

ISSN : 2348-2060



Manikya Lal Verma Shramjeevi College

A Constituent Unit of JRN Rajasthan Vidyapeeth (Deemed) University

Arthavati

An International Journal



ARTHAVATI

Department Of Economics,
Manikya Lal Verma Shramjeevi College
Near Town Hall, Udaipur
Web : www.jrnrvu.edu.in

Volume-4 | Issue-1 | Jan - June, 2017

Arthavati : An International Journal

Volume:4

Issue:1

Jan-June, 2017

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Editorial

Economic order in the world is a sign of its changing contours. Post Globalization economic order is now pretty well settled with the capitalist economies flourishing on the basis of accumulation of surplus value and contest for natural resources getting fiercer. Before the economic slowdown in the US started the United States and the United Kingdom were unleashing forces in the Middle East to capture Oil producing nations and systematically rallied the world against the Islamic world in the name of a conflict of cultures. The Euro-centric world turned into US centric world after the world wars but the first decade of the 21st century marked a shift in its centrality with China and India emerging as strong economic powers in Asia. So, today the domination of no one nation is seen in the world. The well declared policy of Trump's government called "America First" is a sign of the Shift in centrality of the United States in the world economic order.

The Indian economy has been more stable in these years. The growth rate remained comparatively stable during the first decade of the twenty first century and was much higher than many countries of the world including some of the so called developed countries. The change in government at the national level brought in certain drastic changes in the economic policies. With a mandate of a comfortable majority in Lok Sabha in 2014 polls and state assemblies thereafter, the BJP has come out with its political agenda rather blatantly. The shift in economic priorities is quite obvious. The agriculture sector is marginalized and the corporate sector is ascending in the state priority. The economy is growing at the rate of about 5.6% which is much lower than the same in the previous years. This growth is also one which does not increase employment opportunity. The economists are calling it a "Jobless Growth".

Two drastic measures were taken by the Union government in the last financial and current financial years. The first one was the step of demonetization which has completed one year now and the second is implementation of GST, Goods and Services tax. The two steps have had a massive impact on Indian economy and shall affect the economy further. Demonetization has had a negative impact on economic growth as seen in the last three quarters. Pro-government economists plead that this step will prove to be beneficial in the long run but for that one has to wait and watch. The border conflict with China saw hype in media about discarding and boycotting Chinese products. This remained a political slogan and the economic ties with China continue to be as strong as ever. This is evident from the fact that Indian imports from China have increased from 51.03 Billion US Dollars in 2013-14 to 60.41 Billion US Dollars in 2014-15 and 61.70 Billion US Dollars in 2015-16. In 2015-16 and 2016-17 from April to February it has been 56.91 and 55.63 Billion Dollars respectively.

This number of the journal carries articles covering some of these questions raised here. There are articles on Indo-China and Indo-Pak trade, Effect of demonetization, Rural Transformation, environment issues, Human capital and sustainability. These research papers will certainly enhance our understanding of current global and Indian economic scene.

The editorial team does not own responsibility for the data presented in the individual research articles nor for the interference made. The responsibility of the entire information and thought in the articles rests with the authors. However, new ideas are always welcome to improve the quality, content and authenticity. We would welcome opinions, suggestions and corrections, if any by the readers.

Prof. Suman Pamecha

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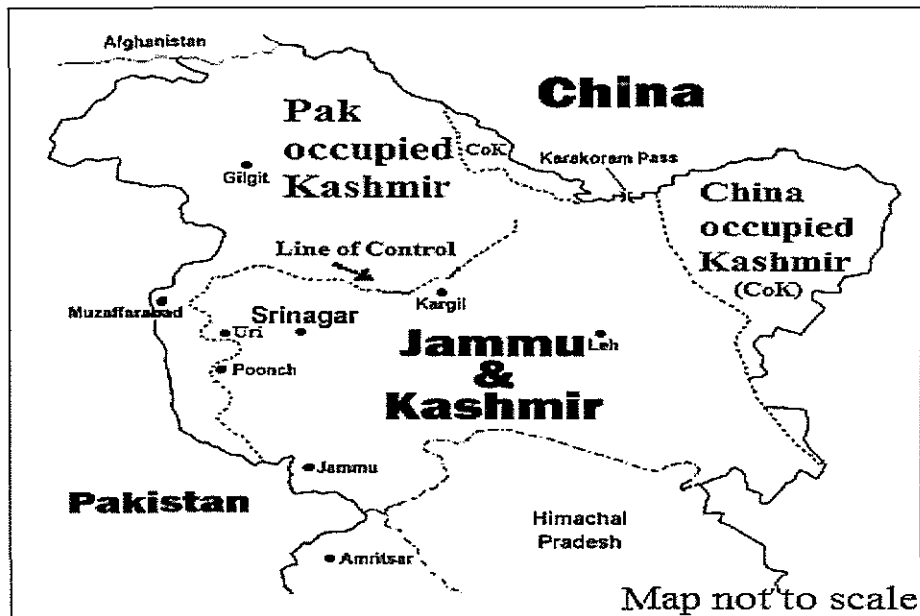
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Cross-LoC Trade between India and Pakistan : The Way Forward

Prof. Davinder Kumar Madaan*

Line of Control (LoC) is the 740 Km military controlled curved line, which divided Kashmir into two parts after a war between India and Pakistan over Kashmir dispute during 27 October 1947 to 31 December 1948. The Kashmir dispute is a territorial conflict between India and Pakistan over the Kashmir region. According to 'Indian Independence Act 1947', 562 Indian princely states were left to choose whether to join India or Pakistan or to remain independent. The then Hindu ruler of Jammu and Kashmir, Maharaja Hari Singh signed the 'Instrument of Accession' to India under this Act on 25 October 1947. India claimed the entire erstwhile princely state of Jammu and Kashmir based on this 'Instrument of Accession' executed in 1947. In fact, Cease-fire Line was established on UN intervention w.e.f. 1st January 1949. The Simla Agreement of 2 July 1972 (GoI 1972) between the two countries converted the Cease-fire Line into the LoC (Fig.1).

Fig. 1



Presently, India administers about 45.6% of the total Kashmir region (222,236 Sq.Km.) including most of Jammu, the Kashmir Valley, Ladakh, and the Siachen Glacier. Pakistan controls about 35.2% of Kashmir, namely Azad Kashmir and the northern areas of Gilgit and Baltistan. The remainder area is with China, namely, the Aksai Chin (37,555 Sq.Km.) captured after the Sino-India war on 20th November 1962, and Shaksgam Valley (5,180 Sq.Km.) illegally ceded by Pakistan to China on 3rd March 1963 (GoJ&K 2015). The LoC does not constitute a legally recognized international boundary but is the de facto border. Kashmir has been a bone of contention between India and Pakistan even after four wars of 1947-48, 1965, 1971 and 1999.

