOCIAL AMPLIFICATION OF RISK FRAMEWORK

Risk is generally amplified or attenuated depending upon various intermediaries before reaching to human cognition and emotion. These intermediaries potentially contribute, extract and put its interpretation before sending it to the world. Risks and with its multiple interpretations and colorizations, reaches to the people in multiple dimensions. Terror threat may appear directly to human cognition, losing family members or other relatives provide deeper reach to the assessment of risk. Media potentially provide suitable multiple interpretation of the same events. One incident potentially comes back to one individual in multiple times, in multiple colors with potential multiple way of affecting individuals (Kasperson *et al.*, 1988).

Thus, encounter with mortality poses significant problems for self-concept of human. When encountered with self dismissal as living being, conscious self face relatively paradoxical scene. Terror management theory captures this discourse and explores how human processes deals with this self annihilation information and channel it to the behavior. Extending the classical work of Pyszczynski *et al.* (1997), Maguen *et al.* (2008) reviewed *Terror Management Theory* and other related literature to present comprehensive assessment on the various processes that affect primary and secondary coping strategies. They attempted to explain human coping strategies, using *Terror Management Theory*, *Just World Schemas and the Self* and *Meaning-Making*. Terror attacks predominantly inflicted wide ranging and devastating demise of human organic and inorganic infrastructures, which reminds own mortality and thereby potentially generate dissonance. Though this ultimate and inevitable reality of demise of organic construction

of human being occupies little space in 'Spectrum of Consciousnesses', aftermath of ruthless terror attacks make it easily accessible to the consciousness (Pyszczynski *et al.*, 1997, p. 4).

Fishhoff *et al.* (1978) found that unacceptable degree of risk were likely to be dreaded and uncertain to human cognition and emotion. Their research suggested that terror threat perception possesses potential to generate strong emotional reactions, such as anger, fear, and worry when specially cause of it is not easily controlled and not well understood. Shiloh *et al.* (2007) reportedly utilized these arguments for development of Terror Risk Perception Questionnaire (TRPQ) instrument for measurement of cognitive and emotive framework of terror. Thus, human cognitive framework is constituted by cost, vulnerability, trust and control. Cost signifies perceptual estimation of degree of price one will pay, while facing terror threats. Vulnerability signifies perceptual assessment of probability of facing direct terror threats. Trust signifies perceptual appraisal of effectiveness of various societal agencies such as government, army, etc. to deal with terror problem in the country. Control signifies inner sense of control on the situation. Similarly, human emotive framework has been operationalized with the help of listing down 10 distinct emotions, which most fluently emerges while facing terror threats. Terror threat perceptions indeed cause considerable impact on human cognitive and emotional plane. Impact of terror on human cognitive and emotive faculty causes widespread changes in behavior. Good number of research reports change in human behavior, such as heighten nationalistic beliefs (Arndt *et al.*, 2002), increased commitment to close relationships (Milulincer *et al.*, 2002), creativity (Arndt *et al.*, 1999), terrorism (Pyszczynski *et al.*, 2003), attitude towards environment (Koole and Van Den Berg, 2004) and influence on material consumption (Arndt *et al.*, 2004, contra argument in Maheswaran and Agrawal, 2004).

RESEARCH BACKGROUND

On November 26, 2008 terrorist attacked innocent people in Mumbai, India. After killing common people on the street, terrorist entered two prominent hotels in Mumbai and killed ruthlessly unarmed employees of the hotels, trainees from different hotel management institutes and hotel guests. Their barbaric acts continued for almost 60 h and more than those hours on media.

ORIGINALITY

Shiloh *et al.* (2007) developed an instrument titled Terror Risk Perception Questionnaire (TRPQ), which measures cognitive and emotional representation of terror. In their research, they reviewed the literatures on cognitive and emotional frameworks of terror attacks. Subsequently, they took several interviews to develop scale items. Later on, they attempted to validate their instrument with the help of student data, taken from Turkey and Israel universities. Result of their exploratory analysis of the data suggests that cognitive framework is represented by four factors

such as cost, vulnerability, trust, and control. Except control factor, reliability for the scale reported by them was above acceptable threshold. To capture emotive framework, they developed single word item based scale having 10 items. In their study, exploratory analysis produced single factor. They urged that “Cross-country comparison could then be undertaken not only in respect of these representations but also regarding the extent to which there are systematic differences in terms of the incidents recalled and the attributes associated with them.” (p. 406). They also suggested future line of research work such as “further validation of our finds can be achieved using complementary study designs”. They invited other researchers to contribute to extend their work: “We see the questionnaire in its current form as a first stage of a measure that should be further developed and improved by researchers in different parts of the world.”

My present research differs significantly from Shiloh *et al.* (2007) on following counts: Firstly, Shiloh *et al.* (2007) reported exploratory studies only. I have examined the robustness of the model proposed by them using exploratory and confirmatory studies. Secondly, my research attempted to find nomological validity of the scale proposed by them, by examining its role for various coping strategies.

In that context, I have designed research in post 26/11 terror attack context. Exploratory research provides tentative structures and relationship of factors, which is required to be evaluated using robust research method. Hence, my research contributes meaningfully in following ways:

THE PRESENT RESEARCH IS DIVIDED INTO TWO PARTS

1. First part of the research evaluates configural stability of Terror Risk Perception Questionnaire (TRPQ) using exploratory and confirmatory assessment. The author utilized exploratory (principal component analysis) and confirmatory framework (covariance based structural Equation Modelling) using maximum likelihood estimation to execute this part of the research issue.
2. Second part of the research explores the relationship between various cognitive and emotional representation of terror and various coping strategies individual deploys. The author has utilized component based structural equation modelling (partial least square algorithm) to achieve this objective.

SAMPLE

The sample is uniquely positioned in this research. I administered this questionnaire to the students of one leading hotel business schools in India, immediately after Mumbai 26/11 terror attack. Their relationship with hotels attacked during 26/11 is intense, multidimensional and require further elaboration as this relationship may have crucial bearing on the outcome of the research. Firstly, as a part of academic course curriculum,

they are required to undergo training in various departments of various five star hotels. Fourth year and third year students of an undergraduate program have already undergone training in hotels, some of them were trained in the hotels which terrorists attacked during 26/11. Secondly, many students aspire to build their career in the hotel industry, and look for coveted posting in these hotel properties. They also lost two senior students (alumni), who passed from this institute. Thus, the relationship with this incident is intertwined with these multilayered relationships. Some of the students' parents worked for these hotels or in other hotels of same hotel chain. Though students were geographically approximately 500 km away from Mumbai, many of them are permanent resident of Mumbai city. All students had media exposure with different proportions. They have advantage of 24 h wifi Internet connection to their laptop which enable to remain in contact with multiple media channels. All food stations, such as cafeteria, restaurant, have cable televisions; some of the students had conversation with people affected by these attacks. Respondents had opportunity to access audio-visual exposure to the whole incidents. Research indicates that in absence of direct exposure, media exposure has potential to influence individuals, even lead to post traumatic stress syndrome (Pfefferbaum *et al.*, 2001). In a longitudinal study, even in absence of direct exposure (physical or network of family exposure) to September 11 attack; exclusive media exposure did predict an increase in Post-Traumatic Stress Disorder (PTSD) syndrome (Aber *et al.*, 2004). Research shows that the extent the individual identifies with the victims; they will be less prone to forgiveness. The said research shows that Canadian respondents, who were able to strongly identify with US and 'felt connection to America', they had shown less forgiving towards the 9/11 perpetrator (Brown *et al.*, 2008). Disclosure of this special relationship is particularly important because these multiple relationships will enable them to identify with the hotel and victims of the terror attack. In several research works, pertaining to terror research, however, utilization of student sample is not new (Sadler *et al.*, 2005; Shiloh *et al.*, 2007; and Braun-Lewensohn, 2009). Hence student sample is worthy representative of population.

PROCESS OF ADMINISTRATION

The date of administration was important to capture the cognitive and emotive representation of terror attack. I administered the questionnaire within almost one week of closure of the terror attack. The questionnaire was administered from December 1, 2008 to December 8, 2008. Though media bombardment was centered on this terror incidents with political fallout, terror episode was over by Saturday 30, evening—though sterilization process was on for one more day. During these weeks, when questionnaire was administered, some of the students attended prayers ceremony for the departed souls and lit candles in their memory. The schedule for administration of questionnaire was:

Beginning of Terror Attack : November 26, 2008

End of Terror Attack : November 30, 2008 (Saturday)

December 1, 2008 : 24 sample: Third Year Students (Monday)

December 2, 2008 : 75 sample: Fourth Year Students

December 3, 2008 : 35 sample : First Year Students

December 5, 2008 : 32 sample : First Year Students

Total sample size : 166

SOFTWARE USED

The author has used SPSS 17 for exploratory analysis, SPSS Amos 18 for covariance based structural equation modeling for confirmatory assessment and SmartPLS (2.0M3) for component based structural equation modeling (PLS path modeling) for prediction.

FIRST PART

RESEARCH METHOD

INSTRUMENTS

I used instrument developed by Shiloh *et al.* (2007) for evaluation of cognitive and emotive representation of terror. This scale has two distinct components to measure cognitive and emotive representation of terror threat perception. To measure cognitive representation of terror, a 14 item scale has been used and captured four underlying dimensions: cost, vulnerability, trust and control. To measure emotional part representation of the scale, they also developed separate 10 items scale. In their research, emotive framework is represented by single factor. Authors of the scale reported satisfactory reliability and tested across Israelis and Turkish students. Representative scale item for vulnerability sub-factor is “My chance of being exposed to a terrorist attack is less than that of other people”. Direct exposure to a terrorist attack may likely ruin my life.” Representative scale item for Trust sub-factor is “Security forces (police, army, etc.) will do their best after the terrorist attacks.” Representative scale items for control sub-factor is “Being exposed to a terrorist attack is a result of factors beyond my control”. The range of meaning is captured within the range of 1 being ‘strongly disagree’ to 5 ‘being strongly agree’, as conceived by the original work. To measure emotive representation of terror threat perception, Shiloh *et al.* (2007) used one word-based scale item such as sadness, pain, fear, hopelessness. This part of the scale has 10 items.

REVISION OF INSTRUMENT

Some of the items of TRPQ necessitated change. This is done with an intention of providing more profound meaning. I have incorporated these changes in consultation with two colleagues and viewpoints of the two students. Two revisions of scale items have been done to ensure that the meaning remain intact. Please note that I have changed only four items of the scale, which represents cost factors (Table 1). Though

the reliability was low for control factors, the language and content of the scale did not direct us to incorporate any change, nor did we find theoretical underpinning to do so. Thus, I felt no need to incorporate change in any other items of the instrument. It is clear that new scale item convey the same meanings. I took independent viewpoint of my colleagues, who holds master degree in English language and human resource management.

Scale Items	Original Scale	Rephrased New Scale Items	Factor
1	If I was exposed to a terrorist attack, my life would be more difficult.	Direct exposure to a terrorist attack may likely ruin my life.	Cost
2	Thinking I can be exposed to a terrorist attack negatively affects my daily life.	Direct exposure to a terrorist attack will be a traumatic experience for me.	Cost
3	Terrorist attacks are fearful events.	Direct exposure to a terrorist attack is a fearful event for me.	Cost
4	If I was exposed to a terrorist attack, my life would think that it is unfair.	Direct exposure to a terrorist attack is unfair.	Cost

RESEARCH PROCESS

I carried out exploratory analysis to identify these underlying factors—then followed by confirmatory assessment using structural equation modeling. This scale has been tested only in Turkish and Israelis environment. Relevant studies are not available in India or Indian subcontinents. Hence, exploratory and confirmatory studies were undertaken to assess the robustness of the scale.

DATA ANALYSIS

I carried out principal component analysis with varimax rotation. Kaiser-Mayer-Olkin measure of sampling adequacy was 0.672, above the threshold value of 0.5 and Bartlett's Test of sphericity was significant (Table 2). This signifies that data could be analyzed by factor analysis.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.672
Bartlett's Test of Sphericity	Approx. χ^2	563.653
	df	91.000
	Sig.	0.000

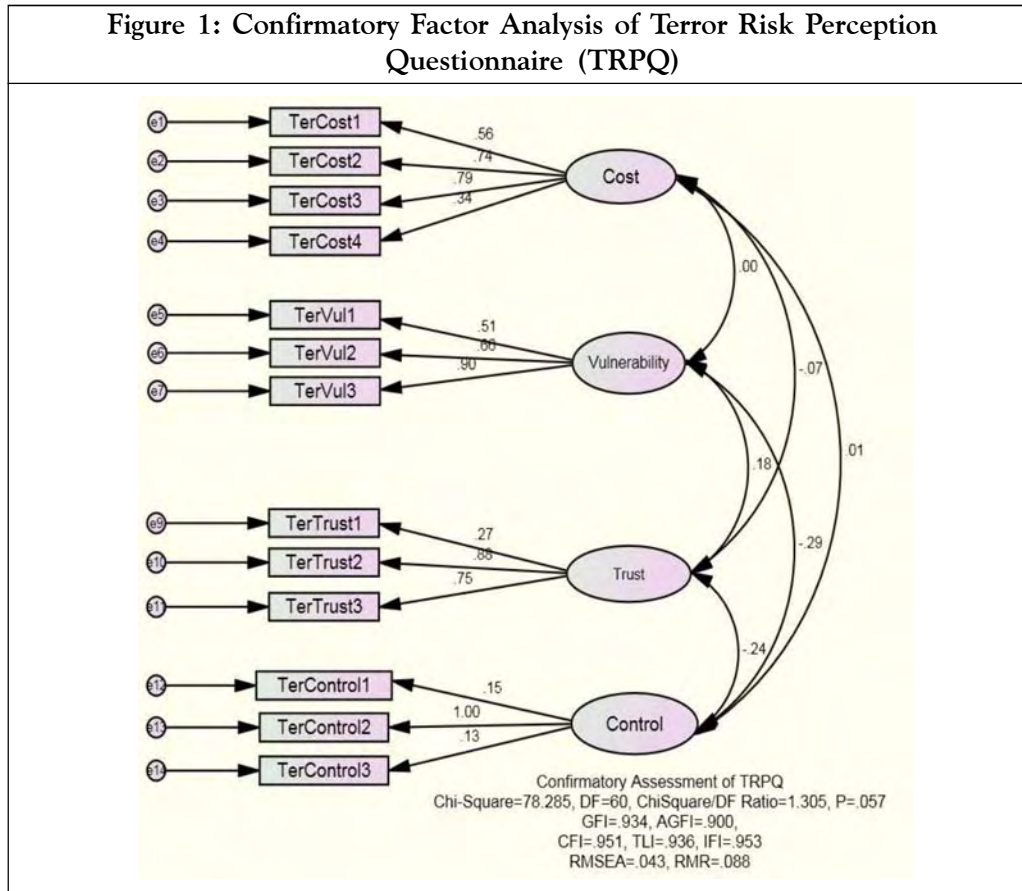
Principal component analysis produced four factors: vulnerability, cost, trust, and control as per the theory. All indicators converged under respective factor. As theorized by Shiloh *et al.* (2007). 59% of the variance is explained by these factors. Reliability alpha values for vulnerability, cost, trust, control are 0.811, 0.689, 0.653, 0.33. Usually

0.707 is considered as threshold. Reliability for control is indeed a matter of concern. However, for initial phase of research, I have retained it for further statistical processes. 59% of the variance is explained by four factors. This goes down to 48% if only three factors are considered (Table 3).

	Factors			
	Vulnerability	Cost	Trust	Control
TerVul4	0.860			
TerVul3	0.848			
TerVul2	0.757			
TerVul1	0.688			
Terror Cost3		0.833		
Terror Cost2		0.829		
Terror Cost1		0.693		
Terror Cost4		0.469		
TerTrust3			0.880	
TerTrust2			0.855	
TerTrust1			0.515	
Terror Control2				0.635
Terror Control3				0.614
Terror Control1				0.569
Eigenvalue	2.727	2.159	1.86	1.434
Variance Explained	20.298	15.386	12.618	10.127
Reliability	0.811	0.689	0.653	0.337

Subsequently, I conducted confirmatory analysis using SPSS Amos 18. As exploratory study indicated, indicators loading on control factors found to be non-significant. Similarly, various indices suggested a bad fit of the data. Though Goodness of Fit Index (GFI) 0.926, Adjusted Goodness of Fit (AGFI) 0.892, Root Mean Square Error of Approximation (RMSEA) 0.044, Comparative Fit Index (CFI) 0.953, Tucker Lewis Index (TLI) 0.941, Incremental Fit Index (IFI) 0.955, SRMR 0.0653 signifies a good fit, AGFI was marginally lower than acceptable level. χ^2 which indicates the difference between my theoretical model and implied model, is found to be significant suggesting revision of my model. While looking for improvement of the model, modification index failed to provide clear cut direction. I consulted Standardized Residuals and indicated the removal of 'Tervul4' as the residual value was much higher than the acceptable level. Subsequently, I have eliminated it from the model, which produced GFI 0.934,

AGFI 0.900, RMSEA 0.043, CFI 0.951, TLI 0.936, IFI 0.953, SRMR 0.0653, signifying a good fit. χ^2 crossed non-significant suggesting that implied model and theoretical model does not have significant difference. I accept this model for subsequent analysis (Figure 1).



EMOTIONAL REPRESENTATION

Likewise, I carried out principal component analysis with second part of the scale, i.e., emotional representation of terror threat perception. Kaiser-Mayer-Olkin measure of sampling adequacy was 0.851 and Bartlett’s test of sphericity is also suggested that the data is significant (Table 4). Overall suggestion was that the data is appropriate for factor analysis.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.851
Bartlett’s Test of Sphericity	Approx. χ^2	566.782
	df	45.000
	Sig.	0.000

Though Shiloh *et al.* (2007) found that emotional landscape is mapped with the help of one factor; in my research, I found two factor solutions with clear delineation. I experienced difficulty in naming these two factors. I failed to find theoretical underpinning to accept two factor solutions. Shiloh *et al.* (2007) reported one factor solution. In my data analysis anger, intolerance, anxiety, sadness converged under factor 1, and fear, helplessness, hopelessness, insecurity converged under factor 2. Pain got equally distributed on both factors (Table 5). Most appropriately naming these factors was relatively difficult task. Hence, I did not examine confirmatory validity of the scale any further. I also did not use this part of the scale for subsequent analysis.

