

Team AKADEMOS

Dr. Rita Malhotra

Namita Paul Amrita Singh

ACKNOWLEDGEMENT

AKADEMOS enters its tenth successful year as a faculty research journal. As a community of teachers we thank each other for extending cooperation in every form. We are thankful to our principal, Dr. Rita Malhotra for her relentless encouragement in making it a journal of repute. We are particularly thankful to all the reviewers who gave us their valuable time and expertise to improve the quality of our work. This endeavour owes much to faculty members Namita Paul and Amrita Singh for investing considerable effort in proof reading and editing the articles and all the faculty members who have contributed towards the enrichment of the journal with their valuable research.

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Editor's Note

To improve is to change; to be perfect is to change often.

-Winston Churchill

After a decade of its existence, AKADEMOS has crossed another milestone. From this volume onwards AKADEMOS will be a peer-reviewed research journal. All the papers in this volume have been reviewed by researchers and academics from around the world. Each paper has been through a rigorous blind peer review process in order to ensure that the research work done by the faculty members of Kamala Nehru College is ethically produced, consistent and expedient.

We have always endeavoured to evolve and transform the journal to contribute to the pool of knowledge in a proficient manner. We have now moved another step forward in this direction. The peer reviewing exercise can be challenging but it has been embraced valiantly by all the contributors who have been astute enough to see the benefits of the process. Peer reviewing has allowed our faculty members to receive valuable feedback from other researchers in their field to enhance their own research. One of the pitfalls of research is that it can be isolating and insular. However, peer reviewing makes research a dynamic and collective activity. It drives the researchers to be accountable and substantiatestheir work in a coherent manner. In addition to this, any gaps in the research that might have been overlooked are identified and fixed with the assistance and expertise of the reviewers. Finally, peer reviewing is the litmus test that separates constructive and innovative research from derivative writing.

The work that is produced after going through this rigorous exercise is superior because of the integration of the expertise of two scholars, the researcher and the reviewer. This cumulative effort will go a long way to enhance the quality of the research done by the faculty members of Kamala Nehru College and make AKADEMOS a significant and useful journal.

Namita Paul

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SCP Paradigm in China's Automobile Industry

Introduction

A striking feature that characterizes the industrial landscape of China is that a number of its industries are populated by huge number of incumbent firms, and therefore tend to present excess fragmentation in market structure. In 1998, for example, there were as many as 467 producers of beer while the country's five bestselling brands accounted for less than 12 percent of the market share (Economist Intelligence Unit, 2001).

Such fragmented industrial structure is diametrically opposed to the will of the Chinese government, which for years has touted for nurturing a "national team" of large industrial firms that could compete with giant global enterprises that dominate many of today's industrial landscape (Nolan & Zhang, 2002). The inefficiencies resulting from duplicative investments and lack of scale economies have been frequently suggested as one of the important factors that hinder the potential for capability building and technological catch-up of indigenous firms and thus pave the way for continued dominance of multinational corporations in a number of industrial sectors (e.g. Gore, 1999; Huang, 2003).

Although the central government has continuously promoted industrial consolidation as a main goal for its industrial policy, the progress, if at all, has been slow and with mixed results. While some argue that in general there has been an undeniable tendency toward competitive consolidation and increasing regional specialization consistent with the comparative advantage between the country's regions (Brandt, Rawski & Sutton, 2008; Bai, Du, Tao & Tong, 2004), others have stressed the persistent tendency for convergence in the structure of industrial output between Chinese regions which is a direct result of the duplicative investment in each industrial sectors by each region (Young, 2000). Some even suggest that, the net of international trade and the degree of domestic market integration has actually continued to decline (Poncet, 2003). The automobile industry provides an interesting case to evaluate the efficacy of the nation's efforts to consolidate and rationalize the fragmented structure of its industries, since the industry represent one of the highly capital and technology intensive sector, where losses in inefficiency due to the fragmented industrial structure are all the more acute in light of the high scale economies. As such, the industry, since the early period of the reform era, has constituted one of the key focuses of the central government's industrial policy to stem fragmentation and consolidate the structure of an industry characterized by global oligopolistic competition. The automotive sector, therefore, provides a suitable case to evaluate the progress of industrial restructuring in a sector where the economic need for consolidation is among the greatest, thus comprising a main target for the central government's policy efforts to rationalize its industrial structure.

Literature Review

There are many different definitions and concepts of the structureconduct- performance paradigm. The SCP paradigm was developed by Mason (1939, 1949) and Bain (1956). The approach is widely used to analyze competitive conditions in industries by examining how the structure relates to the market conduct and performance. In the later version of the SCP model, the complexity of two-way relationships between structure, conduct and performance are elaborated where structure affects conduct, conduct affects performance and performance in turn affects conduct which jointly affects the structure of the market (Scherer, 1980; Clarke, 1985).

Market Structure

Market structure is one of the three main elements in the SCP paradigm. A market is where firms produce similar goods and services from the buyers' perspective and close substitutes do exist on the demand side of the industry. Market structure is concerned with market concentration, the nature of the product and the condition of entry (Go *et al.*, 1999).

Other than that, market structure as a whole, is also defined as a selected number of organizational characteristics of a market that establishes relationships between buyers and sellers of a homogenous product. It also refers to the number, size and distribution of firmsor any entry barriers arising from the production technology. At one end of the market spectrum is perfect competition while at the other extreme end is pure monopoly. Market structures between these two represent varying degrees of imperfect competition (Rugayah, 1993).

Competition is defined as existing markets where enterprises are allowed to grow with unconditional freedom (Reid, 1987). The SCP approach postulates that as market structure deviates away from the paradigm of perfect competition, the extent of competitiveness of the market will decrease and consequently, decline in market efficiency will take place (Scarborough and Kydd, 1992; Scott, 1995).

Concentration of establishment in the hands of a few firms in an industry is generally criticized on the grounds of competition loss. A market is said to be more concentrated when there are fewer number of firms or there is unequal distribution of market shares. The higher the concentration level in an industry, the higher would be the degree of monopoly and absence of competition. Nonetheless, high concentration brings greater concentration and technological change and thus the benefits associated with it may perhaps be sufficient to offset the adverse monopoly effects of high concentration (Goldschmid *et al.* 1974).

The low concentration of an industry indicate low market power held by firms. According to Alvorado (1988), market power refers to the condition where the providers of a service can consistently charge a price above those that would be established by competitive market. This enables a firm to set price above marginal cost.

Market Conduct

Market conduct is defined as the pattern of behavior that firms follow in adopting or adjusting to the market in which they operate to achieve well-defined goal or goals (Barthwal, 1984). According to Suter and Henneberry (1996), conduct in markets also refers to the coordination of decision making in order to determine what prices to charge, what outputs to produce, what product designs to offer, and what actual or potential competitors to discourage. This behavioral conduct forms a link between structure and performance.

On the other hand, there is another definition of conduct where it refers to the behavior of firms under a given set of circumstances and is normally determined by the structural characteristics of industry. It involves policy objectives, pricing objective, research and development, and marketing strategies such as advertising and product differentiation (Lipczynski and Wilson, 2001).

Bain (1968) in his studies examined three main barriers identified as economies of scale, absolute capital requirements and product differentiation. He construed entry barrier as the extent to which established firms can elevate their selling prices above minimal average costs of production and distribution without inducing potential entrants to enter an industry. He argued that the three entry barriers are stable and long term. Stigler (1964) defined barrier to entry as a cost of production which must be borne by a firm which seeks to enter an industry but is not borne by firms already in the industry. In a situation where established and the entrant firms faced the same cost and demand conditions in a market, no barrier to entry exists.

Product differentiation plays a dual role. It not only raises the height of the entry barrier but also directly influences the character of competition among established firms (Comanor and Wilson, 1970). Advertising, promotional activities and variation in the physical characteristics of products are the obvious types of product differentiation. Differences in advertising reflects both structural and behavioral differences between industries. Comanor and Wilson (1974) in another study identified three ways in which advertising can create an advantage for incumbents. The three channels are: (i) contributing to an absolute cost advantage of existing firms; (ii) exhibiting economies of scale; and (iii) increasing the capital costs of entry. While barriers discourage market entry, there are conditions that encourage and attract new business entities to enter markets. Size and expected growth of the market have been found to be significant determinants of entry (Baldwin, 1995). Barriers to entry limit competition by preventing market entry of new firms and often increase the profits of incumbent firms in the market place.

Market Performance

Market performance as defined by Bain (1968) is the composite end result which firms, in any market arrive at, in pursuing whatever lines of conduct they espouse. Performance in the most general sense is an evaluation of an industry's contribution as a whole to economic welfare. In practical terms, the empirical literature has commonly indicated performance by measures of profitability (Cubbin, 1988). Not only does it serve as an indicator of market performance, profitability also shows the possible existence of market power.

Caves (1982) defined market performance as the appraisal of how far the economic results of an industry's behavior fall short of the best possible contribution it could make to achieve the goals which consist of efficiency, progress, full employment and equitability. Phillips (1976) pointed out that there are severe limitations of performance flowing from structure. However, he made a strong case that performance itself can lead back to changes in conduct and structure.

Causal links between concentration and profitability are seen through the effects of concentration on anticipated rival's reaction. As sellers become fewer, the more is the likelihood that the leading firms will recognize their common interest in curtailing price competition in favor of higher prices. The more concentrated the

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industry, the more each firm will anticipate that the others will respond to a price cut by increasing their output. Thus, this will cause the demand curve facing each firm to be less elastic, resulting in a higher optimal excess of price over marginal costs as well as profitability (Rugayah, 1993).

Conceptual Framework for SCP Paradigm

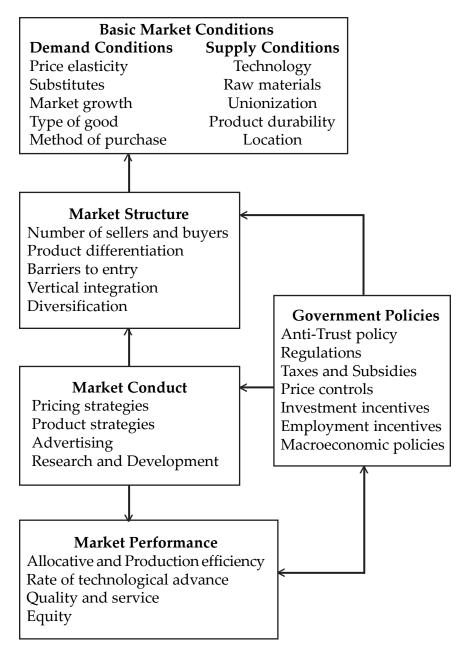
A widely accepted conceptual framework in industrial organization studies holds that structural conditions determine the conduct and subsequent performance of a firm (Bain, 1959). In an economy unfettered by structural imperfection of output, profit rates across industries should fall to some equilibrium rate reflecting the risk-adjusted marginal efficiency of capital (Scherer and Ross, 1990). In the presence of structural imperfections however, inter-industry variations in profitability abound because entry barriers prevent new competitions and expanded output.

To assess market structure, conduct and performance, and to properly understand the roles of the each element, Waldman and Jensen (2001), linked together those elements and attributes which have direct relationships. In perfectly competitive markets, an atomistic market structure results in efficient economic performance with price equals to marginal cost, inefficient firms driven from the market, and long-run economic profits equal to zero. With a monopolistic market structure, economic performance is poor where, price exceeds marginal cost, inefficient firms can survive in the long-run, and economic profits are greater than zero.

The SCP paradigm extends the structure-conduct-performance relationship to oligopoly. Figure 1 depicts the structure-conductperformance paradigm. The components which form the basis of SCP framework include basic market conditions, market structure, market conduct, market performance and government policies.

Figure 1: A Model of Structure-Conduct-Performance Paradigm

Source: Waldman and Jensen (2001)



Objectives:

- To analyze the market structure that exists in China's automobile industry.
- To understand the nature of competition among firms in China's automobile sector.
- To monitor the performance and growth of China's automobile industrial organizations in terms of volume of production, profitability levels, state of technology etc.
- To establish the relationship between the market structure, conduct and performance of China's automobile sector.

Data Sources

The data has been obtained from multiple sources namely State Administration of Industry and Commerce, China Automotive Industry Yearbook (for various years), Statistical Information Network of China Association of Automobile Manufacturers (CAAM), U.S International Trade Commission Trade Dataweb, Ward's Auto InfoBank, China Automotive Technology and Research Center (CATARC) and The Economist Intelligence Unit.

SCP paradigm analysis of China's automobile industry

SCP analysis is the cornerstone in the discipline of industrial organization, which includes three categories: market structure, market conduct and market performance or structure-conduct-performance paradigm. It mainly studies the influence of market structure such as market concentration rate, product differentiation and entry barriers on market conduct such as price, output, production cost, overheads and product design, and evaluates market allocation performance. In their relationship, market structure determines market conduct and market conduct determines market performance or vice-versa.

Analysis of market structure in China's automobile industry

Market structure is the concept that reflects the relationship between market competition and monopoly, which is often defined as the characteristics and forms that have a direct bearing on the degree of competition and priceformation in the market. The major factors that determines market structure includes: market concentration rate, product differentiation and the level of the entry and exit barriers.

Market Concentration

Market concentration is an indicator which is used to measure the share of total production/capacity of set of enterprises in the specific industry or market. From table 1, we can see the market concentration rate of the top 4 and top 8 enterprises in China's automobile industry is increasing continuously. According to the table 2, the market concentration rate of China's automobile industry reached 84.8% in 2011, which belongs to medium (Upper) oligopoly type industry.

Year	2010	2011	2012	2013
CR4	61.7	63.2	64.8	65.4
CR8	82.2	83.5	84.8	85.6

Source: Statistical Information Network of China Association of Automobile Manufacturers

Table 2: The classification about the type of industrialmonopoly and competition by Bain

Туре	Market share of the top 4 enter- prises (CR4)	Market share of the top 8 enterprises (CR8)	The total number of enterprises in theindustry
very high concentration oligopoly(A) type	>75%		<20
very high concentration oligopoly(B) type	>75%		20~40
high concentration oligopoly type	65%~75%	>85%	20~100
medium (Upper) concentration oligopoly type	50%~65%	75%~85%	The number of the enterprises is very large.

medium (lower) concentration oligopoly type	50%~65%	45%~75%	The number of the enterprises is very large.
low concentration oligopoly type	50%~65%	40%~45%	The number of the enterprises is very large.

Product Differentiation

Consumer goods are available in a variety of styles and brands. Product differentiation refers to such variations within a product class that consumers view as imperfect substitutes. Product differentiation offers firms market power. This enables them to transcend the *Bertrand Paradox* for pricing homogeneous products. In the Bertrand Paradox, two or more firms sell goods that consumers perceive as identical, so goods are perfect substitutes.

Product differentiation resolves the paradox naturally. When products are imperfect substitutes, a price-cutting firm cannot take all of its rivals' customers with a small price cut. This means that firms which enjoy significant market power (due to the special features that distinguish them from their rivals' products); can set prices without fear of an adverse (elastic) response by consumers. Automobile industry belongs to durable consumer goods industry, whose products should have very high product differentiation, mainly in the aspect of product physical characteristics.

In recent years, domestic automobile industry has expanded rapidly, which leads to the falling investment in research and development and net sales ratio as shown in table 3. Finally, more and more China's automobile brands imitate the appearance of foreign luxury brand. As a whole, China's automobile product differentiation lags behind developed countries.

Entry Barriers

When a new enterprise enters in a certain industry, it will encounter a great deal of adverse factors relative to the incumbent. The obstacles or the factors that hinder a new enterprise entering are called entry barriers. Some of the important entry barriers include: scale economy, requisite capital and policy or regulation:

1) Scale economy

According to China Automotive Yearbook, in 2009, there were 168 vehicle manufacturers in China. Among the top 10 enterprises, eight enterprises exceed 400,000 units and ten enterprises exceed 600,000 units of the total volume of over million units produced in the year. The scale of automobile enterprises in China is small, a large number of enterprises have not fulfilled the requirements of the scale economy, but with the continuous expansion and growth of automobile market, firms can achieve economies of scale and earn larger profits.

2) Capital barriers

Requisite capital refers to the necessary capital that a new enterprise must invest when entering the market.Generally, the capital scale of vehicle project is over \$10 billion. But in China, the financial system is imperfect, which provides limited means for automobile enterprises to raise capital, so requisite capital barriers of automobile enterpriseis higher.

Analysis of market conduct in China's automobile industry

Investment in Research and Development

According to the Department of UK Business, Innovation and Skills, among the top 1000 enterprises which invest in research and development globally, there are 20 vehicle manufacturers and 49 auto parts manufacturers of Chinese origin. Dongfeng automobile, an automobile major has invested over \$150 billion, accounting for more than two percent of the gross sales. Compared with Europe, US and Japan, there is a large gap in the investment. Research and development capacity is the core competence of automobile enterprise, and is one of the key factors for the growing competitiveness of China's automobile enterprises in the international market.**There is strong positive correlation (0.97) between expenditure on Research &**

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Development and ultimate sales revenues.Table 3 explains the pattern of rising R&D spend in China's automobile sector:

Table 3: Relationship	between	R&D	and	Sales	Revenue	from
2000-2013						

Year	Expenditure of research and development(A) billion Yuan	Sales revenue (B) billionYuan	R=A/B(%)
2000	67.7	3,560.4	1.9
2001	58.6	4,253.7	1.4
2002	86.2	5,947.7	1.5
2003	107.3	8,144.1	1.3
2004	129.5	9,134.3	1.4
2005	167.8	10,108.4	1.7
2006	244.7	13,818.9	1.8
2007	308.8	17,201.4	1.8
2008	336.5	18,353.9	1.8
2009	378.4	27,405.6	1.4
2010	423.4	36,175.2	1.2
2011	486.2	37,260.5	1.3
2012	503.4	39,456.4	1.3
2013	527.6	41,247.2	1.3

Advertising

In order to increase sales, automobile enterprises leverage the advertising medium for image building and promotion.With the transition of China's automobile industry from sellers' market to the buyer's market, advertisement plays a bigger role in prompting product sales and improving corporate profits. From table 4, we can see that the investment in advertisement by China's automobile enterprises is showing an upward trend, which also indicates that China's automobile industry is witnessing healthy competition between firms.

-	
Year	Advertising Spend (Million Yuan)
2009	17.6
2010	45.5
2011	56.2
2012	62.3
2013	75.8

Table 4: Advertising Expenditure by China's AutomobileEnterprises

Source: State Administration of Industry and Commerce

Analysis of market performance in China's automobile industry

Market performance is the final result in the aspects including type, price, cost, quality, output, profit and technological progress of the product formed by certain market conduct under certain market structure. China'sautomobile industry has made great progress in terms of production and sales, quality, research and development over past four decades. In the year 2009, China exceeded America for the first time andbecame the biggest automobile hub in the world. A record 13.9 million vehicles were sold in China in 2009, according to the China Association of Automobile Manufacturers, compared to 10.43 million cars and light trucks sold in the United States.

From Table 5 we can see that the profit declined massively in the year 2005, but except that, the profits of automobile industry have shown a relatively fast trend of growth in recent years. But, the major factor responsible for the rapid increase of profit are the large contributions made by corporate groups such as FAW, SAIC and Dongfeng, while the profits of small enterprises continue to be low.

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Year	Profits (Million Yuan)
2001	502.1
2002	752.0
2003	715.3
2004	697.9
2005	519.6
2006	761.1
2007	1,255.5
2008	1,370.2
2009	2,064.6
2010	2,725.3
2011	2,997.8
2012	3,123.7
2013	4,021.3

Table 5: Profits of China's Automobile Industry

Source: China Automobile Industry YearBook

Conclusion

This paper, through examining the emergence and evolution of industrial structure in China's automotive industry, has attempted to assess the degree to which the country has succeeded in restructuring the overly fragmented and dispersed pattern of industrial organization in a capital intensive industry featured by high economies of scale, the loss in economic efficiency due to fragmented structure is therefore greater. The result of the analyses shows that the fragmented industrial structure that emerged during the Cultural Revolution period, populated by numerous firms of sub-optimal scale that are scattered across the vast country, have not only persisted throughout the reform era, but has become even more fragmented both in terms of lower concentration ratios at firm level and greater geographical dispersal of production. The root cause lies in the state ownership of most of the automakers. Fiscal decentralization during the Reform era has provided various branches of the state to actively nurture and protect industrial enterprises within their jurisdiction. These enterprises provide major basis for local finance and employment. Thus, without the fundamental reform and realignment of the ownership structure, the prospect for industrial restructuring and consolidation in the real sense seems to be quite limited.

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Dr. Alka Agarwal Department of Commerce Kamala Nehru College

Anuj Agarwal Vivekananda Institute of Professional Studies



Urban Air Pollution

Air pollution is the contamination of the atmosphere with chemicals in high concentrations which are harmful to all living organisms and can even alter the climate. Urbanization, population increase and related human activities have resulted in increasing the phenomena of air pollution in the cities. The sources of air pollution in most urban areas are automobiles and to a lesser extent industry. The transportation system has been moving in the wrong direction in the developing world, with increasing air pollution, congestion and time and money wasted in inefficient mobility. Automobile exhausts release suspended particulate matter and gaseous pollutants nitrogen oxides, carbon dioxide, carbon monoxides and volatile organic compounds (VOC). In a study the World Health Organization found that air pollution has worsened, especially in poorer countries, putting city-dwellers at higher risk of respiratory problems, stroke, cancer and heart disease. Air pollution killed about 7 million people in 2012, making it the world's single biggest environmental health risk according to the World Health organization.

Suspended particulate matter is made up of airborne smoke, soot, dust and liquid droplets from fuel combustion. The amount of suspended particulate matter is measured in micrograms per cubic meter of air (ig/m3). The levels of suspended particulate matter is the most important indicator of the quality of air that people breathe. Particulate matter sizes range from PM10 which are particulate matter up to 10 microns and PM 2.5 which are particles up to 2.5 microns and subset of PM10. The WHO data of PM10 levels in urban areas in the period 2008-2012 show a world average of 71ig/m3 and region range from 26 to 208ig/m3 (Table 1). High concentrations of suspended particulate matter are detrimental to human health causing respiratory diseases, heart disease and premature deaths. Children, infants and the elderly are the more susceptible to harm from breathing the air polluted by particulate matter than healthy adults.

Region	PM10 levels (ìg/m3)
Africa	78
America(LMI*)	51
Eastern Mediterranean (LMI*)	208
Europe (LMI*)	49
South East Asia	128
Western Pacific(LMI*)	87
High-Income Countries	26
World	71

Table 1: PM10 Levels by Region in the Period 2008-2012

*Low-and Middle- Income Countries

Source: "Ambient (outdoor) air pollution in cities database 2014", World Health Organization

The 2005 "WHO Air quality guidelines" offer global guidance on thresholds and limits for key air pollutants that pose health risks. The Guidelines indicate that by reducing particulate matter (PM10) pollution from 70 to 20 micrograms per cubic metre (ig/ m), we can cut air pollution-related deaths by around 15%.Smog is common in cities particularly during the winter months when temperature inversion causes the particulate pollutants to be trapped in the lower atmosphere. According to the recent data of WHO compiled for more than 1600 cities for the period 2008– 2012, of the most polluted cities in terms of annual mean PM 2.5 values which exceed the daily air quality standards of 10ig/m3, six cities are in India, three in Pakistan and one in Iran (Table 2) having the annual mean PM 2.5 levels of 153 micrograms/cubic meter –96 micrograms/cubic meter. The high levels of particulate matter are due to emissions from vehicles and industries.

City	Country	Annual Mean PM2.5 levels (ìg/m³)
Delhi	India	153
Patna	India	149
Gwalior	India	144
Raipur	India	134
Karachi	Pakistan	117
Peshawar	Pakistan	111
Rawalpindi	Pakistan	107
Khorramabad	Iran	102
Ahmedabad	India	100
Lucknow	India	96

Table 2: The Ten Most Polluted Cities of the World

Source World Health Organization 2014

Besides particulates there are various other gaseous pollutants contaminating the atmosphere in the urban areas. Colourless, odourless, and poisonous, carbon monoxide is one of the major air pollutant, produced when carbon-based fuels, such as coal, wood, and oil, burn incompletely or inefficiently. To counter the carbon monoxide emission, cars in recent times are equipped with catalytic convertors to convert carbon monoxide to carbon dioxide when unleaded gasoline is used as fuel. Exposure to carbon monoxide has adverse health effects as it reduces the oxygen carrying capacity of the blood and reduces the supply of oxygen to vital organs like heart, brain and tissues.

Power plants, industries and automobiles pump out large amount of carbon dioxide into the atmosphere in cities. Carbon dioxide is a greenhouse gas and it traps the heat in the atmosphere. According to the Intergovernmental Panel on Climate Change (IPCC), atmospheric carbon dioxide concentrations have increased by 40 percentsince pre-industrial times. This has caused a 0.8 degree centigrade rise in global temperature from 1880– 2012.The concentration of carbon dioxide gas in the Earth's atmosphere passed 400ppm (parts per million)in 2013, according to the Mauna Lao Observatory in Hawaii in the Pacific Ocean. This increase in the level of this greenhouse gas has resulted in increased frequency and intensity of extreme weather events all over the world. Heat waves and rainy periods will occur more often. Studies by the IPCC indicate that the effects of global warming will vary globally. Weather events at the equator will become more extreme and the tropical countries already dealing with high population, poor infrastructure and poverty will experience more than 50 times more extremely hot days and 2.5 times more rainy days. In contrast the drier regions, including the parts of the Mediterranean, North Africa, Chile, the Middle East and Australia will experience lesser heavy rain days.Some 15 per cent – 40 per cent of released carbon dioxide will remain in the atmosphere longer than 1,000 years after those emissions have ended, raising the prospect that some fraction of climate change will be irreversible. It is certain that sea level rise will continue beyond 2100 and sustained warming above some unknown threshold would lead the Greenland Ice Sheet to melt in a millennium or more, causing a global mean sea level rise of up to 7m.

In urban locations oxides of nitrogen are also serious air pollutants added by exhausts of the motor vehicles. It results in the formation of secondary pollutants-nitric acid which forms acid rain, nitrate aerosols which form an important fraction of PM2.5. Certain meteorological conditions like low wind velocity can result in photochemical smog which forms a haze over cities. For proper air quality the current WHO guideline value for nitrogen oxide is 40 μ g/m3 (annual mean) and at short-term concentrations exceeding 200 ig/m3, it is a toxic gas which causes significant inflammation of the airways. WHO studies have shown that symptoms of bronchitis in asthmatic children increase in association with long-term exposure to nitrogen oxide. Reduced lung function growth is also linked to NO2 at concentrations currently measured in cities of Europe and North America.

Vehicle emissions release hundreds of volatile organic compounds which have a role in the creation of tropospheric ozone by photochemical reactions between oxides of nitrogenand volatile organic compounds in the presence of sunlight. As a

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result, the highest levels of ozone pollution occur during periods of sunny weather. Ozone, a secondary pollutant formed in the atmosphere, has serious health impacts. Ozone can aggravate bronchitis, heart disease, asthma and reduce lung capacity. Irritation can occur in respiratory system, causing coughing, and uncomfortable sensation in chest. It can reduce lung function and can make breathing difficult. Ozone makes people more sensitive to allergens, which are the most common triggers for asthma attacks, thus it can aggravate asthma, when ambient ozone levels are high (WHO 2000). Ozone may aggravate chronic lung diseases such as bronchitis and reduce theimmune system's ability to fight off bacterial infections. The WHO recommended limits for ozone is 100 ig/m3. Excessive ozone in the air can cause breathing problems, reduce lung function and cause lung diseases. In European cities it is currently one of the air pollutants of most concern. Several European studies have reported that the daily mortality rises by 0.3% and that for heart diseases by 0.4%, per $10 \,\mu g/m^3$ increase in ozone exposure.

Air Pollution in Delhi

Delhi the capital city of the second largest economy in Asia tops the list of the most polluted cities of the world according to a study by the World Health Organization in 2014 (Table 2). The air in Delhi is a lethal mixture of toxic gases and particulate matter emitted from motor vehicle exhausts, industries and construction activities. Delhi adds over 1,000 vehicles every day to its overburdened roads and an overwhelming number of trucks ply its streets at night. The construction activities and dumping of soil wastes at construction sites by builders in the National Capital Region spanning the state of Harvana and Uttar Pradesh also contribute to the particulate pollution in Delhi. The number of vehicles registered in Delhi has increased from 31.64 lakh in 1999-2000 to 88.27 lakh in 2014–2015. An international study released recently has linked high number of deaths in Delhi to air pollution. The findings were published in the journal "Environmental Science & Technology", the study said that air pollution causes the death of 10,000 to 30,000 people a year in Delhi, which approximates to 80 deaths a day. Such deaths are mainly because

of breathing air contaminated by PM2.5, which are particles smaller than 2.5 micrometresand can pass into the lungs and from there to other organs of the body. The study further mentions that the number of deaths in Delhi every hour from air pollution has risen by 3 times in the last two decades. This might go up by a further 20-30 percent if no measures are taken to reduce pollution. The Central Pollution Control Board submitted the National Ambient Air Quality Levels between December 5, 2014 and February 10, 2015. The results of the study show that Nitrogen dioxide in Delhi (67 ìg/m3) was higher than the WHO nitrogen oxide permissible limit of $40 \mu g/m3$, Sulphur dioxide was $478 \iota g/m3$ m3 while the permissible level is 80µg/m3, Particulate Matter 2.5 an alarming 316 ig/m3 with permissible limit of 60 µg/m3 and Carbon Monoxide in Delhi was 1.59 ig/m3in the permissible limit of 4 μ g/m3. Large number of vehicles, traffic jams, congestion and lack of public transport contribute to poor air quality. The System of Air Quality and Weather Forecasting and Research (SAFAR), Ministry of Earth Science, Govt. of India and Indian Institute of Tropical Meteorology, Pune monitors the Air Quality Index real time status at different monitoring locations in Delhi. The study of Air Quality Index is important in decision making, planning, and scientific research and to inform the public about the state of environment and build up awareness among the public about this problem so that people actively participate and follow government decisions and actions for a cleaner environment.