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Trade cooperation between India and Pakistan was a direct outcome of the Partition of Indian sub-continent on August 14, 1947. Then, both the countries were highly dependent to each other for trade till 1965. The period between 1965 and 1971 witnessed two wars between India and Pakistan. Immediately after the war of 1965, Pakistan imposed official embargo on her trade with India, which remained for nine years. The signing of bilateral trade agreement on 23 January 1975 led to the resumption of trade between the two countries at government levels. India and Pakistan have preserved 614 and 936 sensitive items, respectively, for each other w.e.f. 1st Jan 2012. Further, Pakistan has the Negative List of 1209 items that cannot be imported from India w.e.f. 20 March 2012. During 2015-16, India's trade with Pakistan was US\$ 2612 million. India's share in Pakistan's global imports went down from 50.6 per cent in 1948-49 to 4.1 per cent in 2015-16. However, India was the 6th largest exporter to Pakistan after China, UAE, Saudi Arabia, Indonesia and Japan, and 14th largest importer from Pakistan during 2015-16. Pakistan's share in India's imports were 0.1 per cent only during this period. There are great potentials of mutual trade because of their geographical proximity, complementarity and competitiveness to each other. It is estimated that the unofficial trade between India and Pakistan stands at more than US \$ 5 bn annually. 88 per cent of total informal trade has been routed through third countries like Afghanistan, Dubai, Hong Kong, Singapore, Colombo and Gulf States (Khan, 2013).

The massive Kashmir earthquake near Muzaffarabad in Pakistan occupied Kashmir (PoK) and Uri (Baramula) in October 2005 enabled the governments of India and Pakistan to open five crossing points on LoC for rescue and relief operations on humanitarian grounds. Thereafter, the restrictions on the movement of people on cross LoC have been reduced. The two countries launched Bus Service between Srinagar (India) and Muzaffarabad (Pakistan) over 183 Km in 2005, and another between Poonch (India) and Rawalkote (Pakistan) over 55 Km in 2006 (Kira 2011).

India and Pakistan allowed cross LoC trade after a period of 61 years as one of the key Confidence Building Measures (CBMs), which was agreed at a meeting between Prime Minister of India, Dr. Manmohan Singh and Pakistan President Mr. Asif Ali Zardari in New York on 25 September 2008. The LoC trade has been operational since 21 October 2008 from two points via Chakan Da Bagh (Poonch)–Tatrinote/Rawalakote in PoK, and Salamabad, Uri (Baramula) – Chakothi (PoK) (GoJ&K 2009). Chakan Da Bagh is just 1.5 Km from Tatrinote, and situated 8 Km from Poonch and 157 Km from Islamabad, while Salamabad is 25 Km from Chakothi, which is located 72 Km from Muzaffarabad.

The cross-LoC trade is a barter trade without any customs duty, and based on mutual trust with no formal contract between traders. Most of the traders have their relatives on other side of the LoC (Das 2014). Trade takes place four days a week from Tuesday to Friday. A total of 25 trucks from each side are allowed to cross the LoC everyday as part of the trade. This intra-Kashmir LoC trade is allowed for local traders only. It is confined to 21 locally produced items consisted of agricultural, handicraft and handloom products. India's exports include dry/red chilies, medicinal herbs, embroidery products, green/big cardamom, cumin seeds, fresh fruits, etc. India's imports include fresh & dry fruits, garlic, vegetables, carpets, peshawari leather chapel, shoes, shawls, bed sheets, etc (Kira 2011).

India's cross LoC exports increased from US\$ 29.3 million in 2009-10 to US\$ 84.6 million in 2015-16 as depicted in Table 1. However, its imports increased from US\$ 26.5 million to US\$ 76.6 million during the same period. The share of LoC trade in total trade with Pakistan increased from 3 per cent in 2009-10 to 6.6 per cent in 2011-12 and 6.2 per cent in 2015-16. Hence in spite of all odds, the LoC trade has been increased, and became the solid CBM for economic ties and people to people contact between India and Pakistan.

Table 1: India's Cross LoC Trade with Pakistan

(Qty in '000 Tons and Value in US\$ million)

Year (Apr-Mar)	Exports to PoK			Imports from PoK			Total Trade Value	% Share in Total Trade with Pakistan
	No. of Trucks	Quantity	Value	No. of Trucks	Quantity	Value		
2008-09 (Oct-Mar)	222	0.6	0.4	242	0.7	0.1	0.5	0.1
2009-10	3322	26.2	29.3	4222	25.2	26.5	55.8	3.0
2010-11	5486	38.1	53.8	4039	27.3	50.6	104.4	4.4
2011-12	6426	46.5	66.8	4215	36.9	60.6	127.4	6.6
2012-13	7039	76.8	68.3	3471	79.0	69.2	137.5	5.3
2013-14	7269	62.5	57.5	3172	35.3	49.8	107.3	4.0
2014-15*	10632	59.0	77.9	7185	25.9	73.6	151.5	6.4
2015-16	n.a.	n.a.	84.6	n.a.	n.a.	76.6	161.2	6.2

*No. of Trucks is upto Feb'2015 and Quantity traded is up to Dec'14.

NB: The above barter trade values are based on valuation figures provided by the traders.

Source: Trade Facilitation Centers, Salamabad (Uri) and Chakan Da Bagh (Poonch).

The cross LoC trade between Poonch-Rawalakote was suspended for two days following heavy firing and shelling by Pakistani troops at Trade Facilitation Centre, Chakkan Da Bagh on 12 March 2017, causing extensive damage to the two-storey Administrative Block. Trade remained suspended on the Uri-Muzaffarabad route during 4th August – 28th September 2016 for 87 days, due to the shutdown in Kashmir (Naseem, 2017). After the Surgical Operation by Indian Army on terrorists in Pak Occupied Kashmir on 29 September 2016 in retaliation to terror attack on Indian soldiers in Uri on 18 September 2016, trade between India and Pakistan has not been affected much, inspite of the political tension.

The LoC trade has the shadow of drug trafficking. It was suspended between Salamabad and Chakothi during 6-11 February 2015 over the arrest of a driver from PoK following recovery of 15 Kg of brown sugar in his truck. On 17 January 2014, 114 Kg of brown sugar, worth Rs. 100 crore was seized from a truck coming from Chakothi, PoK, which led to suspension of trade for a month. In August 2013 also, police recovered 10 kg cocaine worth Rs 10 crore from a truck that had returned to Baramula district from Chakothi, PoK (The Sunday Standard 2015).