Table 5: Principal Component Analysis: Emotional Representation of Terror Threats		
	Factors	
	Factor 1	Factor 2
Anger	0.838	
Intolerance	0.716	
Anxiety	0.695	
Sadness	0.654	
Pain	0.646	0.404
Fear		0.755
Hopelessness		0.732
Helplessness		0.723
Insecurity		0.675
Loneliness		0.569
Eigenvalue	4.303	1.281
Variance Explained	43.026	12.087
Reliability	0.778	0.764

DISCUSSION

This research carried out the confirmatory factor analysis using structural equation modeling. Structural equation modeling is considered as relatively superior to exploratory factor analysis—as it accommodates measurement error while making comprehensive assessment of the model. Therefore, I conducted confirmatory analysis to examine its suitability for further utilizations, such as predictive purpose. Shiloh *et al.* (2007) reported exploratory factor analysis only. Thus, I advanced the work of Shiloh *et al.* (2007) by putting it for confirmatory assessment. This study also highlights as to how terror threat perception is reflected in cognitive and emotive framework of our mind. In cognitive framework of reference, I found four distinct

factors such as cost, vulnerability, control and trust. Exploratory and confirmatory study examined its integrity as a model and found to be present in Indian psyche.

However, this scale appears to require major revision as it fails to represent part of the domain adequately. This research evaluates the work of Shiloh *et al.* (2007), carried out in Israel and Turkey. As theorized by Shiloh *et al.* (2007), I found moderate integrity of the model, where all indicators converged under specific factor structure; however, low reliability of the scale control factor is a major concern. This indicates that TRPQ scale require major revision specially, the scale items representing control factor found to be grossly inadequate (standardized regression weight to its latent factor is much below than the acceptable level). In Shiloh *et al.* (2007) also, control factor was not well represented by its respective scale items (in fact, in their exploratory study, they reported lower loading on its latent factor). Recurring inadequate representation to its own latent factor invites major revision of the scale.

Emotional representation of the terror threat perception did not appear under one factor, as reported Shiloh *et al.* (2007). Future researchers are encouraged to inquire about it whether emergence of these two factor solution is a unique phenomena for my sample or it is otherwise. Future researcher can also look into alternative theoretical platform to operationalize emotive component of terror threat perception. Thus, future researchers require investigating operationalization of the domain before utilizing it for predictive purposes.

This research provides preliminary data for further studies, such as relationship between cognitive/emotive framework with other variables. I have examined nomological validity of the scale in the subsequent part of the research.

SECOND PART OF THE RESEARCH

TERROR PERCEPTION AND COPING STRATEGIES

Sudden terror attack causes widespread ill-effects on mankind, society and nations (Baguena *et al.*, 2001; and Asukai *et al.*, 2002). The objective of this part of the research was to assess various coping strategies usually deployed by directly or indirectly terror affected individuals. Political promulgation about resolve of a nation does come out of the political necessity. However, psychological impacts could not be underestimated. The present research delves into this matter and attempts to identify the impact of terror attack on people. This will provide useful guidance to organizational practitioners, social workers and political heads to articulate helpful policies in line with feeling, experience and mood of the common people. The researcher intended to know that how individual deploys various resources in managing terror threat perception at individual level. Literature review outlines that individuals deploy various productive and non-productive strategies to deal with terror threats.

Brown *et al.* (2008) reported that identification with the US is related with display of less forgiveness and greater desire for retribution towards 9/11 terrorists. Experience

of anger moderated the relationship between display of forgiveness and retribution. Goodwin *et al.* (2005) assessed terror threat perception and its various consequences. They reported that demographic factors (such as age, gender and location) and individual values correlates with terror perception. Sense of personal threat was correlated with increased contact with the friends and family, affected by 9/11 attack. According to Baca Baldomero *et al.* (2004) degree of involvement was directly related with experience of depression and anxiety among victims and their families of terror attacks in Spain. Greenberg *et al.* (2004) reported US residents' various behavioral responses to September 11, 2001 terrorist attack. They reported that US residents were willing to surrender some civil liberties. Invasion into privacy and civil liberties includes monitoring by governmental bodies into credit card purchases, telephone calls and e-mails. They were also ready to carry national identification card. In a broad US sample, 31% of the respondents agreed two or three of the above actions in the year 2001, which went up to 36%. However, in New York, 49% of the respondents favored two or three of the above actions. In 2001, combination of demographic such as education and age, residence of the respondents, feelings such as praying more, and depression is found to be the strongest correlates of the willingness to sacrifice personal civil liberties. New York sample experienced suspicion, anger, scare and avoidance to travel certain cities.

Crisis often breaks down the sense-making inside the organization and general rational platform for redressal of crisis collapsed (Weick, 1993). Carmeli and Shaubroeck (2008) argued that it generates wide range of risks for the organizations: a) It has potential to generate continual deterioration in the performance and functioning of the business; b) Media exposure and their constant meddling into the private affair of the organization; and c) Irreversible damage to the image and productivity of the organization. Pauchant and Mitroff (1992) reported that the entire operations of an organization become chaotic where employees are clueless as to how to confront the situation. Besides, it may threaten the overall existence and continuity of the organization. Overall, rational for reference point for decision making collapses and generates widespread dissonance and disbelief. They made precise points that crisis situation like this generates "disruption that physically affects the system as a whole and threatens its basic assumptions, its subjective sense of self, and its existential core." Hodgkinson and Joseph (1995) reported coping strategies of female bank staff members, following an armed raid. They utilized impact of event scale to assess female staff member reactions subsequent to armed raid in a bank. Weisenberg *et al.* (1997) reported coping styles of school-age children in the sealed room during scud missile bombardment. Yule *et al.* (1994) examined coping strategies of adolescent, who survived a shipping disaster.

EMOTIONAL EXPERIENCE

Type of emotional experience governs perceptions of the terror attack; Saddler *et al.* (2005) found that respondents, experienced anger more profoundly attributed attack

as a work of fanatics like terrorist and not due to weakness in US foreign policy. They also sanctioned aggressive military responses with no complementary humanitarian aids. On the contrary, respondents who experienced predominantly sadness did not attribute fanaticism or security lapse for the cause of such attacks and expressed strong reservation about a military attack.

UNDERLYING DYNAMICS

GENERAL TRUST AND CONFIDENCE

Siegrist *et al.* (2005) found that general confidence and trust has significant negative relationship with technological and non-technological hazards. As Putnam (1995) observed that general trust is an important component of social capital. General trust and confidence paves the way to the introduction of new technologies such as biotechnology, etc. They also plays important role in economic development of a nation leading to well-being of common citizen (Williams *et al.*, 2004). Silke (2003) reported relatively limited impact on the widespread and long lasting impact of frequent terror attack and concludes, "research on the impact of terrorism has found that even widespread and long lasting campaigns of terrorist violence can have a surprisingly limited detrimental impact on the overall psychological health of the society (p. 200). Conscious thoughts of death often invite proximal defence such as suppression, distraction/avoidance, vulnerability /denial (Arndt *et al.*, 2004). Greenberg *et al.* (1994) found that death thoughts often trigger various types of psychological defence to reduce available concerns from conscious spectrum. Nikki *et al.* (2004) reported that post-9/11 Pentagon attack, employees faced various type of mental difficulties. 7.9% suffered from PTSD, 17.7% suffered from depression, 23.1% panic attack, 26.9% generalized anxiety and 2.5% alcohol abuse.

In another interesting strategy, Braun-Lewensohn (2009) reported that Israeli adolescents, who are exposed to terrorism and risk of terrorism, mostly engaged in problem solving styles of coping to handle stressful events. Problem solving style of coping results in changes in life styles. For example, usage of car pool rather than public transport system, meeting with friends in homes and building rather than in shopping mall, etc. Non-productive strategies include day dreaming, drinking, drug abuse, etc. This research also found that adolescent, who appraised terror attack as dangerous, engaged in non-productive coping strategies. Bal *et al.* (2003) found that adolescent often opt for avoidance coping strategies such as wishful thinking and fantasy while confronted with stressful life events. Hallis and Slone (1999) argued that this denial processes have resources/potency for reduction/alleviation of distress without harming the incumbents. Tatar and Amram (2007) found that Israeli adolescents deployed more productive problem solving strategies than non-productive coping strategies.

RESEARCH METHOD

ARGUMENT FOR PARTIAL LEAST SQUARE (PLS) METHOD

The author conducted Partial Least Square (PLS path modeling) using SmartPLS software. SmartPLS allows implementing PLS analysis (Hansmann and Ringle, 2004). PLS is a component-based predictive modeling tool. This is advantageous because it does not require data to be normal. Problem of indeterminacy and misspecification does not arise as often seen in case of covariance-based modeling. It also relatively demand smaller sample size. Using PLS algorithm, the researcher attempts to identify best weight estimates for each block of indicators, respective to each latent variable. Subsequently, the resultant component scores for each latent variable maximize variance explained for dependent variable (Chin and Newsted, 1999). It demands relatively less sample size and qualitatively, normality of the data is not a precondition as it is applicable for other multivariate analysis. (Chin, 1998a and 1998b). The author has utilized various guidelines available for running PLS algorithm (Hulland, 1999; Haenlein and Kaplan, 2004; and Tenenhaus *et al.*, 2005).

INSTRUMENTS

General Trust

Relying on work of relevant literatures (Rotter, 1967; and Yamagishi, 1988), Seigrist *et al.* (2005) developed scale for measuring general trust. Sample items of the scale are “Given a chance, most people would try to take advantage of you”, “Most people are too busy looking out for themselves to be helpful”, “You can’t trust strangers anymore”. The items are reverse coded. Hence to measure general trust, responses are required to be recoded. The range of the scale is between 1 and 5 (1 to signify ‘do not agree at all’ and 5 to signify ‘agree absolutely’).

General Confidence

The author used the scale, developed by Seigrist *et al.* (2005), to measure general confidence of the people. The scale has been reported to have good reliability. The scale consists of two items: Sample items for the scale are “There will be more accidents and catastrophes in the future than we had in the past”, “Nowadays, things seem to be getting more and more out of control.” The items are reverse coded. Hence to measure general confidence, responses are required to be recoded to signify more confidence and lower value will signify having lower confidence. The range of the scale is same as above.

General Perception of Threat

The author used a three item scale, to measure general perception of threat. Scale items were: “How concerned are you personally about terror attack on India?”, “How concerned are you personally about you, yourself or your family members being the

victim of a future terrorist attack in India?”, and “How likely is this attack to directly threaten your family?” These three items are loaded as one factor. The range of the scale was 1 to 5. 1 to signify ‘not at all concerned’ and 5 to signify ‘very concerned’.

Way of Coping

Individual deploys various strategies to cope with terror related threats. Individual could deploy both productive and non productive strategies to cope with the perception of terror threat. Some of these non-productive strategies are detachment from the real world and to take refuge under wishful thinking, etc. Wishful thinking also forms part of grief model, propounded by Kubler Ross. By engaging with wishful thinking, individuals attempts to deal with pain. This study utilized two sub-factors—wishful thinking and detachment of the ways of coping scale, developed by Folkman *et al.* (1986). The whole scale has 66 items and constituted by eight sub-factors. Inclusion of all 66 items would have generated respondents’ fatigue. Therefore, the author has used only two sub-factors—wishful thinking and detachment.

DATA ANALYSIS AND DISCUSSION

ASSESSMENT OF MEASUREMENT PROPERTIES

The author adhered to the recommendation of Hulland (1999) pertaining to assessment of models. As per the standard protocol for PLS path modeling approach, firstly, each measurement model of all constructs was checked in terms of internal consistency, reliability, convergent validity and discriminant validity, prior to testing the hypothesized model. Subsequently, the relationship among variables of the research has been examined using PLS path modeling algorithm.

CONVERGENT VALIDITY

Composite Reliability: Composite reliability connotes internal consistency of the scale. Composite reliability of all constructs is above the threshold value of 0.70. For example, composite reliability for detach, general confidence, general trust, terror control, terror cost, threat perception and wish are 0.8070, 0.7605, 0.7430, 0.6682, 0.7968, 0.8507 and 0.7604 respectively (Table 6, Column 3).

Cronbach Alpha: Cronbach Alpha for detach, general confidence, general trust, terror control, terror cost, threat perception and wish are 0.7180, 0.5337, 0.5849, 0.3374, 0.6857, 0.6496 and 0.6441 respectively. Usually accepted threshold value is 0.707. Present work is to be construed at the very initial stage of theorization work; hence it is accepted for further process. In the final model, the author has eliminated two items from sportsmanship for having low contribution (Table 6, Column 5).

Standardized Factor Loading: Standardized factor loading for all factor loadings for all items should be above 0.60 (Hatcher, 1994) and should be significant. Only five items of the scale had standardized factor loading below this threshold value (the standardized loading for Detach1, Detach6, TerCon1, TerCost4, Wish2, Wish3 on

EXPLORING THE RELATIONSHIP BETWEEN TERROR THREAT PERCEPTIONS AND
COPING STRATEGIES: A POST-26/11 ASSESSMENT

Table 6: Model Overview

	AVE	Composite Reliability	R ²	Cronbach Alpha	Communality	Redundancy	Square Root of AVE
Detach	0.4226	0.8070	0.0455	0.7180	0.4226	0.0183	0.6501
General Confidence	0.5207	0.7605	0.2095	0.5337	0.5207	0.0843	0.7216
General Trust	0.5014	0.7430	0.0616	0.5849	0.5014	0.0244	0.7081
Terror Control	0.4154	0.6682	0.0000	0.3374	0.4154	0.0000	0.6445
Terror Control	0.5059	0.7968	0.0000	0.6857	0.5059	0.0000	0.7113
Threat Perception	0.7402	0.8507	0.1041	0.6496	0.7402	0.0239	0.8603
Wish	0.4610	0.7604	0.1107	0.6441	0.4610	0.0177	0.6790

Note: AVE = Average Variance Extracted.

respective loading were 0.4894, 0.4252, 0.4190, 0.5820, 0.4654, 0.4781 respectively (Table 7). However, I did not eliminate them because all these loadings were found to be statistically significant (Figure 3). All these above discussions indicate strong convergent validity of the construct.

Table 7: Cross-loading Among Constructs

	Detach	General Confidence	General Trust	Terror Control	Terror Cost	Threat Perception	Wish
Detach1	0.4894	0.0146	0.0062	-0.0717	-0.0521	-0.1358	0.0759
Detach2	0.7126	-0.0570	0.0870	-0.1256	-0.0217	-0.1656	0.0963
Detach3	0.8267	0.0552	-0.0345	-0.1977	-0.0587	-0.2313	-0.0191
Detach4	0.7468	0.0140	-0.0894	-0.1509	-0.0484	-0.1881	0.0148
Detach5	0.6052	0.0269	0.0173	-0.1509	-0.2379	-0.2066	-0.1630
Detach6	0.4252	-0.0365	-0.0122	-0.0829	-0.0072	-0.0869	0.2465
RGC1	-0.0053	0.5489	0.2871	-0.2991	0.0127	0.0352	-0.1545
RGC2	-0.0340	0.8009	0.1264	-0.2872	-0.2926	-0.0151	-0.2888
RGC3	0.0682	0.7870	0.1324	-0.3005	-0.2483	-0.1908	-0.2522
RTrust1	-0.0288	0.1874	0.6423	-0.1237	-0.1394	-0.1130	-0.2481
RTrust2	-0.1459	0.2259	0.5465	-0.1126	-0.0430	0.0818	-0.1280
RTrust3	0.0227	0.1626	0.8906	-0.2006	-0.2482	-0.0867	-0.1936
TerCon1	-0.1134	-0.0853	-0.0254	0.4190	-0.0014	0.0705	0.0449
TerCon2	-0.1655	-0.2819	-0.1553	0.6836	0.0399	0.1625	0.0943

Table 7: Cross-loading Among Constructs

	Detach	General Confidence	General Trust	Terror Control	Terror Cost	Threat Perception	Wish
TerCon3	-0.1407	-0.3344	-0.1825	0.7768	0.1829	0.1156	0.2301
TerCost1	-0.0151	-0.1035	-0.0317	-0.1594	0.5211	0.0190	0.0048
TerCost2	-0.1173	-0.2179	-0.2605	0.1007	0.8353	0.2210	0.2473
TerCost3	-0.1011	-0.2920	-0.1319	0.1963	0.8458	0.3047	0.1970
TerCost4	-0.0497	-0.1040	-0.2008	0.0633	0.5820	0.1415	0.2347
VAR00086	-0.3389	-0.1094	-0.0815	0.2087	0.2337	0.8722	0.1636
VAR00087	-0.1194	-0.0488	-0.0929	0.1057	0.2637	0.8484	0.1735
Wish2	0.0682	-0.1947	-0.1778	0.1325	0.0578	0.0262	0.4654
Wish3	-0.0439	-0.1122	-0.1577	-0.0207	0.0578	0.0116	0.4781
Wish4	0.0016	-0.2189	-0.3241	0.2294	0.1895	0.1080	0.8384
Wish5	0.0179	-0.3149	-0.1079	0.1417	0.3088	0.2440	0.8342

DISCRIMINANT VALIDITY

It is important to measure as to what extent each construct is different from each other.

Cross Loading of Constructs: To have discriminant validity, all items loading on its construct should be higher than others (Hulland, 1999). Table 7 shows that each construct shares more loading on its construct than others.

Average Variance Extracted vs. Correlation Comparison: In line with the recommendation of Fornell and Larcker (1981) and Fornell and Cha (1994) square root of Average Variance Extracted (AVE) of each construct should be higher than the correlation between it and any other constructs of the model. Table 8 indicates that this criterion is met. It is safe to state that each construct is conceptually and empirically distinct from each other (Hulland, 1999).