AQI Range
0 – 50
51 – 100
101 – 200
201 - 300
301 - 400
401 - 500

Source: National Air Quality Index, Central Pollution Control Board, 2014-2015

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A sample of real time air pollution levels during afternoon on a working day highlights the pollution levels in the city. The Air Quality Index Status of Delhi monitored real time by SAFAR at different monitoring locations on September 29, 2015 shows that in the afternoon at 2:00 pm, poor AQI is in Dhirpur with PM 10 at 202 and IGI airport with PM2.5 at 207. Moderate AQI with PM 10 186 at University of Delhi, 153 at Pitampura, 199 at Mathura Road, 199 at IGI airport and 148 at Lodhi Road. The PM 2.5 AQI too is Moderate with 190 at Dhirpur, 175 at University of Delhi, 144 at Pitampura, 112 at Pusa, 143 at Lodhi Road, and 186 at Mathura Road. Ozone levels are in the moderate AQI range of 106-120 in Pusa, Dhirpur, Lodhi road and Mathura Road. Carbon Monoxide AQI at moderate range of 105-136 is in Pitampura, Pusa, Mathura Road and IGI airport. The AQI data of Delhi in the afternoon indicates that particulate matter pollution is maximum in Delhi followed by moderate AQI range of Ozone and Carbon Monoxide levels. The increasing level of pollutants in the atmosphere have an adverse effect on human health in the city.

AQI	Associated health Impacts
Good(0-50)	Minimal Impact
Satisfactory (51-100)	May cause minor breathing discomfort to sensitive people
Moderate (101–200)	May cause breathing discomfort to the people with lung disease such as asthma and discomfort to people with heart disease, children and older adults
Poor (201-300)	May cause breathing discomfort to people on prolonged exposure and discomfort to people with heart disease with short exposure
Very Poor (301–400)	May cause respiratory illness to the people on prolonged exposure. Effect may be more pronounced in people with lung and heart diseases

Table 4: Health Statements	for AQI C	Categories
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with lung/heart diseases. The health impacts	Severe (401-500)	may be experienced even during light physical
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Source: National Air Quality Index, Central Pollution Control Board, 2014-2015

In wake of rising air pollution in Delhi-NCR, the statutory National Green Tribunal in November 2014, banned all fifteen year old vehicles from plying in the city and also took up the task of checking factories dotting Delhi and its neighbourhood, which are the prime suspects in contributing to the capital's air menace. The Supreme Court further backed the decision of banning of old vehicles by the National Green Tribunal and specified that it includes all vehicles irrespective of whether commercial or otherwise. Following these directions fiscal incentives by way of sales tax exemption and interest subsidy on loans for purchase of new replacement vehicles are provided by the Delhi state government. Further the National Green Tribunal (NGT) in August 2015 ordered all roadside mixing plants to be closed immediately. Various other measures have also been taken to reduce the problem of air pollution. The Transport Department has deployed mobile enforcement teams on regular basis at road locations for prosecution of polluting vehicles and vehicles not having PUC Certificates. Public awareness campaigns are conducted to raise social awareness on the issue and educate motorists about the importance of proper maintenance of their vehicles. Since 1995, all four wheel petrol vehicles are fitted with catalytic convertors. Autos & Taxis driven on conventional fuels and diesel driven city buses have been phased out. There has been improvement in fuel quality by way of completely phasing out leaded petrol. The quality of petrol has been improved further by reduction of Sulphur content to 0.015% & Benzene Content to 1%. Stricter pollution checking norms have been enforced and all the pollution checking Centres have been directed to get their equipment upgraded and modified and wherever they have failed to do so their authorisation has been cancelled. As a

measure to reduce air pollution the Delhi government declared the stretch between Red Fort and India Gate "car-free" on October 22, 2015 and only public transport allowed on this stretch.

In other parts of the world where air pollution has been a problem in recent times stringent measures have been taken to keep the level of emissions from motor vehicles within permissible limits. In Beijing officials have set up a lottery system to restrict the monthly sales of new vehicles in the city, to adopt a schedule which requiresnew vehicles to comply with world efficiency standards and to schedule the annual checking of vehicles on the road. Additionally, in the heart of the city of Beijing, on working days only those vehicles which use the cleanest low sulphur content fuel are permitted to ply. Furthermore bus and rail transit systems will be expanded substantially, and older vehicles are to be phased out by 2017. Many cities of Europe have taken various measures to overcome the problem of air pollution like delimiting low emission zones where only vehicles using cleaner fuels can enter. In certain areas like Central London, Stockholm and Singapore congestion charges are levied on private vehicles during certain peak hours of the day. In Milan in 2008-2011 pollution linked congestion pricing system called "Ecopass" was implemented in which drivers paid on the basis of vehicle emissions and this effectively reduced pollution levels in the city. The WHO has stated that the levy of congestion charges has resulted in 58% reduction of diesel particles and nitrogen oxide emissions by 20%. In Beijing there is also prohibition of sale of diesel cars without particle filters. Recently in Europe a ban on diesel cars in Paris has been decided by 2020. There should be shifting to clean modes of power generation and prioritizing rapid urban transit.

Air pollution in urban areas is a result of human activities. Hence, lifestyle practices of every individual can contribute towards a clean and healthy environment. Making use of public transport, car-pooling, walking or using the bicycle and proper maintenance of private vehicles can help reduce vehicular pollution. Consumption of goods manufactured in nearby areas reduces the pollution from transportation of goods over long distances. A healthy environment promotes human wellbeing and the survival of all life on earth and so a reduction in air pollution levels has become the need of the time. All government decisions, policies and individual lifestyle choices should aim at a pollution free clean atmosphere.

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Dr. Pratibha Bhalla Department of Geography Kamala Nehru College



Sectoral Components of Gross domestic Saving- Public sector

Introduction

One of the key features of India's post-independence economic policy until the mid-1970s was the strong emphasis on maintaining a conservative stance with respect to monetary and fiscal policy (Athukorala, Sen, 2002). However, after 1970s, the fiscal conservatism of the government started to reduce, leading to an increase in the fiscal deficit. This notable swing in the fiscal policy stance can be traced to the changing socio-political economy of the country, wherein the workers, small-scale industrialists and farmers started to demand a greater share of government subsidies. Hitherto, the government's power at the centre weakened to the extent that the various matters of pressure groups were resolved through budgetary process. This in turn increased the fiscal deficit which drove the country towards the balance of payment crisis in 1991.

The impact of the above incidence led to a series of fluctuations on the Gross Domestic Saving (GDS) of the country specifically in public sector saving. The savings in the public sector comprise of two main elements, i.e. public authorities and nondepartmental enterprises. We will note that the savings in nondepartmental enterprises continued to rise steadily throughout, but that of public authorities deteriorated due to high amount of borrowings of the government and dissaving. It is only the cumulative effects of both savings in public authorities and nondepartmental enterprises, along with the various tax reforms policies initiated by the government that led to upsurge in public sector saving after 2004-2005.

Literature review

The study on Public sector saving is done extensively for research purpose by the government to examine the policy framing for the country. Many renowned researchers have put in their efforts to study the fluctuations in the Gross Domestic Savings of the country due to the impact of household, private corporate and public sector. Athukorala and Sen (2010) in their book, Saving, Investment, and Growth in India, examined the role of financial sectors in economic development. They provided a quantitative analysis of the economic policies that prevailed in India since independence, trends and patterns of investment and saving in India and the role of policies in mediating the relationship between investment and growth rates. Datt and Sundharam (2014) in the book, Indian Economy, presented a survey of the Indian economy in terms of GDP growth, savings, investment and developments in various sectors like agriculture, industry and services. Jain and Baliyan (2011) in their journal on Determinants of Saving and Investment in India examined the determinants of saving and investment in the process of economic development. They found that the saving rate rises with both the level and the rate of growth of disposable income and the magnitude of the impact of the former is smaller than that of the latter. Rakesh Mohan (2008) in his paper Growth Record of the Indian Economy, 1950-2008: A Story of Sustained Savings and Investmentreviewed the overall macroeconomic performance in India since independence and assesses the likely prospects for growth in the medium term. R. Nagraj (2012) in his article Public Sector Performance in the Eighties documents the long-terms trends in some aspects of public sector performance since 1960-61.

An overview of growth behavior in India Table 1: Saving and Investment in the Indian Economy

As percent of GDP

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		1950s	1960s	1970s	1980s	1991-92 to 1996-97	1997-98 to 2003-04	2004-05 to 2011-12
1.	Gross Domestic Capital Formation	10.8	14.3	17.3	20.8	23.9	24.9	35.3
2.	Gross Domestic Saving	9.6	12.3	17.2	19.0	22.7	24.9	33.5
3.	Saving Investment Gap	-1.2	-2.0	-0.1	-1.0	-1.2	0.0	-1.8
4.	Real GDP Growth	3.6	4.0	2.9	5.6	5.7	5.7	8.2

Source: Rakesh Mohan, The Growth Record of the Indian Economy 1950-2008: A story of sustained Savings and Investment, *Reserve Bank of India Bulletin,* March 2008, Economic Survey 2012-13.

The real GDP of the country has seen to be accelerating slowly since independence. Only the period of 1970s is considered to be sluggish with respect to the economic growth as there was a major drop in the real GDP from 4% in 1960s to 2.9%. But, this soon turned upside down when the country registered a growth of 5.6% in 1980s in real terms which was carried forward to 5.7% in the next decade. In the latter half of the 1990s, there was some loss in the growth momentum due to the onset of East Asian crisis, setbacks to the fiscal correction process, quality of fiscal adjustment, slowdown in agriculture growth due to low monsoon and some slackening in the pace of structural reforms.

Since, 2003-04, there has been exceptionally strong growth. The reasons could be largely attributed to the restructuring measures by domestic industry, overall reduction in domestic interest rates, both nominal and real, improved corporate profitability, a benign investment climate amidst strong global demand and commitment rules-based fiscal policy have led to real GDP growth averaging close to 9% per annum over the four-year period ended 2006-07; growth in the last two years has averaged 9.5% per annum (Mohan, 2008).

Trend in Saving in India

Study of vibrant relation between savings and investment has received considerable attention in recent years especially in emerging economies like India. The role of savings and investment in promoting economic growth of India has been given paramount importance since independence. Saving and investment have been considered as two critical macro-economic variables with microeconomic foundations for achieving price stability and promoting employment opportunities there by contributing to sustainable economic growth.

Since independence Indian economy has been moved from a moderate growth path of 1950-1980 to a higher growth trajectory

since 1980s.Over the last three decades, Indian economy has emerged as one of the faster growing economies of the world. A part from registering impressive growth rate, India's growth process has been almost stable many empirical studies suggest the evidence that the year's variation in growth rate of Indian economy has been one of the lowest. In view of this fact, the rate of saving and investment in proving the fundamental growth impulses in the economy cannot be over emphasized.

Aggregate saving is an important source of funds for domestic investment and economic growth and thus the question of what determines its level and rate remains a crucial research and policy agenda. Moreover, in the face of volatile flows of external finance, domestic saving has become even more critical for economic development. In particular, the recent financial turmoil in developing countries, brought about by rapid cross-border movements of capital, has led many countries to seriously consider a larger role for domestic saving (excluding net factor income from abroad) as a source of investment funds.

Saving plays a very significant societal role as a source of future sustainability and development. It provides an economic link between the past, present and future development of a country (Kazmi, 1993). An adequate national saving rate is an essential circumstance for the attainment of investment and growth rates targets (Kazmi, 1993). Through saving, individuals may accumulate wealth and gain financial independence, and a nation's saving rate determines the rate of its economic development (Athukorala& Sen, 2003). Saving is a shield that protects individuals and the nation from economic shocks (Mboweni, 2008; Baliyan & Jain, 2014).

The table below presents the data of Gross Domestic Savings (GDS) during 1950-51 to 2006-07. The data reveal GDS as a percentage of GDP at market prices improved from 8.6% in 1950-51 to 14.2% in 1970-71 and subsequently reached a level of 22.8% in 1990-91. By 2000-01, Gross Domestic Saving was of the order of 23.7%, but rose sharply thereafter to reach a high level of 37.7% in 2007-08.

Table 2: Components of Gross Domestic Savings

Year	Household sector	Private corporate	Public sector sector	Total
1050 51		0.0(10.5)		0.((100)
1950-51	5.7(66.3)	0.9(10.5)	2.0(23.2)	8.6(100)
1960-61	6.5	1.6	3.1	11.2
1970-71	9.5	1.5	3.3	14.2
1980-81	12.9	1.6	4.0	18.5
1990-91	18.3(80.3)	2.7(11.8)	1.8(7.9)	22.8(100)
2000-01	21.6(91.1)	3.9(16.5)	-1.8(-7.6)	23.7(100)
2004-05 Series				
2004-05	23.3	6.6	2.3	33.2
2005-06	23.2	7.5	2.4	33.1
2006-07	22.9	8.0	3.6	34.4
2007-08	22.6	8.7	5.0	36.4

As percent of GDP at market prices 1999-00 series

Source: Government of India, *Economic Survey* (2011-12), National Account Statistics, CSO.

The table above presents that data of Gross Domestic Savings (GDS) from 1950-51 to 2007-08. From the data, it can be revealed that GDS, as a percentage of market prices, has been significantly improving from 8.6% in 1950-51 to 18.5% in 1980-81 and still progressing to reach a level as high as 36.4%.

Examining the major components of GDS, it may be noted that household sector is the major contributor to GDS accounting for 5.7% in 1950-51, progressing to 18.3% in 1990-91 and steadily increasing since then to a record level of 22.6% in 2007-08.Private corporate sector started a low savings rate from 0.9% in 1950-51 and then improved its share in GDS to 2.7% in 1990-91 and further to 3.9% in 2000-01. Thereafter, there has been a sharp increase in the private corporate savings to the extent of 8.7% in 2007-08. The primary reason for such a sharp rise in savings in this sector is the introduction of economic reforms which were introduced in 1990s and provided a fillip to savings.

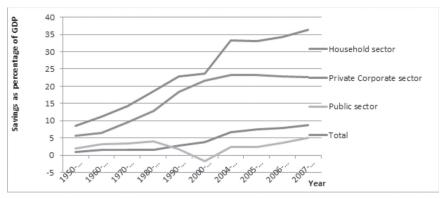


Fig 1: Trend in Savings as a Share of GDP (1950-2008)

Public sector savings saw an upsurge in savings from 2% in 1950-51 to 4% in 1980-81. Thereafter, due to the dissaving in public administration, the savings in this sector declined to as low as -1.8% in 2000-01. However, the reverse trend can be seen since 2004-05 and the savings in this sector jumped to a positive 5% in 2007-08.

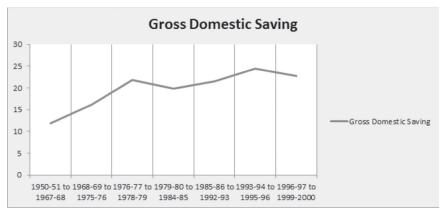


Fig 2: Path of Gross Domestic Savings, 1950-2000

Analyzing the relative contribution by all the three sectors towards GDS, household sector accounted for 66.3%, 10.5% of corporate sector and 23.2% of the public sector. The figures greatly improved to80.3% by household sector and 11.8% by private sector in 1980-81, whereas the share of public sector reduced to 7.9%. Thereafter, public sector savings got massively reduced to the extent of (-) 1.8% since 2000-01 and it's only after

2000-01 when the numbers reversed to positive. On the other hand, during the same year, the household savings reached to a peak share of 91.1% of the total savings and corporate savings rose to 16.5% of the same.

Mobilization of Domestic Saving

As an essential requisite for development, the planners believed that the low level of savings in the Indian economy was the principal bottleneck, therefore, it was argued that for an underdeveloped country like India, it was necessary that to achieve a higher rate of growth as well as to develop a self-reliant economy, rate of saving will have to be pushed up. In case, domestic savings are not sufficient, we may admit a dose of foreign savings to supplement domestic savings. But in the ultimate analysis, foreign savings have to be paid back along with interest. It was, thus, a case of transferring a part of the burden of development to the future generation. In short, it was argued that development did require sacrifice in the form of restraining consumption so as to force a higher rate of saving (Datt, Sundharam, 2014).

To enable the Indian economy to reach a level of high saving, various measures were taken to mobilize savings. The trend in the overall period of 50 years (1950-51 to 2000-01) is divided into seven distinct phases by Datt and Sundharam in their book *Indian Economy*.

i) 1950-51 to 1967-68 (Low Saving Phase)–This phase in the Indian economy is generally marked by the establishment of the financial infrastructure as it is evident from the events that took place, which shaped the structure of the banking sector in India. In 1949, the Reserve Bank of India was nationalized and given the responsibility to serve the nation as its Central Bank. In 1955, The State Bank of India was too, brought under the purview of the public sector. The incident was followed by the nationalization of insurance companies under Life Insurance Corporation (LIC).

Also, the importance of mobilization of household savings led to the establishment of Unit Trust of India (UTI) in 1964.

Sectoral Components of Gross domestic Saving- Public sector

"Whereas the LIC mobilized contractual savings and spread its area of operation, the UTI provided another avenue for mobilizing household financial savings with the help of Unit 1964 Scheme" (Datt, Sundharam, 2014).

The economy witnessed a low increase in savings rate in this phase i.e. a marginal increase from 10.4% in 1950-51 to 13% in 1967-68. Ray and Bose identified 2 factors associated with the slothful increase in the savings rate. "First, the propensity to save in agriculture was comparatively low than in nonagriculture sector during this period in contrast to the outcome in the following periods. Secondly, there exists a comparatively high share of agriculture in GDP during this period than in the subsequent periods." (Ray and Bose, 1997). Both the above mentioned factors behaved as a hurdle in the growth of savings rate.

- ii) 1968-69 to 1975-76 (The Initial Years of Increasing Savings) The introduction of Green Revolution in the 1960s raised the income of farmers, especially of those who used the high yielding variety of seeds. As a result, the propensity of the farmers to save their incomes increased and moreover, with the rapid growth of the banking system in the rural and semiurban areas the mobilization of the savings also rose. This period also saw the momentous decision of nationalization of 14 commercial banks in 1969, motivated by the desire to expand the sphere of banks in the country especially in rural and semi-urban areas, which helped in the mobilization of the rural savings.
- iii) 1976-77 to 1979-80 (High Saving Phase) This period was marked by high saving. Gross Domestic saving (GDS) reached the level of 21.8%. Several special factors helped in the sharp rise of GDS- (a) A sharp acceleration in foreign remittances, (b) large public sector food procurement which increased currency available with the public, (c) impact of branch expansion in rural and semi-urban areas, and (d) improvement in household physical saving (Datt, Sundharam, 2014).

- iv) 1979-80 to 1984-85 (Stagnation Phase) This phase observed a fall in the public sector savings due to a massive hike in the government expenditure especially in the category of development expenditures, which accounted to almost 60% of the total expenditure. In addition to this, the increase in consumerism in India also adversely affected the GDS.
- v) 1985-86 to 1992-93 (Recovery Phase) The GDS rose to 21.5% after witnessing a decline in the previous period. The undertaking of the enlargement of mutual funds sector resulted in the augmentation investment in contractual savings by household sector, thereby showing a sharp recovery of GDS to a level of 22.8% in 1990-91. Also, the introduction of liberalization gave a fillip to the capital market. The increase in corporate savings reached 2.7% in 1990-91 whereas the public sector savings continued to plummetdue to the government expenditures on defense, interest payments and subsidies.
- vi) 1993-94 to 1995-96 (A High Saving Phase) The cumulative effects of the rise in household saving and corporate saving in this time span increased the Gross Domestic Savings to the order of 24.5%. Although the Non-Departmental enterprises in the public sector enhanced its saving to 3.2%, but the negative savings of the public authorities produced an adverse impact on overall public sector saving.
- vii) 1996-97 to 2001-02 (Low Saving Phase) A consistent decline in the growth of savings is observed in the period from 1996-97 to 1999-00. The major contributor still being the household sector contributes 18.6% of the savings followed by the private corporate sector adding 4% to the GDS. The meager performance of the public sector contributed 0.1% to the savings. The dissaving of the public authorities at 3.3% is the major reason attributed to this poor performance of the sector.

Recent increase in saving:

During the Ninth Plan (1997-98 to 2001-02), the savings of the public enterprises were of the order of 3.47% of GDP, but the

savings of public authorities were (-) 4.29%. This resulted in an overall dissaving of the public sector to the extent of 0.82% of GDP.

"It may be noted that the high saving rate of the seventies was due to temporary factors such as heavy foreign inward remittances and, therefore, could not be sustained. But the nineties witnessed the best performance of the economy in terms of domestic savings upto 1995-96, but subsequent years witnessed a decline in saving." (Datt, Sundharam, 2014).

Components of Public Sector Savings

The two major components of Public sector are Public Authorities and Non-Departmental enterprises. The following table gives the trends in saving rate in the component wise division of the public sector from the year 1950-51 to 2006-07.

	1950-51 to 1967-68	1968-69 to 1975-76	to	1979-80 to 1984-85	to	1993-94 to 1995-96	to	to
I. Public Sector Saving	2.2(18.4)	3.0(18.4)	4.6(21.2)	3.8(19.2)	2.0(9.7)	1.4(5.7)	0.1(0.4)	2.3
a. Public Authorities	1.8	2.0	3.1	1.8	-1.1	-1.8	-3.3	-2.4
b. Non- departmental enterprises	0.4	1.0	1.5	2.0	3.1	3.2	3.4	4.1
II. Gross Domestic Saving	11.9	16.2	21.8	19.8	21.5	24.5	22.7	32.7

Table 3: Gross Savings and the Components of Public Sector

Note: Figures in brackets are percentage share of gross domestic saving.

Source: Datt and Sundharam- Indian Economy (69th edition).

Considering the first three periods, from 1950-51 to 1978-79, a significant expansion in the public sector saving can be observed in the Indian economy. The saving rate touched the rate as high as 4.6% in 1976-77 to 1978-79 against 2.2% in 1950-51 to 1967-68. The factors largely associated with the same are the controlled

inflation rate and great tax effort. The period viewed a consistent rise in the saving by both the components of public sector i.e. public authorities and non-departmental enterprises.

In the subsequent three periods, there is an unbroken and noticeable reduction in the saving rate. Apart from this, there is a decline the percentage share of public sector saving in the Gross Domestic Saving from 19.2% in 1979-80 to 1984-85 to a dire share of 0.1% 1996-97 to 1999-00.

"This was largely the result of continuous deficit budgets and increasing dependence on borrowings to meet growing non-plan expenditures. Along with this, to meet the demands of various lobbies, there was a sharp increase in subsidies." (Datt, Sundharam, 2014).

"When public saving is decomposed into its main components, one finds that much of the fall in public savings since the 1980s could be attributed to the sharp deterioration in the saving of the government administration departments. This, in turn, could be related to the increasing fiscal deficits of the central and state governments over this period, caused in part by a rapid growth in current expenditures, as the government increasingly used the budget to accommodate various interest groups in the economy. There has, however, been some improvement in the saving of the non-departmental enterprises (comprising banks and other financial institutions and non-financial public sector enterprises). While a large proportion of the latter could be explained by the returns to the public sector from its near monopoly over the financial resources of the organized economy and the oil industry, it is also in part due to the better financial performance of the non-financial non-oil public sector enterprises since the early 1980s." (Nagraj, 1991).

The period of 90s too experienced a continuous decline in the public sector saving from 1.4% to a deep low of 0.1% in the 1996-97 to 1999-00 time span. Due to negative savings in the public authorities, the increase in non-departmental enterprises savings got nullified and hence, the saving in the sector shrank. In the ensuing years from 2004-05 to 2007-08, the saving in public sector transformed from (-) 1.8% in 2000-01to a noteworthy 5% in 2007-08. The key reason to this transformation from negative savings to positive in eight years is attributed to the tax reforms initiative taken by the government and moreover due to the continual improvement registered in the non-department enterprises.

"The major component of public sector savings, i.e. savings of non-departmental undertakings, has interestingly, exhibited a steady improvement since the 1970s and this process has continued during the reforms period. Thus, public sector has enterprises have exhibited continued and steady improvement in their commercial functioning since the early 1990s." (Mohan, 2008).

The savings of the government sector are largely derived from taxes, surplus of the public enterprises and mobilization of internal loans and deposits (Datt, Sundharam, 2014). Due to the constant inflation, government to keep up with the salary of its employees has to raise its expenditure. In addition to it, the rise in prices of basic commodities consumed by the government

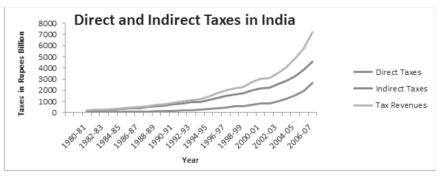


Fig 3: Trends in Direct and Indirect taxes.

too, raises its spending, eroding the State's revenues and thereby diminishing its saving. Unless the inflation is kept in check, it would be challenging for the government to increase its saving. Also, by proposing the necessary reforms for the public enterprises and increasing its profitability can help the sector to witness a high growth in saving.

Conclusion

This analysis finds the trends in the Gross Domestic Saving (GDS) with a special emphasis on the Public Sector, for the time period of 1950-2008. It has been observed that the household sector in the economy has been the major contributor to the GDS. With the continual rise in saving rate (GDS as percentage of GDP at market price) from 5.7% in 1950-51 to 22.6% in 2007-08, household sector outperformed other sectors. Private corporate sector stood next to the household sector with its share improving from 0.9% in 1950-51 to 8.7% in 2007-08. A drastic increase was witnessed in the private sector saving after the introduction of economic reforms in 1991 which provided an impetus to corporate sector saving. The public sector saving which was 2% in 1950-51 enhanced to 4% in1980-81 and then started diminishing mainly due to dissaving in public administration. However, the trend reversed soon after 2004-05 and the public sector saving became positive due to the tax reforms.

Indian economy can be divided into seven periods on the basis of level of saving. The period of 1950-51 to 1967-68 has been described as the period of low saving phase as the propensity to save in agriculture was found to be comparatively lower than non-agriculture sector in contrast to the outcome in the following periods as identified by Ray and Bose. Following is the phase of Initial Years of Increasing Savings, i.e. 1968-69 to 1975-76 because the events of Green Revolution and nationalization of banks improved the propensity to save in the rural areas and the availability of the banking facilities helped to mobilize the savings. 1979-77 to 1979-80 is characterized as the phase of high saving because of sharp acceleration in foreign remittances, large public sector food procurement, branch expansion in rural and semiurban areas and household physical saving. Consequently, 1979-80 to 1984-85 was witnessed as the stagnation phase due to the decline in public sector savings and increasing consumerism. The saving rate was recovered in the period of 1985-86 to 1992-93 with the introduction of liberalization which provided a boost to the capital market. Again, the economy saw the fluctuation in the savings with 1993-94 to 1995-96 being the period of high savings and 1996-97 to 2001-02 witnessing low saving.

In the first three periods (1950-51 to 1978-79), publicsector saving rose steadily due to increase in bothpublic authorities and nondepartmental enterprises. But in the later periods from FY 80, the saving in the public sector started declining to the extent that the saving in public authorities was negative and it's only in nondepartmental enterprises that the savings were positive enough to sustain the public sector. But after the tax reform policies of the government, the public sector saving started witnessing the transformation in savings rate from negative to positive and thereafter, the savings were high as 5% of the GDP in the year 2007-08.

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Sneha Bhardwaj and Ashish Kumar Sedai Department of Economics Kamala Nehru College

Corporate Social Responsibility Spending and Disclosure in India

Introduction

Corporate social responsibility (CSR) is one of the important issues and development of 21st century. CSR is part of an answer to complex problems faced by the business in this modern world. The challenges faced by the society such as environment depletion, sustainability development, governance, poverty and equality, human rights and other related issues all call for CSR. The Companies Act, 1956 had no mandatory provision for CSR and companies operated CSR programmes according to their own policies. They were philanthropic in nature. The Companies Act, 2013 (clause 135) has made CSR spending mandatory for companieshaving net worth of rupees five hundred crore or more, or turnover of rupees one thousand crore or more or a net profit of rupees five crore or moreduring any financial year. These companies have to spend at least two percent of their three years' average profits on CSR activities. One important aspect of CSR provision in Companies Act is disclosure of CSR policies and activities, particularly with regard to quantum of spending, which has led to many discussions.

Conceptual framework of Corporate Social Responsibility

Many other names are used to refer to CSR such as social business, responsible conduct, responsible entrepreneurship, corporate citizenship, corporate accountability or corporate sustainability. Corporate social responsibility is the commitment of corporate for equitable growth and sustainable development of society. Lord Holmes and Richard Watts defined CSR, as "Corporate social responsibility is the continuing commitment by business to behave ethically and contribute to economic developmentwhile improving the quality of life of the work force and their families as well as of the local community and society at large." The World Bank has defined CSR "as a tool to improve overall human development and social inclusion". More specifically, the World Bank envisions CSR as an activity that will ensure that corporates

will work with the government, civil society and community to improve the lives of under privileged people of India by making growth more inclusive. The United Nations Industrial Development Organization (UNIDO) has defined CSR as "a management concept where companies integrate social and environmental concerns in their business operation and interact with their stakeholders. CSR is way in which companies achieve a balance of economic and environment and social imperative." CSR requires company to acknowledge that they should be publically accountable not only for their financial performance but also for the social environment records.