The cross-LoC trade is not treated as an international trade between India and Pakistan because Indian Government considers whole Kashmir as its own part (GoI 2013). It was due to this that India and Pakistan agreed to allow local documents for travel and no passports are required. Therefore, it is not easy to convert barter trade into currency denominated trade wherein national currencies are involved (Greater Kashmir 2014). Asian Clearing Union (ACU¹) offers an excellent platform wherein hard currency trade settlement on current international transaction takes place between India and Pakistan on a multilateral basis by encouraging the use of local currencies. Both the countries are authorized to settle transactions in US dollar/Euro under ACU system. However, the payment settlements through ACU are delayed and takes place at the end of each two monthly settlement period. However, trade settlements can be made by fixing exchange rate of Indian and Pakistani currencies for one/two months as in the case of trade between India and Nepal/Bhutan. Further, Vostro/Nostro² bank accounts can be opened on the initiative of the Central Banks of the two countries, which

is an international practice. Any Indian Bank in Kashmir can open a Pakistani Rupee Vostro account in Pakistani Bank. Similarly, Pakistani Bank in PoK can open Indian Rupee Nostro account in Indian Bank. This payment settlement can be faster through Real Time Gross Settlement (RTGS) across Central Banks and the customers of two countries, which would reduce transaction costs, delays, and risk of volatile exchange rates.

Nevertheless, some existing problems of the cross-LoC trade must be addressed in order to make it easy and worthwhile. There is a need of full body truck scanners on the Indian side of LoC trade centres for drugs restricted transparent trade; opening of aerial connectivity and new land trade routes like Naushara-Mirpur, Tithwal-Chilhan, Gurez-Astore-Gilgit, Chumb-Pallanwalla, Kotli-Rajori, Suchetgarh (Jammu)-Sialkot, Kargil (Ladakh)-Skardu (Baltistan) - a part of the Silk Route, etc.; opening border trade huts on different points of LoC, providing better infrastructure and more storage facilities on trading points; allowing mobile/ISD communication for traders; regular meeting between the Indian and Pakistani traders on the zero line of LoC for settlement of their barter accounts; and increasing existing 21 trade items by adding more items like *wheat and its products, canned trout fish, juices and jams, milk and its products, sports items, Kashmiri willow, marble and gypsum* in the India's exports list; and *tea and coffee, leather and its products, pulses, oil seeds, feeds, tyre's and tubes, lubricants, hosiery, electric goods, surgical items, fertilizers, spices, cement and automobile parts* in India's imports list from Pakistan.

The cross LoC trade has a positive impact on the economic development of Kashmir economy. It facilitated economic interaction and sentimental bonding of two parts of Kashmir. There are vast potential of its growth. Though Kashmir dispute is yet to be settled, but LoC trade has united the people of both parts of Kashmir. The time has come to gain from each other (Madaan 2014). The internet application 'Whatsapp' has already resolved the communication issue among traders across LoC. The LoC trade has created vast employment opportunities for the unemployed youth of the border areas.

Unfortunately, both India and Pakistan have been finding ways and means to reduce trade dependency on each other. In fact, trade relations between the two countries have always been governed by political interests rather than by economic interests (Ghuman & Madaan 2006). In the process, they have suffered huge economic losses over the period of time. The per capita expenditure on defence in Pakistan increased from US\$ 20.2 in 2001 to US\$ 50.1 in 2015. However, the same in India also increased from US\$ 13.9 to US\$ 39.7. The share of Pakistan's military expenditure in total government spending was 18.7 per cent in 2015 as compared to 8.7 per cent of India (SIPRI 2016). The normalization of relations would certainly help India and Pakistan to reduce their expenditure on defense. The increased cross LoC trade would go a long way in generating pressure for normal relations between India and Pakistan and certainly be a move towards creating conducive environment of peace in Kashmir. The LoC trade and travel are the only significant CBMs achieved after tremendous efforts by India and Pakistan.

Endnotes

1. ACU was established on the initiatives of UN-ESCAP on 9th December 1974 with its Headquarters at Tehran (Iran). Its members are the Central Banks of Bangladesh, Bhutan, India, Iran, Maldives, Myanmar, Nepal, Pakistan and Sri Lanka. It facilitates multilateral payment settlements through the use of local currencies of member countries in regional transactions to economize the use of foreign exchange reserves and transfer costs.
2. A Vostro account is a local currency account maintained by a local bank for a foreign bank, while Nostro account is foreign exchange account maintained by a foreign bank for a local bank.

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Determinates of Rural Transformation and its Impact on Rural Urban Convergence in Madhya Pradesh

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Ms. Neha Gupta†

Abstract

The paper empirically measures the pattern of rural transformation, extent of overall economic development and its impact on rural urban convergence in Madhya Pradesh, using comprehensive assessment system based on three multidimensional indices namely rural development index, rural transformation index, and rural urban convergence index. The constructed rural urban convergence index shows that districts those are socially well developed has low gap between rural and urban while Indore with high level of economic development has

Widen rural urban gap. The analysis of regression proved that variation on sustaining rural urban convergence of rural transformation index is highest and followed rural social development and rural amenities and services development. Based on findings, it is argued that policies aimed at social development and rural transformation by setting up the banking facilities and by providing power supply will be an effective way to shape a rural lives as equal to urban lives.

Keywords: Rural Transformation, Rural Urban Convergence, Rural Socio-Economic Development

Introduction

In the wave of globalization, dominant economic development model has been associated with rapid economic growth followed by urbanization which may create a structural vulnerability for national economies. This is demonstrated as diminishing share in the GNP of agriculture and rural production in India, while more than half of the economically active people remained dependent for their livelihood and well-being on agriculture (Wang Li 2012). Therefore, the prime focus of Indian Govt. has been shifted towards rural development. The term Rural Development connotes overall development of rural areas with a view to improve the quality of life of rural people. In this sense, it is a comprehensive and multidimensional concept, and encompasses the development of agriculture and allied activities; socio-economic infrastructure; community services and facilities and, above all the human resources in rural areas (Singh 2009). Theoretically, it seems good but pragmatically it is not seen easy because in Indian economy two sorts of subsectors coexist. On the one side, small but highly modern and developed urban subsectors, which absorb most of the material, financial and educated and talented manpower resources of the economy, while on the flip side, there is a large but traditional and underdeveloped rural subsector, characterized by widespread poverty, unemployment and low productivity, which forms the majority of population. There upon, merely rural development is not being sufficient but there is need to develop a new approach of development which explicitly recognizes the

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interlink ages and complementarity between the rural and urban subsectors that integrating them completely and improve the overall quality of life in the economy

Rural transformation thus entitled in development process for recognizing new dimensions in the rapidly changing rural scene. The Rural Transformation (RT) is understood here as a long-term multi-dimensional process of change to core features of the economies and livelihoods of rural people, taking into account their exposure to global dynamics and society as a whole. This understanding departs from the more conventional definition based on the pattern of industrial countries that focuses exclusively on the transition from rural-agricultural to urban-industrial societies. Broadening our perspective allows us to consider the visions of rural transformation that could take a different path under different economic and social background (Theo Raunch and et al 2016). Conversely, rural transformation is considered as it embedded within a wider process of structural change that involves the whole of a country and that sees a decline in the relative weight of agriculture in the overall economy, a corresponding increase in industry and services, migration of rural people to cities, and a transitory period of demographic growth.(Timmer & Akkus 2008, Berdegué, Rosada, & Bebbington 2013).