Thus, discussions presented above clearly substantiate that each variable in the research is distinct from each other. Each variable satisfied convergent and discriminant

Table 8: Correlations vs. Square Root of Average Variance Extracted

	Detach	General Confidence	General Trust	Terror Control	Terror Cost	Threat Perception	Wish
Detach	0.6501						
General Confidence	0.0151	0.7216					
General Trust	-0.0139	0.2281	0.7081				

Table 8 (Cont.)

	Detach	General Confidence	General Trust	Terror Control	Terror Cost	Threat Perception	Wish
Terror Control	-0.2132	-0.4016	-0.2151	0.6445			
Terror Cost	-0.1174	-0.2752	-0.2481	0.1442	0.7113		
Threat Perception	-0.2713	-0.0933	-0.101	0.185	0.2882	0.8603	
Wish	0.0225	-0.3302	-0.2639	0.217	0.2808	0.1956	0.678

Note: Diagonal elements provide square-root of the AVE of the respective construct and the lower triangle elements represent the inter-construct correlations or shared construct variance. To demonstrate discriminant validity of the constructs, the diagonal element values should exceed the inter-construct correlations.

validity. These detailed steps have been recommended by Hulland (1999). Once convergent and discriminant validity of the construct has been established, I proceed to examine relationship among independent and dependent variables.

RELATIONSHIP AMONG VARIABLES

Figures 2 and 3 highlights only significant relationship among variables for simple representation of data. Non-reported factors indicate that they did not predict any dependent variable.

Figure 2: Showing the Relationship Among Terror Perception and Its Impact on General Trust, General Confidence and Way of Coping (i.e. Wishing, Detaching)

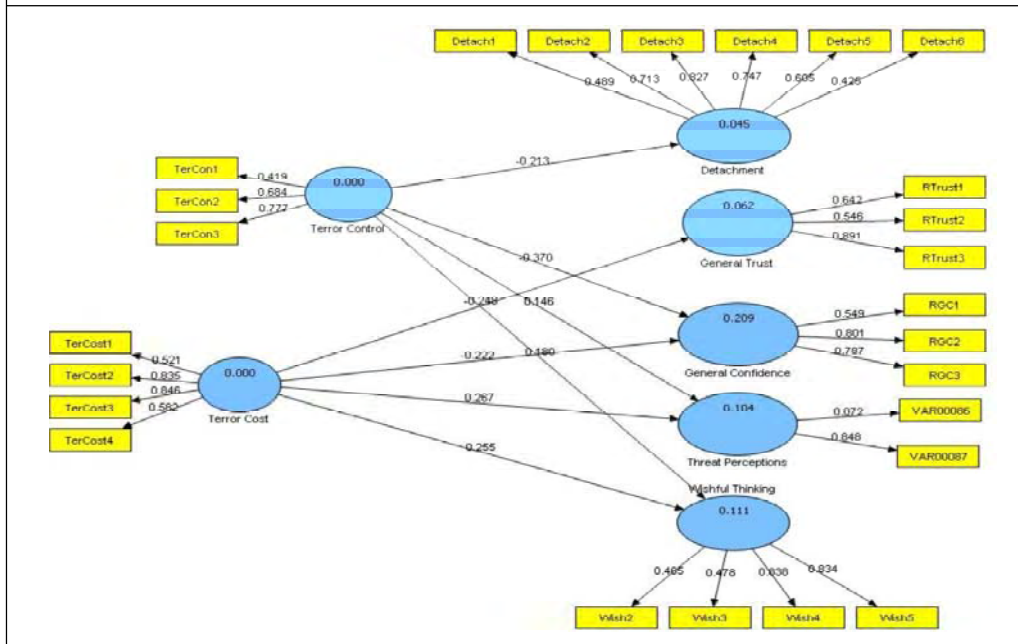
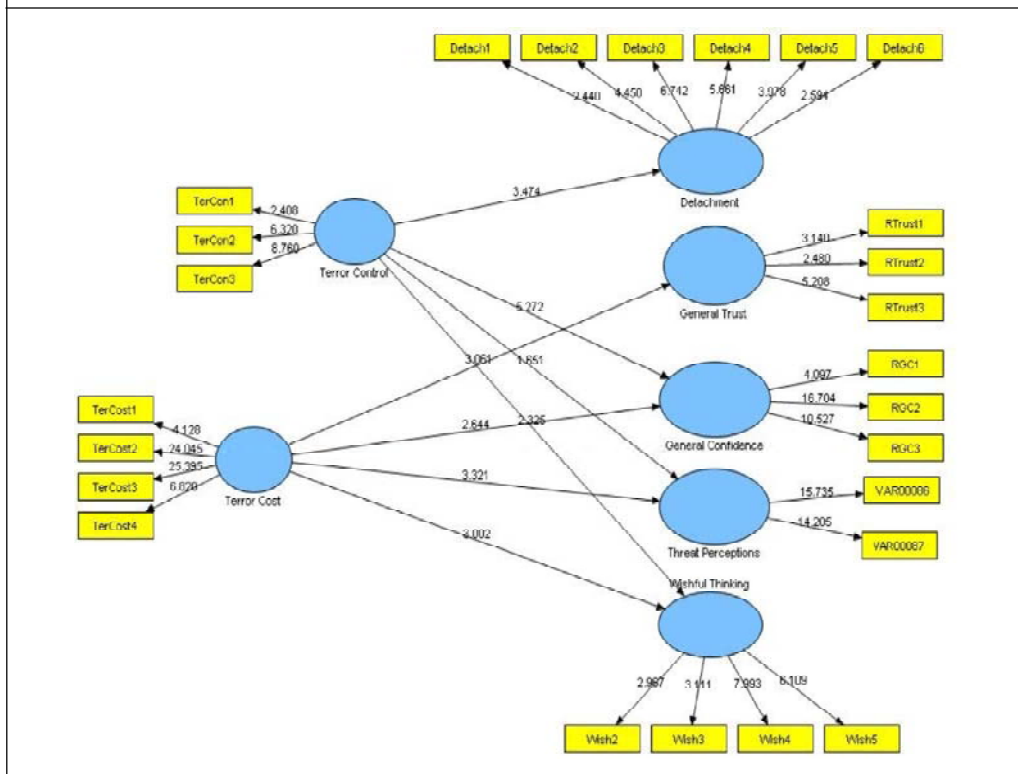


Figure 3: Showing *t*-Statistics Among Factors



HYPOTHESIS TESTING

In line with recommendation of Efron and Tibshirani (1993), the author followed bootstrapping procedure with 350 resamples. This procedure enables to extract *t*-value for each coefficient. Table 9 shows *t*-statistics for each path.

Table 9: Hypothesis Testing

Relationship	<i>t</i> -Statistics	Remarks
Terror Control → Detachment	3.4735	Significant
Terror Control → General Confidence	5.2718	Significant
Terror Control → Threat Perceptions	1.651	Non-Significant
Terror Control → Wishful Thinking	2.3247	Significant
Terror Cost → General Confidence	2.6443	Significant
Terror Cost → General Trust	3.0614	Significant
Terror Cost → Threat Perceptions	3.3214	Significant
Terror Cost → Wishful Thinking	3.002	Significant

TERROR COST PERCEPTION

Terror Cost factor influences and predicts general confidence, general trust, threat perception and wishful thinking. All paths are found to be statistically significant. This research highlights a few interesting insight about terror threat perception (Table 10).

	Detach	General Confidence	General Trust	Terror Control	Terror Cost	Threat Perception	Wish
Detach	0	0	0	0	0	0	0
General Confidence	0	0	0	0	0	0	0
General Trust	0	0	0	0	0	0	0
Terror Control	-0.2132	-0.3696	0	0	0	0.1464	0.1803
Terror Cost	0	-0.2219	-0.2481	0	0	0.2671	0.2548
Threat Perception	0	0	0	0	0	0	0

- High terror cost perception (which is characterized by high expectation of unfolding fearful, traumatic experiences) will significantly reduce general confidence on the societal framework of co-existence (TerCost > RGC). General confidence signifies individuals' comparative assessments of manageability of the situation while perceiving probable and impending multiple terror attacks.
- Similarly, terror cost perception will reduce general trust-based societal belief (TerCost > RTrust). Society sustains its existence on the basis of belief of co-existence and fair reciprocal treatments among social participants. Society survives with a promise to social members of reciprocal arrangements, as to how each member will treat each other. Maintenance of these beliefs among social members is crucial for its continuance. However, positive or enhanced terror threat perception has potential to destroy the very fabric of society. Thus, increased cost perception will lead to reduction of general trust level in the society. Potentially, it will affect societal belief system and symbiotic survival values.
- High terror cost assessment will lead to higher threat perception for affecting their family members (TerCost > VAR). As stated earlier, threat perception is characterized by individual assessment of terror threats, which have potential to affect them and their family members. This is significant as this has potential to affect their family life style.

- Higher terror cost assessment will lead to enhanced wishful thinking ($\text{TerCost} > \text{Wish}$). Wishful thinking is characterized as a way of coping strategies. Higher terror threat assessment will trigger disbelief mechanism and often lead to wishful thinking.

TERROR CONTROL

Terror control directly influences general confidence and detachment negatively; whereas it shares positive relationship with wishful thinking and general threat perception. This signifies a number of important issues:

- Lack of sense of control (TerCon) is negatively related with general confidence ($\text{TerCon} > \text{RGC}$). Terror control is characterized by apparent helplessness and lack of overall sense of control over the situation. More feeling of helplessness and lack of controllability over the situation will led to form an assessment for more possible attack in coming days.
- Lack of sense of control (TerCon) will lead to detachment, as a coping strategy. ($\text{TerCon} > \text{Detach}$). Enhanced sense of helplessness significantly predicts detachment as a coping strategy. This signifies that during terror attacks, organizational infrastructure, which stood test of times, suddenly collapsed. Meaning embedded in organizational framework and its various processes for delivering services to its stakeholders fails to support meaning making process (Weick, 1995). Thus, this poses significant problems for organizational leaders to provide meaningful organizational framework for managing existing business. Absenteeism from job could not be ruled out. Productivity of the employees could go down.
- The relationship between terror control and threat perception, found to be non-significant.

MODEL FIT

There is no global indicator to evaluate overall accuracy of the model. However, some guidelines are available to facilitate readers about overall accuracy of the model. Cohen (1988) suggested that R^2 effect size of 0.02, 0.13, 0.26 indicate small, medium and large effect. In the present research work, value for detachment, general confidence, general trust, threat perception and wishful thinking are 0.0455, 0.2095, 0.0616, 0.1041 and 0.1107 respectively. This indicates small to large effect.

Tenenhaus *et al.* (2005) (in line with Amato *et al.*, 2004) developed a global fit measure to provide guidance on overall fit of the model. Though PLS does not showcase and developed for confirmatory assessment of model as it is done in case of covariance based analysis, Goodness of Fit (GOF) provides an overall assessment of model with all its contributory constructs. GOF is calculated as square root of the product of AVE and average R^2 . GOF value indicates various effects; 0.1 indicates poor fit, 0.25 indicate

moderate fit and 0.36 indicate good fit. In the present research work, this value is 0.232724. This indicates that the model has a moderate fit.

IMPLICATIONS

Terror attack generates widespread impacts. It potentially causes huge cost in terms of human lives, infrastructure and belief in societal system. It violates very basic fulcrum of human understanding and trust in other societal networks for peaceful co-existence and survival. It has potential to make world look unfair. Present research provide useful guidance to various stakeholders, i.e., government, employers, etc., to manage human psyche who are inflicted by terror threats. Shiloh *et al.* (2007) provided exhaustive list of utilities of their work. In India, public opinion has widespread repercussions; this framework will be able to provide policy guidelines to nation's leaders. At national level, political leadership should articulate their thoughts to the media as per the psychological standing of the nations. When nation is at great pain, accessing the media is a risky business. Political leadership should make efforts to give voice to the nation by giving timely public statements for reinforcement of faith and belief on the societal system and fair governance. Invitation for building prosperous society and nation enhances faith. Public display of governmental activities designed to strengthen the country's security and well-being could work as confidence building measure. Those Governments, who have taken honest initiatives to deal with terror directly or indirectly, should benefit from this study. Exposure to frequent terror attacks may destroy very basic fabric of society, i.e., mutual trust and reciprocity. This breaks down meaning making process. Many governments are having difficulties to understand apparent irrational reactions and resistance from the public, where terror events are occurring regularly. Thus, governments and their allied agencies require using highest degree of discretions to deal with terror inflicted citizens.

In organizational context, HR professionals should provide a conducive human infrastructure to provide additional support to employees, whether directly or indirectly affected by the terror attack. Moral boosting activities should be incorporated in daily business dealings. Arrangement for counseling services should be organized. Employees may experience dissonance, while accommodating news of terror risk. Meaningful in organizational infrastructure may appear to be meaningless. HR professional should invest resources to manage meaning in their immediate organization infrastructure and societal arrangement.

CONCLUSION

This research provides useful guidance on how cognitive and emotive representation will have significant bearing on general trust and confidence of people. General trust and confidence is a precursor for peaceful co-existence in societal network. This research also united various discourse pertaining to terror and implication This research will have significant guidance for those who are interested to provide pastoral care to

the students, healthcare professionals and political scientist who will find data driven guidance about feeling of the common people.

Limitation and Future Scope of Research: Research has utilized student sample; hence reader should consider the research outcomes with adequate reservation. As discussed earlier, the reliability of the scale is relatively difficult to achieve, especially reliability for control factor is drastically low. Hence further refinements in the form of addition of scale items to measure the construct should be explored. Otherwise, rephrasing it in the language of the scale should be done in tune with the local understanding. Secondly, I have used student sample. They have multilayer level of connections with terror attack. General public may not share the same. Future research should be conducted to eliminate the above said limitations such as 1) using non-student sample; 2) Improvement in linguistic expression of indicators measuring control factor. Improvement in the scale language may increase reliability, even additional scale items be introduced to capture the cost dimension specially; and 3) Sample size is relatively small; further research with the help of bigger sample may provide insightful knowledge in this area.

Acknowledgments: Sudden and untimely death of my two students on the deadliest night of November 26, 2008 triggered me to undertake a broad range of research works. Present research reports only a part of this project. This paper is dedicated in memory of Chef. Kaizad Kamdin and Chef. Zain Matin, of Taj Mahal Hotel, Mumbai, whom I am proud to know, first, as my students and subsequently, as my colleagues.

Earlier this paper has been accepted for Annual Academy of Management Conference 2011, held at San Antonio, Texas and I thank the three anonymous reviewers for their constructive comments.

REFERENCES

1. Aber J L, Gershoff E T, Ware A and Kotler J A (2004), "Estimating the Effects of September 11th and Other Forms of Violence on the Mental Health and Social Development of New York City's Youth: A Matter of Context", *Applied Developmental Science*, Vol. 8, No. 3, pp. 111-129.
2. Almogly G and Rivkind A I (2007), "Terror in the 21st Century: Milestones and Prospects – Part I", *Current Problems in Surgery*, Vol. 44, No. 8, pp. 496-554.
3. Amato S, Esposito Vinzi V and Tenenhaus M (2004), "A Global Goodness-of-fit Index for PLS Structural Equation Modeling", Oral Communication to PLS Club, HEC School of Management, France, March 24 as cited in Tenenhaus M *et al.* (2005).
4. Arndt J, Cook A and Routledge C (2004), "The Blueprint of Terror Management: Understanding the Cognitive Architecture of Psychological Defense Against the Awareness of Death", in J Greenberg, S L Koole and T Pyszczynski (Eds.), *Handbook of Experimental Existential Psychology*, pp. 35-53, Guilford, New York.

5. Asukai N, Kato H, Kawamura N *et al.* (2002), "Reliability and Validity of the Japanese-Language Version of the Impact of Event Scale – Revised (IES-R-J): Four Studies of Different Traumatic Events", *Journal of Nervous and Mental Disease*, Vol. 190, No. 2, pp. 175-182.
6. Baca Baldomero E, Cabanas Arrate M L, Perez Rodriguez M M and Baca Garcia E (2004), "Mental Models in Victims of Terrorism and Their Families", *Medicina Clinica*, Vol. 122, No. 7, pp. 681-685.
7. Baguena M, Villarroya E, Belena A *et al.* (2001), "Propiedades Psicometricas de la Version Espanola de la Escala Revisada de Impacto del Estresor (EIE-R) (Psychometric Properties of the Spanish Version of the Impact of Event Scale – Revised (IES-R))", *Analisis y Modificacion de Conducta*, Vol. 27, No. 6, pp. 581-604.
8. Bal S, Crombez G, Van Oost P and Debourdeaudhuji I (2003), "The Role of Social Support in Well-being and Coping with Self-reported Stressful Events in Adolescents", *Child Abuse and Neglect*, Vol. 27, No. 12, pp. 1377-1395.
9. Blomberg S B, Hess G D and Orphanides A (2004), "The Macroeconomic Consequences of Terrorism", *Journal of Monetary Economics*, Vol. 51, No. 5, pp. 1007-1032.
10. Bloomfield K (1998), "We Will Remember Them", Report of the Northern Ireland Victims Commissioner, KCB, *The Stationery Office*, Belfast, Northern Ireland.
11. Booth K (2008), "The Human Faces of Terror: Reflection in a Cracked Looking – Glass", *Critical Studies on Terrorism*, Vol. 1, No. 1, pp. 65-79.
12. Braun-Lewensohn O, Celestin-Westreich S, Celestin L P *et al.* (2009), "Coping Styles as Moderating the Relationships Between Terror Attacks and Well-Being Outcomes", *Journal of Adolescence*, Vol. 32, No. 6, pp. 585-599.
13. Brock Blomberg S, Gregory D Hess and Orphanides A (2005), "The Macroeconomic Consequences of Terrorism", *Journal of Monetary Economics*, Vol. 51, No. 5, pp. 1007-1032.
14. Brown R P, Wohl M J A and Exline J J (2008), "Taking Up Offences: Second Hand Forgiveness and Group Identification", *Personality and Social Psychology Bulletin*, Vol. 34, No. 10, pp. 1406-1419.
15. Bruck T and Wickstrom B A (2004), "The Economic Consequences of Terror: Guest Editor's Introduction", *The European Journal of Political Economy*, Vol. 20, No. 3, pp. 292-300.
16. Burke B L, Martens A and Faucher E H (2010), "Two Decades of Terror Management Theory: A Meta-Analysis of Mortality Salience Research", *Personality and Social Psychology Review*, Vol. 14, No. 2, pp. 155-195.
17. Carmeli A and Shaubroeck J (2008), "Organizational Crisis Preparedness: The Importance of Learning from Failures", *Long Range Planning*, Vol. 41, No. 2, pp. 177-196.