Evolution of CSR in India

CSR is not a new concept in India as charity and philanthropy has been a part of the culture of big corporates, influenced by political, religious and cultural motives. Mahatma Gandhi's theories of trusteeship and amplification of social development, which included activities that sought abolition of untouchability, women's empowerment and rural development, have also been influential in this regard. During 1960-80, public sector undertakings initiated equal distribution of wealth and socio-economic development, whereas the private sector was highly controlled and regulated.Later, Indian companies and stakeholders began abandoning traditional philanthropic engagement to globally comparable CSR.

Provisions under Companies Act 2013

The Indian government became the first regulator in the world to mandate a minimum CSR spending on certain specified social welfare by profit making companies.Provision under section 135 is applicable to every company having net worth of 500 crore rupees or more or turnover of 1,000 crore rupees or more or net profit of 5 crore rupees or more during any financial year.They are required to constitute a CSR committee comprising of three or more directors, out of which at least one director should be an independent director. The composition of the committee shall be included in the board's report.

CSR committee formulates and recommends policy to the board; CSR policy indicates activities undertaken by the company (as specified in schedule VII of the act): eradicating extreme hunger and poverty, promotion of education, promoting gender equality and empoweringwomen, reducing child mortality and improving maternal health, competing human immunodeficiency virus, acquired human deficiency syndrome, malaria and other diseases, ensuring environmental sustainability, employment enhancing vocational skills, social business projects, contribution to the Prime Minister's national relief fund or any other fund setup by the central government of state government for socio-economic development, relief and funds for welfare of the SC/ST/OBC, minorities and women. The committee shall institute a transparent monitoring mechanism for implementation of CSR policy.

The Board shall also recommend the amount of expenditure to be incurred on the CSR activities. The board ensures that the company spends in every financial year atleast 2% of average net profit during three immediately preceding financial years in pursuance of its CSR policy. If a company fails to spend such an amount, reason for not spending is to be specified in the board report signed by a director and company secretary on the company's report and website. The company shall give preference to local area and area around where it operates, for spending amount earmarked to CSR activities. The companies can carry these activitiesby collaborating either with NGOs, through their own trust and foundation or by pooling their resources with other companies.

There is no penalty for failing to spend on CSR, but there is a penalty for failing to explain on CSR activities conducted or failure to explain why CSR spending was not carried out. Failure to explain is punishable by a fine on companies not less than 50,000 rupees, and up to 25 lakh rupees. Furthermore, the officer who defaults on reporting could be subject to up to three years imprisonment or fines of not less than 50,000 rupees and as high as 5 lakh rupees.

Objective

The main objective of this paper is to study the CSR spending and disclosure by companies in India in wave of provisions of Companies Act 2013.

Research methodology

The research design in this study is descriptive in nature. For the purposes of this study, companies were selected according to the provisions of the Companies Act. The study was based on secondary datacollected from the annual report of companies and prowess software (CMIE). Informationfor public and private companies for the period of 2013–14 and only private companies for 2014–15 was obtained; information for public companies for 2014–15 was not available. Various newspapers, magazines, websites were alsopart of the data collection.

Disclosure of CSR activities made mandatory

Prior to 2012–13, many companies were voluntarily making donations and spending on community development and mitigation of environment pollution. It is only since then that companies have started allocating funds for CSR activities. Specifically, this was in response tonotice of Securities and Exchange Board of India (SEBI) circulated dated August 2012, which sent a mandate to all 100 companies to include business responsibility report as a part of their annual report. CSR guidelines issued by Department of Public Enterprise for Central Public Sector Enterprise requires all profit making CPSEs to contribute to CSR activities even if they do not fall under CSR ambit as prescribed by Companies Act.

The impact of the CSR "Mandate"

The Indian Institute of Corporate Affairs (IICA)established by the Ministry of Corporate Affairs (MOCA) estimates that at least 6000 companies will have to adopt the new CSR rules. Most of the companies would have some level of CSR spending in India.

Company	CSR spending for 2013-14(USD Million)	CSR spending as % of PAT	Sector
Reliance industries Ltd	119.88	3.24	Private
Tata Motors Ltd	2.84	5.17	Private
Tata Steel Ltd	34.7	3.31	Private
Essar Oil Ltd	NA	NA	Private
HDFC Bank Ltd	11.52	0.83	Private
Bharti Airtel	6.62	1.42	Private
Hindustan Petroleum	3.86	1.37	Public
Hindalco Industries Ltd	5.28	1.81	Private
Indian Oil Corporation	13.7	1.2	Public
Larsen and Toubro Ltd	12.6	1.4	Private
TCS Ltd	15.6	0.48	Private
State Bank of India	24.26	1.37	Public
ICICI Bank Ltd	80.59	2.0	Private
Mahindra &Mahindra Ltd	5.35	0.87	Private
Sesa Sterlite Ltd	28.32	1.40	Private
Adani Enterprise Ltd	0.9	3.08	Private
Bharat Petroleum	5.59	0.85	Public
Infosys Ltd	1.47	1.37	Private
Oil and Natural Gas Corporation	55.49	1.55	Public
JSW Steel Ltd	4.42	2.00	Private

CSR Spending of twenty largest companies in India

Source: Annual report of companies and MOCA

The table above shows that the 2% mandate is likely to impact a wide range of companies in India. Of the 15 private companies only 6 of them noted CSR spending at or above 2% of PAT. Essar Oil, for instance, has not disclosedits specified CSR spending. Looking at 5 PSUs, it appears that the mandate will impact the government owned companies to an even larger extent. None of them report a level of CSR spending above the 2% mandate. The IICA estimates that the current average CSR spending across the India is low (around 1% of net profit). According to a report by

consultancy firm BCG and NASSCOM foundation "if all eligible firms spend their mandated budget this year, CSR spend is estimated to grow about four times to USD 2.5 billion (over 15000 crore) and technology companies will likely contribute about 20% or more of this."

Reporting on CSR spending for First financial year 2014-15

Once the new law came into force from 1April 2014, five Sensex companies – Mukesh Ambani-led Reliance Industries (RIL), Azim Premji's Wipro, tobacco-to-fashion conglomerate ITC, FMCG major Hindustan Unilever and auto giant Mahindra and Mahindra have so far disclosed CSR spending of 2% or more.

Companies	Required CSR spending (INR Cr.)	Actual CSR spending (INR Cr.)
Reliance Industries Ltd	533	760.58
Infosys Ltd	243	249.54
Tata Consultancy Services Ltd	285	219
ITC Ltd	212.92	214.06
Tata Steel Ltd	168.26	171.46
ICICI Bank Ltd	172	156
Wipro Ltd	128	132.7
Axis Bank Ltd	133.77	123.22
HDFC Bank Ltd	197.13	118.55
Mahindra & Mahindra Ltd	83.03	83.24
Hindustan Unilever Ltd	79.82	82.24

ActualCSR spending of Top Eleven private companies in India for the year 2014-15

Source: Annual report of companies and MOCA

Reliance Industries, Infosys and TCS are the top three spenders. RIL tops the list with total CSR spending of 761 crore rupees (2.85%). The major areas for this spending included rural development, healthcare, education, environment, protection of

national heritage, art and culture and disaster response. As per the report of the world's first comprehensive study into global corporation education, Varkey Foundation in partnership with UNESCO (Jan 2015), RIL and ONGC have managed to make it to the list of world top 100 companies in term of CSR spending on education.

The government has also set up a six-member high-level panel to suggest steps for improved monitoring of social welfare activities done by companies as per law. So far half of the 30 Sensex firms have disclosed their CSR details for the financial year 2014– 15 but actual spending during 2014–15 for at least 10 of them was below 2% of respective three years net profit as required by law. Together, all these 15 companies spent a little over 21,000 crore on CSR during the financial year.

Infosys missed the limit by a small margin, but said it managed to meet the target after sending the remainder amount. The companies whose actual CSR spending was less than 2% during the year include ICICI Bank, HDFC Bank, Axis Bank, SBI, Dr. Reddy's, Bajaj Auto. While giving reasons for their respective short fall, they all expressed their commitment to CSR activities. Among others, Vedanta said there was "no obligation for the company to spend on CSR as the profit computed as per provision of the law for last three years is negative"; still it spent 25.5 crore rupees (1.3%) on CSR projects and initiatives.

Conclusion

In order to streamline the philanthropic activities and ensure accountability and transparency, the Government of India made it mandatory for specified companies to undertake CSR activities as per Companies Act, 2013. It may bring about a change in the society by making the companies socially sensitive and responsible. There is a need for companies to revisit their CSR polices and strategies in order to adequately adapt to the requirement of the Companies Act.

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Mamta Bhushan Department of Commerce Kamala Nehru College



Geometry in Religious Structures: Ancient India and Beyond

Generally Mathematics and religion are taken as two diametrically opposite domains. Mathematics is the clearest domain of human knowledge which talks of Certainty. The discipline of mathematics deals with proofs which are immune to revision and one can never say that four plus seven doesn't equal eleven. Hence everything is certain and definite. Religion on the other hand, deals with metaphysical and supernatural power or the Divinity which is purely a matter of faith. Therefore the element of uncertainty, intuition etc abound. In a nutshell, we are taught to believe that there can hardly be any connection between the two.

On the surface, both these areas of human cognition appear quite different and unrelated to each other but if one starts observing the things more carefully, very interesting things begin to unfold. Certain geometrical shapes are considered very auspicious and significant in all the religions. So much so that they have become the identification markers of the respective faiths they are used in and seem beyond the scope of ever being altered by human agency. One cannot think of drawing religious symbols without geometrical precision. While performing rituals or on festive occasions we decorate the surface with geometrical patterns. Gems in certain shapes are thought more effective as compared to others. Astrology and numerology always rely upon certain calculations and claim to be scientific. In most of the cultures, there are different modes of divination and many of these forms have mathematical ideas inherent in them.¹

Mathematics though being extremely certain yet there are lots of questions about it that we call meta-mathematical questions, which are totally uncertain. What do we really do in mathematics? Do we discover, create or make up rules? Are we discovering some kind of "real objective" and if it's not discovery of this world then it implies that we are talking of supersensible and transcendent world. Hence, the element of the exploration of the "supersensible" and transcendent brings both mathematics and

religion close to each other. It is interesting to note that some mathematicians say that mathematics is the study of infinity. On the other hand, religion looks at eternity which is also infinity. God is supposed to be of infinite quality, omnipotent and so forth. Many of the adjectives that we use to explain divinity are strikingly similar to adjectives which are used to explain mathematical infinity, and many people including distinguished mathematicians, have been moved by this.

In what ways the different religions contributed to, or impeded the development of mathematics is difficult to be answered; but one thing is beyond doubt that like any other human activity, mathematics is also a socio-cultural construct and has evolved differently in different cultures. Therefore it not only influences but also gets influenced by the particular socio-cultural environment of which religion is an integral part.²

Geometry, one of the oldest branches of mathematics is generally thought of studying lines, points, planes, curves and surfaces; but actually, it is more concerned with the relationship among these words. It is the "language of space and form".³ Geometry grew much before the advent of the Greek Civilization, in different parts of the World out of different human needs. Some scholars believe that it developed as an exercise of understanding the mysteries of nature where as others believe that it grew out of practical necessities. For example, it is believed that the earliest kind of geometry developed in Egypt in order to survey the agricultural land and to mark the boundaries of fields for fixing tax rates. Egyptians mastered the mensuration further and could precisely compute the volume and steepness of the threedimensional structures like pyramids. We should not forget that pyramids had a religious and metaphysical significance also. Our best source of knowledge about Egyptian mathematics is the Ahmes Papyrus of which Ahmes (1650BCE) was probably not the author. Historians believe that the Ahmes Papyrus is a copy of a papyrus that was probably several centuries older.

The Mesopotamians, perhaps, were the most advanced mathematical culture before the Greeks. Hundreds of clay tablets

survived till date give the testimony to their mathematical competence. They were not only interested in calculating material and man power in constructions of the city walls but they also studied astronomy. Therefore, they had a mastery over mensuration along with algebra and could calculate the cost, number of bricks and time to complete such massive structures.

The Greek contribution to geometry is more than known to us since we mug it up during our school days. The most significant point to be highlighted about Classical Greek mathematical tradition is that both Pythagorians and Platonists believed that the Universe is a mathematically ordered system and man with the help of his mental faculties can unravel the mysteries of this divine order. Especially to Plato, the truth exists beyond the things what we perceive through our senses. Therefore, mathematics and geometry were the means to reach the Supernatural God. There were many Greek mathematicians but the most significant of them was Euclid. Here, it is more than sufficient to indicate that, not only Euclid's "Elements" but his existence itself has been put into question by an Indian mathematician.⁴

While talking about ancient Egypt, Mesopotamia and Greece, we thus find that exploring the Supernatural was quite important factor, along with the practical requirements behind the growth of geometry in all early civilizations. This paper highlights the development of mathematics, especially Geometry in ancient India in particular context of Harappan civilization and Vedic age which flourished in Northern and North-Western parts of Indian Subcontinent. The study underlines the significance of religion in construction of fire altars with remarkable geometrical finesse. It further elaborates how treatises were composed to not just document but to transmit the knowledge of making these sacrificial platforms with geometrical precision to posterity. While examining the relevant texts known as Shulba-Sutras and archeological findings it tries to exhibit the hidden mathematical secrets in their formation. A careful analysis of the modern historical research on Indian mathematics has also been taken into account with a view that nothing should be accepted uncritically.

Let me hasten to add here that this is a modest attempt by a teacher of Mathematics to delve into the larger questions concerning sociability of Mathematics in context of religion. I thought of exploring these questions when I started teaching an interdisciplinary course "Mathematical Awareness" to the students coming from various other disciplines. Though I am not a historian yet I strongly believe that the dialogue between different disciplines is always more fruitful than studying them in watertight compartments. Therefore, with all the limitations, I intend to begin an academic dialogue with my colleagues in History, Sociology and Literature.

As Indians we can take pride of our rich heritage in science, philosophy and culture. Especially in the field of mathematics, the ancient Indians were far ahead than Greeks which are considered to be the forerunners of Western sciences and mathematics but it is not necessary that we find India's contribution acknowledged in the standard Western books on history of Mathematics.⁵

We can hardly raise any doubt on the knowledge of basic geometry of the inhabitants of the first civilization that started developing around 3000 BCE in the Indian subcontinent. The geometrical skills and precision are clearly visible even in the baked bricks found during the excavations of the planned cities of the Harappan civilization. From 1961 to 1969, systematic archeological excavation was done at Kalibangan⁶, situated on the bank of Ghaggar river in Rajasthan. Kalibangan was a site which developed in the late Harappan phase and the date has been assigned from 2300 BCE to 1750 BCE. It is an urban site divided in two parts: a citadel and a lower city. The most relevant thing to our topic is that here we find rectangular fire-altars on the raised platforms in the citadel. One of the pits lined with baked bricks also contains bones of a bovine and antlers which represents a sacrifice. Seven fire-altars in a row along with a well have also been found. There are also the instances of the firealtars in the houses. Astonishingly, there is a separate mount where fire-altars have been found in an enclosed structure. The relationship between fire-altars and the sacrificial rites is understandable; but as Sudeshna Guha⁷ cautions, archeology may be and is being used to prove the politically motivated truth that the Vedic Hindus were the original inhabitants of the Indian subcontinent and not the outsiders. Guha's warning becomes more significant when we read a mathematician like Bhanumurthy's writing on ancient Indian mathematics in order to prove the formulations given by a Swami. One has to read him very carefully when he quotes Mackey (1938) that Indus people were aware of an instrument like compass to draw a circle.⁸

No matter what brought the Harappan civilization to an end, around the 2nd millennium BCE, the Aryans came to India and started settling in the region of the seven rivers. During this age, which is known as the Vedic Period, Vedas and oldest sacred texts of Hinduism were composed. The four Vedas are Rigveda, which contains hymns to be recited by the Chief Priest; Yajurveda, containing formulas to be recited by an official priest; Samaveda, containing formulas to be sung by a chanting priest and Atharveda which is a collection of magic spells and healing harms. If we talk of ancient Indian mathematics we cannot talk about it without mentioning Geometry.

The only source of knowledge of Indian Mathematics from the Vedic Period are Shulba-Sutras, which are a part of a larger text Shrauta Sutras, appendices to the Vedas. The word "Shulba" is a Sanskrit word meaning "to measure", hence its etymological significance is "measuring" or "act of measurement". Geometry was also known as "Rajju" which literally means a "rope" or an "instrument of measuring". Therefore, the rules of geometry came to be known as "Shulba-Sutra", where the Sanskrit word "Sutra" meaning "Short-Rule". Generally "Chords with knots" and "Bamboos with cuts" were the only instruments used for measurements in ancient period so much so that a complete wealth of mathematics was produced.

Sacrificial rites were the main feature of the Vedic religion. The Vedic people had no temples. There was a tradition of performing religious rites called yajnas or fire sacrifices. For this the altars were constructed on which ceremonies were performed. The great

importance of sacrificial altars lies in the fact that their construction gave on one hand a great impetus to the study of geometry and measurement of areas, and on the other supplied the prototypes of later architectural developments. The sacrificial altars, known as the Vedis were the raised platforms with even the provisions of seats for the participants of yaina. There were some rituals that were performed at an altar where food was offered and in some of them even animals were sacrificed. For the ritual sacrifice to be successful and Gods be pleased, the altar had to be prepared with very precise measurements. These elevated enclosures were generally strewed with Kusha grass and had receptacles for the sacrificial fire. The Vedis were of various shapes, usually narrow in the middle and were named according to their purpose as Mahavedi was the great or entire altar, Uttaravedi was the northern altar made for the sacred fire. Drona refers to an altar shaped like a trough whereas Dhishnya refers to a sort of subordinate or side-altar, generally a heap of earth covered with sand on which the fire was placed. The Uttaravedi was in the shape of the falcon⁹ and was piled up with bricks in the Agnicayana ritual. The two types of Vedis generally used for sacrifices were Nitya which means perpetual or daily and Kamya which means optional. Nitya was supposed to bring happiness for family whereas Kamva was for fulfillment of special wishes. Generally Nitya was of three types Ahavaniya, Garhapatya and Daksinagni whereas Kamya was constructed to attain different goals.

The ancient people were so familiar with the knowledge of Mathematics that their rituals were completely based on measurements. The construction of vedis was according to the specific measurements keeping in view the size of the angula or finger, which was the fundamental unit to determine the various dimensions of the altar. Direction and place also played a vital role as the second step in the construction was to determine its location and orientation. The orienting procedure determines the direction of ritual object and also the time of its construction. For the determination of time and orientation in the Indian tradition gnomons¹⁰ Gnomons means an object which is used as an indicator of the hour of the day by the length of its shadow.

and ropes were used. The initial example of the application of this technique occurs in the orientation of the vedic sacrificial altar.

There was a total use of geometry in the construction of these vedis and agnis so much so that sometimes UttaraVedi was replaced by a Kamya Agni in the Mahavedi by only changing the shape without interfering with its position in the Mahavedi. Geometry was involved in the construction to the extent that even the method of placing the bricks in two consecutive layers used to change the shape of the Vedis, hence resulting in the change of its use and purpose altogether.

Baudhayana Sulba Sutra gives a detailed description of the construction of the agnis or fire altars. Generally, as a rule the area of the altar prescribed is 7½ square purusas, whilst we have other altars with area as 8½ purusas, 9½ purusas , and so on up to the hundred and one-fold agni which has the area of 101½ square purusas. The agni with an area of 7½ purusas is called the seven fold or Sapta Vidha Agni. The normal height of an agni is one janu¹¹ which is equal to 32 angulas and the normal height in the five layers thus is 32 angulas. The description of construction of these fire-altars also highlights the knowledge of geometry involved. Some of the agnis have neither tails nor wings and then usually they are either square shaped or in general oblong.

The name and the significance of the altar was highly dependent on the shape of the altar. Samuhya Cit refers to a square altar used to acquire cattle, Caturasra Smsana Cit was again a square altar constructed for attaining the place where forefathers have gone. Ratha Cakra Cit was circular in shape used for annihilation of enemies, Caturasra Dronacit were two squares whereas Parimandala Dronacit were two circles used for the purpose of gaining food. Some altars were in the shape of the bird like Caturasra Syanacit, Upacayyacit, Kanakacit, and Chandascit used for attainment of heaven, over lordship of a region, to acquire cattle and even for attainment of Brahamaloka respectively.

Religious significance was associated with the construction in the manner that usually in each prastara or layer of the altar one has 200 bricks which were employed in the fifth layer of the agni, and then their height is only half of the height ordinarily prescribed for these bricks in every type of agni and five lokamprna¹² were to be used. There was no special number fixed for the bricks but it depends on the number of mantras. If the number of mantras is greater than that of the bricks then pebbles anointed with ghee are to be placed in the space between bricks to maintain its ritual significance.

The mention of vedis appear in the paper of Sri N. K. Majumdar in the Journal of the Indian Society of Oriental Art, 1939 and 1940, where he elaborated it with help of various figures. Dr G. Thibaut has also given a few of the diagrams in his publications appearing in the old and New Series of the Pandita and in his paper in the Journal of the Asiatic Society of Bengal. In the words of N. K Majumdar "The diagrams as stated before are exact copies of a set in the collection of the Government Oriental Manuscripts library in Madras, and their importance lies in the fact that they are said to have been procured from a person who is still performing the Yajnas and was supposed to be conversant with the details of practical construction of the Vedis. But it is to be regretted that the diagrams are defective in many respects. This must be due to either the negligence or imperfect knowledge of the drawer of the diagrams about the prescriptions of the Shulba Sutras." But we cannot underestimate the fact that in spite of these defects, however, they bring out quite vividly the general characteristics of the Vedis and the method of their construction.

The diagrams were even procured by the late Sir Ashutosh Mookerjee for the Calcutta University from the Government Oriental Manuscripts library, Madras. The diagrams mentioned represents vivid Vedis like Darsapurnamasa Vedi, Pasubandhika Vedi, Saumiki Vedi which were constructed for the performance of Yajnas at New Moon and Full Moon, for Pasubandha sacrifice and for some yojna respectively.

The Samuhya and Paricaya (Oblong) constructions have been described in the Baudhayana Sulbasutra (VII, 445-447) and the

Apastamba Sulbasutra (in the Khanda XIV, 1-9). We find mention of many Citis¹³ in these Shulbas which describe the complete geometry involved. Some citis involved the use of muds whereas in others bricks were used. In the Paricayya Citi, bricks were used by placing all in concentric circles towards the right hand side. The Apastamba speaks of the svayamatrnna or self-perforated bricks were used in the central core of this citi.

Smasana Citi or funeral pyre in burial ground was described in Baudhayana and Apastamba Sutras to be shaped as a square where the whole of agniksetra or the fire-field is divided into 15 square parts.¹⁴ With three of these parts an oblong is constructed of the breadth of one part from the middle of the east side of this oblong, lines are drawn towards the two west corners and the two side pieces were cut off. One cannot even imagine the depth of the geometry involved in these altars as they involved the use of triangles, calculation of area and even the division of a triangle length ways, that is, bisected by a perpendicular from the top to the base.

There are around eight Shulba Sutras out of which Baudhyayana, Apastamba, Manava and Katayana have been translated and studied. The style and the content of the Shulba Sutras is far anterior to Euclid or Babylonian Mathematics. Katayana gives a very simple and elegant rule to construct a Pythagorean triple. According to Katayana, "As many squares as you wish to combine into one of the transverse line will be (equal to) one less than that, twice a side will be (equal to) one more than that thus forming a triangle."

The verification of the above result provided motivation to Baudhyayana to find the value of Ö2. Sulbakaras knew the geometrical value of Ö2 as the diagonal of a square of unit side. According to Baudhayana Sulbasutra "The rope, which is stretched across the diagonal of a square, produces an area double the size of the original square". The oldest value of Ö2 was obtained from one of the Cuneiform tablets from old Babylonian times (1600 BCE) which is now in the Yale Babylonian Collection. It shows a square with two diagonals and values in sexagesimal

system from which Ö2 in that system worked out as Ö2=1.24,51,10. The sexagesimal¹⁵ equivalent of the value of Ö2 as given in the Shulba Sutras is 1.24,51,10,37.

The different geometrical shapes signify different meanings not just in Harappan and Vedic religion but one can also find the significance attached to different shapes even in the religions which claim to believe in a formless God. Researchers stated that the use of circle is a way of expressing the unity of Islam. According to this Canon the circle and its centre is the point at which all Islamic patterns begin. The circle is a symbol of a religion that emphasizes one God, which is the centre of Islam towards which all Muslims face while praying.

In Buddhism, Mandala is a spiritual and ritual symbol which represents the universe. Most of the Mandalas are square in shape with four gated containing the circle with a centre point. Every gate is in the shape of alphabet T. Mandalas often show radial balance. In everyday life, Mandala is now being used as a generic term which represents any diagram, chart or geometric pattern that shows the cosmos metaphysically or symbolically. Even the symbol of "Cross" which is actually the crossing of two lines at right angles talks of the introduction of Christianity. Cross not only stands for its ornamental value but also with religious significance which represents an apparatus used in kindling sacred fire or symbol of sun, the giver of life.

Mathematics is inescapable language in the production of architecture or we can say that architecture is applied geometry. Along with certain practical reasons, mathematical and geometrical principles have been applied to architecture since early ages to create harmonious structures and also to achieve certain aesthetic goals. Beyond these, religious principle has also been quite motivating in case of using particular geometrical shapes, designs and patterns. The Egyptian Pyramids of Giza have a mathematical proportion; though what kind of proportion they have, is a matter of debate till date. The Virupaksha temple at Hampi and Minakshi Temple at Madurai have fractal like structure where part represents the whole. More than giving a pleasant visual appeal, it also represents Hindu cosmology. The Parthenon of Athens is based upon Pythagorian ratios and the Roman Pantheon is one of the finest examples of symmetry and proportions used in architecture. Hexagon, octagon, circle and square have been used quite frequently in Islamic architecture along with proportions of square roots.¹⁶

Every religious place of worship is based on different geometric shapes which not only caters to the requirements of the ritualistic aspects of the worship but also reflects the cosmological viewpoint of that respective faith. An art historian from Illinois¹⁷ has done a very interesting visual and conceptual comparison of the religious architecture of the East and West and has shown how identical geometric forms are perceived differently. Western Classical architecture, such as that of Greece and Rome, as well as the Eastern architecture of Hinduism and Buddhism regarded the circle, the square, and the triangle to be the most perfect of building forms. These geometric forms find direct expression in architecture, but especially in religious structures. However, the difference lies in the perception of the building types. The Western architecture has its focus on the periphery whereas in the East, the centre has the prime importance. Therefore the religious buildings differ in look, experience and use.

In Western religions, like Christianity, Judaism and Islam, the circumference or the perimeter is more significant than the center because they all practice congregational or collective worship. For that reason a primary requirement for religious ritual is to provide a space suitable for a congregation to gather, to pray and to listen while a member of the clergy delivers a sermon. Hence, a rectangular space with a podium located at one end evolved as the most suitable space in which to hold western religious activities. The structures like steeple have no ritual or theological importance in churches.

In the Eastern religions like Hinduism and Buddhism, the centre of the religious structure is more significant as compared to the periphery because here the nature of worship is processional and singular, not congregational. In both the religions, the pilgrimage

of a devotee terminates with individual prayer at the architectural, as well as ritual, center-point of the temple. Eastern religions stress upon the journey of the individual soul towards the path of salvation that is believed to occur in the center of an individual being. As an outgrowth of these beliefs, Eastern religious practice requires processional pathways or corridors to guide the worshiper along what is conceptualized as a "circular" or circumambulatory route moving toward the sanctum of the temple. The center-point represents many things like the center of the universe or the point from which the God showers prosperity from above to the kingdoms below. Therefore, 'concentric' geometric forms-squares, circles or triangles are found in religious buildings, yantras and even city plans in the East. These concentric shapes may be extended horizontally as well as vertically. The vertical extension appears as a stair-shape pyramid which may be found in the temples of Borobudur and Angkor Wat.

Although we take religions as categorically different from each other, yet, looking closely at them, one finds many shared expressions in terms of architecture. Very few people know that the dome of Gurudwaras, which comes from floral base, has top in the form of inverted lotus from which rises the "Kalasa" which has a cylindrical construction with some concentric disks, spheroids, ending in a small canopy with pendants in the outer rim. This Kalasa is based on Mount Kailasha which is considered sacred in Hindu mythology. Geometry not only affects the architecture but also the mechanical function of a place of worship. The domes of religious buildings are power enhancers as whisper in one corner of the building can be easily heard because the sound is focused towards the centre of the spherical shape and it gets reflected.

The golden section, also known as divine section (after its Latin appellation sectio divina), was first used by the Franciscan monk and mathematician Luca Pacioli in his work De Divina Proportione, published in 1509 in Venice. The golden section worked as an aesthetic guide in art, absolutely governing the shape and disposition of drawing and paintings. The golden section also finds importance in architecture, where the facades of many public edifices were proportioned according to this ratio. Mathematically it is defined as "A line segment that is divided into two segments, a greater 'a' and a smaller 'b' such that the length of (a+b) is to a as a is to b." The books like *The wonders and joys of mathematics* mentions the golden rectangle as unique in producing a logarithmic spiral.¹⁸ Pentagram¹⁹ was used by the Pythagoreans as a secret identification emblem which later became a trademark of alchemists.²⁰ According to legends, it was used by Doctor Faustus to exorcise Mephistopheles.²¹

The whole discussion emphasizes that religion and mathematics have influenced each other in significant ways since antiquity. We have tried to read geometry behind sacred structures in this paper. Can we stop here and ask ourselves if we are trying to understand the 'Divine' through mathematics as Platonists and Pythagorians were thought while studying mathematics? Is Hermann Weyl right when he calls mathematics, "the spark of the divine"? Does the discipline of Mathematics teach us to look at this world in its physical terms really or does it depend upon the "mathematician" to interpret the abstract mathematics in terms of his own religious predispositions? I don't have answers to these questions and here I ask my friends in social sciences to look for the answers.