Madhya Pradesh being a tribal dominated state but fastest growing economy in the country, the speed of Rural Transformation is very important to maintain the equality between rural and urban population. Rural Transformation is a process of comprehensive societal change whereby rural societies diversify their economies and reduce their reliance on agriculture; become dependent on distant places to trade and to acquire goods, services, and ideas; move from dispersed villages to towns and small and medium cities; and become culturally more similar to large urban agglomerations. This definition depends on how the content of “rural” evolves with the ongoing transformation. By “rural” we understand a society and the space it occupies where agriculture and other primary activities account for a significant proportion of land use, employment, income, and where population densities are distinctly lower than those of large cities in the same country. This is a broad definition that includes the “deep rural” areas with very low population densities, distant from major cities, where almost every household has at least one member employed in agriculture or other primary activities. (Berdegué, Rosada, & Bebbington 2013).

Without support of govt. expenditure or political will it is not too easy to transform all rural lives as equal as urban lives under current global economic conditions, as the findings of (Beckmann and et al. 2016) in case of Africa indicated that rural transformation can process based on strengthening agricultural productivity by simultaneous reduction of farm labor has succeeded only where a labor-intensive industrialization process protected from international competition and strong enough to absorb this labor force. As far as Madhya Pradesh is concerned, here the new kind of dilemma is coexisted, fewer districts of it have high level of economic and social development level with high rural urban gap, while on the other side it is pictured that more of the districts are lower in economic condition but has uttermost position in social issues. Bearing this view in mind, this paper is articulated to investigate the causes which determine the level and pattern of rural development and rural transformation among the districts of Madhya Pradesh. The paper attempts to study rural transformation on one hand by the change in the basic indicators of rural economy and on the other hand the convergence between urban and rural economy at district level in Madhya Pradesh. The study thus identifies the districts which have shown faster convergence and factors responsible for such convergence.

Objective

- To know the pace and pattern of rural socio-economic development of districts of Madhya Pradesh.
- To assess the impact of rural transformation on rural urban convergence.

- To determine the impact of socio-economic development in reducing the rural urban gap.
- To identify the factor/s of convergence between the rural and urban economy of Madhya Pradesh.

This work is mainly based on secondary data. Data lasts from 2001 to 2011 for 45 major districts of Madhya Pradesh. However data extracted for 2011 having 50 districts due to bifurcation of larger districts during this period of time. The data of these new five districts again merged in their parent districts with the help of averaging, while for deriving the productivity the labor data are added of both districts. Our choice of period and unit of analysis is fully rest on availability of authentic data which are only available on a decadal basis. Mostly data are taken from Census 2001 and 2011 edition. The Domestic Income data at district level were collected from State Planning Commission site and various Health related data were collected from the comprehensive annual health survey district wise as computed by Census Office Bhopal.

Composite Index of Development

The study mainly focuses on three indices to examine the pattern of rural transformation among the districts of Madhya Pradesh. The first index is created to explain the level of rural development using key socio economic parameters. Second index is framed to examine the speed of rural transformation over the period of time. Lastly, for assessing Rural-Urban Convergence, third index is estimated. To calculate these indices, in the process of identifying multi-dimensional indicators the efforts of Ramphul Ohlan(2016), Long et al.(2011), Wang, Liu, Li, Y and Li,t.(2016) have been followed.

The indicators selected for the development of composite Index of Rural Development for Madhya Pradesh economy at district level are listed in table no.1. These indicators comprise holistic development approach that reflects transformation within the rural society, and economy. For evaluating the overall rural development three factor are chosen namely i) Rural Economic Development ii) Rural Social Development iii) Amenities development. For assessing the Rural Economic Development Index (REDI) four indicators are chosen to represent the rural economy in which Rural labor productivity is derived by dividing the value of agricultural output by agricultural worker which mirrors rural productivity while Cropping Intensity is computed as ratio of gross cropped area to net sown area.

The rural social development has been measured rural sex ratio; rural female literacy rate and Infant survival rate; here it is assumed that Infant mortality rate (IMR) shows the number of deaths per 1,000 live births of children under one year of age. So, the subtraction of IMR from 1000 would show the number of Infant survival up to the age of one year which nomenclature as Infant survival rate in this paper.

The development level of Amenities prevailed has been taken by covering three variable sviz. electrification, mobile phone coverage and availability of banking institution in village areas at the same time remembering the village profile and irrigated land is also selected as one of the variable to define service development.

Table : 1 Indicator System for Rural Development Level Assessment

Rural Development Index		
Rural Economic Development	Rural Social Development	Rural Amenities Services Development
Cropping Intensity	Infant Survival Rate	Proportion of Electrified Villages
Share of food grain Crops	Rural Sex Ratio	Proportion of villages having Network Coverage
Productivity of rural labor	Rural Female Literacy rate	Proportion of Villages having Banking Institution
Percentage of Non-Agriculture Worker		Irrigated land to total cultivable area

Another worth noting point is to measure the degree of transformation of rural economy with the pace of economic development. Rural transformation is in general defined as changes in rural area’s internal structure of industry, employment and consumption level. For achieving same (See Table 2), decadal change in rural literacy rate and change in rural sex ratio are taken as parameter of demographic transformation, while change in agriculture productivity, change in cropping intensity and change in employment pattern within district are chosen to describe structural changes. All these selected variables are directly linked with Rural Transformation Index except Employment structure. The reason for that is Employment Structure Change in this paper explained as change in percentage of agricultural laborers over the decade, so if rural community is transformed from agriculture to other activity, the value turns out to be positive. Therefore in the process of estimation, this variable is multiples by -1.

Table 2 : Indicator System for Rural Transformation Level Assessment

Speed of Rural Transformation Index		
1.	Change in Agriculture Productivity	Difference of Agriculture Productivity from the period 2004 to 2011
2.	Change in Cropping Intensity	Difference of Percentage of the agricultural workers from the period 2004 to 2012.
3.	Employment Structure Change	Difference of Percentage of the agricultural workers from the period 2001 to 2011
4.	Change in Rural Sex Ratio	Difference of Rural Sex Ratio from the period 2001 to 2011
5.	Rural Literacy Decadal Change	Difference of Rural Literacy from the period 2001 to 2011.