18. Chin W W (1998a), "The Partial Least Squares Approach for Structural Equation modeling", in G A Marcoulides (Ed.), *Modern Methods for Business Research*, pp. 295-336, Lawrence Erlbaum Associates, London.
19. Chin W W (1998b), "Issues and Opinion on Structural Equation Modeling", *MIS Quarterly*, Vol. 22, No. 1, pp. 121-154.
20. Chin W W and Newsted P R (1999), "Structural Equation Modelling Analysis with Small Samples Using Partial Least Squares", in R H Hoyle (Ed.), *Statistical Strategies for Small Sample Research*, Sage Publications.
21. Cohen Jacob (1988), *Statistical Power Analysis for the Behavioral Sciences*, 2nd Edition, Lawrence Erlbaum Associates, New Jersey.
22. Deshpandé R and Raina A (2011), "The Ordinary Heroes of the Taj", *Harvard Business Review*, December, pp. 119-123.
23. Desouza K C, Koh W T H and Ouksel A M (2007), "Information Technology, Innovation and the War on Terrorism", *Technological Forecasting and Social Change*, Vol. 74, No. 2, pp. 125-128.
24. Durodie B (2004), "Facing the Possibility of Bioterrorism", *Current Opinion in Biotechnology*, Vol. 15, No. 3, pp. 264-268.
25. Eckstein Z and Tsiddon D (2004), "Macroeconomic Consequences of Terror: Theory and the Case of Israel", *Journal of Monetary Economics*, Vol. 51, No. 5, pp. 971-1002.
26. Efron B and Tibshirani R J (1993), *An Introduction to the Bootstrap*, Monographs on Statistics and Applied Probability, p. 57, Chapman and Hall, New York.
27. Fischhoff B, Slovic P, Lichtenstein S *et al.* (1978), "How Safe is Safe Enough?: A Psychometric Study of Attitudes Towards Technological Risks and Benefits", *Policy Science*, Vol. 9, No. 2, pp. 127-152.
28. Folkman S, Lazarus R S, Dunkel-Schetter C *et al.* (1986), "The Dynamics of a Stressful Encounter: Cognitive Appraisal, Coping and Encounter Outcomes", *Journal of Personality and Social Psychology*, Vol. 50, No. 5, pp. 992-1003.
29. Fornell C and Cha J (1994), "Partial Least Squares", in R P Bagozzi (Ed.), "Advanced Methods of Marketing Research", pp. 52-78, Blackwell, Cambridge, MA.
30. Fornell C and Larcker D F (1981), "Evaluating Structural Equation Models with Unobservable Variables and Measurement Errors", *Journal of Marketing Research*, Vol. 18, No. 1, pp. 39-50.
31. Goodwin R, Willison M and Stanley G (2005), "Terror Threat Perception and Its Consequences in Contemporary Britain", *British Journal of Psychology*, Vol. 96, No. 4, pp. 389-406.

32. Greenberg J, Pyszczynski T, Solomon S *et al.* (1994), "Role of Consciousness and Accessibility of Death-related Thoughts in Mortality Salience Effects", *Journal of Personality and Social Psychology*, Vol. 67, No. 4, pp. 627-637.
33. Greenberg M, Craighill P and Greenberg A (2004), "Trying to Understand Behavioural Response to Terrorism: Personal Civil Liberties, Environmental Hazards, and US Resident Reactions to the September 11, 2001 Attacks", *Human Ecology Review*, Vol. 11, No. 2, pp. 165-176.
34. Haenlein M and Kaplan A M (2004), "A Beginner's Guide to Partial Least Squares Analysis", *Understanding Statistics*, Vol. 3, No. 4, pp. 283-97.
35. Hafer C L and Begue L (2005), "Experimental Research on Just-world Theory: Problems, Developments, and Future Challenges", *Psychological Bulletin*, Vol. 131, pp. 128-167.
36. Hallis D and Slone M (1999), "Coping Strategies and Locus of Control as Mediating Variables in the Relation Between Exposure to Political Life Events and Psychological Adjustment in Israeli Children", *International Journal of Stress Management*, Vol. 6, No. 2, pp. 105-123.
37. Hansmann K W and Ringle C M (2004), *SmartPLS Manual*, University of Hamburg, Hamburg.
38. Hatcher L (1994), *Step-by-Step Approach to Using the SAS System for Factor Analysis and Structural Equation Modelling*, SAS Publications.
39. Hirst W, Phelps E A, Buckner R L *et al.* (2009), "Long-term Memory for the Terrorist Attack of September 11: Flashbulb Memories, Event Memories and the Factors that Influence Their Retention", *Journal of Experimental Psychology: General*, Vol. 138, No. 2, pp. 161-76.
40. Hodgkinson P and Joseph S (1995), "Factor Analysis of the Impact of Events Scale with Female Bank Staff Following an Armed Raid", *Personality and Individual Differences*, Vol. 19, No. 5, pp. 773-775.
41. Hollywood J, Snyder D, McKay K N and Boon J E (2004), *Out of the Ordinary Finding Hidden Threats by Analyzing Unusual Behavior*, RAND Corporation, Santa Monica.
42. Hulland J (1999), "Use of Partial Least Squares (PLS) in Strategic Management Research: A Review of Four Recent Studies", *Strategic Management Journal*, Vol. 20, No. 2, pp. 195-204.
43. Kasperson Roger E, Ortwin Renn, Paul Slovic *et al.* (1988), "The Social Amplification of Risk: A Conceptual Framework", *Risk Analysis*, Vol. 8, No. 2, pp. 177-187.

44. Koole S L and Van den Berg A E (2005), "Lost in the Wilderness: Terror Management, Action Orientation, and Nature Evaluation", *Journal of Personality and Social Psychology*, Vol. 88, No. 10, pp. 1014-1028.
45. Lerner M J (1980), "The Belief in a Just World A Fundamental Delusion", *Perspectives in Social Psychology*, Plenum Press, New York.
46. Levy O and Galili I (2006), "Terror and Trade of Individual Investors", *Journal of Socio-Economics*, Vol. 35, No. 6, pp. 980-991.
47. Maguen S, Papa A and Litz B T (2008), "Coping with the Threat of Terrorism: A Review", *Anxiety, Stress & Coping*, Vol. 21, No. 1, pp. 15-35.
48. Maheswaran D and Agrawal N (2004), "Motivational and Cultural Variations in Mortality Salience Effects: Contemplations on Terror Management Theory and Consumer Behaviour", *Journal of Consumer Psychology*, Vol. 14, No. 3, pp. 213-218.
49. Morgan G S, Wisneski D C and Skitka L J (2011), "The Expulsion from Disneyland: The Social Psychological Impact of 9/11", *American Psychologist*, Vol. 66, No. 6, pp. 447-454.
50. Morse S S (2003), "Biological and Chemical Terrorism", *Technology in Society*, Vol. 25, No. 6, pp. 557-63.
51. Mukhopadhyay A R (2004), "The Terror Scenario in Europe", *Strategic Analysis*, Vol. 28, No. 2, pp. 311-330.
52. Neria Y, DiGrande L and Adams B G (2011), "Posttraumatic Stress Disorder Following the September 11, 2001, Terrorist Attacks: A Review of the Literature Among Highly Exposed Populations", *American Psychologist*, Vol. 66, No. 6, pp. 429-446
53. Nikki N, Jordan N N, Hoge C W *et al.* (2004), "Mental Health Impact of 9/11 Pentagon Attack Validation of a Rapid Assessment Tool", *American Journal of Preventive Medicine*, Vol. 26, No. 4, pp. 284-293.
54. Pauchant T and Mitroff I (1992), *Transforming the Crisis Prone Organisation: Preventing Individual, Organisational and Environmental Tragedies*, Jossey-Bass, San Francisco.
55. Pfefferbaum B, Nixon S J, Tivis R D *et al.* (2001), "Television Exposure in Children After a Terrorist Incident", *Psychiatry*, Vol. 64, No. 3, pp. 202-211.
56. Putnam R D (1995), "Tuning in, Tuning Out: The Strange Disappearance of Social Capital in America", *Political Science and Politics*, Vol. 28, No. 4, pp. 664-83.
57. Pyszczynski T, Greenberg J and Solomon S (1997), "Why do we Need What we Need? A Terror Management Perspective on the Roots of Human Social Motivation", *Psychological Inquiry*, Vol. 8, No. 1, pp. 1-20.

58. Pyszczynski T, Solomon S and Greenberg J (2003), "In the Wake of 9/11: The Psychology of Terror", American Psychological Association, Washington, DC.
59. Reid E and Chen H (2007), "Mapping the Contemporary Terrorism Research Domain", *International Journal of Human-Computer Studies*, Vol. 65, No. 1, pp. 42-56.
60. Rotter J B (1967), "A New Scale for the Measurement of Interpersonal Trust", *Journal of Personality*, Vol. 35, pp. 651-665.
61. Sadler M S, Lineberger M, Correll J and Park B (2005), "Emotions, Attributions, And Policy Endorsement In Response To The September 11th Terrorist Attacks", *Basic and Applied Social Psychology*, Vol. 27, No. 3, pp. 249-258.
62. Shiloh S, Güvenç G and Önkal D (2007), "Cognitive and Emotional Representations of Terror Attacks: A Cross-Cultural Exploration", *Risk Analysis*, Vol. 27, No. 2, pp. 397-409.
63. Siegrist M, Gutscher H and Earle T C (2005), "Perception of Risk: The Influence of General Trust, and General Confidence", *Journal of Risk Research*, Vol. 8, No. 2, pp. 145-156.
64. Silver R C and Matthew R (2008), "Terrorism", in V N Parrillo (Ed.), *Encyclopedia of Social Problems*, Vol. 2, pp. 926-929, Sage, Thousand Oaks, CA.
65. Singh J (2002), "Kashmir, Pakistan and the War by Terror", *Small Wars and Insurgencies*, Vol. 13, No. 2, pp. 81-94.
66. Silke A (2003), "Becoming a Terrorist", in A Silke (Ed.), *Terrorists, Victims and Society: Psychological Perspectives on Terrorism and Its Consequences*, pp. 29-53, Wiley, New York.
67. Starr C (1969), "Social Benefits Versus Technological Risks", *Science*, Vol. 165, No. 3899, pp. 1232-1238.
68. Stein B D, Jaycox L H, Elliott M N *et al.* (2004), "The Emotional and Behavioural Impact of Terrorism on Children: Results from a National Survey", *Applied Developmental Science*, Vol. 8, No. 4, pp. 184-194.
69. Tatar M and Amram S (2007), "Israeli Adolescents' Coping Strategies in Relation to Terrorist Attacks", *British Journal of Guidance & Counselling*, Vol. 35, No. 2, pp. 163-173.
70. Tenenhaus M, Vinzi V E, Chatelin Y M and Lauro C (2005), "PLS Path Modeling", *Computational Statistics and Data Analysis*, Vol. 48, No. 1, pp. 159-205.
71. Watson P J, Brymer M J and Bonanno G A (2011), "Postdisaster Psychological Intervention Since 9/11", *American Psychologist*, Vol. 66, No. 6, pp. 482-494.
72. Weick K (1993), "The Collapse of Sense-making in Organisations: The Mann Gulch Disaster", *Administrative Science Quarterly*, Vol. 38, No. 4, pp. 628-652.

73. Weisenberg M, Schwarzwald J, Waysman M *et al.* (1993), "Coping of School-age Children in the Sealed Room During Scud Missile Bombardment", *Journal of Consulting and Clinical Psychology*, Vol. 61, No. 3, pp. 462-467.
74. Williams D R (1990), "Socio-economic Differentials in Health: A Review and Redirection", *Social Psychology Quarterly*, Vol. 53, No. 2, pp. 81-99.
75. Yamagishi T (1986), "The Provision of a Sanctioning System as a Public Good", *Journal of Personality and Social Psychology*, Vol. 51, No. 2, pp. 110-16.
76. Yavuz M S, Asirdizer M, Cetin G *et al.* (2004), "Death Due to Terrorist Bombings in Istanbul (Turkey)", *Journal of Clinical Forensic Medicine*, Vol. 11, No. 6, pp. 308-315.
77. Yule W, Ten Bruggencate and Joseph S (1994), "Principal Components Analysis of the Impact of Events Scale in Adolescents who Survived a Shipping Disaster", *Personality and Individual Differences*, Vol. 16, No. 7, pp. 685-691.
78. Zeidner M (1993), "Coping with Disaster: The Case of Israeli Adolescents Under Threat of Missile Attack", *Journal of Youth and Adolescence*, Vol. 22, No. 1, pp. 89-108.
79. Zeidner M (2005), "Contextual and Personal Predictors of Adaptive Outcomes Under Terror Attack: The Case of Israeli Adolescents", *Journal of Youth and Adolescence*, Vol. 34, No. 5, pp. 459-470.
80. Zeidner M (2006), "Individual Differences in Psychological Reactions to Terror Attack", *Personality and Individual Differences*, Vol. 40, No. 4, pp. 771-781.

Pro-environmental Behavior of Consumers: A Taxonomy and Its Implications for the Green Marketer

Rohit H Trivedi*, Jayesh D Patel** and Jignasa R Savalia***

This empirical study primarily aims to find the underlying dimensions of pro-environmental behavior of consumers in Indian landscape. For this, a total of 152 consumers in India were contacted through convenience sampling. Factor analysis was used to extract various factors that lead to pro-environmental behavior among consumers. According to the loadings, the factors extracted are energy conservist who cares for saving energy; energy economist who save energy because of their economic considerations and pro-environmental activist who takes proactive actions to save environment. Considering this, it is advised to green marketers to consider the economic motivation criteria first to target Indian consumers. Marketers take caution in designing messages, targeting Indian consumers constitute an emerging segment consuming green products and should use rational appeals, and stress economic benefits. This paper is expected to offer guidelines to green companies operating internationally who wish to target these Indian consumers segment.

INTRODUCTION

These days environmental degradation is main concern for all and emerged issue in every part of the market place. Over many decades, most people are realizing the issues of environmental protection have been on rise and paid attention to preservation of natural resources. As a result, public begun to feel considering environmental aspects in their consumption habits, and in turn, businesses felt strong need of environmentally responsible actions or green marketing activities.

As a result, more and more marketers are coming out with products that are 'green' or 'environmentally friendly'. Considering remarkably growing rate of green product markets, companies not only have tremendous market opportunities in development of green products (Schlossberg, 1992; and Polonsky and Ottman, 1998), but also capitalize maximally. To put this into perspective, Prendergast and Thompson (1997)

* Assistant Professor, MICA, Ahmedabad, India. E-mail: trivedirohit9@gmail.com

** Lecturer, V M Patel Institute of Management, Ganpat University, Gujarat, India. E-mail: jayesh.patel@ganpatuniversity.ac.in

***Faculty, Chimanbhai Patel Institute of Management & Research, Gujarat, India. E-mail: jigna999@gmail.com

pointed out that segmentation analysis help companies to identify environmentally conscious consumers and enable them to target effectively.

Cross-sectioning the body of green research, many researchers used various bases to segment green consumer segments, viz. (a) Tremblay and Dunlap (1978), Samdahl and Robertson (1989), Pickett *et al.* (1993) and Gooch (1995) used geographic measures; (b) Anderson *et al.* (1974), and Webster (1975) used cultural measures; (c) Kinnear *et al.* (1974) and Crosby *et al.* (1981) used personality measures; and (d) socio-demographic characteristics.

No matter what reason enterprises have in pursuing segmentation, they are going face to face with the consciousness of the consumer. Hence, enterprises must consider consumer pro-environmentalism as segmentation variables that displayed through various pro-environmental behaviors (PEBs). In this context, understanding the consumer's PEB is important for enterprises. Thus, the objective of this research is to explore the underlying factors of PEB of Indian consumers.

This paper begins by covering the literature on PEB and examines the underlying dimensions of pro-environmental behavior. From the exploration, dimensions of PEB are discussed which is viewed as a critical factor for developing bases for segmentation and profiling to target. The research methodology with sample profile and survey measures is then described, followed by a discussion of the main findings.

LITERATURE REVIEW

GREEN MARKETING

With the rising concern of environment and sense for environmental protection and collaborative efforts from government and various international agencies, research pertaining to green marketing in general and green consumers in particulars are in the budding stage across the globe. The decade of the late 1980s was marked by the first stage of green marketing, when the 'green marketing' concept was just emerged and became mainstream issue in industry (Peattie and Crane, 2005). In later stage, green marketing management incorporated society's concern about natural environment, and eventually this notion was extended to societal marketing (Prothero, 1990). In more simple words, Polonsky defined green marketing as,

All activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs or wants occurs, with minimal detrimental impact on the natural environment. (Polonsky, 1994)

In fact, whole body of green research was focusing mainly on four issues, i.e., green marketing relevance; consumers' attributes considered while green products purchasing; green marketing practices and its relation to firms' competitiveness and performance; and increasing green marketing effectiveness; and fifth, green consumer

segmentation that is to be researched. To simplify the understanding of the green segmentation, as traditional way of market segmentation loses the effectiveness and more suitable alternative bases for segmentation should be developed (Peattie, 1999). Numerous studies have outlined the characteristics of green consumers and emphasized the need to be addressed either as a primary issue or as a secondary point of investigation.

A review of these studies suggests few common indicators which display individual's propensity to engage in green consumer behavior. The next section focuses on the various PEBs displayed by consumers.