Notes

¹ Marcia Ascher (2005) shows how mathematical ideas are involved in different forms of divination procedures.

² Ethnomathematics has emerged as a sort of an independent area of study that has posed a great challenge to Eurocentrism in mathematics. The Writings of D'Ambrosio, C.K. Raju etc have been quite influential. R. Harsh is one of the champions of humanist philosophy of mathematics. See Harsh (1997).

³ My basic definition of geometry and preliminary remarks on Egypt and Mesopotamia have come from Tabak (2011).

⁴ One can find very interesting papers and talks by C.K. Raju on his website. I had an opportunity of listening to him live at the Dept of History, DU on 29-09-2014.

⁵ For example, Hodgkin (2005) has written on Egypt, Mesopotamia, China and Islam but doesn't mention India at all.

⁶ Thapar's report on Kalibangan.

⁷ See Guha (2009).

⁸ Bhanumurthy revised his book in 2009 which he wrote in order to give proofs to the propositions given by Swami Paramanand Bharati for Vedic Mathematics.

⁹ Alajacita means piled up in the shape of the bird, Alaja meaning falcon.

¹⁰ Gnomons means an object which is used as an indicator of the hour of the day by the length of its shadow.

¹¹ Janu and angulas refer to unit of measurement in ancient India.

¹² Lokamprna means merely an excess over the number of mantras.

¹³ Citis were made of mud instead of bricks.

¹⁴ See Bagai, 2009.

¹⁵ Sexagesimal refers to relating to or based on the number 60.

¹⁶ I have recollected all these examples from my notes prepared from different sources that I used during my 'Mathematical Awareness' lectures.

¹⁷ Cooler not only describes in detail how different nature of worship gives rise to different religious buildings but he also points out that Pagan structures like Parthenon of Athens and Pantheon could be used by followers of another subsequent religions without making major structural alterations because their nature of worship was not different. The similar case is with the Hindu temple of Angkor Wat which was later converted into a Buddhist temple.

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¹⁸ If arcs are drawn between nonadjacent corners of the square as shown below we obtain an approximation of a logarithmic spiral; the true logarithmic spiral does not touch the sides of the rectangles.

¹⁹ Pentagram is a five-pointed star described by the diagonals of a regular pentagon whose central part is also another pentagon.

²⁰ Alchemists refer to a form of chemistry studied in the middle ages which involved in discovering how to change ordinary metals into gold.

²¹ Mephistopheles is the name of the chief demon of Christian mythology that figures in European literary traditions.

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Pragati Gautam Department of Mathematics Kamala Nehru College



Crisis Looms over Handloom Weavers: Need for More Managerial and Marketing Intervention

The Handloom Sector is one of the largest unorganized economic activities after agriculture and constitutes an integral part of the rural and semi-rural livelihood. Handloom weaving constitutes one of the richest and most vibrant aspects of the Indian cultural heritage. The sector has an advantage of being less capital intensive, minimal use of power, eco-friendly, flexibility of small production, openness to innovations and adaptability to market requirements. It is a natural productive asset and tradition at cottage level, which has sustained and grown by transfer of skill from one generation to other.

Handloom weaving is largely decentralized and the weavers are mainly from the vulnerable and weaker sections of the society, who weave for their household needs and also contribute to the production in the textile sector. The weavers of this industry are keeping alive the traditional craft of different States. The level of artistry and intricacy achieved in the handloom fabrics is unparalleled and certain weaves/designs are still beyond the scope of modern machines. Handloom sector can meet every need ranging from the exquisite fabrics, which takes months to weave, to popular items of mass production for daily use.

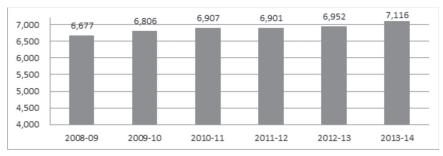
As per the 3rd Handlooms Census, carried out in 2009-10¹, more than 43 lakh people are engaged in weaving and allied activities which was 65.5 lakh as per 2rd handloom census conducted during 1995-96. This paper highlights the problems faced by the handloom weavers especially Banarsi Silk weavers and the need for more sustained efforts from the government. The conventional governmental model of "solution through expenditure" needs to be replaced by "solution through participation."

Introduction

The Indian handloom sector demonstrates the richness and diversity of Indian culture along with the artistry of weavers.

Handlooms have been the saviors of the various traditional skills and art that have been inherited by the weavers over generations.Handloom sector has an installed capacity of 23.77 lac handlooms. In 2013-14, handloom sector produced 7,116 million square meter fabric which accounted for 11% of the total fabric production in the country. However, the production of hand woven fabric has remained almost stagnant in last few years.

Figure 1: Production of Cloth in Handloom Sector (in million square meters)



Source: Annual Report, Ministry of Textile 2014

Economic, social and heritage value of this sector is enormous. It provides direct and indirect employment to around 4.3 million people. Rural economy of different handloom clusters is dependent heavily on this sector. Handloom sector is also highly oriented towards empowering women and weaker section of the society. According to the report of Handloom Census of India (2009-10), out of the total employment provided by handloom sector, 10% of the workers are from scheduled castes (SC), 18% are from scheduled tribes (ST), 45% are from other backward castes (OBC) and 27% are from other castes. This sector is also important to ensure inclusive growth of our economy. Beyond economic and social value, sustenance of handloom sector is also important for preserving our heritage of handloom products. Indian handloom sector contributes 95% to the world's hand woven fabric production. It's a product of pride and national importance, which should be positioned properly for maximizing the benefits to weavers.

Issues with Handloom Sector

On comparing the Handloom Census of 2009-10 with the Census of 1995-96, it has been observed that the number of handlooms and weavers have declined significantly. This may be accounted for the low earnings of the handloom weavers vis-a-vis other professions. It is also a fact that handlooms cannot continue to produce low end products as these handloom products cannot compete with the powerlooms. Not only this, there has been shift in ladies wear from sarees to suits/jeans/dupatta/tops etc. Further, young generation is not getting attracted to handlooms, perhaps due to low earnings in the handloom profession. Thus, there is a felt need to provide wages to the handloom weavers, which are remunerative to them.

Handloom weavers can be broadly categorized into two categories- highly skilled weavers who produce high end niche products and medium to low skilled weavers who produce low value mass consumption products, and constitute greater proportion. Hence as a whole, the sector could not yet position handloom products in niche category, which is the only way to differentiate it from less expensive power loom products and ensure its growth in domestic and export markets. This will also help in ensuring better earning of handloom weavers.

Growth of handloom sector has stumbled over various supply side issues as well. Those are related to raw material availability and price, loom conditions, supply chain, availability of handloom weavers, credit availability, lack of continuous marketing support due to decline of state owned apex and corporations, stiff competition from power loom and mechanized sector and cheaper imports and most significant is the lack of interest of the younger generation to get involved in handloom weaving.

Strategy for handloom sector

The vision of Ministry of Textiles for handloom sector is "to develop a strong, competitive and vibrant handloom sector to provide sustainable employment to handloom weavers and to ensure inclusive growth of the sector".

Considering the above, there is a need to have a focussed approach to development of handlooms, for which certain individualistic as well as common interventions are required to be made. This may include the following:

Technological & Infrastructure Development

i) Individualistic Interventions

(a) Technological up-gradation: The handloom sector is still surviving on age-old machinery and production methods which diminishes the quality and affects the productivity of the weaver leading to the loss of competitiveness. In order to encourage use of modern frame looms, dobby, jacquard, dyeing machines and other preparatory machineries, a suitable scheme with necessary financial assistance in association of state government needs to be taken up for providing various pre-loom, on-loom and post-loom technological up-gradations. For this purpose, cluster specific SPV should be promoted in partnership with state government. The SPVs will be responsible to purchase latest technology machines and provide them to the weavers, dyers and other ancillary stakeholders.

Many research studies have been carried out by various textile institutes to develop new technology for the handloom sector, both in preparatory and weaving processes. Usage of those new technologies may improve product quality and process efficiency, besides helping in reducing drudgery of weavers.

Weavers should be made aware of the existing technologies and a demonstration of the same should be given to them. The premises of weavers service centers, CFCs and Dyeing setup in clusters and IIHTs can be used to give the demonstration of the technological improvements in preparatory processes and in handloom weaving. Weavers should be encouraged to adopt those technologies and appropriate mechanism should be adopted for easy purchase of those machines / parts. Research institutes should be encouraged to develop more such technological improvements for improving product quality and process efficiency.

(b) Construction of pucca workshed:

Suitable workplace for handloom weavers is also essential for producing quality products and storage of raw material as well as finished products. The existing provisions of financial assistance is insufficient and needs to be scaled up substantially upto minimum Rs 70,000/per workshed with linkages with banks for subsidized loan beyond this assistance upto Rs two lakhs.

ii) Common Interventions

a) Common infrastructure to Primary Handloom Weavers' Co-operative Societies

Primary Handloom Weavers' Co-operative Societies are the backbone of the handloom sector, which are engaged in the production & marketing of handloom products. Production of the fabric is done through their members while marketing is done, either directly or through Apex Handloom Weavers Co-operative Societies or through any other means. Such societies are spread across the country and play a vital role in providing employment to large number of handloom weavers/workers.

In order to revive the handloom co-operative societies, the Government of India had recently waived the overdue loan in respect of viable and potentially viable societies under Revival, Reform and Re-structuring (RRR) Package for the Handloom Sector. Under this package, around 10,000 primary and apex societies have been assisted. However, just waiving of overdue loan is not adequate to revive them unless they are equipped with the efficient and modernized means of production so that they are able to produce new and quality handloom products with improved productivity. Also, the societies, which were not covered in the RRR Package but are working may also be considered on need basis.

To work towards the objectives given above, the Primary Handloom Weavers' Co-operative Societies may be assisted for installing suitable pre-loom and post- loom facilities, which would help them in carrying out various operations effectively and efficiently. This may include the following:

Pre-loom/Post-loom technological Intervention		
Motorized Winding Machine (hank to bobbin)		
Auto Ikat Group Former Machine		
Motorized Warping Machine		
Dyeing utensils		
Hydro Extractor (5 Kgs. capacity)		

Source: Annual Report Ministry of Textiles, Government of India.

Viability of yarn at the right price and at the right time is a major issue in the handloom sector. Yarn reaches weavers after changing many hands and finally gets sold by a small group of peoplelocal trader. Inconsistent availability and unpredictable price fluctuation, beyond seasonal variation, are faced by the weavers. Besides this they also face difficulty in sourcing yarn in smaller quantities. NHDC is also present in handloom clusters to provide yarn to weavers but its share is still low at around 17-18% of total requirement.

It is necessary for NHDC to create sufficient stock of yarn locally and big enough to break the existing cartel. In yarn supply, so far role of State Government has been negligible and State Government should take up yarn distribution in association with NHDC as States have large network of their field level offices. The state may identify suitable agencies for yarn depots/raw material banks for ensuring yarn supply to handloom weavers of nearby areas. Bulk procurement/booking of yarn by NHDC will also help in price reduction and with involvement of State Government network,weavers will finally get the required yarn at a competitive price on immediate basis. The same raw material bank may also stock azo free dyes and chemicals required for the handloom sector.

Product and Design Development

Weavers do not have much exposure to the market and thus are not informed about the consumer preference and other market trends. Majority of the weavers supply the products either to a cooperative or a *trader* who in turn supplies it to other intermediaries from where it reaches the final market. This long and complicated supply chain in handloom sector obstructs the weavers to get understanding of prevailing trends which leads to loss of business. Continuous market insights are crucial to respond to changing consumer demand.

In view of fast changing fashion trend and market, there is a need to associate National Institute of Fashion Technology (NIFT), NID and other prominent design institutes as well as leading fashion and textile designers to provide market led designs by adopting the clusters and serve as a link between the weavers and the market. A suitable scheme needs to be formulated so that each NIFT and other design institutions may come forward and may adopt at least 10 clusters and carryout market research twice a year to provide necessary insights and feedback specific to the clusters and suitable to their product mix. Such teams should comprise of various designers lead by a mentor designer, who is already working with handloom fabric commercially. After carrying out the research, the team should conduct a series of workshops in those clusters to inform weavers about the designs, product structure and raw material requirements. This team should also train local Weavers Service Centre representatives, local designers of the area and cluster, so that the process continues even after the workshop series.

Marketing Strategy

Handloom weaving is a labour intensive occupation of converting yarn into fabric and is spread mostly in rural areas all over the county.Though, RigVeda and Purans give reference to different kinds of fabrics pointing towards the existence of art of weaving, the Industrial revolution and corresponding mechanization of various processes involved in the production of textiles have had major impact on the handloom production.

Today, the major competitor of handloom fabric is power loom fabric. Therefore, it is necessary that a sound marketing strategy for domestic as well as export markets must be developed on clear understanding of the product itself and the marketing segments it caters to. In order to survive in this highly competitive market, handloom products need to be positioned in the niche category and it is also important to prove its authenticity. All handloom products should be promoted as a piece of art and as bearers of our cultural heritage.

The following policy interventions may be taken for increasing the market size of handloom products in domestic and export markets.

Increasing domestic market of handloom products through branding and retailing initiatives

A brand differentiates identity of a product / service from others. It helps in building an image of the products in the mind of consumers. In today's scenario, entrepreneurs concentrate to build strong brands in order to boost their sales through enhancing loyalty and product recognition. Handloom is one such sector where branding is required to facilitate sales and spread awareness about the indigenous products of India. The handloom products need to be promoted as an art and a product of pride. In the present scenario, importance being given to brand by consumers, especially younger generation, it is required to take an initiative to establish a "brand" for the handloom products and making the products available through different retail channels. An exclusive range of designer products from different handloom clusters should be made available under one brand. All the products under the brand name should bear a Handloom Mark to signify their authenticity and originality. Such branded products should be made available through existing leading multi brand retailers and state emporiums through shop-in-shop format. They should also be made available through exclusive brand outlets, which should be opened in Public-Private Partnership format.

Increasing Presence of designer handloom products

There is a lack of design innovation in handloom products. Weavers are weaving fabrics with age old designs. Promotion of designer handloom products in domestic market is necessary for the same. There is a need to formulate a suitable scheme/plan to engage reputed designers, who will develop an inspirational range from handloom fabrics of different clusters in line with the requirement of the brands / retailers and market. Those products should be showcased to leading brands / retailers of domestic market through a fashion show and BSM. Brands / retailers need to be encouraged to adopt the design concepts and develop their own product range. Those designer handloom products should be sold through their retail network.

Online marketing tie-up

Handloom products have a good fit with the gifting segment. Handloom fabric is also used for manufacturing apparel and accessories. So, there is a vast scope for handloom sector to leverage the attractive opportunity provided by the e-tailing format as it will not only provide a bigger platform to showcase Indian heritage but will also help in direct marketing and thus improve the livelihood of handloom weavers. As customer base built up is one of the major challenges and the online marketing sector is getting dominated by few leading players, it would be advisable to develop tie-ups with the market leaders in the etailing segment rather than launching a new portal for handloom products. Suitable marketing, sourcing and logistic arrangements need to be developed in association with state governments for the success of this endeavor.

Linking handloom with tourism to boost sales

Being the bearers of Indian tradition and culture, handloom products are a major attraction for tourists. So, linking handloom clusters/centers with tourism circuits will boost the sale of handloom products. For this intervention, major handloom clusters need to be identified in existing tourism circuits and craft centers should be established to promote the handloom products

of those clusters. The craft center would not only showcase the rich heritage of handloom products of that cluster but will also be a single point source for all related information and availability of the handloom products. It will be also required to link it with other travel related facilities and services, so that craft center becomes a center of attraction for all tourists. The craft center may be developed in PPP mode.

Global study for developing export strategy

A very small percentage of handloom products get exported now whereas the market size can be increased many times with proper strategy. Country specific strategies should be formulated in terms of required product mix, price points, business models, promotional activities and marketing interventions.

Opening Franchisee showrooms in identified countries to increase international presence

In order to strengthen the sector, it is required to increase the footprint of Indian heritage worldwide. Exclusive stores should be opened by Handicrafts and Handloom Export Corporation or a suitable agency in franchisee mode to market the niche handloom products at major international destinations. Initially, considering the Handloom export data, the stores should be opened at fashion capitals namely Milan, Tokyo, London, New York and Paris. The initiative should facilitate the easy availability of genuine products at affordable prices in international markets. It may also help in establishing direct linkage between weavers and the buyers, eliminating layers of middlemen. Further, it may increase the Handloom exports because of the direct presence in the target market with authenticity and certification. The franchisee outlets should be opened in PPP format. The Government may support the private players in building the brand abroad through advertisements and promotion.

Export Incentives for handlooms

I. The additional duty credit scrip @ 2% under Focus Product Scheme may be provided on all products with the use of Handloom mark across the globe.

- II. Export of handloom goods may be entitled for triple weightage for grant of Star Export House Status.
- III. Setting up a single-window cell to monitor submission and clearance of export documents, tracking movement of containers and redressal of grievances.
- IV. To obtain zero duty for Handloom products under Free Trade Agreements to be signed and also take up the matter for inclusion in existing FTAs.

Cluster development through CSR activities of corporate houses

Government is taking a lot of initiatives to keep alive the age old tradition and knowledge, inherited by weavers from one generation to another, and bring the craft persons and weavers out of the clutches of poverty. However, the efforts of government alone may not be sufficient. Corporate houses may be approached to come forward to adopt the traditional clusters for their sustained development under CSR activity. The corporate houses can support the clusters by facilitating infrastructure development, branding and promotion, providing design and marketing support and preferring those traditional products for corporate gifting. This will definitely enable the outreach of traditional crafts and loom traditions and enable the products to find niche markets and valued customers. Government will facilitate the linking of corporate houses with the cluster and those corporate houses may also leverage the available government schemes to scale up their efforts.

Credit Support

The credit to handloom sector through formal sources has been a major constraint. Loan to handloom sector at 6% interest has been approved by the government by providing interest subvention upto 7%, besides margin money assistance @ Rs 10,000 per weaver to leverage the loan. To safeguard the interest of banks and make collateral free loan to weavers, such loans are covered under Credit Guarantee Trust Fund for micro & small Enterprises (CGTMSE).

Case Study of status of handloom weavers in Varanasi

The city of Varanasi is located in the middle Ganga valley of North India, in the Eastern part of the state of Uttar Pradesh, along the left crescent-shaped bank of the River Ganga.

Evolution of the Cluster

Varanasi has a rich cultural past and Banaras silk sarees are an integral part of the Indian sartorial landscape. This tradition embodies the age-old artistry of the handloom weaver; it is what links ancient India to modernity. Varanasi handlooms makes India proud of its heritage.Varanasi specialized in cotton weaving but made a switch to silk weaving in the 14th century. Around the same time, motifs used also changed bringing in a Persian mark. For the last few centuries, it has specialized in brocade weaving.

Handloom products

The major handloom products manufactured in Varanasi are:

- a. Saree (90% 95% share in value terms)
- b. Dress Materials
- c. Furnishing Fabrics
- d. Fashion Accessories (e.g. stoles, scarves)

Traditional handloom Sarees of Varanasi are as follows:

- i) Tanchoi Saree,
- ii) Karuwa Saree,
- iii) Cutwork Saree,
- iv) Butidar Saree,

Present Status of Varanasi Handloom Cluster

As per handloom census of 2009-10, there are 31,378 handlooms, employing 95,439 handloom weavers/workers in Varanasi. In addition to these, there are hundreds of traders, dyers, designers, card-makers and ancillary support providers. The annual

Crisis Looms over Handloom Weavers...and Marketing Intervention

turnover for handloom products of the region is estimated at around Rs.500 crores.

Steps taken so far for development of handlooms

The Government of India has taken following steps for development of handloom and welfare of handloom weavers:

i) **Integrated Handloom Cluster Development Scheme**: 01 cluster, covering 3 handloom pockets i.e. Lohta, Kotwa and Ramnagar was taken up in 2006-07 for its integrated and holistic development, benefitting more than 5000 weavers at a cost of Rs.2.00 crore. Progress achieved in the cluster is as follows:

- > 145 Self Help Groups (SHGs) formed covering 1731 weavers.
- ▶ 49 SHGs have got credit linkage worth Rs.72.58 lakh.
- Common Facility Centre (CFC) set up at Kotwa with facility of Dye House, sample and product development, sales room, warping machine.
- > Dye House upgraded and functional.
- ➢ 142 new designs developed.
- Against Rs.5.00 lakh as yarn corpus, yarn worth Rs.760.23 lakh supplied upto 2013-14.
- Total sales generated through Exhibitions and Buyer Sellers meets is Rs.552.21 lakh
- 112 solar lamps distributed covering 112 BPL weaver's families.
- Up-gradation of handlooms by distributing 361 handloom parts.

Overall impact of the interventions

- Productivity increased from 1-3 mtrs. to 2-6 mtrs. per day.
- Wages of the weavers increased from Rs.130/- to Rs.300/ per day.
- Improved availability of yarn through corpus.

ii) Integrated Handlooms Development Scheme: 11 handloom clusters, each covering 300-500 handlooms were taken up in 11th Plan from 2007-08 to 2011-12 for their integrated and holistic development at a total project cost of Rs.4.61 crore. These clusters cover about 4,000 handlooms. Details are as follows:

S.No.	Name of the Cluster	Beneficiaries
1	Bajardiha	500
2	Saraiyan	500
3	Cholapur	310
4	Baragoan	330
5	Jalalipur	315
6	Sarai Mohana	320
7	Harsos	345
8	Lallapura	320
9	Chirai Gaon	325
10	Karghana Sewapuri	330
11	Katehar Pilikothi	345
	Total	3940

In the above clusters, based on the diagnosis, funds have been released for various interventions varying from cluster to cluster. This includes a corpus for yarn depot, engagement of designer, purchase of computer aided textile design system, setting up of CFC, dye house, publicity & marketing, margin money, construction of workshed, purchase of new looms/jacquards/ dobbies/accessories etc.

iii) **Comprehensive Handloom Cluster Development Scheme (CHCDS)**: Finance Minister in the Budget for 2008-09 announced for taking up Varanasi as one of the mega handloom clusters. Accordingly, a new scheme, "CHCDS" was introduced. As per guidelines, each cluster covers atleast 25,000 handlooms and is to be developed at an upper Central share of Rs.70.00 crore in a time period of 5 years. Intervention-wise details are as follows:

Problems faced by the weavers of Varanasi

As per the Handloom Census of 2009-10, there are 31,378 handlooms in Varanasi vis-à-vis 57,946 handlooms in Varanasi as per 1995-96 Handloom Census. On comparing the Handloom Census of 2009-10 and 1995-96, it has been observed that the number of handlooms has declined in 2009-10. This may be accounted for the low earnings of the handloom weavers vis-avis other professions. It is also a fact that handlooms cannot continue to produce low end products as these handloom products cannot compete with the powerlooms. Not only this, there has been shift in ladies wear from sarees to suits/jeans/ dupatta/tops etc. Further, young generation is also not getting attracted to handlooms, perhaps due to low earnings in the handloom profession. Thus, there is a felt need to improve wages to the handloom weavers, which are remunerative to them. Hence, necessary steps should be taken, which support weavers in enhancing their wages through development of niche products.

S.No.	Problems of handloom weavers	Action taken
1.	Lack of design innovation	Design is an important input of the handloom product. Though Weavers' Service Centre (WSC) is working at Varanasi and providing technical assistance to all concerned to handlooms, including weavers. However, to give a new dimension to overall development of handloom products with new designs and colours commensurate with the market requirements, prominent designers i.e. Ms. Ritu Kumar and Sh. Sabyasaachi Mukherjee have been entrusted the responsibility. In this direction, they have recently

Problems of handloom weavers and action taken thereon

		visited and interacted with the stakeholders and taken up work for development of handlooms of Varanasi.
2.	High cost of raw material (Yarn)	Besides, cotton yarn, silk yarn is used more in Varanasi. Both the yarns are available in local market and also, supplied by the National Handloom Development Corporation (NHDC), an Undertaking of the Govt. of India. Under the Yarn Supply Scheme, transport subsidy on supply of all types of yarn from Spinning Mill to the destination is borne by the GoI. Further, to subsidize the cost of yarn so that handloom products could compete with powerlooms/mills, additional 10% subsidy on cotton, woollen yarn and domestic silk is provided. Even after subsidizing the yarn, the price of hank yarn is more than the cone yarn. Further, Chinese Silk yarn is highly used in Varanasi, which is not supplied by the Government.
3.	Non-availability of Credit	This is required in order to carry out the production cycle, which includes purchase of raw materials (yarn, dyes & chemicals), payment of wages to the weavers, marketing expenses etc. At present, the credit is provided @6% per annum with a margin money support of Rs.10,000/ - per weaver and the loan is guaranteed by the CGTMSE. In Varanasi, 5382 Weavers' Credit

		Cards have been issued during 2012- 13 to 2014-15 (upto September 2014), sanctioning a loan of Rs.13.48 crore. However, the banks have reluctance in sanctioning loan to the handloom weavers. Further, Minister (Finance) has been requested to create Handloom Sector as sub-sector within Priority Sector lending.
4.	Lack of technolo- gical up-gradation	This is needed in order to improve the productivity of the weavers so that his/her earnings increase. The technological up-gradation is required primarily in both, pre-loom and on-loom operations. In Varanasi, about 34,505 handloom parts have been distributed to the handloom weavers. The distribution of handloom parts is continuing in the cluster.
5.	Marketing of handloom products	Besides, various on-going marketing support to the handloom weavers, recently, an MoU has been signed with Flipkart for on-line marketing of handloom products of handloom weavers/agencies, eliminating the middleman, thus hadloom weavers are expected to have improved earnings. In this direction, awareness camps are being organized. Recently, 20 Primary Handloom Weavers' Co-operative Societies of Varanasi have been registered with Flipkart. Further, on- line portal is also being developed by the office for providing marketing support to the handloom

weavers. Also, for fusion of handlooms with fashion, tie up is being made with National Institute of Fashion Technology (NIFT).
of Fashion Technology (NIFT).

Need For Branding Indian Handloom Industry

Brand positioning refers to target consumer's reason to buy a brand in preference to others. It ensures that all brand activity has a common aim; it is guided, directed and delivered by the brand's benefits/reasons to buy; and it focusses at all points of contact with the consumer.

On 7th August 2015, the first National Handloom day was celebrated and a new brand "India Handloom" was launched."India Handloom" is expected to create awareness about handloom products and provide a better market positioning. Such branding was needed because the Indian handloom industry is in decline.But more efforts are required to be taken by the government tocreate a unique identity of Indian handloom as a brand in the minds of the consumers.

Hiring a brand ambassador, forging strategic alliances, establishing modern and contemporary design centres, establishing packaging and logistics facilities, creating machine and technology support systems, leveraging information technology, providing marketing research, training and consultancy are some of the factors required to create brand promise for indian handloom.

Thus, our Prime Minister Mr. Narendra Modi on7th August 2015 at the National Handloom Day has rightly remarked "We need to take several initiatives to make handlooms fashionable. This can be done by bringing new designs and colour schemes, constantly evolving and innovating, ensuring quality. Fashion and design education in India also needs to be re-oriented. We need to make our handloom tradition the centerpiece of fashion for India and the world. We are committed to give a rightful place to our famous traditional handloom products".

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Dr. Sheetal Kapoor Department of Commerce Kamala Nehru College



Revisiting Vietnam–Change in Politics and Poetics of Representation in Vietnam War Literature: A Comparative Discourse Analysis

April 30th, 1975 witnessed the eminent defeat of America in the Vietnam War. By the time it ended, the war had gained an infamous reputation worldwide. The defeat against physically, racially and technologically inferior Vietnamese marked "the end of America's absolute confidence in its moral exclusivity, its military invincibility, its manifest destiny" (Karnow 1984, 9). More than ever, American policies in Vietnam came under intense scrutiny and debate, following the process of Vietnamization.

The end of the Vietnam War was the starting point of another much more important war-that of discourses, in which the American intelligentsia participated with diverse perspectives to understand and ameliorate the horrors that American government's foreign policy of international "exceptionalism" and intervention had created in Vietnam. The liberal and conservative historical narratives of war proved insufficient categories for an objective portrayal of the events, where the word Vietnam became a metonym for "war" itself. Stanley Karnow's Vietnam: A History was the first-of-its-kind liberal history (a companion piece to the PBS documentary series) ridden with value-based generalizations of Vietnam and the Vietnamese. He writes, "[i]n human terms at least, the war in Vietnam was a war that nobody won-a struggle between victims. Its origins were complex, its lessons disputed, its legacy still to be assessed by future generations. But whether a valid venture or a misguided endeavor, it was a tragedy of epic dimensions" (Karnow 1984, 11).

Similarly, each chapter in Karnow's book gestures towards a grand narrative that foregrounds the "lessons of war"; such evaluation instead of setting straight the chronology and facts of the war, seeks to distort history. The universalist victimization of the veterans and soldiers facilitates a denial of responsibility that is highly problematic. Kali Tal suggests, "'soldier-as-victim' representation depends upon the invisibility of the soldier's own victims namely Vietnamese soldiers and citizens" (Tal 2015, Chap 6).¹ Liberal historiography thus, resulted in obscuring the historicization of Vietnam War by removing the blame away from the flawed American foreign policy, and situating it under the narrative paradigm of a grand humanistic tragedy suffered universally, by both the sides; rather than simplistically misrepresenting or misinforming the events as they unfolded. It creatively reconstructed the past from existing memories whose authentication was impossible to demonstrate because such methodologies were attached to particular ideological contingencies.