In the final analysis, Convergence between Rural and Urban has determined with the help of three socio economic issues namely i) consumption level gap, ii) comparison of labor productivity iii) female literacy gap iv) Health gap and v)sex ratio gap, are chosen which comprehensively present the degree of coordination of economy and society among rural urban areas. These indicators are given in table 3.

Table 3 : Indicator System for Urban Rural Convergence Level Assessment

Urban Rural Convergence Index		
Sl.	Indicator	Definition
1.	Urban Rural Consumption Gap	Differencing the average per capita consumer expenditure per person per month of urban to that of rural
2.	Labor Productivity difference	Subtracting the productivity of labor employed in manufacturing from that of labor employed in agriculture
3.	Urban Rural Female literacy Gap	Subtracting the Female Literacy rate of urban areas to that of rural areas
4.	Urban Rural Sex Ratio Gap	Subtracting the Sex Ratio of urban areas from that of rural areas
5.	Urban Rural Health Gap	Subtracting the ISR of urban areas from that of rural areas

As the variables in table 1, 2 and table 3 are expressed in different units they have been transformed into comparable common units by normalizing all measures. For this purpose equation (1) is used

$$X_{ij} = \frac{X_{ij} - X_{i \min}}{X_{i \max} - X_{i \min}} \quad \text{eq}^n (1).$$

Where X'_{ij} = Standardized value of i indicator for the district j , X_{ij} = value of indicator, $X_{i\min}$ = minimum value of i^{th} indicator among all districts, $X_{i\max}$ = Maximum value of i^{th} indicator among all districts.

$$\text{Rural Development Index (RDI)} = \frac{\text{Rural Economic Development (REDI)} + \text{Rural Social Development (RSDI)} + \text{Amenities Development (RASDI)}}{3}$$

Rural Transformation Index (RTI) = $\frac{1}{3}$ (Change in productivity + Rural Literacy Decadal Change + @Employment Structure Change + @Change in Rural Sex Ra

Urban Rural Convergence Index (RUCI) = $\frac{1}{4}$ (Urban Rural Consumption Level Gap + Labor Productivity Comparison + @Urban Rural Female literacy Gap + @U

Nature of Rural Transformation in Madhya Pradesh

It has been observed that Cities are growing in number and size everywhere. It is true that urban culture is diffusing at a very fast rate in the rural areas. People prefer to stay near the highways now. Villages in a way are closely linked with the cities. Means of transportations, available facilities of electricity, mobile coverage and financial institutions, have helped the people to go out and stay in the fringes of the city. The impact of urban life over rural life is evident in many ways. With regard to economy -employment structure, productivity, per capita expenditure, and in terms of social life- infant mortality, literacy, etc., rural indices are moving to nearer urban indices. In this paper this convergence is measured with the help of index, which depicts that Dewas, Sagar, Shajapur, Tikamagarh and Raisen are turned out to be best five districts where gap between rural urban is lower as compared to other districts. The common feature in these districts is that all sorts of development are above the threshold level. Even though they did not get top position in any of the indices. On the contrary, Gwalior; Neemuch; Indore; Mandla and Jhabua falls under the category of low rural urban convergence whereon Indore performed well in each factor of overall rural development index but lagged behind in rural transformation. Especially, in Indore district rate of urbanization is much higher due to migration that is to say rural livelihoods have shifted to urban for finding new job opportunities. Therefore, instead of reducing gap between rural and urban, the gap becomes widen. Whereas Mandla is lowest developed economically and Jhabua is lowest in rural female literacy and therefore in Rural social Devolvement Index and in Rural Transformation Index. As a result, research is in situation to inform that which factor/s are responsible to bridge up the gap between rural and urban in Madhya Pradesh.

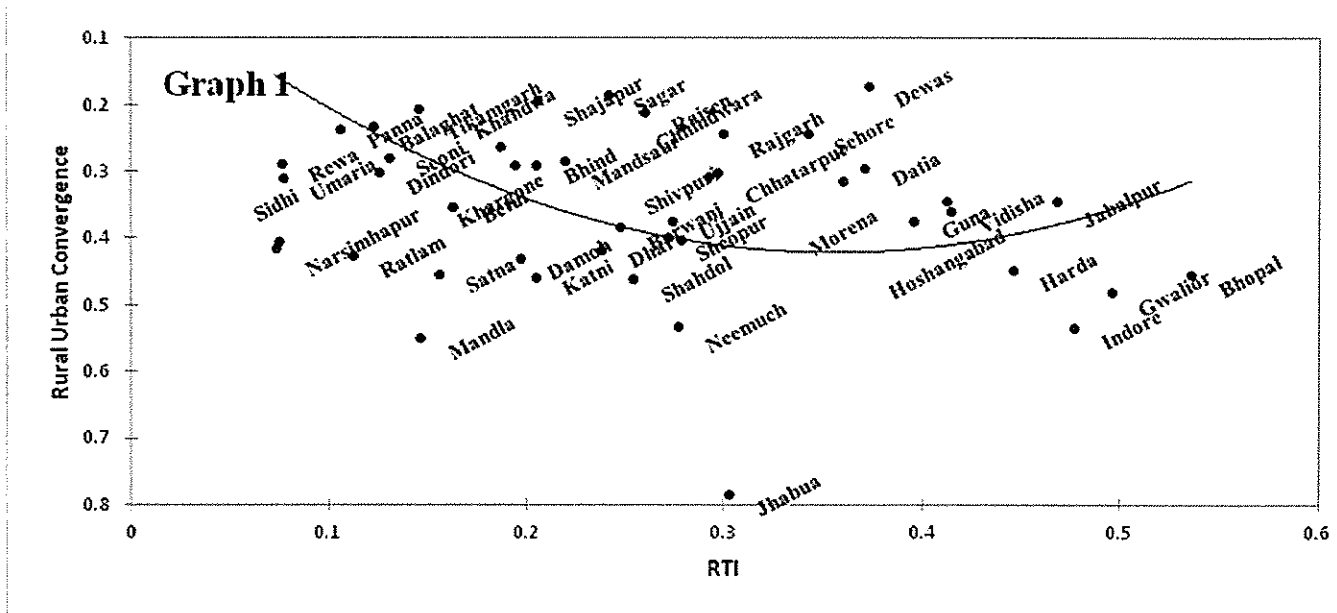
Henceforward, there is a need to investigate further to identify the factor/s and threshold level of that factors which creates rural urban convergence. For achieving same, technical analysis has been applied, in which RUCI (Rural Urban Convergence Index) is taken as dependent variable and regressed on factors of Rural Development Index and Rural Transformation Index separately. Below given Tables present the results of regression analysis; illation shows non-linear (Quadratic) relationship among variables. These associations are also shown in graphical plane, where the Rural Urban Convergence Index is taken on X axis. Vertical axis is measured inversely because the lessen gap shows high level of convergence between rural and Urban; more specifically the gap between rural and urban is low.