PRO-ENVIRONMENTAL BEHAVIOR CONSTRUCT

In existing literature, PEB is commonly understood as displaying some behavior like recycling, energy conservation, waste disposal, and supporting green organizations explicitly and encouraging consumers to put their concern into behavior. Kollmuss and Agyeman (2002, p. 240) simplified the PEB as behavior that "consciously seeks to minimize the negative impact of one's actions on the natural and built world (e.g., minimize resource and energy consumption, use non-toxic substances, and reduce waste production)".

Within green marketing literature, various research studies were carried out to understand individual level PEBs. Few researchers like Taylor and Todd (1995), Cheung *et al.* (1999), Harland *et al.* (1999), Terry *et al.* (1999) and Heath and Gifford (2002) reported that individuals display various behaviors such as household recycling behavior, reducing consumption of meat, composting, resource conservation behaviors, viz., water and energy saving, and decreasing car use in various situational diversity. Consumers were cautious about product packaging disposal when purchase a product, and integrated their environmental consequences in decision making. Recent studies paid the attention to post-purchase behaviors like recycling and waste disposal (Follows and Lobber, 2000).

For several decades, researchers have investigated the motivations of individuals who engage in PEB. As we are actively seeking solution to our environmental problem with the help of behavioral change, it is very necessary for policy makers and researcher to understand that why an individual undertakes PEB. As identified by Clark *et al.* (2003), there are two major streams of thoughts investigating PEB at individual level. There are a set of economist who have examined influence of external factors on individual behavior and therefore, their suggestion to environmental problem is of reward or penalty. On other hand, psychologist have linked psychological variables to the behavior and suggested the tools such as awareness, education and persuasion for behavioral change.

With regard to various PEBs, few studies were focusing on non-consumption behaviors (Delistavrou and Tilikidou, 2006). Majority of studies paid up the attention to psychographic variables and its relation to various aspects of recycling. For example, Ebreo and Vining (2001) and Shrum and McCarty (2001) examined recycling behavior

with respect to physiographical motivation, Dunlap *et al.* (1983) used aesthetics to understand recycling behavior, Ebreo *et al.* (1999) explained how altruistic values drive individual to perform the given behavior and Shrum and McCarthy (2001) linked locus of control and values like individualism and collectivism to recycling. Later on, Tilikidou and Delistavrou (2004) linked materialism to recycling.

In case of other behaviors except recycling, like waste reduction, few attempts have been made to study reuse of products (Ebreo and Vining, 2001). Apart from this, Corraliza and Berenguar (2000) studied people who carry their own bags for shopping and explicitly support organizations who try to create awareness for protecting environment. Even people supported environmental pressure groups, i.e., special interests groups (Bohlen *et al.*, 1993). Moreover, in case of green issues presence, Bohlen *et al.* (1993) found that individuals do not hesitate to write to newspaper. In protecting environment, Individuals will first check the biodegradability of packing and then purchase (Suchard and Polonski, 1991). However, except few instances, research evidenced that there is an apparent need to exploit non-purchasing PEBs wholly (Delistavrou and Tilikidou, 2006).

Additionally, individuals do vary their environmental actions from behavior to behavior; henceforth marketers must be cautious when attempting this notion (Pickett *et al.*, 1993). For example, those consumers who recycle paper may not be the same who purchase recycled handwriting paper (Laroche *et al.*, 2001). This study tried to advance the understanding of the underlying dimensions in exploring PEB in the Indian green marketing context.

METHODOLOGY

THE SAMPLE

In this study, data collected was a part of large study aimed to analyze environmental consciousness and willing-to-pay for environmentally friendly products. Research adopted the survey approach. The sample size was determined based on allowable error of 8% with confidence level of 95% considering unknown population. The determined sample size was about 150, while number of respondents for data analysis was 152 higher than the threshold. Survey approach was used and administered with the help of structured non-disguised, self-administered questionnaire to gather the data required for this research. Hundred and fifty two respondents were recruited through convenience sampling. The pilot testing was carried out among 20 respondents and minor modifications were made. The respondents were given required time to complete the questionnaire.

THE SURVEY MEASURES

For this study, measures were adapted from earlier studies with required modifications. The questionnaire was divided into two parts where in the first part includes basic demographics of population and second section includes the PEB scale. The PEB scale consists of ten statements aimed at capturing the respondents' PEB. Each answer

was recorded with the help of Likert-type, five-point scale. Statements were measured on ‘strongly agree’ (5) to ‘strongly disagree’ (1). The ten PEB statements were adapted from the study carried out by Cleveland *et al.* (2005) linking environmental locus of control to PEB. The measures of behavior included items relating to automobile use/maintenance, public transit use, energy use and conservation and ‘3-R’ activities (reduce, reuse, and recycle).

DATA ANALYSIS AND MAJOR FINDINGS

DEMOGRAPHIC PROFILES OF RESPONDENTS

Table 1 summarizes sample respondents’ demographic profile. The result shows that a sample is dominated by male respondents ($n = 113$, 74.3%) with only 25.7% of the female respondent ($n = 39$). 65.1% of sample respondents were with large family size (4-5 persons) ($n = 99$). Age is constituted by—middle age respondents representing 90.2% of the sample which includes age group 20-35 ($n = 65$, 42.8%) and those with age group 35-50 ($n = 72$, 47.4%).

educational level (postgraduates and doctorate) represent 69.7% ($n = 106$) of the sample, while medium education level (graduate) represent 24.3% ($n = 37$) and lower education level (undergraduate and high school) represent 5.9% ($n = 9$) of the sample.

Variable	Range	Frequency	%
Gender	Male	113	74.3
	Female	39	25.7
Family Size	1 Person	2	1.3
	2-3 Persons	38	25.0
	4-5 Persons	99	65.1
	More than 5 Persons	13	8.6
Marital Status	Single	77	50.7
	Married	74	48.7
Employment Status	Full Time	95	62.9
	Part Time	13	8.6
	Student	25	16.6
	Housewife	4	2.6
	Unemployed	5	3.3
	Business	9	6.0
Home Ownership	Own	112	74.7
	Rent	37	24.7

Table 1 (Cont.)

Variable	Range	Frequency	%
Age	Less than 20	2	1.3
	20-35	65	42.8
	36-50	72	47.4
	More than 50	13	8.6
Education	High School	3	2.0
	Undergraduate	6	3.9
	Graduate	37	24.3
	Postgraduate	85	55.9
	Doctorate	21	13.8

In short, sample was more apt to be male dominant, having higher educational levels, with large family size, balanced with 50.7% single ($n = 77$) and 48.7% married ($n = 74$).

PRO-ENVIRONMENTAL BEHAVIOR

PEB measures 10 different behavior on a 5-point scale. Pre-testing was carried out on 20 respondents not included in sampling frame to assess the content validity. Based on pre-test, all aspects of the questionnaire such as wordings used in item construction, the sequence, its structure and its all-inclusiveness were evaluated. Thereafter, researcher has incorporated respondents' suggestions into the survey prior to its final use.

Prior to examining the underlying factors of PEB, reliability analysis is used to assess the strength of the scale. In this study, researcher has used internal consistency of the items on the scale to establish reliability; the alpha (α) coefficient was calculated. And it was found to be 0.634 with the item-to-total reliability of all 10 statements were more than 0.4 (Nunnally, 1978). Table 2 refers reliability statistics of PEB (i.e., dependent variable).

FACTOR ANALYSIS RESULTS

Factor analysis falls into a class of statistical techniques usually intended to use for data reduction and summarization (Crawford and Lomas, 1980; Hooley, 1980; Green

Table 2: Reliability Statistics of Dependent Variable (PEB)			
Variable	Statement	Item-to-Total Reliability	Cronbach's Alpha
D1	I use public transport (bus/train) whenever that option is available.	0.649	
D2	I keep my bike/car well-tuned by taking it for regular service.	0.603	

Table 2 (Cont.)

Variable	Statement	Item-to-total Reliability	Cronbach's Alpha
D3	I drive my bike/car more slowly and consistently.	0.594	0.634
D4	I usually turnoff the bike/car at the red signal at traffic point.	0.616	
D5	I turnoff all electronic equipments when not in use.	0.583	
D6	I usually buy more expensive but more energy efficient light bulbs.	0.620	
D7	I prefer to walk rather than drive to a store that is just a few blocks away.	0.598	
D8	I refuse to buy products from companies accused of being environmental polluters.	0.589	
D9	I take my own carry bags while shopping.	0.625	
D10	When buying something wrapped, I check that it is wrapped in paper or cardboards made from recycled material.	0.609	

et al., 1988; Boyd *et al.*, 1989; and Kim and Mueller, 1994a and 1994b). In other words, factor analysis identifies smaller number of underlying factors from larger number of observed variables (or cases such as persons/occasions) and maintains observed variables' core to the extent possible. The present study aims to explore the fundamental 'factors' or 'constructs' of PEBs and intends to explain the correlations among variables (Kim and Mueller, 1978).

The data collected for all 10 statements were subject to factor analysis and principal component method was used. The KMO Measure of sampling adequacy (0.638) and the Bartlett's test of sphericity ($p < 0.001$) indicated that factor analysis could be useful (Table 3). In total, there were 10 variables in the data. Initially three factors were extracted from these 10 variables using the Varimax rotation method, with criteria of eigenvalues greater than 1. However, the item with higher cross loading (more than 0.20) and those with lower value of MSA (less than 0.50) in their respective factors were to be trimmed one by one. Exploratory factor analysis was repeated again excluding the trimmed measurement that resulted into deletion of one (1) statement.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.638
Bartlett's Test of Sphericity	Approx. χ^2	175.842
	df	36.000
	Sig.	0.000*
Note: * $p < 0.001$.		

Finally, nine statements were included in factor analysis and it resulted into extraction of three factors, which explained 54.124% of variance. The three factors that emerged out of the analysis are—energy conservist, energy economist and pro-environmental activist. The factor loadings were observed with minimum of 0.538 and the maximum loading was 0.780. Table 4 summarizes the factors formed with variable number, statements and their corresponding factor loadings.

Factors	Variable	Statement	Factor Loadings
Energy Economist	D7	I prefer to walk rather than drive to a store that is just a few blocks away	0.780
	D6	I usually buy more expensive but more energy efficient light bulbs	0.595
	D3	I drive my bike/car more slowly and consistently	0.583
Energy Conservist	D4	I usually turn-off the bike/car at the red signal at traffic point	0.772
	D5	I turn-off all electronic equipments when not in use	0.755
	D2	I keep my bike/car well-tuned by taking it for regular service	0.592
Environmental Activist	D10	When buying something wrapped, I check that it is wrapped in paper or cardboards made from recycled material	0.777
	D9	I take my own carry bags while shopping	0.772
	D8	I refuse to buy products from companies accused of being environmental polluters	0.538

Table 5 refers to the three factors extracted and their shared variance in total. It can be seen that all the three factors have an eigenvalues of above 1, ranging from 1.069 to 2.444. Factor 1, energy economists contributes the maximum variance of 27.157% followed by Factor 2, energy conservist which contributes 15.089. Environmental activist, which is identified as third factor contributes 11.878% of variance. All three factors explained total cumulative variance is 54.124% respectively.

According to the loadings of variables on these three factors, they can be explained as:

Factors	Eigenvalue	% of Variance	Cumulative% Variance
Energy Economist	2.444	27.157	27.157
Energy Conservist	1.358	15.089	42.256
Environmental Activist	1.069	11.878	54.124

1. Energy Economist: Some scholars have stressed on the importance of economic considerations in driving the PEB for many, if not most consumers (e.g., Corrado and Ross, 1990; as cited in Kalafatis *et al.*, 1999). Moreover, the result in Table 4 depicts that energy economist is one of the prime pro-environmental behavioral motive.
2. Energy Conservist: Some consumers display the behaviors wherein they take care towards energy conservation.
3. Environmental Activist: This factor refers to the proactive actions taken by consumer to protect the environment.

DISCUSSION AND CONCLUSION

This research examines the underlying factors of PEB of Indian consumers. The findings suggest that there are three underlying factors namely—energy economist; energy conservist and environmental activist. Here the profiling has been done based upon the score on three factors extracted with the help of factor analysis and their background information. Green marketers can use this consumer profile for market segmentation and help them to take decisions related to product positioning for green products. Therefore, green marketers are advised to analyze these underlying factors before targeting the consumer who engage in PEB.

Also, the study can be useful for the policy makers. It is also worth mentioning that there is an obvious need in identifying more ways which are socially acceptable to encourage public to support environmentally-friendly products and are more cost-effective. Henceforth, this adoption of environmentally friendly products on a repetitive basis forms the life-styles of consumers who prefer green products. Policy makers will adopt this approach by segmenting the public in order to target these groups. They will develop appropriate tailor-made messages referring greener life-styles and interventions to boost greener life-styles which have minimum negative impacts on environment.

REFERENCES

1. Anderson W, Henion K and Cox E (1974), "Socially vs. Ecologically Concerned Consumers", Combined Proceedings, American Marketing Association, Chicago, IL.
2. Bohlen G, Schlegelmilch B B and Diamantopoulos A (1993), "Measuring Ecological Concern: A Multi-Construct Perspective", *Journal of Marketing Management*, Vol. 9, pp. 415-430.
3. Boyd H W, Westfall R and Stasch S F (1989), *Marketing Research: Text and Cases*, 7th Edition, Ch. 17, Irwin, Homewood, IL.

4. Cheung S F, Chan D K S and Wong Z S Y (1999), "Reexamining the Theory of Planned Behaviour in Understanding Wastepaper Recycling", *Environment and Behavior*, Vol. 31, No. 5, pp. 587-612.
5. Clark C F, Kotchen M J and Moore M R (2003), "Internal and External Influences on Pro-Environmental Behaviour: Participation in a Green Electricity Program", *Journal of Environmental Psychology*, Vol. 23, pp. 237-246.
6. Cleveland M, Kalamas M and Laroche M (2005), "Shades of Green: Linking Environmental Locus of Control and Pro-Environmental Behaviors", *Journal of Consumer Marketing*, Vol. 22, No. 4, pp. 198-212.
7. Corrado M and Ross M (1990), "Environmental Issues in the 1990s: Green Issues in Britain and the Value of Green Research Data", ESOMAR Annual Congress, Vol. 43, pp. 347-69.
8. Corraliza J A and Berenguer J (2000), "Environmental Values, Beliefs, and Actions: A Situational Approach", *Environment and Behavior*, Vol. 32, No. 6, pp. 832-848.
9. Crawford I M and Lomas R A (1980), "Factor Analysis – A Tool for Data Reduction", *European Journal of Marketing*, Vol. 14, No. 7, pp. 414-21.
10. Crosby L A, Gill J D and Taylor J R (1981), "Consumer/Voter Behavior in the Passage of the Michigan Container Law", *Journal of Marketing*, Vol. 45, Spring, pp. 19-32.
11. Delistavrou A and Tilikidou I (2006), "Types and Influential Factors of Consumers' Non-Purchasing Ecological Behaviours", *Business Strategy and the Environment*, Vol. 18, pp. 61-76.
12. Dunlap R E, Keith J G and Milton R (1983), "Human Values and Pro-Environmental Behaviour", in W D Conn (Ed.), *Energy and Material Resources: Attitudes, Values and Public Policy*, pp. 145-168, Boulder, CO, Westview.
13. Ebreo A and Vining J (2001), "How Similar are Recycling and Waste Reduction? Future Orientation and Reasons for Reducing Waste as Predictors of Self-Reported Behavior", *Environment and Behavior*, Vol. 33, No. 3, pp. 424-448.
14. Ebreo A, Hershey J and Vining J (1999), "Reducing Solid Waste: Linking Recycling to Environmentally Responsible Consumerism", *Environment and Behavior*, Vol. 31, No. 1, pp. 107-135.
15. Follows S B and Jobber D (2000), "Environmentally Responsible Purchase Behaviour: A Test of a Consumer Model", *European Journal of Marketing*, Vol. 34, Nos. 5&6, pp. 723-46.
16. Gooch G D (1995), "Environmental Beliefs and Attitudes in Sweden and the Baltic States", *Environmental Behavior*, Vol. 27, No. 4, pp. 513-539.

17. Green P E, Tull D S and Albaum G (1988), *Research for Marketing Decisions*, 5th Edition, Ch. 17, Prentice-Hall, London.
18. Hair J, Anderson R and Tatham R (1995), *Multivariate Data Analysis*, 4th Edition Prentice Hall, Englewood Cliffs, NJ.
19. Harland P, Staats H and Wilke H A M (1999), "Explaining Pro Environmental Intention and Behaviour by Personal Norms and The Theory of Planned Behaviour", *Journal of Applied Social Psychology*, Vol. 29, No. 12, pp. 2505-28.
20. Heath Y and Gifford R (2002), "Extending the Theory of Planned Behaviour: Predicting the Use of Public Transportation", *Journal of Applied Social Psychology*, Vol. 32, No. 10, pp. 2154-2189.
21. Hooley G J (1980), "The Multivariate Jungle: The Academic's Playground but the Manager's Minefield", *European Journal of Marketing*, Vol. 14, No. 7, pp. 379-86.
22. Kalafatis S P, Pollard M, East R and Tsogas M H (1999), "Green Marketing and Ajzen's Theory of Planned Behavior: A Cross-Market Examination", *Journal of International Consumer Marketing*, Vol. 16, No. 5, pp. 441-460.
23. Kim J and Mueller C (1994a), "Introduction to Factor Analysis: What It Is and How to Do It", in M S Lewis-Beck (Ed.), *Factor Analysis and Related Techniques*, Sage, London.
24. Kim J and Mueller C (1994b), "Factor Analysis: Statistical Methods and Practical Issues", in M S Lewis-Beck (Ed.), *Factor Analysis and Related Techniques*, Sage, London.
25. Kinnear T, Taylor J and Ahmed S (1974), "Ecologically Concerned Consumers: Who are They?", *Journal of Marketing*, Vol. 38, No. 2, pp. 20-24.
26. Kollmus A and Agyeman J (2002), "Mind the Gap: Why do People Act Environmentally and What are the Barriers to Pro-Environmental Behavior?", *Environmental Education Research*, Vol. 8, pp. 239-260.
27. Laroche M, Bergeron J and Barbaro-Forleo G (2001), "Targeting Consumers Who are Willing to Pay More for Environmentally Friendly Products", *The Journal of Consumer Marketing*, Vol. 18, No. 6, p. 503.
28. Nunnally J C (1978), *Psychometric Theory*, McGraw-Hill, New York.
29. Peattie K (1999), "Trapping Versus Substance in the Greening of Marketing Planning", *Journal of Strategic Marketing*, Vol. 7, No. 2, pp. 131-148.
30. Peattie K and Crane A (2005), "Environmentally Responsible Marketing: Legend, Myth, Farce or Prophecy?", *Qualitative Market Research: An International Journal*, Vol. 8, No. 4, 357-370.
31. Pickett G M, Grove S J and Kangun N (1993), "An Analysis of the Conserving Consumer: A Public Policy Perceptive", in C T Allen *et al.* (Eds.), *AMA Winter Educators' Conference Proceedings*, American Marketing Association, Chicago, IL, Vol. 5, pp. 344-353.