The Vietnam War was destined to haunt the public imagination because of its historical indeterminacy and conflicted local politics that led to numerous overlaps prevalent in the best of historical narratives available. Subsequently, the aftermath of the war, produced a rich and varied body of literature, films, and journalistic accounts in the US. The crisis surrounding the war therefore did not indicate the absence of a rational discourse or code, but rather a plentitude of discourses and codes that were regularly generated through various forms of mass media and communication. These often contradictory, and sometimes explanatory discourses on Vietnam that was read or watched widely also generated ways of reading texts, identities and events that became problematic in the context of Vietnam. The problem was not just of the production and generation of discourses-"news" in the popular parlance, but also the way of channeling, mediating and propagating them such that they appeared to have seeped into all the strata of society. These in turn, were affected by local conditions and circumstances, generating their own kind of intensely straitjacketed and reductive discourses. Underlying this is the fact that discourses are not just constituted (written), but they are also in turn constructing (forming) specific identities and narratives to bolster one's own version of truth. Texts as discourse are not just produced for archival purposes, but in their own, surrounded by specific conditions and economy of production, results in the formation of other kinds of discourses.

It is not just the production, but also the reception and the manner of reception that needs to be focused on.

Each discourse, unique in position and politics, aimed at representing the Vietnam War in order to gain an absolute closure. The multitude of war narratives in the form of memoirs, novels, poems, reportage, films and documentaries became an alternative source of personal enunciations of history. Said explaining the Foucauldian archaeology of "trans-personal authority of texts" (Said 1994, 69) suggests, that each text lies within a socio-historic system of enunciability (Foucault 1972, 146); a shared field of discourse comprised of a "whole mass of text" by "so many authors who criticize one another, invalidate one another, pillage one another" (Foucault 1972, 143). The system of enunciability that determines the selectivity of what can be said and what can be left out further leads to the issues of reliability, trust and credibility that form relative categories and not absolutes, further problematizing the representational ethics of any genre.

Therefore, the representation of Vietnam War through distinct discursive practices in an age of "post theories" demand a close scrutiny, in order for one to gauge the shift that it undergoes—teleological or ideological. This paper will explore the changes and shifts in the poetics and politics of representation of the Vietnam War by comparing two discourses—memoir and documentary film. I will highlight these changes by analyzing the ways in which writers and filmmakers weave specific narrative structures to prioritize certain issues and obscure others, creating representational "aporias" that engage the readers with problems of textuality and provide a distraction from the *realpolitik.*²

Bill Nichols describes documentary film as a "discourse of sobriety" that draws from history, science, economics and politics—all of which seek to represent a "serious" reality, but documentary in more conspicuous ways than do other discourses, "straddles the categories of fact and fiction, art and document, and entertainment and knowledge" (Godmilow and Shapiro 1997, 80). The visual language-code with which it functions has

quite a varied set of effects compared to written texts. Similarly, the primary objective of memoirs is to allow for a display of the real truth, via the act of bearing witness. In order to do so, it indulges in the invention of real and fictional events through the agency of the self.

A comparison between two genres necessitates for our understanding, a theoretical outline within which both the discourse function. In the introduction to a collection of essays entitled Getting a Life, Sidonie Smith and Julia Watson examine the autobiography genre that engages us daily. They state "[n]ot only do autobiographical narratives permeate capitalism's market place in our time they overflow in everyday life" (Smith and Watson 1996, 2). Their exploration of autobiography highlights a space for self-invention, in particular, the significant role played by media and technological advancements in boosting an individual's competence, to narrate the events of their life, particularly in the public sphere. The emergence of autobiography as a genre can be traced back to more than two centuries, following a more subdued, "memoir", however both the terms are used today often informally, where "memoir" serves as an umbrella term, solicited by publishers eager to publicize books to an audience captivated by real-life stories or private lives. The firm positioning of autobiography on the bestsellers list can be attributed to the rising interest of reading public in non-fiction – a similar shift has also occurred in the televised reality program that has given a platform to documentary films to gain prominence in the public entertainment arena.

The act of writing one's life story and the consumption of "others" life stories can be perceived as an endeavor to ratify the individual, according to the norms and values of the contemporary society. The 20th century has augmented an "age of extreme" that has amplified in the post modern period comprised of "a remarkable and contradictory dualism" (131), suggests Mary Evans. The "dualism" results in a widespread fear that some major incident will suddenly imperil the relatively safe and high living standard prevailing in the West. Evans argues in line of Bauman's "fluid identity" in the modern age that psychologically leads to a desire

of forming an identity, in order to "stabilize the uncertainties of existence" (Evans 1999, 131). The participants and audiences who take part in the narrative as voyeurs are also in turn entertained by authentic personal stories narrated in public; an untamed reality regulated by expertise, rules and technological sophistication.

Salamon observes while writing about the use of personal trauma in these mediums for social acceptance that, "[w]hile conniving and bickering, shame and humiliation often remain essential ingredients of these shows, many of them also reflect a mutation of the basic American desire for transformation. But now transformation has become a byproduct of voyeurism and can be seen easier than ever: to change your life, just to go on television" (Salamon, When Group Therapy Means Coming Clean on TV, nytimes.com). The assertion stands true in literary context as well: although earlier it was great leaders (generals, ambassadors and politicians) who composed their autobiography in the late period of their lives as an act of contemplating upon past activities and accomplishments. An extraordinary shift was observed in context of Vietnam War that saw contribution in abundance by war veterans turned authors like W.D Ehrhart, John Balaban, Robert Mason and Karl Marlantes who documented their traumas, loss, addictions and abuses caused by the infamous war. The traumas in most cases were periods of illumination that ushered them into a phase of reconciliation and coming to terms with war.

The changing dynamics of the media over several decades is symptomatic of the new wave of individualism and public resilience for intimate disclosures in the open arena. Along with a favoured circulation of pathological discourses, pervasiveness of cell phones, coming into prominence of reality television, and the "narrowcasting" of the Internet through social networking sites, YouTube and blogs, each unravel new attitudes towards the ethics of documentation and demonstration of daily life.

Karl Marlantes' Vietnam War memoir, *What it is like to go to War* (2011) transmogrifies into a pastiche an elemental stylistic form

that govern the post modern narratives. It enters into the new realm of *self-help* guide books by employing distinct spiritual and mystical vocabularies that act as an agent of pacification in the lives of the veteran soldiers. The narrative creates a closed off hermeneutic circle inviting only those participants in its revelation who can identify with the traumas and psychological quandaries that war, in the context of Vietnam—a "meaningless" war evoked. Marlantes writes in his introductory preface, "I wrote this book primarily to come to terms with my own experience of combat. So far — reading, writing and thinking — that has taken more than forty years. I could have kept my thoughts in a personal journal, but I took on trying to get these reflections published so that I could share them with other combat veterans. Perhaps I can help them in their own quest for meaning and their efforts to integrate their combat experiences into their current lives" (Marlantes 2011, 11).

The enunciation of war experiences is wasteful till the time it is limited to the self. The experience attains meaning and poignancy only when it enters the public arena through the act of storytelling that forms a link between the past and the future. The impossibility of narrating the first postmodern war according to the conventional paradigms of war narratives impels Marlantes to parody the "self-help" genre that shatters all the earlier existing vocabularies shared and identified by the veterans through which they conveyed their experiences. This shift in the narrative strategy opens up a new space for reflexivity, one that is shared by a specific clique whose members identify with the new idiom.

Marlantes selectively chooses from his past memory only those events that gave him a sense of mystical and spiritual proximity to the essence of life and death and the inefficiency of Marine training to cope up with these profound feelings: "I realized that the mystery of life and death had once again played out before me and that once again I was in a sacred space . . . the Marine Corps taught me how to kill but it did not teach me how to deal with killing" (Marlantes 2011, 13). The lack creates space for negotiating his anathematized identity of a heartless American killing-machine that enabled him to place himself in the long

tradition of warriors from Hindu and Greek mythologies. The idiolects of mystic spiritualism that Marlantes incorporates in his narrative envision the transgression of the banal identity of a soldier.

The performance of the self in the memoir is orchestrated by giving primacy to the act of storytelling that leads to mythic interpretations of war. The mythic framework pushes the soldier identity into a contingent space by naturalizing war as an interminable entity, thereby justifying the need of a warrior cult that endures pain on behalf of the society by alienating themselves from it. Conversely, Marlantes a priori establishes the circular nature of warfare which makes possible an elaborate and meticulous theorization of cogent psychological training for the future "warriors" of the country. The epistemic challenge of the text is its reduction of the Vietnam War into recognizable American tropes of "heroism", "warrior cult", "initiation" and "loyalty" that leads to a comfortable solipsism, but the existence and identification of such codes in the society resulted in war at the first place; as the American ideals of "freedom" and "democracy" impelled military interference in Vietnam's emancipation, that paradoxically, led to its destruction.

The idea of choice within the autobiographical framework, is manifested in a specific way in order to revive memory, that inhibits a moral chronotope, Marlantes fully aware of the tendencies of confabulation and concoction injected by the writing *self*, and attempts at retrieving his dignity by shifting the logos of "killing" in the form of a subjective vendetta for the death of a fellow Marine (Canada) to a transcendental collective goodness, "... yet through several drafts of manuscript I kept writing this fictional ending of my story as if it were true ... I can now tell the story truthfully. We all shot anybody we saw, never offering a chance for surrender ... I knew that we had them on the run and that now was the time to pour it on" (Marlantes 2011, 57). The abstraction of the enemy as an inconspicuous object meant to be destroyed irreducibly, takes off the moral charge from the brutal act of killing.

It is however, interesting to note that the acts of "killing" and "lying", ideologically considered abnormal, are normativized in relation to war, "[i]n Vietnam, lying became the norm and I did my part . . . lying became so much part of the system that sometimes not lying seemed immoral." The traumatic condition of war inverts the ideological and moral paradigm of society and distorts the evilness of these unmentionable acts that were carried out in a confused state of mind under morally ambiguous situations. In fact, Marlantes goes so far as comparing himself with the legendary figure of Odysseus who uttered controlled lies under tense situations, "... I was never consistently in control of my lying. My lying fell in two categories: the lie as a weapon and the lie of two minds" (Marlantes 2011, 67). The absence of motive from both the categorized acts of lying is not only a harmless enunciation, but also a necessary act in the absence of ascribed moral codes of society. The "love of war" practiced by the male warriors function by essentializing and grooming the 'evilness' embedded in the psyche of the collective American male identity that turns into a standard aspect of human nature. Thus, war in general and the Vietnam War in particular becomes a carrier of inter-generational knowledge by persisting on the circulation of certain myths that intensify and make war desirable among subsequent generations.

While describing how society alienates a returning "kid warrior" who cleans up the mess perpetrated by adults, Marlantes grants the stereotypical role to women as healers of traumatized psyches ". . . [I]t is primarily women who reintegrate the warrior back into society, the energy of the queen, not the king. Women carry this queen for most young men" (Marlantes 2011, 98). Women get equally consumed into the machinations of war alongside men, by imbibing the typical role of a nurturer; whose job is to infuse *eros* into the life of a traumatized warrior suffering from despair caused by the excesses of war. The polar opposite roles ascribed to both the sexes typecast identities instead of dismantling them. Marlantes by accrediting the status of "war veterans" to women aims at reconciling their victimhood perpetrated by men that traumatized those immature 'men' who

could not assimilate the typecast, and were insufficiently prepared to channelize and control such situation.

The memoir is divided into eleven chapters each concentrating on the emotive aspect of a veteran's life post war that affirm their naivety, unlike other memoirs on the issue that strive to rationalize the causes that led to Vietnam War and their shameful involvement in it. The constant mythification of the narrative acts as a dangerous supplement that mitigates the brutal act of warriors and constructs a space for defining manhood and civilization at the cost of the enemy "other". Marlantes aware of its existence seldom appropriates himself with the 'other' unless he feels the need to express appropriate empathy that destroys the spirit of solidarity expressed erstwhile with the "warriors". The abstraction of the 'other' only as a foil for empathy creates a proxy violence that is epistemic in nature.

Vietnam War and its after effects create an ideal situation of homosociality, "[A]fter the warrior returns home from the initiation of combat, he becomes a member of "the club" of combat veterans. It has always been a club with its own secrets and its own societally imposed rules of silence" (Marlantes 2011, 107). Silence and secrecy of the war experience are codes for inducting future initiates, the valorization of such rituals is not only problematic in a pathological sense but it also works with an exclusiveness and detachment from the societal codes of conduct which mandates the need of cliques and "initiated warriors". Their existence signify the need for sacrificial death for the emancipation of the nation, that complicates the notion of human bodies seen as surplus that circulates non-productive labor to carry out equally non-productive task of waging a war that helps in maintaining a neo-liberal economy.

In order to comprehend how the realistic complexities of "seriousness" are expressed in context of the modernizing logic of Vietnam War it would be interesting to look into Peter Davis' 1974 documentary *Hearts and Minds*. The opening sequence sets the tenor of critique, rather farcically, by underscoring the superiority America felt after the success in World War II "we

are just beginning and we won't stop winning, till the world is free" (Davis 1974, 3:16) These lines along with a montage of other scenes from a variety of sources like news footage, journalistic films, mainstream movies and television portray the reception of predominant ideologies through the agency of mainstream commercial media that relegated the contemporary problems of the Vietnam era. The contrasting technique of compiling live footages of war and real life interviews simultaneously deconstructs the propagandist manipulations incorporated by the American government to gain public consent in order to wage war and dehumanize Vietnamese and kill them under the banner of freedom.

The formal viewpoint that usually conform to the study of the documentary mode, the documentation of social problems, "committed" cinema (political) and the ethnographic film—and other discourses of the "serious" documentary-are conceived as specific sub-genres of history that have their respective ideological, aesthetical, and thematic concern. But from an ethical point of view the changing history of documentary mode can be observed as a chain of variations and alterations indicative of a retreat from and a return to the humanitarian zeal of media interference. Hearts and Minds whether traced to Grierson's point about the "social victim" or Flaherty's ambition to give the ethnographic native a representation, conform to the aesthetic bearing of "seriousness" that is intricately linked to the indispensable task of saving the other from the death of discursive invisibility and relegation. The trope of "discourse of sobriety" from this perspective is not only an ideological stratagem, but symptomatic of the decree of a humanitarian ethical paradigm, that makes urgent the task of legitimization of human life by avoiding all other concerns-pertaining to the aesthetics and politics of representation.

The documentary unravels its self as a realist and antipropagandist stand against the dominant Vietnamese stereotypes that justified combat with a one-dimensional political outlook of war that the American government with the help of mainstream media was readily distributing during the Vietnam War. While, each point of view has a propagandist stigma attached to it, Davis departs from the others in judiciously choosing to give the Vietnamese subjectivity a proper representation on the camera. Instead of distorting facts, he presents them meticulously with shots juxtaposed against each other, deterring an explanatory voice-over or fillers that link the shots and explain its relevance. An instance of this technique can be noted when an American statesman, rather proudly declares that, "our vision of progress is not limited to our own country, we extended it to all the people of the worlds" (Davis 1974, 3:35) The camera shot immediately shifts from the indoors of a conference room to the open battlefields in Vietnam where the colonial French army is seen bombarding and destroying the landscape with the help of large capital provided by America. This sequence critiques the American ideals of progress that searched for ways to legislate proxy imperialism by funding the war against a poor war stricken country like Vietnam. Desson Thompson of Washington Post comments on Davis' politics, "he is morally outraged and against the war. But that's the value and endgame of all the documentaries. They are about points of view, presented as powerfully, as compellingly (many critics would add 'objectively') as possible" (Thompson 2004). The idea of objectivity is particularly problematic in such assertions as it gives way to an ambivalent narrative that has the tendency to dilute or in some cases negate the revolutionary and political charge from the film.

While, on one hand Marlantes' memoir valorizes the role of "warriors" in the American society Davis on the other hand deconstructs the warrior ideologue by humorously portraying the return of Lt. George Coker, a POW and his selectively remembered rhetoric of freedom, anti-communism, manhood, warrior cult and thrills of war. The American celebration of death for some and ignorance towards the other casualties also come under Davis' critique where figures like Col. George Patton III and the Emerson couple become prototypes of shallow rituals of sacrificial death. Hagopian states, "[d]epending on their political perspective, Americans might have very different sets of people towards whom they felt anger and very different reasons for their feelings and loss and disappointment. However they all seek to partake of an emotional tenor of resentment compounded by uncompensated grief" (Hagopian, 489). Davis shows a montage of shots, thirty minutes into the film, depicting the dehumanization of Vietnamese as "stinking savages", "yellow monsters", "gooks" and certain such terms, that can be correlated to the contemporary Arab situation both lead to a widespread and guiltless killing of the "other".

In both the case studies I under took in the paper, a certain movement of dialectical oppositions of contemporary thoughts can be observed. It is through these supposedly rejuvenating narrative enactments of the conscious self that makes way for the relegated "other" by a "serious" binary opposition of post modernism versus spiritual idiolect, critical theory versus cultural studies, art versus cinema and cinema versus television. But do they actually pave way for the "other"? Or do they end up reaffirming the stereotypes they seek to dismantle? The works discussed reveal that to take humor seriously, in context of a documentary, also shows what is laughable about seriousness, as it gets deconstructed under its own logic. Following Rangan I will argue in conclusion that, ". . . seriousness is a highly ambivalent and volatile discourse—one that forcefully calls up the raw urgency and physicality of the real (hence in association with death, mortality, and finitude), even as it distances itself from such matters of the real, impelled as it is by the imperatives of criticality or disillusionment" (Rangan, For a Critique of the Documentary Logic of Sobriety, world picture 9). Thereby, its potential to resuscitate thought process is centered on the denial of the real, that otherwise exists and acts as a dangerous supplement to modern forms of the genres.

NOTES

1. I have referred to an online edition of Kali Tal's World of Hurt: Reading the Literatures of Trauma which is divided chapterwise instead of page numbers. The link to the site is www.Kalital.com/Texts/Worlds/Chap6.html

2. My idea of the concept here is derived from Benjamin's short excerpt on the *Theory of Distraction* where he explicates, how cinema and popular media provide a cogent distraction to the viewers from critiquing the dominant ideology in the garb of the *realpolitik* by keeping them in the illusion of the "real" offered by the frame of the camera. It is interesting to evoke Susan Sontag's *On Photography*, where she reminds us that to frame, also means to exclude the "other", in this context the "other" strain of ideology that threatens the dominant political ideology of the contemporary times as propagated through the popular media.

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Azharuddin

Department of English Moti Lal Nehru College (Evening)

Imagery in Sports

Introduction

Imagery, in the context of sport, may be considered as the voluntary or involuntary creation or re-creation of an experience generated from memorial information, involving quasi-sensorial, quasi-perceptional, and quasi-affective characteristics which may occur in the absence of the real stimulus, antecedents normally associated with the actual experience and which may have physiological and psychological effects (Morris, Spittle and Watts 2005). Imagery is a part of sport psychology skill (mental skill), where it affects the success of athletes in their tournament or game. In addition, many athletes and coaches today recognize the power of imagery in sport performance. In fact, athletes from most sports attribute at least part of their success to their use of imagery. But not all athletes are able to verbally describe exactly how they use imagery, but some can. The imagery system can be used to help a person meet some personal or performance goal, but it is most effective when it is used for a specific purpose. The concept of imagery is used in many different contexts. Imagery has both a cognitive and motivational function. The cognitive function of imagery is the use of mental imagery to experience specific sports skills and to plan strategies in advance for competitions. The motivational function of imagery is the use of imagery to experience goal attainment, effective coping and arousal management requirements.

Brain recalls and reconstructs pieces of information stored in the memory to build a meaningful image. It means that most athletes can recall previous experiences in great vividness and detail through imagery. Most imagery research has concerned the effect of the cognitive rehearsal of sport skills on subsequent performance. This can be explained by this phenomenon; a softball player may recall what it feels like to hit or contact the pitched ball. Athletes can also create images of events yet to occur by piercing together bits of information already stored in their memories. Beside imagery use for replaying, it also can create new experiences. It means that athletes need to be able to manipulate the content of their imagery to create images that do what they want to do. Without strong imagery control, athletes, especially those low in self-confidence, may find themselves repeating mistakes in their imagery. For example, a softball player might see herself making a critical error, or a runner might experience an overwhelming sense of fatigue in the last leg of a race. Such negative images are counterproductive, serving only to hurt performance. The images should have the athlete performing successfully and feeling satisfied with their performance. Mental imagery should not focus on the outcome but on the actions to achieve the desired outcome. Imagery is used by virtually all great athletes and research has shown that, when combined with actual practice, improves performance more than practice alone. Imagery also isn't just a mental experience that occurs in your head, but rather impacts you in every way: psychologically, emotionally, physically, technically and tactically.

Defining imagery

Imagery conducted for sport performance is referred to as sport imagery, but can be used interchangeably with the broader term mental imagery (Taylor & Wilson 2005). Sport imagery can be defined as using all sense to re-create or create a sport experience in the mind with the goal of enhancing sport performance during training and competition (Morris, Spittle & Watt 2005; Taylor & Wilson 2005; Weinberg & Gould 2007). Furthermore, Watt, Spittle and Morris defined imagery use as the manner in which people imagine themselves in ways that can lead to learning and developing skills and can facilitate performance of those skills. Mental imagery is defined as the mental execution of a movement without any overt movement or muscle activation. Mental imagery involves the athlete imagining themselves in an environment performing a specific activity using all of their senses (sight, hear, feel and smell). Athletes use many other modalities or senses when applying imagery, such as auditory and kinesthetic, which may be even more important (especially for kinesthetic learners and performers). Psycho- neuromuscular theory posits that imagery results in subliminal neuromuscular

patterns, which are identical to the patterns used during the actual movement. Even though the imagined event does not result in an overt movement of the musculature, the subliminal efferent commands are sent from the brain to the muscles. Hence, the neuromuscular system is given the opportunity to "practice" a movement pattern without really moving the muscles.

Benefits of imagery

Mental Imagery itself can be useful in a number of circumstances including:

- developing self confidence
- developing pre-competition and competition strategies which teach athletes to cope with new situations before they actually encounter them
- helping the athlete to focus his/her attention or concentrate on a particular skill he/she is trying to learn or develop
- the competition situation.

When combined with relaxation it is useful in:

- the promotion of rest, recovery and recuperation
- the removal of stress related reactions e.g. muscular tension
- establishing a physical and mental state which has an increased receptivity to positive mental imagery
- establishing an appropriate level of physical and mental arousal prior to competition.

Four Ws of imagery use

A simple format categorizes key aspects of how athletes incorporate imagery into their involvement in sport. It is by responding to the following four questions a broader understanding of sport imagery might be acquired: *Where* is imagery used? *When* is imagery used? *Why* is imagery used? And *what* is being imaged? Hence, "four Ws" are used in imagery.

Where relates to the context of imagery use within the practice situation or in the competition environment.

When refers to the timing of imagery use. This is determined in relation to scheduling factors such as within or outside of physical practice or training time; before, during or after competition; or as a component of rehabilitation. To become proficient in the use of imagery you have to use it ever day: on your way to training, during training and after training. In every training session, before you execute any skill or combination of skills, first do it in imagery. See, feel and experience yourself moving through the actions in your mind, as you would like them actually to unfold. In the competition situation use imagery before the start of the event and see yourself performing successfully/winning. The results of mental imagery are nothing less than spectacular. From doubt comes confidence, from distraction comes focus, from anxiety comes intensity, from tameness comes aggressiveness, from inconsistency comes consistency and, most importantly, from decent results come outstanding results.

Why represents the functional aspects of imagery use. Mental imagery can be used to:

- **Familiarise** the athlete with a competition site, a race course, a complex play pattern or routine etc.
- **Motivate** the athlete by recalling images of their goals for that session, or of success in a past competition or beating a competitor in competition
- **Perfect skills** or skill sequences the athlete is learning or refining
- Reduce negative thoughts by focusing on positive outcomes
- **Refocus** the athlete when the need arises e.g. if performance is feeling sluggish, imagery of a previous best performance or previous best event focus can help get things back on track
- **See success** where the athlete sees themselves performing skills correctly and the desired outcomes
- Set the stage for performance with a complete mental run through of the key elements of their performance to set the athlete's desired pre-competition feelings and focus.

What athlete's image constitutes the most detailed element of the Munroe et al. model. They proposed that a content-and qualitative –based structure of sport imagery most appropriately represents the "What" of imagery use. The six key categories of content include sessions (Duration and Frequency), effectiveness, nature of imagery (Positive, Negative, Accuracy), surroundings, type of imagery (Kinesthetic, Auditory, Olfactory) and control liability. Subcategories relate more to specific qualitative and processing aspects of imagery, such as sensory involvement, image generation, image manipulation, emotional states and perspective.

Keys to quality mental imagery

The following are some of the important components that should be considered for the impactful mental imagery. We can develop each of these areas so that we can get the most out of our imagery.

Perspective component: The Perspective component refers to the way imagery is viewed. It refers to where the "imagery camera" is when you do imagery. The internal perspective involves seeing yourself from inside your body looking out, as if you were actually performing your sport. The external perspective involves seeing yourself from outside your body like on video. Imagine that if I am kicking a soccer ball. What kind of images that comes into my mind? It might be an image of me playing in the field from the viewpoint of a spectator in the stadium. This is called "third person perspective imagery". On the other hand, if I have the same image that I would have if I was kicking a ball on the ground. This is called "first person perspective imagery".

Imagery is also typically separated in two types according to sensory modalities utilized. These categories have been termed "visual imagery" and "kinesthetic imagery". One example of the latter category would be a laboratory setting where subjects were asked to "create an internal representation and feeling of muscles contracting, and not to use a visual approach where one visualizes oneself performing the task". In many cases, kinesthetic imagery corresponds closely to first person perspective imagery or internal imagery and visual imagery to third person perspective imagery or external imagery. Only visual information is available for third person perspective imagery or external imagery. However, first person perspective imagery can become quite complicated. For example, when you imagine you are kicking a ball, you probably have an image that is composed of the kinesthetic sensation coming from your leg, but also of the shock of the impact between your foot and the ball as well as visual images of moving arms and legs and the ball heading toward the target after the kick.

The first person perspective imagery, thus, includes a variety of inputs from different sensory modalities. Many studies have defined kinesthetic imagery as synonymous with first person perspective imagery. Visual imagery is also sometimes further divided into first person visual imagery (a subjective perspective from the person them self), and third person visual imagery (an objective perspective as a third person). In any case, when imagery is under consideration, it is important to clearly define its modality (kinesthetic or visual) and the perspective (first person or third person).

Research indicates that one perspective is not better than the other. Most people have a dominant perspective with which they're most comfortable. Use the perspective that's most natural for you and then experiment with the other perspective to see if it helps you in a different way.

Physical component: The physical component is related to the athlete's physical responses in the sporting situation. Imagery is more effective when it includes all of the senses that would be engaged, and kinesthetic sensations that would be experienced, during actual performance. For example, images that include the burning sensation of lactic acid build-up in the muscles, the feeling of the heart pounding, and/or the smell of the grass pitch can be very evocative of actual performance for the athlete. Also, adopting the same posture as one would adopt when performing, holding any implements that would usually be held, and wearing the correct clothing could enhance the physical nature of the imagery. For example, a canoeist could perform imagery while

sitting in his or her canoe, dressed in canoeing clothes, and holding the paddle. It is important to note that the individual should imagine performing the relevant skill correctly, and, if he or she is unsure of the correct technique, coaching advise should be sought prior to incorporating imagery so as to avoid the possibility of "ingraining" poor technique.

Environment component: The environment component refers to the physical environment in which imagery is performed. To access the same motor representation, the environment when imagining the performance should be as similar as possible to the actual performing environment. For instance, a rugby player could perform imagery while standing on grass. If a similar environment is not possible, photographs of the venue or audiotapes of crowd noise can be used. If imagery scripts are being employed, they should also include descriptions of the athlete's individual responses to the environment, as opposed to just describing the environmental stimuli.

Task component: The task component is an important factor, as the imagined task needs to be closely matched to the actual task. The task content of the imagery should be specific to the performer, with him or her focusing on the same thoughts, feelings and actions as during physical performance of the task. To enable functionally equivalent imagery, a process known as "response training" should be carried out. This involves focusing the participant upon actual responses, by eliciting and reinforcing verbal reports of physiological and behavioral involvement in the scene, thus emphasizing a kinesthetic orientation toward the imagery. This also allows individual responses to be obtained from participants so that interventions can be fully individualized.

Learning component: The learning component refers to the adaptation of imagery content in relation to the stage of learning. As the skill level of the performer moves from being cognitive to autonomous, the motor representation and associated responses will change and therefore the imagery content must be altered in order to reflect this. For example, at first the performer has to

think about the movement a great deal, and therefore the imagery may focus heavily upon correct technique with elements such as limb positioning being central. However, as the skill becomes more automatic, the performer will not have to think so much about technique, and therefore imagery may focus more on the "feel" of the movement rather than specific technique and the emotions required for optimal performance.

Emotion component: To achieve optimal functional equivalence, the athlete should try to experience all of the emotions and arousal associated with the performance. The performer's emotional responses, and the meaning he or she attaches to the scenario, must be included in imagery if optimal behavioral change is to take place. For example, the possible excitement the performer feels during performance should be an important part of the imagery. Of course, care should be taken to ensure that the emotions felt during imagery are positive. Negative thoughts should be dealt with by replacing them as far as possible with positive ones. The focus on positive emotions should also prove beneficial in enhancing self-confidence and motivation.