Rural-Urban convergence and Rural Transformation: Firstly, a perusal of Graph 1 reveals that rural transformation over the period is crucial factor to reduce the rural urban gap except some cases like as Jhabua. On the same side, metropolitans like Indore, Gwalior, and Bhopal are laid below the regression line showing lesser degree of rural urban convergence. Though Jhabua is scored average in speed of rural transformation but owing to tribal region and their cultural erraticness restricts economic mobility at faster rate. All other districts are concentrated around the regression line on middle part of the graph. The regression line is showing the .35

is the threshold level after it rural urban gap will reduce at faster rate i.e. -3.33. The value is also supplement the graphical analysis that with high level of rural transformation compresses the rural urban gap within the districts. However in this research work, rural urban gap is quadratically attached with each independent variable and after threshold level it shrink the rural urban gap at faster rate. In connection to it, it is found that speed of rural transformation index's rate of declination after threshold level is highest among all four predictors. Thus, inferences can be drawn that positive change in cropping intensity; in agricultural productivity; in rural literacy over the period will make rural lives same as urban lives promptly as compared to other factors.

Table 4: Regression Output

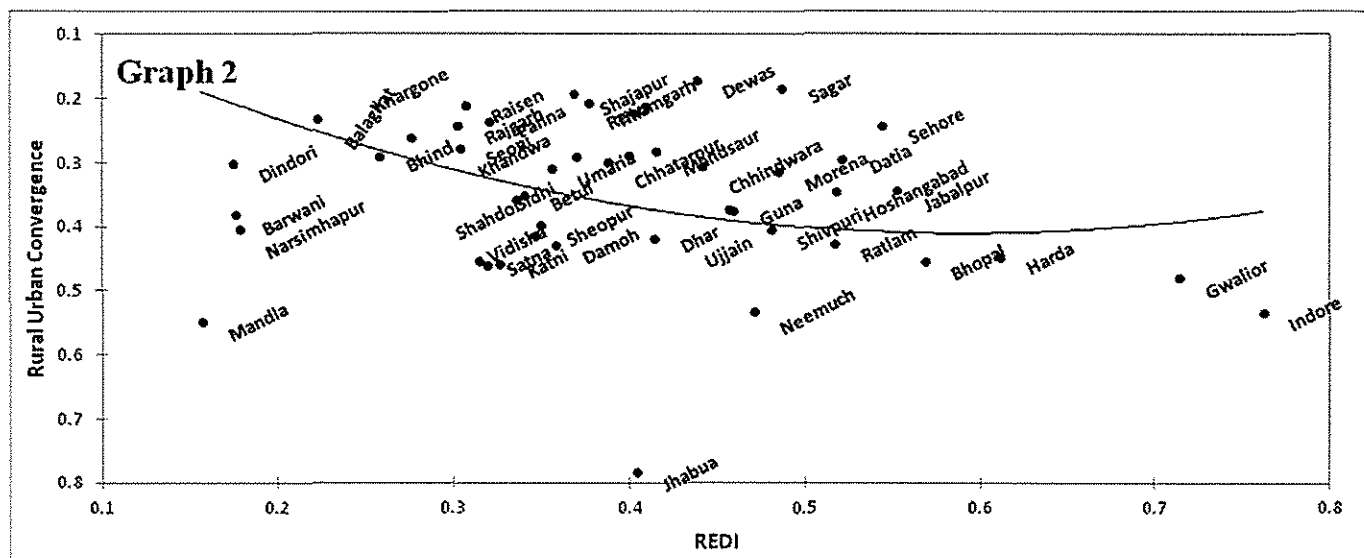
Dependent	Independent	Model		Unstandardized Coefficients	Standardized Coefficients	Sig	R Square
		Quadratic	RTI				
Urban Rural Convergence Index	RTI		RTI	2.37	1.799	0	0.86
			RTI** 2	-3.33	-0.958	0	



Rural –Urban convergence and Rural Economic Development:

Table 5: Regression Output

Dependent	Independent	Model		Unstandardized Coefficients	Standardized Coefficients	Sig	R Square
		Quadratic	REDI				
Urban Rural Convergence Index	REDI		REDI	1.39	1.55	0	0.88
			REDI** 2	-1.17	-0.66	0	



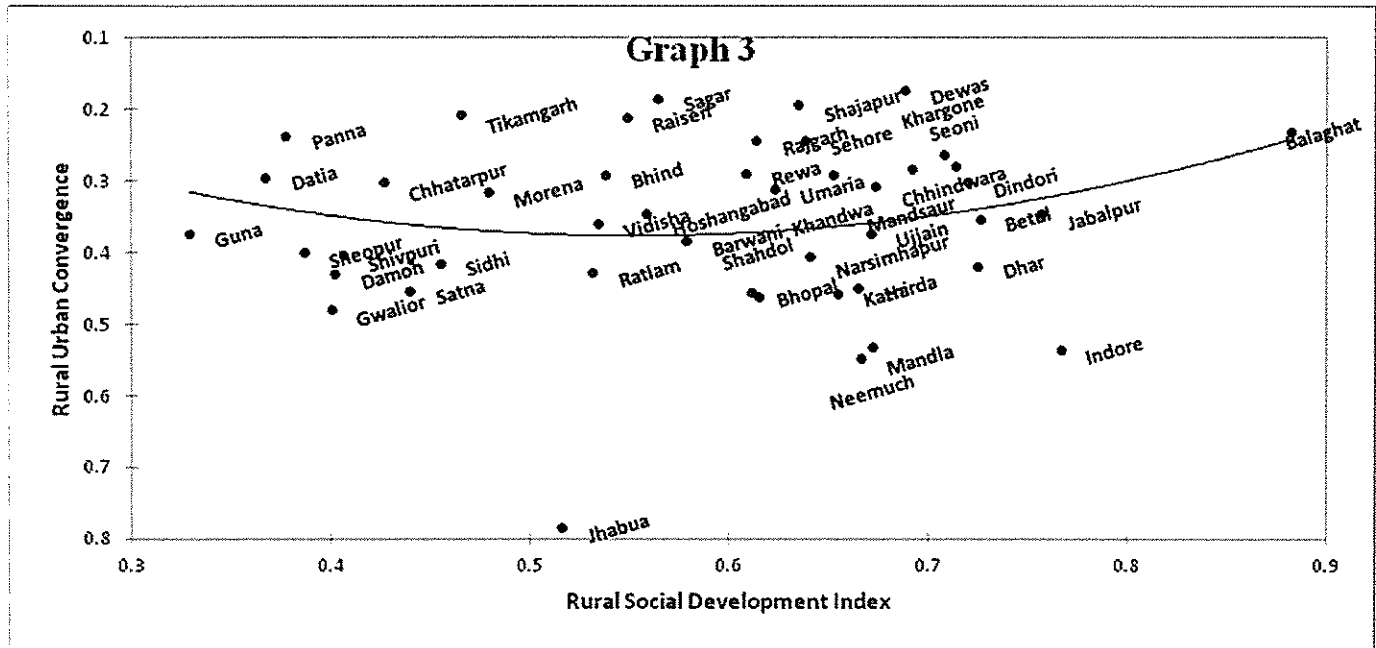
Through graph 2, it can be evidently seen that Indore and Gwalior with high level of rural economic development lies in extreme right part of the graph but below the regression line proving that economic growth is not only the path to bridge up the gap between rural urban convergence. The values of regression coefficients in table 5 show that linear value (1.39) of rural economic development may widen the gap but higher level of economic development reduces the index of rural urban gap by 1.17. At this juncture, higher level of economic development means normalized index value should be above 0.6. Here most of the districts are in mid part of graph around the regression line whereon Dewas; Sagar; Shajapur are the district with almost negligible rural urban gap. Though in terms of rural economic development they recorded average grades. Jhabua is again one example who has good score in rural economic development but having highest gap between rural and urban, mainly because of high concentration of tribal population.