32. Polonsky M (1994), "An Introduction to Green Marketing", *Electronic Green Journal*, Vol. 1, No. 2.
33. Polonsky M J and Ottman J (1998), "Stakeholders' Contribution to the Green New Product Development Process", *Journal of Marketing Management*, Vol. 14, No. 6, pp. 533-57.
34. Prendergast G P and Thompson E R (1997), "Cynical Segmentation of Environmental Markets: The Product of Marketers' Dispositions or Corporate Demands?", *Journal of European Marketing*, Vol. 6, No. 4, pp. 17-34.
35. Prothero A (1990), "Green Consumerism & the Societal Marketing Concept-Marketing strategies for the 1990s", *Journal of Marketing Management*, Vol. 6, No. 2, pp. 87-103.
36. Samdahl D and Robertson R (1989), "Social Determinants of Environmental Concern: Specification and Test of the Model", *Environment & Behavior*, Vol. 21, No. 1, pp. 57-81.
37. Schlossberg H (1992), "Latest Trend: Targeting Consumers According to Environmental Beliefs", *Marketing News*, Vol. 26, No. 1, p. 5.
38. Shrum L J, McCarty J A (2001), "The Influence of Individualism, Collectivism, and Locus of Control on Environmental Beliefs and Behavior", *Journal of Public Policy and Marketing*, Vol. 20, No. 1, pp. 93-104.
39. Suchard H T and Polonski M J (1991), "A Theory of Environmental Buyer Behaviour and Its Validity: The Environmental Action-Behaviour Model", in M C Gilly *et al.* (Eds.), *AMA Summer Educators' Conference Proceedings*, American Marketing Association, Chicago, IL, Vol. 2, pp. 187-201.
40. Taylor S and Todd P (1995), "An Integrated Model of Waste Management behaviour: A Test of Household Recycling and Composting Intentions", *Environment and Behavior*, Vol. 27, No. 5, pp. 603-630.
41. Terry D J, Hogg M A and White K M (1999), "The Theory of Planned Behaviour: Self-Identity, Social Identity and Group Norms", *The British Journal of Social Psychology*, Vol. 38, pp. 225-44.
42. Tilikidou I and Delistavrou A (2004), "The Influence of the Materialistic Values on Consumers' Pro-Environmental Post-Purchase Behavior", in W L Cron and G S Low (Eds.), *Marketing Theory and Applications*, Proceedings of the 2004 American Marketing Association Winter Educators' Conference, pp. 15, 42-49, AMA, Chicago, IL.
43. Tremblay K R and Dunlap R E (1978), "Rural-urban Residence and Concern with Environmental Quality: A Replication and Extension", *Rural Sociology*, Vol. 43, No. 3, pp. 474-491.
44. Webster F (1975), "Determining the Characteristics of Socially Conscious Consumer", *Journal of Consumer Research*, Vol. 2, No. 12, pp. 188-196.

Case Study

Recruitment Challenges of a Government in Exile: A Case Study

Tenzin Yeshi*

Public sector organizations are complex and complicated set of interconnected units. In this paper, the Public Service Commission (PSC), a unit of the Tibetan Government in-exile based in Dharamsala, Himachal Pradesh, India is chosen as the case to study the complexity and complication of leadership challenges at this organizational unit, primarily focusing on the staff recruitment processes. Before the leadership challenges associated with recruitment process are identified and analyzed, a brief history, accessibility to the PSC, and the dominant organizational culture are shared to better understand the context and purpose of the case study. Next, my personal recommendations are provided to help address some of these recruitment challenges.

INTRODUCTION

Public sector organizations are complex and complicated set of interconnected units such as finance, education, and human resource. This complexity and complication are generally uniform across the public sector organizations in South Asia. In this paper, one unit of a public sector organization and its complexity is analyzed and discussed. This organizational unit is unique as well as identical to many other public sector organizations. It is unique because of its current status as the government in exile, and identical because of its similarity with many other public sector organizations in South Asia. The Public Service Commission (PSC), a unit of the Tibetan Government in exile based in Dharamsala, Himachal Pradesh, India is carefully chosen as the case for this paper to study the complexity and complication of leadership challenges at this organizational unit primarily focusing on the staff recruitment processes. These leadership challenges are discussed below and relate to literature as well as personal experiences as a former employee of this unit. The introduction of PSC is briefly discussed below.

PUBLIC SERVICE COMMISSION

In the last few decades, the PSC steadily grew into one of the fully functioning autonomous bodies of the Central Tibetan Administration (CTA). Immediately after

* Doctoral Candidate, Department of Professional Studies, University of Wyoming, 1617 E Person St. Apt. F201 Laramie, WY 82070, US. E-mail: tenyeshi@gmail.com

his arrival in exile in India, his holiness the Dalai Lama re-established the Tibetan government in exile in the north Indian hill station of Mussoorie on April 29, 1959. Though Tibetan refugee people consider their central office as the Tibetan Government in Exile, it is officially known as the Central Tibetan Administration due to some political reasons.

Initially, up to 1972, the responsibility for recruitment and appointment of CTA civil servants was under the Home and Security Department and later, under the Department of Personnel directly supervised by *Kashag* (Tibetan cabinet members). However, Tibetan exile charter was promulgated in the early 1990s with articles mandating the establishment of three autonomous institutional bodies within the CTA to facilitate complete democratization of the exile polity. Thus, the PSC was born with its rules and regulations set by the Tibetan Parliament in Exile (Tibet.net, 2009).

As per the provision of the charter for Tibetans in exile, a chairman and two to four members of the PSC are appointed by the Head of State on recommendation of a special committee for a term of five years (Tibet.net, 2009). The members shall meet at least once in a month and should have two-third quorum of the total members to hold a meeting. The PSC also has a secretary and few CTA staff members, appointed and working as per the rules and regulations of CTA services. The PSC has following broadly defined statutory powers and duties:

- Recruitment and appointment/re-appointment of CTA officials and staffs
- All capacity building and promotion related matters
- Retirement related matters
- Handling of disputes related to staff grievance
- Demotions, dismissals, resignation, and premature retirement matters
- Framing of code conducts and other related rules in connection with these functions
- On top of these, it has the sole responsibility to recruit talented officers and office staff to efficiently man the CTA offices. For that the PSC regularly organizes training and refresher courses for CTA officials/staffs in order to keep up with rapidly changing work environments (Tibet.net, 2009)

As identified from the statutory powers and duties noted above, the PSC has wide-ranging responsibilities to construct a competent pool of CTA human resources. The ability of government (such as CTA) to provide services effectively and efficiently (to the public) depends upon a competent cadre of civil servants. Good government requires good people (Lavigna and Hays, 2004). Llorens and Kellough (2007) supported the views of Lavigna and Hays. They posited the quality of public workforce and the effectiveness of public programs will depend, in large part, on the manner in which

these core functions (employee recruitment, examination, and selection) are performed. Though the CTA is not officially recognized as a government, its significance for Tibetan people is not less of a government. The success of CTA therefore largely depends on how well the PSC functions and how well its leaders (Chairman and its members) respond to the expanding organizational human resource need to keep up with the rapidly changing work environments.

IDENTIFICATION OF LEADERSHIP CHALLENGES

While civil service systems are designed to ensure government job candidates are recruited and hired in a fair and impartial way, those systems are criticized for being too complicated (Kim and O'Connor, 2009). Many interested applicants barely recognize and understand the complex and unfriendly application processes. Moreover, there is a growing concern within the CTA officials as well as the general public on the poor traits of CTA employees. Many concerns relate to language proficiencies, problem solving skills, critical thinking skills, positive attitudes, work ethics, and the will to serve. Also, the lack of interest from talented and qualified Tibetan in general to serve in the CTA is on the rise. The core of these problems largely lies in the initial processes, i.e., job announcements and screening of application forms, among others. There are gaps and cracks in the recruitment process/system, which need to be reframed, refined, or re-organized through leadership efforts.

Furthermore, members (of the PSC including chairman) have no clarity about why they were being asked to work as a leadership team and what they were expected to accomplish together (Wageman *et al.*, 2008). Members need to help direct future plan of action towards the desired outcomes, i.e., to recruit talented officers and office staff for the CTA. In addition, there is a growing need of proactive approaches toward refining the recruitment processes and the retention of current CTA employees. Retention is another module of recruitment.

To improve and strengthen the administrative function of CTA, PSC's recruitment strategies, rules and regulations, and organizational structures must be revised and refined to bring just, suitable, and user friendly processes.

ACCESSIBILITY

My access to the PSC was of an employer-employee relationship. I was selected and promoted through its recruitment system. Since I went through its processes, I had first-hand experiences on the selection and promotion of CTA officials. However, the current study is based on prior information and personal experiences. My understanding therefore of the rules and regulations may not be recent.

DOMINANT ORGANIZATIONAL CULTURE

PSC is an autonomous body of the CTA with low accountability and high authority. Like many CTA organizations and its units, PSC generally believes in preserving the

status quo. Since its inception in the early 1990s, there were no significant changes in terms of easing recruitment processes, strengthening strategies, or refining the guiding rules and regulations. Some rules and regulations are vague resulting in hostile and uneven approaches towards the current CTA employees and interested job applicants. To make the matter worse, the PSC chairman and its members have been providing their own interpretations of the existing rules and regulations to justify their action, which resulted in the resolution of many problems either on a case or situational basis. Bolman and Deal (2008) rightly postulated that the solution to yesterday's problems often creates future obstacles. This culture of interpretation and temporary resolution creates inconsistency in decisions, future obstacles, and generating dilemmas and confusions for the interested job applicants.

Moreover, change is very hard to come by in the PSC. First, the leaders (PSC Chairman and members) hardly take the calculated risk to bring needed changes in their organization. Second, the proposal for change has to go through long and time-consuming processes involving the Tibetan Parliament in exile, which holds two sessions in a year. The PSC also failed to favorably integrate the use of technology in easing the recruitment processes. Additionally, the leaders in PSC rarely showed interest in the views and opinions of its current CTA employees. Generally, they believe more in authoritative form of decision-making and less in objective decision-making. In objective decision-making, the views and opinions of the interested job applicants and current CTA employees are considered. Finally, as Wageman *et al.* (2008) described, the leaders of PSC feel they have adequate education and experience, and excuse themselves from participating in training programs. They train CTA employees but hardly themselves.

The organizational culture at PSC is hard to identify but noticeable. It is independent but entwined with the executive and legislative body of CTA. However, the PSC has the ability to initiate design and implement strategies concerning the recruitment processes by staying within its statutory powers or by proposing needed changes to the Tibetan Parliament in exile.

CHALLENGES AND LEADERSHIP APPROACHES/RESPONSES

There are numerous challenges associated with the PSC's recruitment processes and strategies. First, the growing concern on the poor quality of CTA employees needs to be addressed. Second, the existing recruitment processes are widely criticized by majority of the interested job applicants. The rigidity and slow processes has been one of its weaknesses. Kim and O'Connor (2009) supported this weakness. They posited slow and complicated recruitment or hiring processes can deter applicants for State (Government) jobs. Third, the lack of interest from talented and qualified applicants in the CTA jobs is on the rise. The two underlying reasons seem to be the unattractive PSC recruitment processes and the attractive job markets in multinational corporations. Fourth, most clauses under the rules and regulations are not favorable to and supportive

of the interested job applicants. Fifth, there is increasing number of CTA employees resigning from the job. The retention rate is at all-time low. Finally and most importantly, there are no visible commitments from the leaders to help reduce these growing challenges. The following section shares ideas and knowledge on improving the PSC's recruitment processes/system.

ANALYSIS AND INTERPRETATION OF LEADERSHIP

It is evident from these existing challenges, discussed above, the PSC needs to reframe its organization. Of the four-frame model identified by Bolman and Deal (2008), the PSC needs to focus more on two dominant models, i.e., structural frame and symbolic frame. The Chairman and its members should focus on restructuring the central concepts such as rules, role, goals, policies, and technology, and on shaping symbolic gestures such as stories, ceremony, and heroes. The focus on these two dominant models does not mean that the other two models, human resource and political, are insignificant. The reframing of PSC through these four-frame models is discussed below.

The current recruitment process of PSC is widely criticized for lack of flexibility and user friendliness. The application processes follow the same old system. Applicants visit the office, buy the application form, fill the form by hand, submit the form and supporting documents to the PSC by deadline, receive test call letter from the PSC, travel and report to the testing center, and sit for 3 to 8 h of test and interview for a day or two. The entire process normally takes about three to five months excluding test period. To ease the slow and lengthy process, the PSC must first consider the use of technology.

Online recruitment and testing has become increasingly popular as both organizations and job seekers find it to be cost-effective, efficient, and convenient (Cronin *et al.*, 2006). Online testing may not be possible in the near future, however recruitment could be eased with the use of technology such as online application form, auto screening of application, and instant online feedback for incomplete application. Second, to avoid the frustration of submitting supporting documents again and again, repeating applicants may be relieved from these requirements. Moreover, the online repository of applicants should facilitate repeating applicants to sit for selection tests anytime anywhere (see recommendations below for more).

Further, slow recruitment processes drive away talented and qualified applicants from the CTA jobs. Since other government organizations fight to compete with private sector employers in attracting, developing, and retaining employees with scarce skills and expertise (Kim and O'Connor, 2009), the PSC could also fight to attract talented and qualified applicants to apply for the jobs. The PSC should not assume qualified applicants would clamor for job openings (Lavigna and Hays, 2004). Instead, the PSC should conduct job fairs in Tibetan colonies and college campuses/hostels, and distribute marketing and recruitment materials. The PSC may need to incorporate marketing strategies to attract and reach the talented pool of applicants to work in the CTA.

Moreover, concerns on the poor quality of CTA employees are on the rise. These concerns seem to stem from three major sources. First, the written tests and interview sessions are simply based on the content knowledge. The prescribed syllabus is an example wherein an applicant with sufficient book knowledge and little test taking skills can pass through these selection tests. The interview questions are generally designed ahead of time; the roles of interviewers are merely to grade interviewees based on these pre-designed questions. To put it differently, the questions are same for all applicants, sometimes resulting in cheating from the lower end of the interviewee line up. Second, the present recruitment system is generally not supportive of selecting the right candidate for the right position; rather it helps to select candidates who are good at regurgitating the content/book knowledge learned with the generosity of the prescribed syllabus. Because of these testing limitations, there are cases of selected CTA employees frowning to write even a simple office letter. Third, there are no significant differences between the testing standards for CTA officers and CTA staffs. In other words, there is no standard difficulty testing levels for selecting candidates for CTA positions. For example, the difficulty level for under secretary officer post and office secretary staff post seems to be on the same measurement scale. To illustrate, there are cases of applicant who failed in the lower position (staff category) but surprisingly succeeded in the upper position (officer category). Therefore, for the PSC to select right candidate for the right position, there is a strong need of standard difficulty testing levels assigned for each of the 10 existing CTA positions.

Understandably, rules and regulations is one of the major factors for professionals to shy away from working in the CTA. Some factors that typically discourage Tibetan professional's interest in public jobs include slow and rigid recruitment processes, narrow job descriptions, perception of seniority over merit, and excessive rules and regulations (Langan, 2002, as cited in Lavigna and Hays). In the CTA, seniority is respected higher than merit, driving away many professionals to private organizations. Therefore, the PSC may need to develop new administrative and structural adjustments to attract professionals such as contract or project-based hiring under relaxed rules and regulations.

The load of recruitment processes could be minimized if the PSC focuses more on the retention aspects of current employees. As indicated earlier, clear rules and regulations are important for consistent decision making and gaining the confidence of current employees. Second, the needs and grievances of employees must be heard in order to provide a symbolic gesture of love, care, belongingness, and shared responsibility. Third, promotions and rewards system must be justified. For instance, there should be some degree of distinction between employees who worked well with that of those who don't when it comes to promotion and rewarding. Years of service should not be the only variable for promotion or reward. A final strategy is to appoint mentors to ease the entry of new employees to help understand the organizational norms and expectations, and to provide guidance and support (Lavigna and Hays, 2004).

The solutions to these challenges may be possible through effective and collective leadership efforts. The existing PSC leadership team must bring change within and among themselves to support and sustain the CTA employees in the long run.

THE LEADERSHIP GROUP

The first question PSC should ask is on the need of a team (members). The purpose of the team must be to exchange strategic information, coordinate enterprise-wide (organization-wide) initiatives, or make vital decisions on behalf of the organization (Wageman *et al.*, 2008). An equally important factor in ensuring the success of recruitment efforts is executive (chairman) and senior leaders' (secretary) commitment to attracting a high-quality workforce capable of accomplishing the organization's mission (Kim and O'Connor, 2009).

The PSC leaders (team) should be knowledgeable on the human resource management and the existing rules and regulations to engage in robust discussions. They may need to understand that conflict encourages new ideas and approaches to problems, stimulating innovation (Heffron, 1989 as cited in Bolman and Deal, 2008). The team may sometimes need to seek help from professionals. All these tools—trusted observers, consultants, and structured instruments—can be valuable in monitoring the progress and dynamics of team (Wageman *et al.*, 2008).