Control component: Control component is how well you're able to imagine what you want to imagine. It's not uncommon for athletes to perform poorly in their imagery and it often reflects a fundamental lack of confidence in their ability to perform successfully. If mistakes occur in imagery, one shouldn't just let them go by. But if we do, we'll further ingrain the negative image and feeling which will hurt our performances. Instead, when an individual performs poorly in imagery, immediately rewind the "imagery video" and edit the imagery video until one do it correctly.

Speed component: The speed component is the ability to adjust the speed of imagery. It will enable to use imagery to improve different aspects of sports performance. Slow motion is effective for focusing on technique. When you first start to work on technique in your imagery, slow the imagery video down, frame by frame if necessary, to see yourself executing the skill correctly. Then, as you see and feel yourself performing well in slow motion,

increase the speed of your imagery until you can perform well at "real-time" speed. Therefore, functional equivalence regarding timing may be only appropriate when the performer masters the skill he or she is imaging.

Multiple senses component: The multiple senses component involves the multi-sensory reproduction of the actual sport experience. One should duplicate the sights, sounds, physical sensations, thoughts and emotions that would experience in an actual competition. Visual imagery involves how clearly you see yourself performing. If sounds are important, then one would want to generate them in imagery. If you get nervous before an actual competition, you should get nervous in your imagery (and then take steps to relax).

Developing a sport imagery programme

The key to getting the most out of mental imagery is consistency. We cannot expect to get stronger by lifting weights once every few weeks. Similarly we cannot expect to get better technically by practicing our sport once in a while. The same holds true for mental imagery. The only way to gain the benefits of mental imagery is to use it consistently in a structured way.

Set imagery goals: Set specific goals for what areas we want to work on, in our imagery. Goals can be technical, tactical, mental, or over-all performance. For example, you might focus on some technical change, being more relaxed and focused, or just going for it in your sport.

Imagine realistic conditions: Imagine yourself performing under realistic conditions, in other words, always do imagery under those conditions in which you normally compete. That is, if you're usually competing in difficult conditions (e.g. cold or hot weather, snow or rain), imagine yourself performing under those conditions. Only imagine yourself performing under ideal conditions if you typically compete in ideal conditions.

Imagine realistic performance: Young athletes should not imagine themselves performing like a pro or Olympian. Instead, they should imagine themselves performing the way they

normally do, but incorporate positive changes that they are working on.

Climb imagery ladder: Create a ladder of practice and competitive scenarios in which you will be performing. The ladder should start with practice in a simple setting and progress to more demanding practice situations, less important competitions, and increase through more important events up to the most important competition you'll be in this year.

Begin your imagery on the lowest level of the imagery ladder. Stay at that rung until you reach your imagery goal. When that is achieved, stay at that step for several imagery sessions to really reinforce and ingrain the positive images, thoughts, and feelings. Then work your way up the ladder until you're performing the way you want in your imagery at the very top of the imagery ladder.

Training- and competition-specific imagery: Select practice and competitive situations that are appropriate for your level of athletic development. In other words, if you're a high school soccer player, don't imagine yourself playing in a World Cup game against the world's best soccer players. Also, choose a specific competition in a precise location under particular conditions for each imagery session, thus reaching their imagery goals in a variety of competitions, settings, and conditions.

Imagery content: Each imagery session should be comprised of your pre-performance routine and your performance in practice or competitions. If you compete in a sport that is short in duration, such as sprinting or wrestling, you can imagine an entire performance. If you compete in a sport that is lengthy, for example, golf, tennis, or soccer, you can imagine yourself performing in four or five key parts of the competition.

Imagery sessions: Imagery sessions should be done 3–4 times per week (imagery shouldn't be done too often because, as with any type of training, you can get <u>burned out</u> on it). Set aside a specific time of the day when you'll do your imagery (just like you do for your physical training). Each session should last about 10 minutes.

Imagery journal: One difficulty with imagery is that, unlike physical training, the results aren't tangible. An effective way to deal with this problem is to keep an imagery journal. These logs should record key aspects of every imagery session including the quality of the imagined performance, any thoughts and feelings that occur (positive or negative), problems that emerged, and what you need to work on for the next session. An imagery journal enables you to see progress in your imagery, thereby making it more rewarding.

Recommendations

Athletes should consider the following 12 recommendations to optimize the use of mental imagery in a variety of sport, exercise and rehabilitation contexts.

Modality: Practitioners should encourage athletes to use multimodal imagery, focusing especially on the sensory modalities that are most relevant to the skill in question. Also, the advantages and disadvantages of using different imagery perspectives (i.e. first-person/or third-person) should be considered. These factors are influenced by individual preferences and task characteristics. For example, the use of an external visual imagery viewpoint in a morpho-kinetic task (e.g. gymnastics routine) may be advantageous as it may enable the movement form to be analyzed.

Temporal equivalence: To improve the efficacy of mental practice interventions, practitioners should encourage athletes, where possible, to try to achieve congruence between the duration of their imagined and actual actions.

Imagery direction: Wherever possible, practitioners should recommend facilitative rather than debilitative imagery, unless the goal is specifically to enhance an adaptive emotional response to an event (e.g. increase resilience). If the athlete unintentionally engages in imagery of performance failure then she/he should be encouraged either to restructure it or to generate a positive alternative image.

Activation: The optimal use of imagery requires congruence between the athlete's arousal state and the physiological activation level required for the task. If the imagery is intended to enhance motor skills, it is important that the athlete arousal state matches that required by the performance.

Imagery outcomes: Practitioners should clarify the precise outcome that is desired from any given imagery intervention and, where possible, seek to devise and implement an individualized imagery script for the athlete. Typical (but not exclusive) outcomes include skill enhancement, improvement of psychological processes (e.g. motivation) and rehabilitation of muscular movements.

Meta-imagery: Before developing an imagery script, practitioners should try to elicit the athlete's knowledge, control and understanding of his/her own imagery processes, because this may influence his/her imagery ability and application. Knowledge of imagery processes does not equate with imagery ability, which should also be evaluated.

Imagery ability: Practitioners should assess athlete's imagery abilities to ensure that they are able to imagine the motor skill appropriately.

Expertise level: Imagery is beneficial to all levels of performers, from novice to elite, but may be more effective for experts. It should be noted that one should not assume that elite performers have competencies in imagery abilities, because sport specific demands may lead to wide variations in these abilities even among elite sporting samples.

Developmental stage: The cognitive developmental stage of the athlete should be considered before designing and implementing an imagery intervention. Imagery can be used with children but practitioners must be aware that the content of the imagery should account for their cognitive development trajectory. Limiting the complexity of the tasks may not provide sufficient variety for the athlete so the imagery context should be reviewed regularly.

Periodization: Before implementing an imagery intervention, it is important to consider the time of season, the environmental context, and the stage of injury, if relevant. This is dependent on the desired outcomes.

Imagery scripts: It is recommended to create an individualized imagery script, with a variety of imagery content and clearly defined outcomes. The content should be updated as the athlete increases his/her level of performance expertise or as he/she, for example, increase frequency and/or types of activity.

Imagery training sessions: Short imagery intervention sessions are recommended dependent upon the planned outcome and the mental load constraints. In order to ensure the optimal frequency of imagery training, the practitioner needs to be aware of the athlete's abilities, the specific skill being rehearsed together with the time the athlete has available to practice imagery of the motor skill. Combining imagery and physical practice should be promoted when possible, but imagery is a good alternative when physical practice is not available.

Conclusion

The topic of imagery has fascinated many people in sport and physical activity settings for years. It is considered to be one of the most popular performance enhancement techniques or psychological skills because of its versatility in effecting several different outcomes. Imagery has been referred to by a number of names – visualization, mental rehearsal, mental practice and cognitive enactment to name a few. Mental imagery refers to all those quasi-sensory or quasi-perceptual experiences of which we are self-consciously aware, and which exist for us in the absence of those stimulus conditions that are known to produce their genuine sensory or perceptual counterparts.

Many researches had proved that imagery has a great tendency to improve performance, reduce anxiety and enhance concentration and self-confidence. After combining the imagery program with an intensive physical conditioning regimen and quality practice time, then athletes can say with confidence that, after a few months of committed imagery, when they head out to the field, court, course, or hill, they will be able to say, "We are prepared as we can be to perform our best and achieve our goals."

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Dr. Shweta Suri Midha Department of Physical Education Kamala Nehru College



Social Marketing of A Traditional Green Product "Attar"

Introduction

Conventional perfumes are either alcoholic or chemical-based, and use aerosol-based spray dispenser, which are not only a hazard to health but also to the environment. Though the use of CFCs in refrigeration and air-conditioning has been gradually phased out following the signing of Montreal Protocol in 1989, yet they remain in use as aerosol propellants for deodorants, insecticides, paints, etc.

A more natural alternative to perfumes are attar, which are organic and non-alcoholic oil-based natural extracts derived by simple distillation of flowers, herbs, woods, etc. Attar has been popular in the orient for olfactory, aromatic and religious purposes. Today in India, they are manufactured as a handicraft and small-scale industry. Alcohol in conventional perfume tends to evaporate much faster, thus losing power. On the other hand, attar has a lingering effect, and if not washed, may last for several days. Attar has a permanent shelf life, and becomes stronger, smells better and becomes more aromatic, as they mature. The quantity of attar required is less as they are concentrated, and a small bottle will last several weeks or months.

However, due to difficulty in obtaining raw material, high cost of production and absence of any financial support or marketing strategies, attars have failed to gain commercial popularity. Competition comes in the form of chemical based perfume products, which are cheaper, compared to natural attars; they have the advantage of branding and marketing. Despite, state patronage and being an eco-friendly alternative to the billiondollar perfume and fragrance industry, attar remains un-popular in India and world.

The purpose of the present study is to explore how social marketing can make the attar a widely acceptable alternative, thereby generating employment and preserving traditional art and handicraft.

Conceptual Framework and Review of Literature

The discussion is grouped under two heads – green product and green marketing; and social marketing.

Green products and green marketing

The Bureau of Labor Statistics (BLS) of the US Department of Labor has defined green goods and services as those businesses, which produce goods and services that benefit the environment or conserve natural resources. These goods and services are sold to customers, and include research and development, installation, and maintenance services.

The green goods and services may fall into one or more of the following five categories – energy from renewable sources; energy efficiency; pollution reduction/removal, greenhouse gas reduction, recycling and reuse; natural resources conservation; environmental compliance, education and training, and public awareness.

According to the American Marketing Association, green marketing is defined as "all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment". The definition also includes the protection of the natural environment, by attempting to minimize the detrimental impact this exchange has on the environment. This is important, as human consumption, by its very nature is destructive to the natural environment. So green marketing should look at minimizing environmental harm, not necessarily eliminating it. Green marketing refers to the process of selling products and services based on their environmental benefits. Such a product or service may be environmentally friendly in it or produced and packaged in an environmentally friendly way (Ward 2012).

The green marketing has evolved over time. According to Peattie (2001), the evolution of green marketing has three phases. First phase was termed as "Ecological" green marketing, and during this period all marketing activities were concerned to help

environment problems and provide remedies for environmental problems. Second phase was "Environmental" green marketing and the focus shifted on clean technology that involved designing of innovative new products which take care of pollution and waste issues. Third phase was "Sustainable" green marketing which came into prominence in the late 1990s and early 2000.

There are basically five reasons why a marketer should adopt green marketing. They are – opportunities or competitive advantage, Corporate Social Responsibilities (CSR), government pressure, competitive pressure, cost or profit issues, and green marketing mix (Das 2010). For green marketers to be successful, they must effectively and efficiently target their audience when and where consumers are most receptive to green messaging. Moreover, understanding the target markets beliefs and attitude and also their purchase behaviour is important. Success depends on marketing plan development, sustainability auditing and planning, and branding or creative strategies. Beside that an integrated marketing strategy is required to make the concept of green marketing a success (Grant 2008).

Social marketing

Humans with their constantly evolving culture have played with the environment. In their quest to conquer environment, they developed technology which brought serious imbalances in nature. This resulted in environmental threats like, global warming, disasters, ozone-layer depletion, advent of diseases, and so on. Though the stakeholders are now aware of the problem and are taking concrete steps to do away with this menace, an understanding of the target audience in terms of their socioeconomic, political and cultural background and their thought process is essential. Long-term behavioural change is a difficult task, especially when people are habituated to a particular practice. Social marketing has been proved as a time tested approach to change the behavior of the target audience towards a social good.

Kotler and Zaltman (1971) defined social marketing as "the design, implementation, and control of programmes calculated

to influence the acceptability of social ideas and involving considerations of product planning, pricing, communication, distribution and marketing research". In view of an organized effort required to market social causes, Kotler and Roberto (1990) defined social marketing as "a programme planning process that promotes the voluntary behavior of target audiences by offering benefits they want, reducing barriers they are concerned about and using persuasion to motivate their participation on programme activity". In addition to the four Ps that form the core of marketing, four additional Ps are used extensively in social marketing. They are public, partnership, policy, and purse-strings (Weinreich 1999). "Cause-related marketing supports a cause. Social marketing by non-profit or government organizations furthers a cause, such as 'say no to drugs' or 'exercise more and eat better' and the like" (Kotler et al. 2013).

"In many situations people need to be informed of an opportunity or practice that will improve their lives. In developing nations, social marketers have to tackle such challenges as convincing people to boil their water or showing parents a simple way to treat infant diarrhea at home. In industrialized nations the social marketer has to disseminate information resulting from scientific research, like, changes in high blood pressure treatment or in cancer detection and treatment" (Fox and Kotler 1980). Bloom and Novelli (1981) identified problems in "eight basic decisionmaking areas of social marketing - market analysis, market segmentation, product strategy development, pricing strategy development, channel strategy development, communications strategy development, organizational design and planning, and evaluation." Sheth and Frazier (1982) opined that to bring about a change in social behaviour we must understand the attitudes of the people in the society. For this purpose various strategies has been introduced like, informing, educating, persuasion and propaganda.

Unfortunately, many social change campaigns accomplish little, and this fact can breed widespread cynicism among social reformers and citizens. Postmortems of them may reveal a number of deficiencies that could have been corrected. The campaigns may not have targeted the appropriate audience, the reform message may not have been sufficiently motivating, the individuals, and groups, or populations that were targeted (the target adopters) were not given a way to respond constructively, or a campaign may have been underfunded.

(Kotler and Zaltman 1971)

Objectives of the Study

The purpose of the study is to explore how social marketing approach can be used to make the "attar or itra" a success in the market. The specific objectives of the research were as follows:

- To critically evaluate the measures undertaken by different stakeholders in promoting attar.
- To analyze the applicability of social marketing strategies; and design an effective campaign for social acceptance of environmental-friendly attar.

Hypotheses

On the basis of the review of the existing literature and general observation, the following hypothesis was formulated:

H₀: There is no significant difference in the opinions of users and non-users regarding factors preventing the use of attar.

Research Design and Methodology

The study was based on both primary and secondary data. Primary survey involved discussions and/or structured interviews at three levels. First, with the members of the board promoting attar – the Fragrance and Flavor Development Centre (FFDC), Kannauj, and Delhi Tourism and Transportation Development Corporation Limited (DTTDC) which organizes Itar and Sugandhi Mela in Delhi; second, selected manufacturers and traders of attar in Kannauj (Uttar Pradesh), Puducherry and Pushkar (Rajasthan); and finally with a sample of 250 respondents in Delhi and NCR (National Capital Region). Secondary data sources included the laws and orders of the government, newspapers, magazines, and relevant websites.

For the purposes of collection and analysis of data from the attar boards and manufacturers, case study and qualitative research methods of inquiry were employed in the field study area for an in-depth understanding of behavior exhibited by people in dealing with the issue.

A non-probability convenience sampling method was adopted to select the 250 respondents from Delhi and NCR. It was ensured that the respondents represent different socio-economic groups. A non-disguised, pre-structured questionnaire was designed to collect data. The data gathered were analysed using quantitative methods.

Case Studies

The product, attar, is mostly sold without any branding or labeling. No renowned brand name or manufacturing house is associated with this product. Attention is not paid on improving the packaging of the product. On the other hand, perfume manufacturers all over the world are spending a huge amount of money in designing the packaging of their products. The product is manufactured using the primitive method of distillation. Though this can be projected as the unique selling proposition of the product, in the absence of standardization and grading, this becomes a deterrent. Moreover, pure form of Attar is exceptionally expensive and hence, the oil based Attar is available for the general public. This also hampers the credibility of the composition.

Fragrance & Flavour Development Centre (FFDC): It was set-up in the year 1991 by Ministry of MSME, Government of India with the assistance of United Nations Development Programme (UNDP) or United Nations Industrial Development Organization (UNIDO) and Government of Uttar Pradesh. The main objective of the centre is to serve, sustain and upgrade the status of farmers and industry engaged in the aromatic cultivation and its processing. The aim is to popularize this product in both, local and global market.

Though FFDC is undertaking a gamut of functions to sustain and develop the age-old art of manufacturing attar, they are majorly lagging behind in terms of marketing of the same. They fail to understand the importance of branding, labeling, packaging, product and brand positioning, targeting, and all other aspects of marketing. If the domestic market and the international market potential are properly harnessed, there exists a good future for Indian natural fragrance and attars.

Itra and Sugandhi Mela, New Delhi: Government of NCT of Delhi under the auspices of Delhi Tourism and Transportation Development Corporation Limited (DTTDC) organizes annually a unique festival, called "Itra and Sugandhi Mela" since year 2010, at different Dilli Haats, with the technical assistance by Fragrance & Flavour Development Centre (FFDC), Kannauj under Ministry of Micro, Small & Medium Enterprises (MSME). This festival brings unique and natural fragrances under one roof for Delhiites along with the people who create these fragrances.

The aim is to create awareness about the traditional attar and importance of essential oil for health care. The festival also highlights the ancient and rich heritage of India in the field of natural perfumes and essential oils. Apart from the sale of product related to attar, the festival features a demonstration of the distillation process and also on aroma therapy and essential oil. Over fifty thousand people visit this fare every year.

Though exhibitions and fares are occasionally organized to promote this product, a very select audience visit such fares. All produce is being sold through local linkages. Such a product is not kept in any high-end store, departmental stores or in shopping malls. In fact many people are not aware of the stores selling this product in their city. Hence, it can be observed that no marketing effort is ever undertaken by the manufacturers. However, it is seen that a few corporate entities like Fabindia and Auroshikha have given a distinct identity to this product.

Analysis of Data

An analysis of data collected from 250 respondents in Delhi and neighbouring areas depicts the following picture:

Distribution of Sample on the Basis of Users and Non-users of Attar: Out of 250 respondents, 44 respondents have used the product at least once in their life. This shows that attar is not popular among the masses, and there is a very select target group for this product. The results are depicted in Table 1.

Category	Respondent		
	Number	Percent	
User	44	17.6	
Non-user	206	82.4	
Total	250	100	

Table 1: Number of Users and Non-Users of Attar

Source of Information Used While Buying Attar: In order to determine the importance of the sources of information considered by the respondents while buying attar, the mean, and standard deviation of each of the six sources were computed. On the basis of their mean values, the sources were ranked. The results are presented in Table 2.

Table 2: Ranking of the Sources of Information Used

Factor	Mean	S.D.	Rank
Advertisements	0.06	0.52	VI
Direct mails	0.11	0.58	V
Websites/Social-networking Sites/ Emails	0.21	0.66	IV
Relatives/Friends/Acquaintance who use the product	0.59	0.65	III
Seeing the product in the market	0.72	0.68	Ι
Melas, Fairs and Exhibitions	0.62	0.67	II

Maximum number of respondents bought the product impulsively when they accidentally came across an attar store or the product is kept in the store where they went to purchase some other product, without any previous knowledge. This was followed by melas, fairs and exhibitions, which gave them an opportunity to get information about the product and on that basis they purchased it. The respondents also got information about attar from relatives or friends or acquaintances using the product. A few of them got information from websites like, amazon.com, attarbazar.com etc. Direct mails and advertisements are literally absent as an information source for this category of product.

Factors Motivating People to Buy Attar

In order to determine the factors that may motivate people to buy attar, the mean and standard deviation of each of the eight factors were computed. On the basis of their mean values, the factors were ranked. The results are presented in Table 3. Maximum number of respondents opined that people buy attar impulsively, i.e. on seeing the product in the market. Hence, this factor received the first rank. Also, a visit to "Melas, Fairs and Exhibitions" motivate people to buy the product. Hence, this factor was ranked second. "Experience and suggestions of others" got the third rank. Fourth rank went to the factor, "low price" of the product, especially when compared to perfumes available in the market. Next in order is the factor, "lingering fragrance". "Concern for the environment" is not considered as a strong motivating factor, since people are not aware about the harmful effect of perfume. "Free samples" and "advertisements" are rarely applied promotion techniques in case of such a product. Hence, these two factors bagged the last two ranks, respectively.

Factors	Mean	S.D.	Rank
Advertisements	2.17	0.61	IX
Low price	3.53	0.54	IV
Lingering fragrance	3.47	0.68	V
Experiences or suggestions of others	3.63	0.57	III
On seeing the product in a store	3.87	0.54	Ι
Concern for Environment or Nature/ Aware about the harmful effect of perfume on environment and health	3.16	0.60	VI
Melas, fairs, and exhibitions	3.83	0.56	II
Free sample	2.42	0.66	VIII

Table 3: Ranking of the Factors Motivating Use of Attar

Factors Preventing Use of Attar

The respondents were inquired about the factors that prevent people from using attar or switching from perfume to attar. The results are presented in Table 4. The problem with attar is that most of the respondents believed that the product is used by only people belonging to a certain community, or people who visit the dancing (nautch) girls. Hence, this factor was ranked first among all the preventing factors. Moreover, it is not considered as hip or smart to use the products in comparison to renowned brands of perfumes, the fragrance is considered too strong and also there is a fear that attar leaves stains on clothes. Hence, the next three ranks were bagged by these three factors, respectively.

Factors	Mean	S.D.	Ranks
Absence of brand name and labeling.	3.27	0.68	VII
Fragrance is too strong.	4.21	0.47	III
Leaves stains on clothes.	4.02	0.45	IV
High price (pure attar perceived as over-priced).	2.56	0.65	Х
Lack of information/ Not promoted well.	3.62	0.58	VI
No quality assurance.	3.85	0.71	V
Poor packaging in comparison to perfumes.	2.93	0.66	VIII
Believes that the product is used by only people belonging to a certain community.	4.78	0.51	Ι
Not aware of stores selling such a product/ Not available in departmental stores or malls.	2.71	0.69	IX
Not considered as hip/smart to use the products in comparison to renowned brands of perfumes.	4.69	0.56	II
Cannot relate it as being eco-friendly.	1.21	0.72	XII
Not aware about the harmful effect of perfumes	1.24	0.67	XI

Table 4: Ranking of Factors Preventing Use of Attar

There is a serious flaw in all aspects of marketing of attar. Absence of quality assurance, lack of information or absence of promotion, brand name and labeling of the product, poor packaging in comparison to perfumes, absence of knowledge about the stores selling such a product and also their non-availability in departmental stores or malls, all these has prevented the respondents to use attar. The product is not considered high priced, since the oil based attar available in the market are quite cheap in comparison to perfume, and most of the respondents are not aware about the price of pure attar. Interestingly, very few respondents are aware about the harmful effect of perfumes; and about the fact that attar is eco-friendly in comparison to perfume, and hence, these two factors received the last two ranks.

Efforts to Make Attar Popular

The respondents' opinions about the ways to make attar popular are summarized in Table 5. Most of them agreed that changing the mindset of the people by making them know the history of attar which has its mention in Hindu sacred books, by generating more awareness about them in all possible medium is most important and hence, this mode has got the first rank. They opined that educating the potential customers about the significance of attar as an eco-friendly alternative to perfumes, will induce a behavioural change among the target audience. Again, proper marketing has been indicated by the respondents, such as, branding the product and labeling the content; proper designing the packaging of the product; making the product available in mild fragrances suitable for urban customers; placing such products in high-end stores and departmental stores; appropriately pricing the product to give it a high-end image but suit the pockets of the target audience; engaging celebrity as brand ambassador; and distributing free samples of the product. Hence, these factors bagged the ranks in that order.

Ways	Mean	S.D.	Ranks
By branding the product and labeling the content.	4.68	0.69	III
By proper designing the packaging of the product.	4.35	0.62	IV
By making the product available in mild fragrances suitable for urban customer.	4.08	0.67	V
By appropriately pricing the product to give it a high-end image, but suit the pockets of the target audience.	3.21	0.81	VII
By distributing free samples of the product.	2.19	0.71	IX
By generating more awareness about them in all possible medium, and changing the mindset of the people.	4.73	0.64	Ι
By educating the potential customers about the significance of attar as an eco-friendly alternative to perfumes.	4.71	0.67	II
By placing such products in high-end stores and departmental stores.	3.82	0.65	VI
By engaging celebrity as brand ambassador.	3.02	0.76	VIII
By making them available in purer.	1.17	0.77	Х
By reducing the price of the product.	1.15	0.72	XI

Table 5: Ranking of Ways to Make Attar Popular

The respondents opined that attar should be made available in the market in purer forms with lesser oil content. The respondents do not find the price of the attar high and hence the way, 'by reducing the prices at which they are sold', has got the last rank.

Difference of Opinions of Users and Non-Users of Attar

In order to test the hypothesis stating that there is no significant difference in the opinions of users and non-users regarding factors preventing the use of attar, both t-test and one-way ANOVA was conducted for twelve factors. The results are presented in Table

6. The t-values and the F-ratios were found to be significant for the factors, "absence of brand name and labeling", "fragrance is too strong", "leaves stains on clothes", "lack of information or not promoted well", "no quality assurance", "poor packaging in comparison to perfumes", "not aware of stores selling such a product", and "not considered as hip or smart to use the products in comparison to renowned brands of perfumes."

Factors	Users N=44		Non-Users N= 206		t-value	F-Ratio
	Mean	S.D.	Mean	S.D.		
Absence of brand name and labeling.	3.05	0.66	3.32	0.70	2.35*	5.50*
Fragrance is too strong.	4.03	0.56	4.24	0.42	2.83#	7.99#
Leaves stains on clothes.	3.89	0.49	4.05	0.43	2.19*	4.77^{*}
High price (pure attar perceived as over-priced).	2.51	0.62	2.57	0.69	0.53	0.28
Lack of information/ Not promoted well.	3.40	0.52	3.66	0.56	2.83#	8.00#
No quality assurance.	3.67	0.65	3.89	0.64	2.06*	4.26*
Poor packaging in comparison to perfumes.	2.71	0.61	2.97	0.62	2.53*	6.41*
Believes that the product is used by only people belonging to a certain community.	4.73	0.59	4.79	0.69	0.54	0.29
Not aware of stores selling such a product/ Not available in departmental stores or malls.	2.54	0.61	2.76	0.63	2.11*	4.47*
Not considered as hip/ smart to use the products in comparison to renowned brands of perfumes.	4.55	0.52	4.73	0.55	1.99*	3.96*
Cannot relate it as being eco-friendly.	1.18	0.71	1.22	0.70	0.34	0.12
Not aware about the harmful effect of perfumes	1.15	0.68	1.26	0.69	0.96	0.93

Table 6: Difference of Opinions of Users and Non-Users of Attar

*Significant at 0.05 level of significance. *Significant at 0.01 level of significance.

On the basis of these results, the null hypothesis H_0 is rejected. There is a significant difference in the opinions of the users and the non-users regarding factors preventing the use of attar.

Major Conclusions

The following conclusions can be drawn on the basis of the present study:

Lack of Awareness: People are not aware of the harmful effect of perfumes on the environment. Nor they know about the safer alternative, attar; the brands or companies selling the products; and the stores from where the product can be purchased.

Psychological Cost or Price: The psychological cost of shifting from perfume to attar is too high, like, attar is used by people belonging to a certain community; fragrance is very strong; leaves stains on clothes; does not look hip or smart; and so on.

Efforts by Attar Promotion Board and Government: Attar promotion bodies like, the FFDC and State Governments are making an effort through research and development, marketing efforts, and exhibitions to revive this ancient and eco-friendly perfume. But a lot has to be done in this direction to make them popular.

Absence of Marketing by Attar Manufacturers: Attar manufacturers are operating at a small level and are not applying any of the technique of marketing. The products are sold without proper branding, labeling, and packaging. Standardization and quality check of the product is also absent. The products are not promoted at all and are sold through local linkages.

A Few Renowned Names in this Industry: Only some renowned houses like, Sri Aurobindo Ashram, Fabindia and Khadi and Gram Udyog are doing proper marketing of the product. They have repositioned the product by giving it a quality image and targeted them to people belonging to upper middle class or upper class. The products also have an aesthetic appeal and a green

image. Their products are hugely popular in urban cities of India and all over the world.

Implications for Attar Marketers

Attar manufacturers and marketers can reposition the product vis-à-vis perfumes and design a strategy to popularize the product across population in India as well as internationally. On the basis of the study, the following implications for the marketers of attar were derived:

Developing a Social Marketing Mix: A balanced emphasis on each of the elements of marketing – product, price, promotion and distribution, will ensure success of this product. All efforts should be made to bring an attitudinal change among the target audience towards attar, so as to gain acceptability among them.

Product Strategy: The idea of switching to eco-friendly attar from perfume should be given shape by identifying the need of such idea, generating a concern among the target audience towards the harmful impact of perfumes with aerosol nozzle on the environment; standardizing and grading the quality of attar; branding and labeling the product; designing packaging of international standards; making them available in mild fragrances of international liking; and removing or reducing the oil-based versions of attar so that they do not leave mark on the clothes.

Pricing Strategy: Both, actual price and the psychological price or cost is important. The pure versions of attar should be priced to suit the pockets of the target audiences. While, pricing the diluted versions care should be taken so that they are not priced too low, giving them a low quality image. Neither the product should be priced too high, that they become unreachable for the target audience. Emphasis should be placed on psychological or non-monetary price as discussed earlier. Such fears prevent people from switching to attar. The marketer should strive to reduce or remove these fears like, by disassociating with the impression that the product is being used by a particular community, giving it a hip value, international fragrances, no stains on clothes, and also emphasise the fact that attar is a green alternative to perfume.