Rural–Urban convergence and Rural Social Development:

Similarly, a glance of graph 3 makes it clear that rural social development is a factor which compresses the rural urban gap and the rate of retardness after threshold level is somewhat greater than economic development index i.e. -1.23. Here, again Dewas; Sagar; Raisen ;Kargone; and Jabalpur are turn out to be best performer with high level of social development and almost negligible gap between rural and urban economy.

Table 6: Regression Output

Dependent	Independent	Model	Unstandardized Coefficients	Standardized Coefficients	Sig	R Square	
Urban Rural Convergence Index	RSDI	Quadratic	RSDI	1.36	2.1	0	0.90
			RSDI** 2	-1.2	-1.2	0	



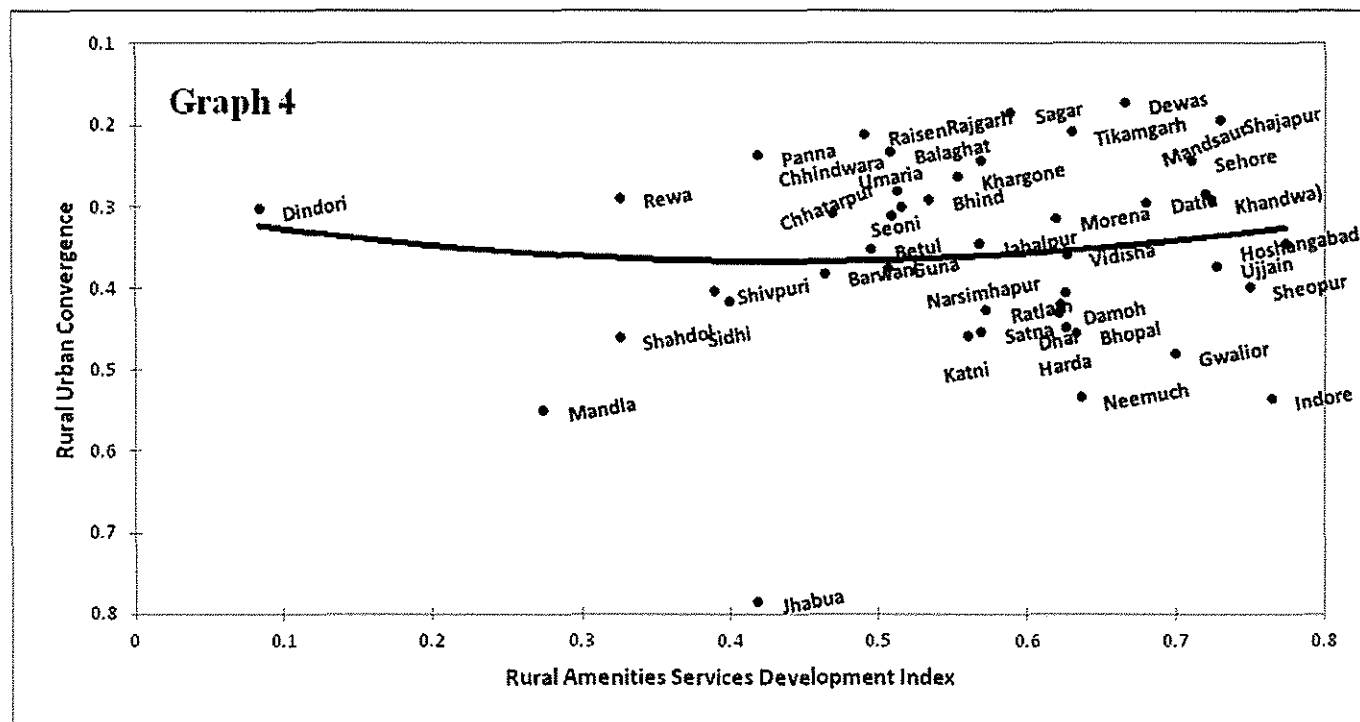
The graph also reveals that maximum districts are above the regression line which are demonstrating that rural health and rural literacy is prime factor to enhance the productivity of rural workforce thereby they could be able to groom up their livelihood as equal as urban lives or much better than that. The value of R^2 is .90 which is highest among the all regression ascertaining that to reduce the disparity between rural and urban, focus should be cardinally given on social development by policy framer.

Rural –Urban convergence and Rural Amenities and Services Development:

A look at graph 3 reveals the glorious picture of the study where all the districts are located on extremely upper right part of the graph. Shows that access of facilities reduces the rural urban gap much better than rural socio-economic development and the rate of declination is also high as compared to economic development and social development(-1.3) in regression analysis. Here, the Shajapur, Dewas ;Sagar; Raisen; and Khargone are the examples of the district which are proving that with high level of facilities and amenities gap between rural and urban can be reached to extremely low level. The value of R^2 .89 laments that impact of amenities and services is much higher than social and economic factors. This is much because of technological impact, it has sensitively been observed that with the help of technological apparatus productivity of worker goes up and their willingness to do work is also enhanced.

Table 7: Regression Output

Dependent	Independent	Model	Unstandardized Coefficients	Standardized Coefficients	Sig	R Square
Urban Rural Convergence Index	RASDI	Quadratic	RASDI	1.45	2.24	0.00
			RASDI** 2	-1.39	-1.34	0.00



On the other hand, districts like Neemuch, Harda, and Mandla are under the grip of low rural urban convergence. The reasons are hindrances in structural changes over the decade, slow pace of financial services settlement and lastly but most crucial for transformation is variation in rural literacy rate.