RECOMMENDATIONS

Besides the analysis and interpretation of PSC existing challenges, I would like to provide few recommendations for friendly and effective recruitment processes for future applicants. First, it may be helpful for the PSC to conduct selection tests periodically at several Tibetan concentrated locations in India. For instance, the selection tests may be conducted every three months such as the last weekend of March, July, October, and December. Like TOEFL, the validity of the test can be outlined accordingly. The benefits of this periodic testing would be three-fold: first, applicants know when and where to give the test; second, it will lessen the frustration associated with the slow application processes; and third, the PSC may not have to announce job vacancy as they may have a ready pool of tested individuals for any job openings. There may be some variables to sort out for such initiative such as the number of times a person can take a test in a year.

Second, there is a dire need of internship opportunities for students. This may provide students with the real life experience of working in the CTA. Third, the informal line of communication must be open via brainstorming sessions, focus groups, and evaluations from current CTA employees and interested job applicants. Finally, the rules and regulations must amend with the changing law of the host country. For instance, with the adoption of Indian Right to Information (RTI) Act, any job applicants may be able to request for test answer sheet now.

CONCLUSION

Change comes through phases and therefore, it is a process and not a one step solution. The PSC leaders must recognize that the initial period of change process may be learning through trials and errors. Bolman and Deal (2008) described this process with a good metaphor. They said, “In practicing any new skill—playing tennis, flying an airplane, or handling a tough leadership challenge—the process is often slow and painstaking at first. But as skill improves, it gets easier, faster, and more fluid” (p. 340).

Though the case study was on the Public Service Commission of Tibetan government in exile, its leadership challenges are identical to many public sector organizations in the developing and third world countries especially South Asia. The findings of this case study therefore may benefit many other public sector organizations that face the similar challenges associated with recruiting the best candidates for its job openings.

REFERENCES

1. Birnbaum R (1988), *How Colleges Work: The Cybernetics of Academic Organization and Leadership*, Jossey-Bass, San Francisco.
2. Bolman L G and Deal T E (2008), *Reframing Organizations: Artistry, Choice, and Leadership*, 4th Edition, Jossey-Bass, San Francisco.
3. Cronin B, Morath R, Curtin P and Heil M (2006), “Public Sector Use of Technology in Managing Human Resources”, *Human Resource Management Review*, Vol. 16, pp. 416-430.
4. Kim S and O'Connor J G (2009), “Assessing Electronic Recruitment Implementation in State Governments: Issues and Challenges”, *Public Personnel Management*, Vol. 38, No. 1, pp. 47-66.
5. Lavigna R J and Hays S W (2004), “Recruitment and Selection of Public Workers: An International Compendium of Modern Trends and Practices”, *Public Personnel Management*, Vol. 33, No. 3, pp. 237-253.
6. Llorens J J and Kellough J E (2007), “A Revolution in Public Personnel Administration: The Growth of Web-based Recruitment and Selection Processes in the Federal Service”, *Public Personnel Management*, Vol. 33, No. 3, pp. 207-221.
7. Tibet.net (2009), “Public Service Commission”, available at: <http://tibet.net/en/index.php?id=246>, Accessed on November 30, 2009.
8. Wageman R, Nunes D A, Burruss J A and Hackman J R (2008), *Senior Leadership Teams: What it Takes to Make Them Great*, Harvard Business School, Boston, MA.

Book Reviews

India's New Capitalists: Caste, Business, and Industry in a Modern Nation

By *Harish Damodaran*

Palgrave Macmillan, 2008; Pages: 368; Price: ₹395

ISBN: 978-0-230-20507-9

With the world's economic order getting restructured, the buzz word today is 'emerging economies'. The transformation and growth of these economies has been attributed to emergence and influence of entrepreneurial private and collective firms (Peng and Heath, 1996). A growing body of research attempts to understand the sociocultural, political and economic factors in these countries that facilitate or impede entrepreneurship. While studies have examined several transition economies, such as some East-European countries as well as China, there is a glaring paucity of rigorous research on the evolution of the business environment in India. The pattern of entrepreneurship development in India is vastly different from countries like China and constituents of the erstwhile Soviet Union. Despite the presence of 'impediments' such as ideological practices and societal norms that stifle entrepreneurial zeal, protectionist policies, red-tape and bureaucracy, business and innovation have thrived for centuries in India. It is said that the choices we have made in the past, limit the outcomes of the present; therefore in order to understand our present, it is vital to understand our history. As the world beats a path to India on account of its growing economic vigor, it becomes increasingly pertinent to understand the evolution of our business arena.

In this light, Harish Damodaran's book is well-timed. Damodaran is a journalist with 16 years of experience and currently works as the Senior Assistant Editor at The Hindu Business Line. 'India's new capitalists' is a product of a book-writing fellowship granted to him by the New India Foundation¹—an organization that encourages works that further help in our understanding of Independent India. Damodaran, through this research effort attempts to address three lacunae in business history: the lack of adequate works on the current period, an absence of research on non-traditional mercantile classes and the contemporary literature's negligence of businesses in the

¹ <http://www.newindiafoundation.org/>

South. The author adopts the Varna or the caste system as a sociological lens to view business history and traces the evolution of India's present day entrepreneurial groups. In the process, he captures the social history of several communities that have engaged with business from colonial times. The book informs the reader of the remarkable diversity in the current economic and business sphere and that this diversity is not just in terms of the production profile but also in its social base. Entrepreneurship, it appears, is increasingly breaking free of the boundaries of the traditional merchant communities to reflect individual entrepreneurial behavior.

On the basis of his expansive research, Damodaran identifies three general trajectories of industrial transitions by various communities. The chapters of the book are organized around these historical shifts. The second chapter captures the 'bazaars to factory' route of the traditional merchant classes into industry. The third chapter documents the 'office to factory' route taken by Brahmins, Khattris, the Bengali Bhadrakol and similar scribal castes with a distinct urban middle class orientation. Five chapters then record the 'field to factory' path of the castes referred to as the Shudras, i.e., the rural service provider communities such as the Kammas, Kongunad Naidus, Patidars, Gounders, Nadars, so on and so forth.

The author begins his exposition with the traditional business communities who dominated the business sphere and tracks their growth from the 17th and the 18th century to the present day. These communities (referred to as the Vaishya-plus communities) comprised particular ethnic communities or castes and were distinguished from the rest on account of particular defining features. The Gujarati Baniyas and Jains, the Marwaris of Rajasthan as well as the Baniyas and Jains from Punjab, Haryana and the greater Hindi heartland could be classified as the Bania cluster which most closely fits the Vaishya or mercantile community in the Hindu chaturvarna (four-order) system. The traditional communities also consisted of the Lohanas and Bhatias, the Nattukottai Chettiars, the Parsis as well as the Memons, Khojas and Bohras—three Muslim commercial communities of Sindh-Gujarat. The lineages of these Muslim communities can be traced to the Lohanas and other Hindu trading castes, but by virtue of the religion, fall outside the chaturvarna hierarchy. The Lohanas, Bhatias and Chettiars do not categorically fall within the Vaishya class on account of the absence of a well-defined Kshatriya (warrior) class in either Sindh and Kutch-Kathiawar or the South of India. These Vaishya plus communities not only enjoyed a differentiating scale of operations spread over large areas, but also followed distinct orthodox and conservative norms such as vegetarianism, rigid rules of marriage, so on and so forth. They dominated business until Independence in 1947 and the author records the 'bazaar to factory' transition as well as the internal changes within these communities. The diminishing presence of the once powerful Parsi business community is one such structural change to the community that the author documents.

The author labels the transition of the classes traditionally engaged in the administrative and white-collar services to industry as the 'office to factory' path. The white collar services were primarily taken up by the upper caste Hindus with 'middle class' values were the ones who engaged with the former professions. This class had early access to western education and is constituted of the Brahmins, Khattris, the Bengali Bhadrak, Kayasthas, Nairs and so on. The Brahmins and Khattris, interestingly, have engaged with business for a longer period, albeit as ordinary moneylenders and shopkeepers. For instance, the Deshastha and Chitpavan Brahmins were moneylenders and financiers in the 18th century Maratha states under the Peshwas, and notably, the Nagar Brahmins of Surat were the first official bankers of The East India Company. More recently, there are prominent Brahmin businessmen of the likes of N R Narayana Murthy of Infosys, Kiran Mazumdar-Shaw of Biocon and G R Gopinath of Air Deccan. Although Karamchand Thapar and the Gokulchand Narang were the only two remarkable Khatri industrialists of pre-Independent India, currently the Ahujas, the Mahindras, Munjals, Bhai Mohan Singh of Ranbaxy are just a few renowned Khatri businessmen. In the case of the Bengali Bhadraks, while the pre-Independence period did see some illustrious business personalities like Dwarkanath Tagore and Prafulla Chandra Ray, the entrepreneurs who emerged in post-Independence Bengal, such as Subroto Roy of Sahara India Pariwar, the Burmans of Dabur, Prannoy Roy of New Delhi Television and Amar Gopal Bose of Bose Corporation have their operations outside the region. The author points out that the movement of the Brahmins, Khattris and Bhadraks into industry is predominantly a post-Independence phenomena.

The third trajectory followed by the Agrarian and allied service castes such as the Kammas, Reddys, Rajus, Gounders, Nadars, Ezhavas, Patidars, Marathas, Jats and Ramgarhias from the 'field to the factory' is remarkable in terms of its scale, particularly in the South. According to the conventional Varna system, these castes fall into the Shudra class. However, as reiterated by the author, on account of regional variations and absence of clear demarcations in the South, there can be ambiguities to this classification. Some of the illustrious names that represent this pathway are Shiv Nadar of HCL (India's leading IT enterprise), S P Adithanar of Daily Thanthi—the largest-selling Tamil newspaper, S D Shibulal—co-founder of Infosys and Ajit Balakrishnan—promoter of Rediff.com. The author documents the history of this section as that of Agrarian castes with a nascent record of industrial entrepreneurship. He suggests that perhaps this large-scale transformation can be explained by a prevalent concept in entrepreneurship literature. It has been postulated that marginalized communities may seek out entrepreneurial opportunities in order to break free of the extant social shackles. The 'sense of group consciousness' that arises on account of domination by other castes could serve to reinforce this entrepreneurial energy. Although this theory seems applicable to the Nadars and the Ezhavas, the author admits that the same cannot be said of the Dalits and the other untouchable castes.

Western India has a different story to tell, opines Damodaran. Cooperative capitalism was a tool used by the Marathas and the Patidars to gain upward mobility. The author suggests that this approach was necessitated by the presence of a strong network of traditional mercantile classes and existing techno-economic compulsions. The fact that the Marathas and the Patidars are a fairly homogeneous caste also proved conducive to cooperative capitalism. While the Patidars moved on to private enterprise (such as Karsanbhai of Nirma and Ramanbhai Patel of Zydu Cadila), the Marathas have not made much headway in the same arena.

On account of the fact that the field to factory route does not have uniform characteristics across the nation, the author uses case studies throughout the relevant chapters to illustrate some of the findings. The author also includes a note on the Muslim and Christian entrepreneurs. One of the noteworthy trends in Muslim entrepreneurship in the post-Independence period that the author records is its expansion beyond the traditional Gujarati-Sindhi merchants to include groups like the Ansaris (traditionally weavers), Qureshis (butchers) and the Moplahs of Kerala. The most prevalent entrepreneurial group among the Christians is the Syrian Christian community of central Kerala which has entered a wide spectrum of business from organized money-lending, rubber estates, jewellery retailing houses and so on.

India's New Capitalists is a book that is fascinating in its breadth as well as detail. Lucidly written and enlivened with anecdotes, the book is a treasure trove of information on Indian business history. The author builds credibility for his work by referencing a wide range of books, articles as well as industry publications. He has also used primary data at several places to support his arguments. The study of Indian business history has typically revolved around the traditional mercantile communities, documentation of company histories or the biographies of celebrated businessmen. While scholars like Helen B Lamb, Dwijendra Tripathi and more recently, Raman Mahadevan have contributed significantly to research in this field, what makes Damodaran's book unique is the panoramic view of Indian businesses through the lens of caste-based social organization.

Damodaran's work contributes to Indian business literature in several ways. The book captures several interesting practices such as the *Hundi* system adopted by mercantile communities as a form of a bill of exchange. This system worked on the basis of networks within a community and trust. Such documentation is necessary for a nation in flux, so that we have a deeper understanding of our social and economic institutions.

The author's analyses of the patterns that emerge from business history are highly astute and penetrative. For example, one gets to know that business communities in the South have for long been constituted of players from outside the Vaishya-plus order. The author proffers that the same cannot be said of the North because of reasons like the embeddedness of the Vaishya-plus in the Northern belt and the greater access to education in the South. His research also uncovers that the northern Brahmins

have not replicated the success of the Maharashtrian, Tamil and Gowd Saraswat Brahmins. He suggests that perhaps this is on account of the fact that the southern Brahmins had access to capital, imbibed commercial influences and developed 'flexibility' and 'moral neutrality' in pursuing various disciplines while the northern Brahmins had no stimulus, or pressure to be enterprising.

The book offers a plethora of information on castes and transitions within and across industrial groups all of which could leave the reader with a struggle to keep pace. However, the charm of the book lies in the manner in which it contextualizes developments and integrates business to the political and societal realm. The author explains the reasons for Marwari out migration and gives a perceptive explanation of the manner in which they setup trading bases across the nation and how their vast social network made them an inimitable force. He also traces the history of the Chettiars, a vibrant business community of the south that once controlled business activity comparable to the scale of the Marwaris. However, most of their capital was locked up in Burma and the Japanese invasion of the country resulted in colossal losses and the communities' eventual marginalization. The author tracks how the Khatri rose to prominence in the post-independence period when they were driven to regions around the capital due to the partition. He also points out that one of the critical elements in the success of cooperatives in western India has been the political patronage from successive Congress regimes in the post-Independence era. The reader is constantly educated and informed.

The author also intermittently slips in trivia such as a Brahmin liquor connection that emerges. This strange pattern is illustrated by the Mallyas of the United Breweries (UB) group, Narendra Nath Mohan of Mohan Meakin Ltd and the Balis of the Mount Shivalik group. The book also highlights the fact that the present day is an interesting time to study entrepreneurship in India. There is a large rural middle class that is transitioning to the industry. The Dalits have still not entered the main stream entrepreneurship arena. There are structural changes happening and a lot needs to be analyzed and explained.

The biggest take-away from this book is that it breaks long-held myths about emerging economies. Current studies in entrepreneurship (Morrison, 2000) posit that certain societal ideological norms and values native to emerging economies are impediments to entrepreneurship. Luthans *et al.* (2000) reports about how entrepreneurship did not enjoy a high standing in the social values of the Russian empire and that in society persons involved in commerce were held in low esteem. Evidently such findings cannot be generalized to all emerging economies, as the current trend has been. Within India the sheer diversity in social strata mandates that such conclusions cannot be made. For instance, it is informative to know that across centuries, entrepreneurs have emerged from all the castes in the Hindu Varna system, although the numbers may have increased only in the post-Independence period.

Entrepreneurs have emerged among the Brahmins as well, where business did not enjoy a social standing.

Another common feature in emerging economies is the transitory government bureaucracies which have been found to be responsible for the absence of a competitive environment and a coherent strategy to benefit the entrepreneurial sector, contradictory laws and regulations and numerous licensing requirements, administrative discretion and so on. Such uncertainty is believed to compound the risk of failure that accompanies entrepreneurial activity (Arnold and Quelch, 1998; and Luthans *et al.*, 2000). Compliance with governmental norms, level of corruption, intricacies when dealing with the customs department is another challenge for entrepreneurs (Luthans *et al.*, 2000). However, despite such challenges, Indian entrepreneurship has thrived well. Does this shift the balance in favor of those who argue that entrepreneurship is more a function of the individual than the environment that shapes him?

This also questions the purported need for enterprise support systems. Do the truly entrepreneurial individuals need interventions such as science parks, incubation systems, and by a further stretch, entrepreneurship coaches?

Research also indicates that societies, such as those of Kenya, Slovenia and South Africa, that hold strong communal and collective values do not support individualistic wealth creation through entrepreneurship, while those with strong individualistic values, such as North America and Australia generally do (Morrison, 2000). However, what emerges from this book is that business communities, be it the Vaishya-plus classes or the cooperative capitalists among the Marathas and the Patidars seem to have used the community consciousness to their advantage. The scale and spread that the traditional communities enjoyed and the manner in which they exploited their networks also highlights the importance of social capital for entrepreneurs. In fact throughout the book one is reminded of the role of the community, networks and mutual trust in the manner in which business is conducted. This compels the reader to ponder over extant notions of organizational economics and the universality of an individualistic work ethic. One also wonders whether technology can serve as a complementary asset that can help build global networks for individuals from non-traditional business communities. And if so, will this advantage of traditional business communities and family firms be mitigated?

On another note Kabiraj and Yang (2001) argue that protectionist policies that attempt to foster entrepreneurship through subsidies, quotas or schemes have been found to be detrimental to creating an enabling environment for entrepreneurship. However, the author points out that the state played an important role in protecting successful ventures such as TVS, Hero cycles, Mahindra and Bajaj. Such insights are crucial to understanding the entrepreneurial history of India at a time when the protectionism is being denounced. Evidence from this book suggests that protectionist policies might be favorable particularly in the early stages of industrial growth.

Perhaps the journalistic style that brings simplicity and lucidity into the documentation renders a certain detached temper to the book. However, this minor blemish is overshadowed by the brilliant reportage of facts, insightful analyses and intriguing anecdotes that enliven what could have otherwise been a tedious work of social history. The strength of this work lies in the author's ability to analyze a long period in Indian history, discern some important patterns and organize the information coherently into the three trajectories upon which the book is weaved. The book gives a penetrative sense of the nation's history and can be recommended as an easy read even for one who is unfamiliar with the ethos of the Indian sub-continent. In more ways than one, *India's New Capitalists* is a seminal contribution.