Promotional Strategy: The promotional campaigns should strive to reduce the psychological costs of people by reducing their fears associated with attar. Through adequate promotion the target audience should be made aware about the eco-friendliness of attar and of harmful impact of perfume on environment. Also, promotions should give information about the brand, availability of types of fragrances, stores where the products are available, and about the quality of the product. Beside an integrated promotion mix, i.e., advertising, personal selling, and sales promotion, roping in a celebrity with great credential will definitely improve the acceptability of the product.

Place or Distribution Strategy: Branded and labeled attar can be sold through any high-end store, departmental store, boutique stores, chemist shops, or through company owned multiple-chain stores in malls and in popular market places.

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Dr Soma Sen Gupta Department of Commerce Kamala Nehru College



Understanding Indian Secularism Debates

The cornerstone of Indian Democracy, Secularism is a highly contested concept. It is contested because two different lines of understanding are competing for ideological domination ever since independence and even before. One side of this understanding was Jawaharlal Nehru who had a vision of separating religion and politics manifesting in the concept of 'dharmanirpeksata'. By way of contrast Mahatma Gandhi rejected the idea of separation of religion and politics and believed in the principle of equal respect of all religions manifesting in the concept of 'sarva dharma sambhava'. The contest between these two different understanding of secularism was an issue of debate in the Constituent Assembly and later in academic circles and political life of the young Democracy, India. The focus of debate was, Is Western conceptualization of Secularism appropriate in a deeply religious society of India? What is Secularism -'a wall of separation between state and religion' or 'treating all religions as Equal'? What precisely does equality mean: the State staying away from religious beliefs equally or the State intervening in matters of religious groups equally? What policies does the State entail to protect minority religious groups from dominant and culturally hegemonic majority religious groups? Is secularism capable of warding off Communalization of Indian society and polity and ensure inter religious harmony or is Secularism only relevant for western society that has undergone a process of secularization? The debate became important due to certain developments that included partition of the country, rise of Hindutava forces, religiously motivated violence. Famous academician Ashish Nandy commented that India witnessed approximately one and a half riot daily. T N Madan said "though the ambiguity of secularism was at one point considered its strength, its vagueness is now a poor foundation for clear headed public policies" (Neera Chandhoke, 2010: 333) In this background, on one side were scholars questioning appropriateness of secularism in India and on the other were scholars defending secularism as the only tool to save religiously divided society. This was one of the reason why in an essay written in Rajeev Bhargava's edited work

Secularism and its critics, Charles Taylor declared "Secularism in some form is a necessity for the democratic life of religiously diverse societies" (Taylor, 1998:46). According to Bipan Chandra Nehru's definition of secularism was "Secularism means first separation of religion from political, economic, social and cultural aspects of life, religion being treated as purely personal matter, second dissociation of State from religion, third full freedom to all religions and four equal opportunities for followers of all religions and no discrimination and partiality on grounds of religion. (Jakob De Ronver, 2002: 4048)

Nehru's notion of secularism "dharamnirpekshata" did not mean a state where religion is discouraged. It rather meant a State where people have freedom of religion and conscience and freedom for those as well who have no religion. Nehru's secularism was understood as freedom of religion or irreligion, no state religion and due honour of all religions equally. Different articles of our constitution define the Secular character of the State. Constitution guarantees freedom of religion to individual, different religious denominations, equality of citizenship, equality of opportunity in public services, no discrimination in educational institutions, no communal electorate (although there is provision for reservation of seats for Schedule Castes and Schedule Tribes), no special taxes for promotion of religion and no religious instructions in state educational institutions.

Through principle of "sarva dharma sambhava" Gandhi tried to bring people from different religions together. It was also a way to form mass movement in a religiously divided plural society. Gandhi also realized and recognized the value of religion in people's lives and believed in equal respect of all religions. The difference in opinion of two stalwarts Gandhi and Nehru on Secularism was even visible in Constituent Assembly Debates.

Debate in the constituent Assembly

K. T. Shah demanded separation of State from any religious activity. He even demanded a separate article and the word Secularism to be included but failed to do so. Tajamul Husain and M Masani defined right to religion to mean practicing religion

privately and religious instructions to be given only at home. They were opposed to the idea of religious instructions imparted through educational institutions. On the other side of the debate were K M Munshi, Lakshmi Kant Maitra and H V Kamath. K M Munshi was of the view that non establishment clause of the US Constitution was inappropriate to Indian conditions. Java Prakash Narain was of the view that communal violence takes place when religion was used to serve socio, economic and political interests and to prevent that an article needs to be incorporated in the Constitution that prohibits use of religious institutions for political purposes. The Constituent Assembly Minority sub Committee defined Freedom of Religion as "Freedom of conscience and right freely to profess, practice and propagate religion". This terminology was formally dissented by Amrit Kaur, Jagjivan Ram, G B Pant, P K Salve and B R Ambedkar. (Sheefali Jha, 2002: 3177) The main line of argument was if religion is defined in such broad category it may also mean including anti social customs like child marriage, polygamy, unequal laws of marriage and inheritance. However right to religion remained limited by public order, morality and health in the Constitution.

The idea of Uniform Civil Code was also debated in the Constituent Assembly. While Rajkumari Amrit Kaur, Hansa Mehta and M R Masani were among few to emphasize importance of Uniform civil code Ismail Saheb, B Packer Sahib and Mahboob Ali Baig wanted to include personal law in the fundamental right to religion. Finally it was accepted that uniform civil code needs to be done away slowly with the consent of all communities. Uniform Civil Code was included in the Directive principle with due support of Dr B R Ambedkar. The word secular was added in the preamble of the Constitution through 42nd amendment in 1976.

Idea and politics of Secularism in Independent India

In the post partition realities and communal riots it was "proved that religious prejudices more than religious sensibilities had become a constituent feature of Indian politics and to ignore this would have been bad historical understanding as well as bad politics." (Neera Chandhoke, 2010: 335) The issue which was a matter of debate from very beginning became all the more important in post 1980s. The debate centered around two main points. One, what does secularism mean, wall of separation between state and religion or treating all religions as equal and the other was how to accommodate minority rights into the concept and practice of secularism. Secularism was challenged as a western construct which is alien for a country like India where religion is so important and pervasive that it controls almost each and every aspect of our life. The Hindu right groups accused the Congress government of practicing pseudo secularism for selectively intervening in the religious matters of the Hindus which is a majority community. According to this understanding if secularism is interpreted as equality of all religions then selective intervention in matters of one religious community, group rights for minority communities and existence of personal laws violates the basic premise of secularism. Instead of dismissing secularism, Hindu right are in favour of "Sarva Dharma Sambhava" interpreted as formal equal treatment of all religions and this became the basis of supporting Uniform civil code while special rights for minorities were opposed either as "pseudo secularism" or "appeasement of minorities". Rise of religiously motivated violence and tensions following the rise of Hindutva forces made the issue even more significant.

One side argued that policy of secularism is responsible for exacerbating the problem of communal violence and religious fundamentalism the other side was of the view that secularism is indispensable and instead of discussing its alternative it is important to find alternative conception of secularism that suit Indian realities.

A very important point of debate was that separation of religion from State is a feature of all modern western societies but may not apply to the realities of India. However, it is important to understand Secularism is essentially contested in the west too and different perceptions exist of its meaning, values and interpretation. The idea that separation of State from religion is the sine qua non of secularism is problematic and overlooks the experience of European Countries which neither build a wall of

separation between State and religion nor remove official religion. Secularism is interpreted differently in USA, Britain, Germany and France . In England not only is the Church of England the official Church but the Queen is a member of the Church also. In Germany, the State is responsible for collecting tax that goes to a religious institution of a person's choice. Even in America its President takes oath on the Bible, there are Chaplains appointed for the Armed services and God is referred in the public domain. Countries in the West have also followed range of policies to become secular democracies. Thus it cannot be identified with a specific policy of separation of state and religion.

Secularism became very important concept of debate in the academic circles as well. While one group of scholars tried to defend secularism especially in the face of the threat posed by increasing communal politics and religious strife another group called for its reexamination arguing that secularism may be the cause and not the solution of religious violence.

Academicians and scholars problematize and thematize debate on secularism invoking ideas of varied Indian and Western thinkers. While Nandy and Madan's stand was anti modernist and gave neo-Gandhian critique, Vanaik gave Marxist critique of neo-Gandhism of Nandy and Madan. Rajeev Bhargava criticized Nandy and Madan for vulgar Gandhism and gave contextual theory of secularism. Bilgrami criticized secularism due to its Archimedean character and argued for a negotiated secularism that could emerge by negotiation between the substantive commitments of particular religious communities. Critics such as Nandy and Madan rejected secularism as radically alien to Indian culture and tradition and advocated a return to genuine religious and the indigenous tradition of religious tolerance as the best means to preserve and maintain pluralist and multi religious Indian society. Partha Chatterjee argued for a reconfiguration of the problem of secularism that is of a shift in the understanding of the nature of the challenge presented by the Hindu right. He also argued for reconceptualization of the concept of toleration. Donald E Smith in his work "India as a secular State" published in 1963 provides elaborate and logical

analysis of Indian Secularism. He discuss theoretical outline of a secular state that involve three connotations-Freedom of religion, citizenship and right to equality and separation of State and religion. This understanding incorporates three distinct interrelated set of relationship concerning State, religion and individual. In relationship between individual and State, religion is excluded and individual is viewed as citizen. In a relationship between Individual and Religion, State is excluded. Third is the relation between state and different religions and Secularism entails mutual exclusion of state and religion. Considering this important framework of secularism, according to Smith, while freedom of religion and equal citizenship has been duly incorporated in the Indian Constitution, State right to intervene in religious matters compromises these two principles in an important way. Thus India has some but not all features of a secular State. In Smith's views heritage of Hinduism that has characters conducive to secularism, presence of different minority groups as well as legacy of national movement under the leadership of Gandhi and Nehru provides prospects for strengthening secular State. However, consolidation of Secular state is a problematic one due to caste and religious loyalties that may take ugly turn of communal rivalry and conflict and provide aid to groups based on communal stratification. State interference in Hindu religious institutions to reform them and continuance of personal law is also opposed to the principle of secularism. India had to resolve whether non sectarianism or non religiosity is the true meaning of secularism. Despite these problems in Smith's views India is a secular State. Galanter criticize Smith for considering American experience based on two conceptions of secularism as strict wall of separation doctrine and no preference doctrine as an ideal. According to Galanter, Indian secularism cannot be judged with reference to an idealized American pattern and to have its better understanding it is important to delink it from western moorings. Secular State cannot leave religion entirely untouched. To understand this transformation of religion he distinguishes the mode of limitation and the mode of intervention. In the mode of limitation public standards are promulgated, their field of operation specified and religion is

shaped in accordance with these standards and in mode of intervention religious authority is directly challenged and a change is attempted from within the religious tradition. Both modes accept the external superiority of legal norms. According to Galanter Secularism embodied in the Indian Constitution exemplifies the limitation mode.

Self proclaimed "anti secularist" AshisNandy argues that ideology and politics of secularism has exhausted its possibilities in India. He even asks for a different conceptual frame which he visualizes at the border of Indian political culture. He locates the cause of new religious violence in secularism and modernity. A 'gift of Christianity' and child of modernity and colonialism, secularism is a product of western science and rationality and function as the ideology of modern State which according to Nandy is a source of most contemporary problems. Nandy's rejection of secularism is rooted in a twofold critique of modern culture and society and critique of secular state. According to Nandy, Indian secular State has much to learn about morality from Hinduism, Islam and Sikhism while Hinduism, Islam and Sikhism have nothing to learn from the secular state in this respect. As an alternative to secularism, Nandy pleads for the recovery of India's traditional religious tolerance. Nandy's critique of the ideology of secularism is against western state centered version which is adopted by India's westernized intellectuals. In this version of secularism religion should be abolished from the scientific management of the public sphere. In contrast is the non western religion centered understanding of secularism that supports equal respect for all religions and suits South Asian realities.

Nandy defines religion in South Asia as split into two, Religion as faith and religion as ideology. Faith means religion as non monolithic, operationally plural way of life. Ideology means religion as sub national, cross national or national identifier of population protecting political or socio economic interests. Religion as ideology is usually identified with one or more text and becomes the final identifier of the pure forms of religions and modern state prefers to deal with this form of religion. This idea is the product of modernity, statecraft and developmentalism. Secularism which is an imported idea from west does not use religion to link up different faiths or way of life which has its own principle of tolerance. The idea of secularism that gives state the role of ultimate arbiter among different religions and communities is incompatible with understanding and role of religion in life of people in south Asia.

Nandy discusses two different meaning of the word in modern India, the first meaning of secularism demarcates two distinct spheres public life and private life and one's religion is not admitted in public life. "One can be a good Hindu or a good Muslim within ones home or at one's place of worship but when one enters public life, one is expected to leave one's faith behind" (Ashis Nandy, 1997:333). This ideology believes that public realm is dominated with vision of science and bringing religion may lead to potential threat to modern polity. Pitched against this is the non western meaning of secularism that believes in the principle of equal respect to all religions. Implicit is the idea that public sphere must have space for continuous dialogue among different religions because each include within it "an in house version of the other faith, both as an internal criticism and as a reminder of the diversity of the theories of transcendence" (AshisNandy, 1997:333) This version of secularism is compatible with Indian understanding of secularism but India's westernized intellectuals have opted for abolition of religion from the public sphere. Nehruvian secularism which separates state and religion is a part of modern western package of scientific growth, nation building, national security and development. These according to him constitute a "modern demonology a tantra with a built in code of violence" (Nandy, 1988:185)(ThomasPantham, 2004: 238).

According to Nandy "religion has entered public life but through the backdoor" (Ashis Nandy, 1997:336). The public sphere where the organizing principle is modernity and religion as faith is being pushed to the corner religious violence is associated with the sense of defeat of the believer. "....What the State says to a religious community the modern sector often indirectly tells the individual "you give up your faith at least in public we also shall give up our faith in public and together we shall be able to live in

freedom from religious intolerance" (Ashis Nandy,1997:337). But for an individual for whom religion provides overall theory of life this idea of secularism is not adequate. Moreover while on the one hand state may ask the believer to keep the public sphere free of religion on the other it may use ideology of secularism, development and nationalism to silence non conforming citizens.

In modern India religious violence is increasing with a rate of almost one and a half incidents a day. Moreover, more than 90% of these riots begin in modern India in and around the industrial areas. "Somewhere and somehow religious violence has something to do with the urban industrial vision of life and with the political processes the vision let loose" (Ashis Nandy, 1997:340). Secularism has failed to promote religious tolerance as well as eliminating religion from politics. The reason being people in India are not ready to separate religion from public sphere. Nandy is not in support of "positive secularism" of RSS either. According to him, the ideology of Hindu nationalist revivalism or fundamentalism with its borrowing of the models of Semitic religions and of the modern western nation state is an instrument of another form of westernization (Thomas Pantham, 2004: 239).

According to Nandy whereas ills of religion have found political expression the strength of religion is not available for checking corruption and violence in public life. Nandy presents non modern, pre secular conception of religion as accommodative tolerant faith as an alternative to the modern western secularism. This version of secularism derives religious tolerance from Buddhism, Islam and Hinduism respectively. This was practiced by Ashoka, Akbar and Gandhi as well. For Gandhi religious tolerance was not only "tolerance of religions but also a tolerance that is religious" (Thomas Pantham, 2004: 240). The roots of this idea are in traditional Hinduism or "sanatan dharma" and as "Sanatani Hindu", Gandhi claimed to be a Muslim, a Sikh and a Christian simultaneously. Nandy's anti modern version of secularism proposes space for continuous dialogue between religious traditions and between religion and secular. This implies "each major faith in the region includes within it an in house

version of the other faith both as an internal criticism and as a reminder of the diversity of the theory of transcendence" (Nandy 1988, 80-81) (Thomas Pantham, 2004: 240). Nandy writes "we are at point of time when old style secularism can no longer pretend to guide moral or political action. All that the ideology of secularism can do know is to sanction the absurd search for a modern language of politics in a traditional society which has an open polity" (Ashis Nandy, 1997:338). According to Nandy traditional societies have developed internal principles of tolerance that helps them to live together thus inter religious riots were rare in them. According to Nandy "while secularization of Indian society has gone far (...) there are limits to its capacity to secularize society" (Peter Losonczi, 2014: 11) since idea of secularism creates rigid separation of two spheres religion enters politics through different means in the form of ideologies and instrumentalized religious exclusivism. Thus even threat of Hindu right has to be coped with religious and not secular means through reactivating traditional forms of tolerance. Secularism is also insensitive to politics of culture and believer is treated as person with inferior political consciousness. In this process traditional culture based on tolerance is eroded and tendencies of extremism increases communal politics. Thus he suggests the Gandhian path of inter faith dialogue.

Madan criticize the idea of secularism though he does not dismiss it absolutely. He cautions against unproblematic adaption of secularism in south Asian realities. QuotingBankim Chandra Chatterjee, Madan argues how translations are difficult because words can be translated but it is difficult to translate an idea that the word denotes if that idea does not exist among people whose language translation is required. The idea of secularism as transferred to countries of South Asia also poses many difficulties. South Asia is a multi religious society and the majority of people living in this region are active adherents of some religious faith. While Secularism is impractical for State action because Buddhism and Islam have been declared as State religion, policy of equidistance is also difficult to maintain since religious minorities do not share the majority's view of what this entails for the State. It has failed to bring under control divisive forces which resulted in the partition of the subcontinent in 1947 and failed to counter religious fundamentalism. Madan argues that it was possible to privatize religion in the West because of developments internal to Christianity such as reformation that facilitated the process whereas in South Asia, major religious traditions do not assume any radical antinomy between the sacred and the secular. Religion covers all aspects of life and its impact is totalizing in nature thus it was impossible to restrict it to private domain. Religion as the doctrine of overarching ends is the most important factor in the lives of the people of India and South Asia. Religion gives meaning to lives of most of the people and also determines their place in society to impose secularism on believers is wrong in the words of Madan "an act of moral arrogance and political folly" (Thomas Pantham, 2004: 241). Religion and the belief of people must be taken seriously and should be given its place in society as non religions because denial of legitimacy to religion in a society of believers provokes fundamentalism on the part of religious zealots. Through religious pluralism inter religious harmony could be established. Secularism and religious faith must be recognized as compatible with each other. The alternative conception in Madan's views is Gandhism because it has the possibilities of inter religious understanding.

Though Nandy dismisses secularism altogether Madan suggests that state practices of secularism have to be based on the recognition of religious practices. This has to be buttressed by discovering and strengthening the internal resources of religious pluralism and tolerance. Nandy and Madan raised two sets of distinctions to the forefront of the debate between secularism and secularization and that between the state and civil society. If India's civil society is deeply religious then this poses a problem for secularism as a state project .But in the end both theorists ground their understanding of tolerance in largely undefined and unarticulated lived practices. That these practices may have changed or degenerated in the context of competitive electoral politics and an equally competitive market economy is something that they would rather not take into account. According to Vanaik, Nandy's idea of replacement of secular state and secular public morality with religion based public morality of tolerance is dangerous. While for Nandy Secular state is imposed from above on traditional society, Vanaik in his thesis proposes that traditional beliefs and practices are responsible for undermining the secular state and democratization of society. The root cause of religious communalism is religion itself. The struggle against religion should not be limited to setting up a state equally tolerant of all religions but extend to the secularization and diminution of religion in civil society. To secularize civil society religious influence, importance of religious identity in everyday life and increasing privatization of religious commitments has to be reduced. Secularism means three things, Right to freedom of worship, primacy of citizenship and non affiliation of State to any religion. The secular State must separate state and religion, secularize state laws and policies. Recognizing due importance of Gandhian legacy, Vanaik argues that though Gandhi did not separate religion and politics his role was remarkable in giving principle of equal respect to all religions. But many of Gandhi's perspectives were against modern conception of secularism. Secular democracy requires rights centered relationship between individual and society. Sharing a common ideological ground with both the orthodox and subaltern schools of Marxism, Vanaik interprets Gandhi's mixing of politics with religious idioms of ahimsa trusteeship etc as a strategy of class accommodation for preventing any socialist revolution against capitalism. Gandhi mobilized masses in the Indian national movement but this contributed to a conservative though anti communalist, religious nationalism in contrast to a secular, democratic and egalitarian nationalism.

AkkelBilgrami criticize Nehruvian form of secularism but rejects Nandy's views on secularism also. He criticizes Nandy for practicing both nostalgia and skewed historiography. While Nandy is right in arguing that different religious traditions have their specific source of the realization of a tolerant way of life his ideas of the rise of Hindu Nationalism is oversimplified. According to Bilgrami, Nandy's anti secular proposal have flaws in it because the condition for different religious traditions and communities has changed in the modern India. In Bilgrami's opinion Nehruvian secularism stands in a conceptual and political space that lies outside the sphere of substantive political commitments. Secularism did not emerge as the product of a negotiation and dialogue between religious communities. It was adopted from above as an Archimedean point. If it would have been the result of debate and understanding of different communities then different groups would have subscribed to it. Presence of different communities in State is important and these communities could play very important role in designing secular principles. Bilgrami presents the model of negotiated or emergent secularism which is based on moderate religious persons embracing principle of secularism not on the basis of universalistic rationality but on their own internal value system. Secularism should also incorporate clarification of those principles that belong to illiberal religious persons also. Instead of seeking neutral common agreement communities should contribute to a secular outcome for different reasons from within their different substantive value economies. Instead of being imposed it should emerge from bottom up incorporating moderate political voices and assumptions of different communities. In his later writings he calls this liberal model post classical liberalism. He is also critical of contextualization of secularism including Taylorian proposal of redefinition. He proposes various conceptions of secularism may complicate the issue thus theoretically it is important to uphold unified definition of secularism.

Partha Chatterjee like Madan and Nandy is of the opinion that secularism is embedded within Western modernity and is problematic when applied to the Indian context. He is specifically concerned to know whether secularism is adequate to counter political challenge of Hindu majoritarianism because those who defend rights of religious minorities are accused by Hindu nationalist of practicing pseudo Secularism. Because of this Chatterjee seems to be in agreement with Nandy that modern forms of secularism do not necessarily ensure toleration and the Hindu right politics is a clear example of intolerance hidden under seemingly secular arguments (Peter Losconczi, 2014: 73). According to Chatterjee in post independent India the model of secularism adopted by India's westernized elites implied exclusion of Indian alternative to Western secular modernity. It also introduced direct involvement of state in religious and social matters especially in Hindu religious matters. Chatterjee problematize implementation of secular principles in Indian realities. If secularism is interpreted as strict separation of religion and politics this can prove fairly compatible with the discrimination against minorities. If secularism is interpreted as equidistance from all religious groups then its practice in India raise some doubts because State has intervened selectively in personal laws of different communities making laws to reform Hindu personal laws but the same reformist agenda has been absent for other communities like Muslims, Christian and parsis. Hindu right describe this as appeasement of minorities. Chatterjee refers to the exceptionality of India though he does not call for a new version of secularism. Chatterjee is in favour of idea of political tolerance that incorporates autonomy and respect for persons and accommodates different reasons coming from different cultural and traditional institutions. He seems to be in agreement with the idea that Minorities resist homogenization from outside but may introduce democratization within the community.

Gurpreet Mahajan discusses the relationship between state and religion in India with the assumption that secularism requires a commitment to the principle of separation and that the ideology of separation is central attribute of secularism. Yet, a strict separation of the two domains of religion and State is neither possible nor even desirable. Democracies in India and Europe may have followed different policies but the end pursued was the same, namely religious non discrimination. It means no citizen would be disadvantaged or discriminated against on grounds of religious affiliation. She argues that the relationship between the policy and the concept can be understood best in terms of the relationship between forms and the universal. The latter represents the end the shared aspirations that permeates particular expressions and policies embody the different paths

that countries take to realize that shared end. Polices must be understood and analyzed in relation to the universal that they seek to realize. The underlying idea of secularism in America or democracies in Europe or India is not to discriminate or disadvantage on grounds of religious identity or beliefs. This shared norm was followed by different countries through different policies. The policies of different nations were also shaped by different political and historical experiences and context. According to Mahajan the problem arise when we define secularism through the grid of policies.

In India policy of secularism created a situation in which constant involvement of State in religious matters became a norm. The institutions of the State were required to determine what an "essential" practice is. At times of clash between practices associated with two or more Communities State was required to adjudicate between conflicting claims. State addressed these concerns by following the policy of no established religion and religious liberty for all groups and communities. India presents different case because it affirms both the idea of no established religion and religious liberty. According to Mahajan India gave specific meaning to the idea of religious liberty through three important dimensions of religious liberty -right to profess, practice and propagate religion, right to set up religious institutions and minority educational institutions. Religious liberty was valued because it entails condition of non discrimination and ensures religious communities autonomy to determine their religious and cultural life. "Religious communities in this way received the same rights as any other association or group to participate in the political process, to articulate their demands and mobilize support for them" (Peter Losconczi, 2014: 47).

Rajeev Bhargava discusses meaning of secularism; differentiate states on the basis of relation of state and religion and why it involves different treatment for different groups. According to Bhargava political secularism that defines appropriate relation between State and religious institutions is open to varied interpretations. Thus different conceptions of secularism depend on how metaphor of separation is defined. This argument begins with the assertion that religious world views are constituted by ultimate ideals. When the believers of different religions and non believers have to live together clash of their ultimate ideals is always imminent. A clash of such ideals could deprive people of leading an ordinary life. Since it is the state's task to secure a minimally decent existence for its citizen all ultimate ideals must be expunged from the affairs of the State. Therefore Politics and religion have to be separated the two domains have to keep a principled distance and respect each other's boundaries.

Rajeev Bhargava discusses three variants of secularism, hyper substantive secularism, ultra procedural secularism and contextual secularism. Contextual secularism discusses principled or non sectarian distance between State and religion. States excludes religion for some purposes and include it for some other but it is always guided by non sectarian principles constituting set of values that incorporates equal dignity for all. Within contextual secularism if there is any conflict then State relies on minimalist procedures to control or remove controversial ideals. The policy of principled distance entails a flexible approach on the question of inclusion/exclusion of religion and the engagement/disengagement of the state, which at the third level of law and policy depends on the context, nature or current state of relevant religions. This means that religion may intervene in the affairs of the state if such intervention promotes freedom, equality or any other value integral to secularism. Principle distance allows for differential treatment. It may even require state intervention in some religions more than in others, considering the historical and social condition of all relevant religions. For example suppose the value to be advanced is social equality, this requires undermining in part caste hierarchies, then it may be required of the state that it interfere in caste ridden Hinduism much more than say Islam or Christianity.

According to Bhargava secularism is fully compatible with the defense of differentiated citizenship rights and secularity of the state does not necessitate strict intervention, non intervention or equidistance but any or all of these as the case may be. Indian

constitution presentsvision of contextual secularism and excludes religion for some purposes. For example exclude separate religious electorate and include personal laws for religious communities. But different institutions have practiced other two versions of secularism at different times. For instance in the Shah Bano case courts followed hyper substantive secularism and parliament by refusing to participate in Muslim personal law practiced ultra procedural personal law. Bhargava criticize Nandy and Madan thesis on secularism and writes, "modern secularism arose because the resources of tolerance within traditional religion had exhausted their possibility" (Thomas Pantham, 2004: 246).

Amartya Sen argues that the principle of secularism does not require that the state must steer clear of any association with any religious matter whatsoever. Rather what is required is to ensure that in so far as the State has to deal with different religions and member of different religious community there must be a basic symmetry of treatment. The virtue of this approach he emphasizes is that the requirement of symmetric treatment leaves open the question as to what form that symmetry should take. Sen's formula of basic symmetry of treatment illustrates that the theoretical inadequacy of the secular discourse is largely due to lack of stability in the essential conceptual distinction between the religious and the secular.

Sen defends secularism as part of more comprehensive idea of India as an integrally plural country made up of different religious beliefs, language groups and divergent social practices. It is part of bigger project of recognizing this heterogeneity. Engaging with six strands of critique against secularism Sen argues that any reexamination of the difficult question relating to the principle of symmetrical treatment of different religious communities must arise within a commitment to secularism.

Conclusion

The important core features of secularism- freedom of religion for citizens, nondiscrimination, equality of treatment and no established religion of the state are part of Indian understanding of secularism which has been enumerated in special historical and social construct. It is opposed to institutionalized religious domination. Secularism is a universal doctrine asserts Rajeev Bhargava since its basic constituents are constant namely, a separation of organized religion from organized political power inspired by a specific set of values. But these elements can be interpreted in several ways. Court judgments' and State policies in most cases have upheld the inherently pluralistic character of our society. Concepts change as they are used to solve new problems which is true for Indian secularism as well.

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Chetna Sharma Department of Political Science Kamala Nehru College



Crisis Management and PR: A Case Study

Crisis Management: An Introduction

Crisis refers to an untoward happening or an unexpected event, especially when a product organization or service comes under attack on safety issues (Jethwaney, 2010). Although a crisis cannot always be anticipated, in some cases warning signals can be detected. These danger signals can be spotted in media reports, court hearings, investigations etc. Short term frame of action should be replaced by an analysis of possible long term effects of the company's actions. The objective should be to move quickly so that facts are communicated promptly to employees and interested publications.

Hill and Knowlton (1958) have categorized crisis in terms of exploding crisis such as disasters, fires, explosions, floods et al. Then there are controversial incidents or scandals that fall under immediate crisis. Sometimes crisis can be anticipated due to premeditated decisions like the closure of a plant or employee retrenchment which are examples of building crisis. We also have continuing crisis where an organization, a product or service is under long-term attack on safety or environment issues.

Most organizations have a disaster plan in place to handle any untoward crisis. The most important aspect of a crisis is to deal with the issue of credibility. During any crisis public opinion swings from approbation to rejection due to lack of trust and propaganda. Negative media reportage can add to the crisis if an organization creates a communication vacuum by withholding vital information from the public.

Case study of Maggi and Cadbury

The crisis for Maggi beganon March 10, 2014 when the Uttar Pradesh Food Safety and Drug Administration collected samples of Maggi for tests to determine whether Nestle India was complying with its stated claim that the product doesn't contain any monosodium glutamate (MSG), a taste enhancer. The tests revealed dangerously high level of lead content in Maggi samples. This spiraled into a virtual storm leading to the disappearance of Maggi noodles from market shelves. The Delhi government

banned the popular snack and India's food safety regulator ordered nationwide tests amid growing concerns over the brand's ingredients. A Hindustan Times report stated that against the permissible lead content of 0.01 parts per million, the Maggi samples contained 17 parts per million. The discovery prompted authorities in West Bengal, Maharashtra, Uttarakhand, Haryana, Odisha, Gujarat, Bihar, Assam, Punjab, Karantaka, Delhi, Tamil Nadu and Kerala to either send samples of Maggi for tests or order the withdrawal of the popular snack from shops. Nestle was asked to clarify reports on Maggi samples failing a safety test in Delhi.

Nestle India, in statements posted on its website, contended Maggi is safe as the results of "internal and external tests show that lead levels are well within the limits specified by food regulations". It said samples of Maggi noodles from 600 product batches were sent to an external laboratory for independent analysis while samples from almost 1,000 batches were tested at a Nestle laboratory.Nestle said it was cooperating fully with authorities after officials in Uttar Pradesh informed it about elevated levels of lead in a sample of Maggi and MSG in products labeled "no added MSG".

A qualitative assessment of media reportage on the Nestle crisis showed that the media was very critical of the approach used by Nestle to quell dissent over the reports of lead content in its noodles brand, Maggi. The Hindustan Times wrote that Nestle failed to protect its iconic brand, Maggi which was also the most significant of the four P's in marketing – namely the Product. The brand failed to be pro-active during the crisis and instead chose to avoid the media. One of major flaws pointed out was that of being in the denial mode. PR experts maintain that conditional acceptance of allegations can work wonders in limiting potential damage. Nestle instead chose to deny reports which did the brand severe damage. Nestle failed to educate their loyal customers and damaged their credibility in the bargain. "It would have helped had Nestle engaged with consumers. Not doing so only leads to speculation," a food company CEO told the Times of India.

Cadbury India was caught up in a similar crisis situation some years ago when the mediareported that live worms were found

in its Dairy Milk chocolate bars. Cadbury responded by stating that it was a storage-linked problem and not manufacturing related and that Cadbury Dairy Milk continued to be safe for consumption. Cadbury launched a campaign called Project "Vishwas" and set up a media desk to ensure that no media query went unanswered. The campaign sought to reassure consumers with messages that consumers must exercise care and that the chocolate company was introducing new packaging to ensure that worms do not get into the chocolate at the retail end. The new "purity sealed" packaging was launched by Cadbury, which also chose Amitabh Bachchan as the brand ambassador to endorse Cadbury to reinforce the credibility of Cadbury. An Audio-visual ad with a message from the star was telecast on all prime time TV shows and the announcement of new packaging was done through a testimonial advertisement with a spoken statement from Amitabh Bachchan extolling the quality of Cadbury's chocolates. The media relationship effort clearly helped in restoring media and public confidence and the Cadburysales climbed back. PR experts believe that the reason for Cadbury's success was that it took the crisis head-on and the consumers were more forgiving, because the brand enjoyed an emotional connect with them. Santosh Desai, former president, McCann-Erickson says, "The nature of the relationship that Cadbury's has built with the consumer is responsible for latitude the consumers are giving it. They are seeing it as a lapse, not a breach of trust this difference is key. What Cadbury's set out to deliver, it goofed up once but it seemed to be very sincere in its intent to get things right."

Measures to handle PR crisis and restoring brand credibility

The tactic of a defensive response to a crisis has proved time and again to be counter-productive (Moore & Kalupa, 1981). Referring to such a response as the fire-fighter or janitorial response, the authors note that such an approach is short-sighted. Although a crisis cannot always be anticipated, organizations should look out for warning signals in the media, government hearings, investigations etc. PR experts maintain that a short term frame of action should be replaced by an analysis of possible long term effects of the company's actions. The objective should be to move quickly so that facts are communicated promptly to employees, the media and the public. Some of the key points that organizations need to keep in mind in the event of an emerging crisis are to draw up in advance an emergency plan and make all employees aware of the plan. From the PR standpoint, any plan is only as good as those who are responsible for carrying it out properly. Instead of taking on a defensive posture during times of emergency and crisis, companies must take up a professional approach towards information dissemination. The message action plan should include the target audience, message elements, communication technologies, decision about channels, funds appropriated for crisis communication and publicity. Scheduling of messages is equally important to ensure how fast the message reaches the target audience. Communication tools like press releases must be regularly disseminated and regular monitoring and evaluation must be done. Companies should not find alibis but share facts available with the media because if they fail to do so, then a communication vacuum will be filled up by grapevine or irresponsible information. During crisis of an explosive nature, the PR team should cope with media inquiries, identify the spokesperson, announce a telephone number for public inquiries and create a press centre. After the crisis is over, a follow-up with the media for releasing information about corrective measures must be taken to avoid crisis in the future. Public opinion swings during crisis based not on reason but on anger, emotion, lack of trust and propaganda. In a crisis a companymust take the public's perception as a ground reality and adopt the messages accordingly. Scheduling of messages ensures how fast the message reaches the target audience. Scientific evaluation to measure both positive and negative impact would help diffuse future crisis. The organization must prepare a list of adversaries - competitors, splint groups, consumer activist groups, labour unions, industry associations, and take timely measures to ward off potential threats that could build up into a crisis.

Conclusion

PR experts say that good PR is a year-round programme and should not be limited only to emergencies. The tactic of a defensive approach to a crisis has proved time and again to be counterproductive. The comparison of the Nestle and Cadbury case studies during times of crisis, have shown that while Nestle resorted to finding alibis to fight negative publicity, Cadbury accepted its mistake and thereby won back consumer trust. Avoiding the media during times of crisis has also worked against Nestle and it would require a lot of PR effort to win back customer confidence.

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Dr Jyoti Raghavan, Department of Journalism Kamala Nehru College



Situating Feminist Translation: Inquiries into the "Politics of Erotic" in Gayatri Chakravorty Spivak's "The Politics of Translation"

Any course curriculum of Translation Studies, and more precisely on Gender and Translation studies, lists Gayatri Chakravorty Spivak's "The Politics of Translation" (1992) in its syllabi. This generalization on my part, comes having viewed the courseoutline of a postgraduate course on "Gender and Translation" in The University of Edinburgh and several other outlines across India, (not to mention the important readings for the course which I myself had undertaken at postgraduate level). The canonization of the essay, not only highlights its crucial position vis-à-vis the emergence of Translation Studies as a discipline, but also brings to notice how along with works, it is certain people, who get canonized; in this case, the established "post-colonial" voices who are well-recognized in Western academia: the likes of Spivak. Incorporating their works in the process of canon-formation at once saves the course-designers from not having included "other" voices; comfortably reaching a dilettante conclusion that the "subaltern" voices have been included - failing to recognize, how various theorists outside the "Western" academia might have quite different theoretical insights to make.

By both resisting as well as being mindfully aware of such a "politics of location", I approach Spivak's essay to not only interrogate the major claims that it makes regarding translation theory and practice, but also understand its centrality in feminist translation as well as Translation Theory—in general. Hence, this paper attempts to locate "The Politics of Translation" in the larger context of Translation Theory: aiming to understand the modes through which Spivak offers a resistance to the sexist language, and more significantly the paradox of Translation Theory—that is caught in the perpetual binaries of "source" and "target", "original" and "translation".

Spivak's "The Politics of Translation" occupies a central position in Translation Theory and Practice as her interventions in the discourse formation of feminist translation are crucial and pathbreaking, considering she is the first theorist who brings practical examples of how feminist-translation should be like. Whether it is about the dangers to be encountered in translating "Third World" women's texts or by posing a challenge to the longstanding tradition of feminist-translation practices which called for "women-handling" the text: advocating a kind-of "visibility" on the part of feminist translator, Spivak's theoretical insights are pivotal in making a shift from early feminist theories of translation that challenged gendered metaphors associated with translation to more practical ways of practicing feminist translation.

Historicizing Gender and Translation studies

Before initiating my inquiry of the seminal essay, historically locating it in the trajectory of "Gender and Translation" studies is pertinent to understand the grounds which feminist translation theorists have been contesting, as well as how Spivak's analysis marks a huge departure from them. Gender-related theories on translation emerged with Lori Chamberlain's pioneering article, "Gender and the Metaphorics of Translation" (1988), wherein she not only underscored the gendered, sexist metaphors associated with the field of Translation Studies, but more importantly, took cognizance of how the relationship between the translator and the text itself gets composed in binaries. She decodes a language of paternalism in the gendering of translation (Chamberlain 1988, 5) and points out the secondary-status of translations as they get perceived as "belle infidel", i.e. translation gets equated with a maiden if she is faithful, she is not beautiful, and vice-versa. Such gendered metaphors evoked in theorizing translation, and its relationship with the original-text showcases a general tendency towards male bias.

Ever since, Chamberlain highlighted how translation theories have adopted gendered-vocabulary in understanding the relationship between translation and the original text and the translator and the translated text, not only many feminists have contradicted such claims, but also, called-for the emergence of feminist-translation. Many feminists have voiced how different theorists like George Steiner, Jacques Derrida have taken recourse to sexist terminologies in addressing the issue of Translation; hence the need for women to "write their own metaphors of cultural production... in a non-sexist language that is properly theirs" (Kamala 2002, 34). Thus, the attribution of secondarystatus to both women and translations led to the emergence of feminist translations: where the call was to bring gender into the forefront of the narrative instead of relegating it to the margins. Most of the feminist translators argue for the visibility of the translator in the narrative as Barbara Gogard argues that a feminist translator should "flaunt her signature in italics, in footnotes- even in a preface" (Kamala 2002, 18). This argument of foregrounding one's gender while translating any text becomes my entry point to Spivak's essay, "The Politics of Translation" (1992).

The call for feminist translation where the "visibility" of the translator becomes the governing-force raises serious concerns whether such an act of translation would distort the content of the original. Many feminists have raised doubts regarding such endeavours: one major criticism gets levelled by Rosemary Arrojo in her review of Sherry Simon's book, *Gender in Translation: Cultural Identity and the Politics of Transmission,* where she highlights how most of feminist translation theories are embedded in an inherent contradiction, claiming to both, mark the text with the presence of feminist translator and yet be true to the original text (Arrojo 1997, 271). In Arrojo's words:

...how could anyone harmonize the feminist translators' often-repeated proposal that the translator' aggressively assert her own presence in the space of translation' with their equally often-repeated claim, for instance, that - in Simon's words – "feminist translation implies extending and developing the intention of the original text, not deforming it?" How can anyone explicitly transform a text according to her or his own political interests, at the same time as claiming that such a transformation is nothing but a way of "developing the intention of the original text".

(Arrojo 1997, 271)

I believe this contradiction lies at the heart of feminist translation theories; that call for assertion on the part of the translator, while constantly also reiterating its opposite: of not compromising to the original text. It goes uncontested that any act of assertion on the part of the translator, that marks his/her presence in the course of the work, will invariably affect the original work: be it at the level of meaning or on grounds of textual-politics itself. In this regard, I find Spivak's position vis-à-vis gender and translation theories extremely significant as she provides all-together different methods of practicing feminist translation; an alternative to the contradiction in feminist-translation theory, her essay serves in answering the questions raised by Arrojo in the quotation mentioned earlier.

Politicizing Feminist Translation

Spivak's "The Politics of Translation" (1992) is a path-breaking intervention in feminist-translation theory and practice: as it moves beyond the questioning of secondary status of translations, and the gendered language associated with it, arguing how feminist translation practices may itself run the dangers of hegemonizing the woman's writer's voice and forcing a-particular version of feminist-politics on to the text. To escape such dangers, she argues, the feminist translator should develop a-kind of intimacy with the text: (to use her own terminology) should "surrender" to the original text such that the text, in itself, plays out its agency. In order to fully grasp how Spivak undertakes a methodological shift from other feminist translation theorists, it is imperative to locate her argument in its post-colonial context.

Spivak's questioning of feminist translation-practices does not emerge in isolation, but rather as a response to early theories interfacing gender and translation issues. Furthermore, she is specifically concerned with not just any text categorized as "women's writing" but the ones emerging from "Third World" Nations. Hence, her immediate concern is the English-translation of "Third World" women's texts; and more, precisely, the translations performed by "Western" feminists, who are socially as well as culturally divorced to contextualize the spaces from where such writings emerge. Having said that, Spivak isn't undertaking an essentialist debate –highlighting the limitations of Western feminists in such an ambitious endeavour –rather she is deeply concerned about some set-presumptions with which "Western" feminists approach these texts, making all "Third World Literature" sound alike. She argues:

In the act of wholesale translation into English there can be a betrayal of the democratic ideal into the law of the strongest. This happens when all the literature of the Third World gets translated into a sort of with-it translatese, so that the literature of a woman in Palestine begins to resemble, in the feel of its prose, something by a man in Taiwan. (Spivak 1992, 399–400)

According to the above extract, Spivak's major concern are the assumptions with which translators might approach "Third World" women's texts: such that the "difference" of these writings gets co-opted into the homogeneity called "Third World Writing". What she calls as the "law of the strongest", is but a euphemistic phrase for the authoritative power-position held by the Western feminists when they attempt to translate women's texts having set presumptions about the writer's culture and social structures. In such a scenario, translations adhere to the receptor culture's perception of the "Other". As Mahasweta Sengupta aptly puts it (though in another context):

[How certain] 'images' construct notions of the Other and formulate an identity of the source culture that is recognizable by the target culture as representative of the former-as 'authentic' specimens of a world that is remote as well as inaccessible in terms of the target culture's self.

(Sengupta 1996, 159)

Sengupta's words are an appropriate description of the dangers which Spivak finds in (what she calls as) the "law of the strongest" or else (at some other juncture) "dubious politics"; deployment of such euphemistic language to channelize her critique becomes all the more relevant in the larger context: to both, provide a harsh indictment of Western feminists' attempt to translate "Third World" women's writing without knowing their cultural specificities as well as contribute to a larger project in buildingup solidarity between various feminists across the globe. Spivak's abstruse language (though greatly accessible compared to her other writings) as well as the structure of her argument, are both intentional in achieving such a project. Though she is greatly critical of assumptions on the part of Western feminists of some a-priori women's solidarity, part of her project is to attain women's solidarity and hence usage of a language which both criticizes and aims to achieve solidarity between women in spite of their differences. How successful is this attempt towards forging solidarity -through linguistic-experimentation, structural-pattern and culture-specific examples -is a question worth-raising. Is Spivak able to realize the claims that she outlines in the essay or is she herself caught in the paradox of politics and aesthetics of translation? In order to analyze the merit of these questions, I will begin, first and foremost, by explicating her major argument and the modes through which she establishes it.

Spivak's central argument in the essay is to allow the text to play out its agency which will only be possible when the translator surrenders to the original text. Bringing her own experiences in translating, she states: "Translation is the most intimate act of reading. I surrender to the text when I translate" (Spivak 1992, 398). These personal anecdotes at once save her from the supposed disconnect between theoretical formulations and practicing translation; further foregrounding the authenticity of her claims. However, whether she achieves this task is subject to debate, and will be analyzed in the course of the paper where I will bring references from her own translations of Mahasweta Devi's short stories and Ram Proshad Sen's "Songs of Kali". Her central contention is that language operates through a three-partite model - rhetoric, logic and silence - and in order to be true to the spirit of the original, the translator should aim to retain the rhetoricity of the original in the target language. While most translators aim to translate logic, i.e. the meaning, as contained by what is said, in other words "domesticating" the text, Spivak

argues that it is through rhetoric that language gets disrupted and we enter "a space outside language" (398). Hence Spivak frames, "The task of the feminist translator is to consider language as a clue to the workings of gendered agency" (397); advocating from a post-structuralist stance, in favour of the rhetoricity, the silences incorporated in the text and thereby retention of the alterity of the original.

Methodological Enquiries: Analysis of Language, Style and Structure

Having elucidated Spivak's hypothesis, that feminist translators should engage themselves in knowing the cultural specificities of the woman's text and aim to reproduce the rhetoricity of the original language in the receptor culture, it is ironic that the references incorporated to support this proposition, are highly elusive, especially to someone who isn't familiar with Spivak's own specific cultural location. However, I believe, part of her agenda is to communicate through opacity in order to effectively pass on the message. What I mean by this convoluted phrasing is that Spivak's contestation is primarily with Western feminists who fail to consider cultural specificities while translating "Third World" women's texts; and therefore in order to allow this debate to reach its point of culmination, her essay is strewn with references from "Other" cultures, not only where she points out effective practices of cultural translation but also, while highlighting its limitations. Thereby on a symbolic plane, forcing Western feminists to engage in knowing "Other" cultures, even before attempting to translate, in the very process of reading her essay.

Under the three broad categorizations: "Translation as Reading", "Translation in General" and "Reading as Translation" (an overarching framework for her analysis) Spivak's text undertakes a romantic journey of developing a bond between the translator and the text, which becomes a stylistic device recurrent throughout the essay. As mentioned earlier in this paper, such strategic technique saves her from any reductive reading, because she is at once critical of "Western feminists" assumptions of an already pre-existing solidarity between women, yet concerned to foster a bond that is more inclusive in its outlook. To clarify my argument further, Spivak's major claim of "surrendering" to the text, or as she calls a "bond of intimacy" with the text, borders at the level of "erotic," as the reader is tempted by the "seductions of translating" (Spivak 1992, 397). One such passage that underscores an eroticized approach of translation reads as follows:

Although every act of reading or communication is a bit of this risky fraying which scrambles together somehow, our stake in agency keeps the fraying down to a minimum except in the communication and reading of and in love. (What is the place of "love" in the ethical?) The task of the translator is to facilitate this love between the original and its shadow, a love that permits fraying, holds the agency of the translator and the demands of her imagined or actual audience at bay. (Spivak 1992, 398)

Spivak's usage of language in the above paragraph is highly nuanced as she does not come-up with absolute statements clarifying her intent; rather "metaphoric" language becomes her signature-style. Phrases like: "risky fraying", "a love that permits fraying" invariably echo a philosophical rendering of love without borders, without conditions than a theoretical piece which is polemical. Such a stylized language empowers Spivak to both: state her point and obfuscate it. It is also noteworthy that a question like, "What is the place of love in the ethical?" elevates her political-project to a transcendental level that cannot be answered in any specific terms. Therefore, it can be argued that instead of giving a prescriptive theory that might undercut her project of allowing rhetoricity to convey itself, she deploys a strategic rhetorical language which further accentuates her argument. This highlights how Spivak organizes her language in order to complement the content of her analysis.

To illustrate further, how she provides grandeur to the act of translation itself, one finds that the text is laden with phrases such as: translator should, "... respond to the special call of the

text" (Spivak 1992, 400). She herself labels her brand of translation practice as "erotic" than "ethical". Usage of the term "erotic" to describe her version of practicing translation, immediately brings to mind the sexist language prevalent in Translation Studies and how Spivak attempts to counter such a discourse. Sherry Simon has argued, how Spivak's description of the erotic in translation can be read as an inversion of George Steiner's aggressively male imagery (Simon 1996, 136). While many feminists have highlighted the gendered language associated with translations, Spivak's theoretical intervention leads to a counter-discourse and is not merely reactionary. She develops an all-together different terrain of language which is metaphorical and not construed in binaries of "source" and "target" text.

Nevertheless, Spivak's counter-narrative on translation operates on a precarious plane: arguing for an "in-between" discourse (Spivak 1992, 406) where the rhetoric of the original is retained by being literal, yet not compromising the linguistic parameters of the receptor language. Similarly, by nudging the agent to "surrender" him/herself to the text, as well as foregrounding the important role of "staging agency" played by the agent; the "fine balance" that she seeks to maintain between Translation Theory and practicing translation, instead of bridging the irreparable divide between the two, ends up being excessively relativistic. Even as, Spivak uses, such refined sophistry of ambivalence, to further vanguard the essay from reductive readings, such a mechanism becomes at once pluralistic that fails to notice how its tone of defiance becomes as normative as the one it seeks to refute. An analysis of her style of writing further clarifies my observation:

My initial point was that the task of the translator is to surrender herself to the linguistic rhetoricity of the original text. Although this point has larger political implications, we can say that the not unimportant minimal consequence of ignoring this task is the loss of "the literality and textuality and sensuality of the writing" (Michele's words). I have worked my way to a second point, that the Situating Feminist Translation... "The Politics of Translation"

translator must be able to discriminate on the terrain of the original.

(Spivak 1992, 405)

As mentioned earlier, she argues for both ends: the act of surrendering to the original and the translator's ability to discriminate – to choose vis-à-vis the original as he/she has to make the decisive choice. It is ironic that she merely hints at the political implications of such a practice and calls the loss of textuality as a "minimal" consequence; also note the double negative "not unimportant" is used to further distance herself from the political baggage of her argument, even though her argument is primarily political. Such a rhetorical manner brings to the forefront, how Spivak occupies an "in-between" space in her narrative (to borrow Homi K. Bhabha's term) from where she can both prescribe her theoretical position yet not overemphasize it.

Spivak's argument unfolds in a playful engagement with words, every time hinting at the limits of language. Her post-structuralist position becomes evident in the way she deploys language, which further contributes in strengthening her argument, of allowing the silences in the text to voice itself. Throughout the essay, Spivak argues for a space outside of language, which can only be entered into through rhetoric. Thus, in order to capture moments outside the realm of language in the translated text, Spivak provides examples of cultural translation, where communication happens through silences or other modes of resistance.

Spivak refers to particular episodes from translations of works written by globally-acclaimed writers: Toni Morrison's *Beloved*, J.M. Coetzee's *Foe*, and Wilson Harris's *The Guyana Quartet* and portrays the limits of language and limits of translation in turn. One instance, where she analyzes Morrison's *Beloved*, its undercurrent of slave-narrative reveals how the story of slavery gets passed on by the sheer act of refusal – the violence and trauma of slavery do not get articulated but is transferred through the marks of violence borne by the body. Drawing how memory plays a crucial role in such a process of translation, Spivak argues how

violence on the female body represents "birth-in-death, a deathin-birth" (410) of translation. The realization of such *oxymoronic* theoretical postulation, namely a translation practice which does not call for duality, but a unity of both: what language can convey and what lies beyond its realm, is the penultimate goal of not just a feminist translation but Translation Theory as well.¹

Spivak repeatedly argues how rhetorics can point at the possibility of random contingency (398); invariably arguing for a space outside of language, not organized in structures but which nevertheless forms meaning through its randomness. She argues how such a space can be ventured into through rhetoric, at least in terms of hinting at it, following which the structure of her argument seems derivative of this approach, as it does not follow a linear pattern, but random loose threads serving as conjunctions. Hence, arguing in favour of "random contingency", Spivak's narrative-structure is itself subsumed in this style. This becomes clear in the last section of the essay, "Reading as Translation", where the structure of the essay starts to loosen its grip and become abstruse. On a meta-critical level, inviting attention to the subheading – as the reader not only gets to know, how the act of reading the text is a primary concern in translation, but also is driven into this exercise - Spivak engages in a reading of Peter de Bolla's The Discourse of the Sublime, through a post-colonial lens, at random quoting from different pages, without providing any linkages between such quotations. Her analysis of the book is to showcase how different readings can be undertaken by the reader, questioning the argument from his own subject-position. Yet this clear-cut argument comes mediated through the complex device of a reader addressed as a RAT (Reader as Translator) coming across various pages, engaged in an intensive reading of the text. Such passages seem vague and incoherent as they aren't introduced or integrated into the text, nevertheless quoted at length followed by Spivak's own commentaries. In such a scenario, her style is the content, as those paragraphs stand out in themselves without building up to any concrete argument. To specify how the medium becomes the message, Spivak states in the body of the essay in question: "On p. 72 RAT comes to a

discussion of Burke on the sublime... On Pp. 106, 111-12, 131 : RAT comes to the English National Debt..." – highlighting the significance of close-reading. However, such-a-practice equally ends-up co-opting the content of her essay as the narrative mode follows a pattern of utter specificity in the initial pages moving towards obscurity (especially in the last part of the essay).

Interrogating Aesthetics and/of Translation

While I have argued that a complex web of structure complements Spivak's political-stand, one might still question the viability of her project. What I am in-turn arguing is whether it is at the level of form or content that Spivak's attempt of politicizing translation practices and developing the apt "Politics of Translation" seems a successful project; however, the question remains: how easily can such a theoretical insight be put-into-practice? In other words, how comfortably can one bridge the gap between theory and practice, which Spivak tries to venture forth? While at a theoretical level her essay is a landmark achievement, still many questions remain unresolved as one tries to incorporate her arguments at the practical level of *doing translation*. One such major critique is at the level of aesthetics of the translated text, which seem to have been "surrendered" in the project of seeking "radical politics" of feminist translation. Any attempt of retaining the alterity of the original language – "absolute alterity" – renders the text sounding foreign in the receptor language; or else heavilyladen with foot-notes and glossary which impedes the process of reading. Hence, the major question that Spivak seems to have eschewed is - what about the quality of translations?

She does not bring-up this question in her analysis, rather deliberately avoids this subject, arguing how such markers are relative: "Good and bad is a flexible standard, like all standards. Here another lesson of post-structuralism helps: these decisions of standards are made anyway. It is the attempt to justify them adequately that polices" (Spivak 1992, 405). Not attempting to justify her translation-practice as necessarily "good", yet foregrounding her political project, Spivak seems to deliberately avoid the question of aesthetics under the ruse of post-

structuralist narrative-method. Such a technique might hinder the facilitation of (to use Spivak's terminology) "love between the original and its shadow". This is glaringly evident if one analyses Spivak's own translation practices; her translation of Mahasweta Devi's short stories and Ram Proshad Sen's songs of Kali, clearly reveal that the attempt to retain alterity by going literal reduces the aesthetic-value of the text.

This gets established right in the course of the essay, where Spivak transliterates French translations of Ram Proshad Sen's poetry and also provides her own English translation in order to showcase the *orientalizing* tendency of the French version. Though her version sounds better than the one she critiques, awkward phrasing can nevertheless be discerned in her translations into English. To explicate, the translation reads as: "Bind those holy feet with the rope of devotion" (Spivak 1992, 403) which explicitly showcases the dangers of literal translation as the meaning invariably shifts. Even as the reader tries to emphasize on the metaphorical image, the literal sense keeps subsuming the mind, at once evoking laughter than devotion.

Another major flaw of literal translations is visible in her translation of Mahasweta Devi's short stories, which are not aesthetically pleasing as there isn't an adequate flow of the language. A part of the paragraph from the story, "Draupadi" reads as: "...No water anywhere, drought in Birbhum. Unlimited water at Surja Sahu's house, as clear as a crow's eye" (Devi 2002, 29). This reference further signifies the *foreigness* of the sentence leading to the crucial question: how valid is this project of retaining alterity in the translated text? It always runs the risk of rendering the text ambiguous, full of footnotes, as is the case with Spivak's own translation of Devi's another short-story, "Breastgiver", the version that appeared in The Norton Anthology of World Literature. Spivak might claim to be allowing the rhetoricity of the original to emerge in the translation, and also having succeeded in such an attempt; yet, one might still question whom does such politics serve? Sherry Simon questions in her book: Gender in Translation: Cultural Identity and the Politics of Transmission arguing, "Is there a paradox to be discovered in the contrast

between Spivak's posture of 'surrender' to the foreign text and her extensive critical interventions which mediate between the text and the English-language reader"? (Simon 1996, 141). The question of who belongs to the receptor-culture – which Spivak strategically ignores – brings light on the power-position held by the English language.

Thus, one can fairly conclude that the disjuncture between theory and practice isn't fully bridged since Spivak's theoretical interventions (though highly significant) are largely difficult to follow, especially if one has to create an aesthetically equivalent text in the target language. Choosing to retain absolute foreignness in the target language and forcing the readers to reach out to the original language showcases the limits of such a project, as there can be no "absolute correspondence between languages" (Nida 1964, 126).

Howsoever limiting Spivak's propositions might be as one tries to put it into practice, her essay nevertheless emblematizes a crucial juncture in aestheticizing Translation Theory. To keep up with the ambivalent spirit of the essay, it might not take into consideration the aesthetic value of the translated text, yet it propounds a kind of aesthetic quality upon itself, which is worthacknowledging. In order to allow the subaltern woman's text to voice itself, perhaps some "risky fraying" is necessary for foregrounding the silences, ruptures and penultimately: the *untranslatability* of the text.

Footnote

¹Translation Theory has primarily struggled between two contrasting theoretical approaches: word-for-word translation or what Eugene Nida calls "formal equivalence" and sense-for-sense translation, also referred to as "dynamic equivalence". Translation theory is caught in these opposite poles where either the retention of the original text/ close adherence to the source language and culture is preferred or else conveying of meaning/ and close adherence to the receptor language and culture is desired. Any attempt to reconcile these approaches has been severely limiting. Spivak's essay with its experiemental language is able to creatively address these dilemmas.

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Kanak Yadav Department of English Kamala Nehru College