REFERENCES

1. Arnold D J and Quelch J A (1998), "New Strategies in Emerging Markets", *Sloan Management Review*, Vol. 40, No. 1, p. 7.
2. Kabiraj T and Yang C (2001), "Licensing vs. Innovation Incentives Under Uncertain Government Policies", *International Review of Economics & Finance*, Vol. 10, No. 3, pp. 247-261.
3. Luthans F, Stajkovic A D and Ibrayeva E (2000), "Environmental and Psychological Challenges Facing Entrepreneurial Development in Transitional Economies", *Journal of World Business*, Vol. 35, No. 1, pp. 95-110.
4. Morrison A (2000), "Entrepreneurship: What Triggers it?", *International Journal of Entrepreneurial Behaviour & Research*, Vol. 6, No. 2, pp. 59-71.
5. Peng M W and Heath P S (1996), "The Growth of the Firm in Planned Economies in Transition: Institutions, Organizations, and Strategic Choice", *Academy of Management Review*, Vol. 21, No. 2, pp. 492-528.

Ms. Devi Vijay
Indian Institute of Management
Bangalore

“Fostering Creativity: Expert Solutions to Every Day Challenges”—Pocket Mentor Series

By *Dorothy Leonard*

Harvard Business Press, 2010, Pages: 80, ₹195

ISBN: 978-1-4221-2893-0

Creativity is the consistent forefront in our culture today. It is the driving factor in today's global economy and essential to free enterprise. With such significance of creativity, people like Daniel Pink went on to coin the term 'conceptual age' and place it among other phases of e-recorded economic development of the world. Daniel Pink, in his book, *A Whole New Mind: Why Right-Brainers Will Rule the Future*, shares the following ages,[1] the agriculture age (farmers), the industrial age (factory workers), the information age (knowledge workers) and the conceptual age (creators and empathizers).

What does the word 'creativity' exactly mean? Is it the same as innovation? Can anyone be creative? What are the tools and self-tests for knowing one's level of creativity as a manager? *Fostering Creativity* is a concise, but a great book that attempts to answer all the above-mentioned questions in a simple yet powerful way. It is a part of a series of Pocket Mentor books that come from Harvard Business Press, offering solutions to the challenges that managers face on the job. This equips the managers to unleash their company's innovative powers by leveraging employees' unique experiences, thinking styles and expertise. The mentor author for the book is Dorothy Leonard, the William J Abernathy Professor Emeritus of Business Administration at Harvard Business School.

The book begins with a discussion on the basics of fostering creativity and such basics are followed by four crucial steps in the process of fostering creativity. In the first chapter, "Fostering Creativity: The Basics", Leonard demystifies the prevailing misconceptions associated with the creativity, saying neither it is the prerogative of a few, smart and young nor a solitary act that is only for granted. Such a demystification eases the reader who otherwise believes it as something divine and granted. The mentor defines creativity "as a process of developing and expressing novel ideas that are likely to be useful". While providing a definition to creativity the author emphasizes two important points that are highly important in the organizational context: 1) Creativity is a matter of designing a collaborative approach that maximizes everyone's distinctive gifts, experience, and expertise and the purpose of such process is to solve

a particular problem or satisfy a specific need; and 2) It involves both the convergent and divergent thinking, however not in the same order as it begins with a necessary divergent thinking—a breaking away from established ways of seeing and doing things to produce novel ideas and then it is followed by convergent thinking in the later stages.

In the chapters to follow, Leonard deals with four important steps involved in the creative process in a much detailed manner. The first step she highlights is ‘assembling the team’, where she provides the insights into how to build a creative group. The second step suggested in the book is ‘identify opportunities’, where a several number of suggestions were offered to look inside as well as outside the organization. The third step involved in fostering creativity is ‘generating options’, where the author offers powerful tactics for producing an array of opportunities. The fourth step is ‘converging on the one best option’ and this step deals with narrowing down the options and necessary planning for innovation.

Apart from providing the creativity basics and step-wise process of fostering creativity, in the second part of this book, the mentor provides all the handy tools to assess the organizational ability for fostering creativity, set a target for creative change, assess the psychological environment a team is working and so on. Towards the end a number of self-tests are provided that would help the managers and leaders of all kind to identify their strengths and weaknesses in order to hone their critical skills.

This book is a must read for all those, ranging from a layman, a new manager to a veteran. While it boosts confidence of a layman opening a window to the world of creativity, for a new manager, it becomes a pocket mentor in its true sense to bank upon. For a veteran, it provides refreshingly new ideas.

I strongly recommend reading this book for two reasons:

Firstly, for its demystification of misunderstandings about ‘creativity’ and saying creativity is not so much a talent as it is a goal-oriented process.

Secondly, for strongly advocating that creativity is fueled by a blend of talents and personal attributes that rarely exist in one person and for saying creativity thrives when the right mix of people come together to work on a problem or exploit an opportunity.

Lalitha Akundi

Faculty,

Centre for Organization Development,

Madhapur, Cyberabad,

Hyderabad.

Email: Lalitha1169@yahoo.co.in

Mob:9000570944

Jalebi Management: All Stakeholders Can Enjoy a Bite

By *Shombit Sengupta*

Response Books, New Delhi, 2007, Pages: 450, Price: ₹475

ISBN: 978-81-7829-745-3

Jalebi Management, authored by an international management strategy consultant, Shombit Sengupta, is an invigorating and an exception in its portrayal of the out-of-the-box concepts. The book is an upshot of the fundamental and critical analysis of businesses as well the social cultures. This book is in particular for the determined managers who look to make it big in the international arena through the innovation route.

The title of this book itself is quite a reader-puller owing to its novelty. With a primary invitation to the CEO, shareholders, employees and consumers, this book recommends them to create distinctive delectable appeal for their organizations prior to unwinding the secrets of 'Jalebi Management'. Sengupta then ensues to unfold the surreptitious by taking us through the history of 'jalebi', the origins of which are found in Persia with a former name of 'zoolbiah'.

The most interesting and pulsating question out here is that, how can a traditional Indian sweet like jalebi, assist in the understanding of a global business. The writer Sengupta skillfully correlates that the luscious and engaging little Indian sweet jalebi typifies the distinctively uniqueness of cultures, which global businesses need to appreciate for success. Businesses and their assorted practices can be rightly compared to that of a jalebi because of its elaborate and composite look. The author journeys the readers through the entwining loops of a Jalebi and states that these loops are akin to the organizational functions and processes which are in actuality infinitely colligated.

The book on Jalebi Management is monumental for its approach in creating a fresh wave of outstanding management significance. The exceptional management techniques provided in this book could craft the much required bonding between foreign companies with their domestic customers and markets as well for domestic companies with their international customers and markets with the help of shrewd observations and witty accounts. The jalebi techniques can also be extended to the current trend indicatives of the market potentialities of developing nations like India and China wherein businesses are overtly competitive and tend to concentrate on winning markets with invariable innovations. The appropriate tactics for ruthless

competition could be enhanced customer sensitivity that could construct positive alliances amongst all stakeholders and help in producing value-based deliverables. These jalebi tactics have extensive and equal applicability across different economies of the world. Sengupta also affirms certain well known yet worthy observations that the existence of organizations is dependent on people with the reverse relationship also holding true. For businesses when customer and his aspirations become the focal point, the combining of humanity and businesses is necessitated.

Any corporation can certain its survival by creating and leveraging on the potency of its current employees, products, services, organizational culture as well as its market position whilst moving through the process of 'retail animation' to reach the end consumer. Shombit fittingly draws an analogous between experienced employees and the matured and fermented jalebi dough. The objective of the analogous is to highlight the aspect of skill and expertise which can be better associated and exploited with age, time and growth. Well fermented dough produces a jalebi which is known for its realistic and legitimate surge in an attempt to maintain its syrupiness. In the same lines, every organization can endeavor to uphold the flow of its process deliveries. Sengupta then moves on to speak about the human progression pyramid, which concentrates on survival at the base level to progress to the need for sex which is comparable for both humans as well animals. From hereon, only humans move onto the stage of atomic discharge which is fundamentally associated with violence and non-violence representation of the animal and human traits within the human body. Higher pyramidal layers either signify life with magnificence and material comforts or in an economy mode chosen resulting out of intellectual choice. Rise for humans to the wealthy layers is made plausible by the education route. These education climbers unlike their intellectually violent mafia counterparts do hurdle past potent impediment to terminate at rich paths.

Shombit then advances to a newer concept of 'vital space' which opinionates that need surfaces only when survival is definite. Survival is promised when organizations check their businesses for growth and not for profits, adopt better business practices and have the requisite mental strength to create strategies for moving away from obsolescence. When competitors adopt a fast paced opportunity seizing growth and entice the same on their counterparts, the precarious need prevails over survival. Survival is also marked by business strategies. But these business strategies, if conventional in nature are mere plans which are comparable to that of competitors. Organizations need to move beyond such traditions and aim to build creative macro strategies which can help during significant decisive moments.

As vital space is a realization of the organization's aspirations and core competencies, creative business strategies can target their growth. The key to this is organizational captivation of its employees who alone can ensure the nurturing of the vital space into a cash cow. The author draws an analogous between vital space, the most significant

and central organizational element, and 'titanic', the illustrious opulent vessel with an infamous tragic end whose loss was majorly due to the ineffective assessment of the imminent danger. The danger contagion of a similar variety can transpire into the vital space front and through it into the entire organization as well. To tackle such crisis, the HR of every firm must engage in a microscopic postmortem of its flaws, change its culture to assimilate the imperfections and adopt a telescopic interpretation of its vision.

Shombit in his final words proclaims that businesses develop and mature only when an invariable transformation is targeted with a complete overhaul of the organization with special emphasis on the vital space. The transformation is supported and furthered by superior brand promise, innovation, knowledge, initiatives, high voltage consumer sensitivity and scalable factors aiming at higher profits and not mere reliance on quantitative data resulting out of economic analysis. With multidimensional choices and thoughts of victory, businesses can go a long way in the international arena.

Dr. G. PRAGEETHA RAJU

*Associate Professor and Head of Department (HR/OB),
Symbiosis Center for Management and
Human Resource Development (SCMHRD),
Plot No. 15, Rajiv Gandhi Infotech Park,
Hinjewadi, MIDC, Pune 411057.
E-mail: prageetha_raju@scmhrd.edu
Phone: 020-22934301-05 Ext: 342
9527944500*

Madhuri Mahato

*Assistant Professor,
Usha Martin Academy,
Gymkhana Club Campus,
Booti More, Ranchi.
E-mail: madhuri.modekurti@gmail.com
Phone: 0651-3248930
08877149081*



AMDISA

SOUTH ASIAN JOURNAL OF MANAGEMENT
(A Journal of AMDISA)

ISSN: 0971-5428
(Published Quarterly)

To become a regular subscriber, please complete and return this form.

Subscription Rates	One Year	Two Years	Three Years
SAARC Region	₹1000*	₹1800*	₹2500*
Rest of the World	US\$ 130	US\$ 240	US\$ 330

***Note:** SAARC Region: Please add postal charges @ ₹200/- for one year, ₹400/- for two years, ₹600/- for three years within India and US\$ 23 for one year, US\$ 46 for two years and US\$ 69 for three years outside India.

I have enclosed here with a Demand Draft payable to AMDISA, Hyderabad for ₹

Name

Address

City State Postal Code

Fax Phone

E-Mail

Return this form to:

AMDISA Secretariat
University of Hyderabad Campus
Central University P O, Hyderabad - 500 046
Ph# +91-40-6454 3774/6454 5226
Fax: +91-40-2301 3346
E-mail: amdisa@amdisa.org
Website: www.amdisa.org



Guidelines to Authors for Manuscripts

SAJM welcomes articles on issues of current interest in management, especially in the South Asian context. We publish empirical papers, review papers, executive experience-sharing, research notes, case studies and book-reviews. The Official editorial address of SAJM is

The Editor
South Asian Journal of Management
AMDISA Secretariat
University of Hyderabad Campus
Central University P O, Hyderabad - 500 046
PH# +91-(0)40-6454 3774 / 6454 5226
Fax: +91-(0)40-2301 3346
E-mail: amdisa@amdisa.org
website : www.amdisa.org

All submissions should be made online through SAJM website available at the link <http://sajm-amdisa.org>. The manuscript should have a cover page with author details, followed by an Abstract, full paper, references and figures and tables if any. The manuscript should be typed in Times New Roman font size 12, with 1.5 line spacing and with margins of one inch on all sides. The normal size of a paper is about 8,000-10,000 words.

(Joint) Authorship of Papers: Authors should testify to the authenticity and originality of their papers. In case a paper has more authors than one, each of them has to separately testify that they have contributed to the paper and that it is an original creation by them. SAJM has a very strict anti-plagiarism policy and hence the authors are expected to submit only authentic and original works to SAJM. Any changes in the authorship after the initial submission and declaration should be supported by intimations to the Editor to that effect from the authors who are removed as well as those who are added.

Cover Page: Manuscript of a paper should have a cover page providing the title of the paper, the name(s), address(es), phone, fax numbers and e-mail address(es) of all authors and acknowledgements if any. In order to facilitate anonymous review of the papers, please restrict the author-related information only to the cover page

Abstract: Following the cover page, there should be an 'abstract' page, which should contain the title of the paper, the subtitle 'Abstract' and a summary of the paper in single space, not exceeding 150 words. The text of the paper should not start on this page, but on a fresh page with the title of the paper repeated.

References: References should be cited in the style prescribed in the Publication Manual of the American Psychological Association (4th ed.). Indicate the position of the reference in the text within brackets by the author's last name and the year of publication; e.g.: '(Porter, 1980)' or incorporate it into a sentence, e.g.: 'as pointed out by Hannan and Freeman (1977)'. At the end of the text, references should be listed in the alphabetical order of the last names of the authors, with a title REFERENCES. Examples of how the references are to be listed at the end of the paper are given below.

- (If it is a book): Porter, M.E. (1980) *Competitive Strategy*, New York: Free Press.
- (If it is an article in a journal): Hannan, M.T and Freeman, J. (1977) *The Population Ecology of Organizations*, *American Journal of Sociology*, 82 (5): 929-964
- (If it is an article in an edited book): Kanter, R.M. (1988) *When a Thousand Flowers Bloom*. In B. Staw and L. Cummings (eds), *Research in Organizational Behaviour*, pp.169-211, Greenwich, CT: JAI Press.

Notes: Do not use footnotes. Minimize endnotes. If they are unavoidable, number them serially in the text using superscript and list them together on a separate sheet under the heading NOTES immediately following the text of the paper. Notes are not for citing a reference but for offering a significant explanation, which is important for understanding the text, but is tangential to the main idea discussed therein.

Figures and Tables: Each Figure/Table should be printed on a separate sheet. Figures and tables are to be separately numbered, titled and attached at the end of the text serially. The position of the figure or table should be indicated in the text on a separate line with the words "Table 1 about here".

Revised manuscripts: At the end of the blind review process, the editor informs the author about the acceptance or rejection of the manuscript. On acceptance, the author is expected to incorporate the modifications suggested by the reviewers, if any, and submit a soft copy of the final revised manuscript.

Policy against simultaneous submission: Authors should ensure that the manuscript submitted to SAJM is not simultaneously submitted to any other journal or publisher. Similarly, it should not be submitted anywhere else during the pendency of the review process which will take about 3-6 months. Once a manuscript is accepted by or published in SAJM, it becomes the property of AMDISA, whose permission is required for any operations covered by the Copyright Act.

ASSOCIATION OF MANAGEMENT DEVELOPMENT INSTITUTIONS IN SOUTH ASIA (AMDISA)

The leading business schools in the SAARC region initiated the Association of Management Development Institutions in South Asia (AMDISA) in 1988. This is the only Association which networks management development institutions across the eight South Asian Nations through exchanging information, facilitating inter-country research initiatives especially at the doctoral level and conducting regional conferences, workshops, colloquia and programs, and thereby providing a forum for interaction among academics and business leaders.

The Association interfaces management schools with corporate leaders interested in management development; promotes professional development of management faculty; and provides institution-building assistance to management schools and corporate management development centers in the region. AMDISA organizes institution-building workshops for Heads of institutions, faculty workshops on frontier areas of management, and inter-institutional cooperative research on contemporary managerial issues in South Asia. It publishes a scholarly academic journal, *South Asian Journal of Management* (SAJM) four times a year and a *Newsletter* three times a year. AMDISA is recognized by SAARC, the Inter-Government Agency, as a regional professional association with consultative status having 204 members, of which, 185 are Institutional Members, 4 Affiliate Members, 1 Corporate Member and 14 Reciprocal Members. Management development networks all over the world are eligible to become members of AMDISA.

AMDISA is closely associated with National Networks in India like AIMS and has helped establish networks in Bangladesh (AMDIB), Nepal (ADMIN), Pakistan (AMDIP) and Sri Lanka (ASLIM).

Since its inception, AMDISA has organized ten biennial South Asian Management Forums (SAMF) by rotation in all the South Asian (SAARC) countries. The 10th SAMF on the theme “Change and Continuity: Management Prospects and Challenges” was organized at Royal Institute of Management in April 2009. AMDISA has also organized 20 Regional Workshops for Faculty, 13 Regional Workshops for Deans and Directors, 3 South Asian Management Colloquia, 13 Regional SAQS Workshops, and 1 South Asian and 2 country-specific Training Programs. It has also initiated two medium-term quality initiatives, the Commonwealth-AMDISA Regional Doctoral and Post Doctoral Fellowship Program, and the South Asian Quality Assurance System (SAQS). A total of eight regional Fellowships have been awarded. Five reputable Management Schools (4 in India and 1 in Pakistan) have been accredited by SAQS, while 12 more schools (8 from India, 3 from Pakistan and 1 from Bangladesh) are in the process.

AMDISA is the founder-member of global Management Network INTERMAN which hosts a Global Management Forum every four years. The venues for earlier forums were Geneva (1986), Montreal (1990) Barcelona (1994), Chicago (1998) and Bangkok (2002).



AMDISA

ASSOCIATION OF MANAGEMENT DEVELOPMENT INSTITUTIONS IN SOUTH ASIA

University of Hyderabad Campus,
Central University Post Office, Hyderabad-500046
Tel: 91-40-64543774/5226; Fax: 91-(0)40-2301-3346
E-mail: amdisa@amdisa.org, Website: www.amdisa.org



SAARC