Unlikely, Indore is the only district among all whereon agricultural laborers have switched primary sector and employed somewhere else caused by high industrialization near to rural arrears of Indore. Although we have only one example to cite but it has economically underpinned that Industrialization in urban areas dragged the nearby rural livelihood for the purpose of earning.

From our foregoing analysis, inferences can be drawn that only rural economic development is not suffice enough, it should also be supplemented by social development and facilitated by infrastructure and amenities. Whereas, Rural Transformation is also an important factor, in which decadal variation of five factors are incorporated namely cropping intensity; agricultural productivity; Changes in Employment Structure; Sex ratio and Literacy Rate. So, it concludes that to reduce rural urban gap focus should be given on the programmers and policies which lead rural literacy thereby employment shifts away from the agriculture and move towards secondary and tertiary sector. Along with it, efforts should be made to enhance the amenities and banking facilities in district so resources should be mobilized and channelize to rural population.

Conclusion

From forgoing analysis by using indices and quadratic regression, the level, pattern and extent of rural transformation has been analyzed for the 45 districts of Madhya Pradesh State at large over the period 2001 to 2011. The analysis shows that there is proliferation of economic development in rural urban convergence but at some extent while rural transformation over the decade provides assurance of equality among rural and urban. This work suggested that advanced facilities and amenities leads rural urban convergence with high speed i.e. to say development process with time including improvement in banking and electrification enhance the

productivity of labor due to technological support thereby shift in employment structure is to be happen which augurs equality among rural urban areas. Therefore, in the end this research recommended to the rural policy practitioner that for holistic and inclusive development of rural areas multi-focused approach should have to be developed. In which, social issues are treated differently and more emphasize should be given to enhancement of productivity and skills of laborers what are required by today’s dynamic business ambience so as laborer can easily mobilized within the districts and could able to improve their livelihoods.

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Table 1: Rural Development Index

Districts	REDI	RSDI	RASDI	RDI
Balaghat	0.22	0.88	0.51	0.54
Barwani	0.18	0.58	0.46	0.41
Betul	0.34	0.73	0.49	0.52
Bhind	0.26	0.54	0.53	0.44
Bhopal	0.57	0.61	0.63	0.60
Chhatarpur	0.39	0.43	0.52	0.44
Chhindwara	0.44	0.67	0.47	0.53
Damoh	0.36	0.40	0.62	0.46
Datia	0.52	0.37	0.68	0.52
Dewas	0.44	0.69	0.66	0.60
Dhar	0.41	0.72	0.62	0.59
Dindori	0.17	0.72	0.08	0.33
Guna	0.46	0.33	0.51	0.43
Gwalior	0.71	0.40	0.70	0.60
Harda	0.61	0.66	0.63	0.63
Hoshangabad	0.52	0.56	0.77	0.62
Indore	0.76	0.77	0.76	0.76
Jabalpur	0.55	0.76	0.57	0.63

Districts	REDI	RSDI	RASDI	RDI
Jhabua	0.40	0.52	0.42	0.45
Katni	0.33	0.65	0.56	0.51
Khandwa (East Nimar)	0.37	0.65	0.72	0.58
Khargone (West Nimar)	0.28	0.71	0.55	0.51
Mandla	0.16	0.67	0.27	0.37
Mandsaur	0.41	0.69	0.72	0.61
Morena	0.49	0.48	0.62	0.53
Narsimhapur	0.18	0.64	0.63	0.48
Neemuch	0.47	0.67	0.64	0.59
Panna	0.32	0.38	0.42	0.37
Raisen	0.31	0.55	0.49	0.45
Rajgarh	0.30	0.61	0.57	0.49
Ratlam	0.52	0.53	0.57	0.54
Rewa	0.40	0.61	0.32	0.44
Sagar	0.49	0.56	0.59	0.55
Sarna	0.31	0.44	0.57	0.44
Sehore	0.54	0.64	0.71	0.63
Seoni	0.30	0.71	0.51	0.51
Shahdol	0.32	0.61	0.32	0.42
Shajapur	0.37	0.63	0.73	0.58
Sheopur	0.35	0.39	0.75	0.50
Shivpuri	0.48	0.41	0.39	0.43
Sidhi	0.35	0.46	0.40	0.40
Tikamgarh	0.38	0.47	0.63	0.49
Ujjain	0.46	0.67	0.73	0.62
Umaria	0.36	0.62	0.51	0.50
Vidisha	0.34	0.53	0.63	0.50
Displayed Values are normalized Values				
Author's Calculation				

Table 2: Speed of Rural Transformation Index

District	Agri Labor	Rural Literacy	Rural sex Ratio	Cropping Intensity	Rural Productivity	Rural Transformation Index
Balaghat	-0.64	0.74	0.30	0.20	0.01	0.12
Barwani	-0.66	0.72	0.66	0.18	0.34	0.25
Betul	-0.41	0.33	0.43	0.24	0.21	0.16
Bhind	-0.59	0.47	0.50	0.13	0.52	0.20
Bhopal	-0.07	1.00	0.93	0.20	0.61	0.54

District	Agri Labor	Rural Literacy	Rural sex Ratio	Cropping Intensity	Rural Productivity	Rural Transformation Index
Chatarpur	-0.57	0.89	0.70	0.15	0.32	0.30
Chindwara	-0.46	0.54	0.57	0.20	0.61	0.29
Damoh	-0.70	0.72	0.66	0.16	0.15	0.20
Datia	-0.67	0.15	0.77	1.00	0.60	0.37
Dewas	-0.34	0.77	0.68	0.27	0.48	0.37
Dhar	-0.66	0.57	0.64	0.24	0.40	0.24
Dindori	-1.00	0.78	0.68	0.16	0.00	0.13
Guna	-0.43	0.53	1.00	0.24	0.63	0.40
Gwalior	-0.22	0.88	0.86	0.20	0.76	0.50
Harda	-0.17	0.60	0.66	0.15	1.00	0.45
Hoshangabad	-0.18	0.60	0.80	0.15	0.70	0.41
Indore	0.00	0.85	0.59	0.12	0.83	0.48
Jabalpur	-0.17	0.68	0.80	0.12	0.90	0.47
Jhabua	-0.38	0.41	0.69	0.09	0.69	0.30
Katni	-0.47	0.72	0.61	0.08	0.09	0.20
Khandwa	-0.49	0.41	0.60	0.22	0.22	0.19
Khargone	-0.64	0.14	0.77	0.35	0.31	0.19
Mandla	-0.79	0.63	0.70	0.15	0.03	0.15
Mandsaur	-0.53	0.26	0.55	0.23	0.60	0.22
Morena	-0.53	0.59	0.82	0.20	0.72	0.36
Narsimhpur	-0.56	0.00	0.66	0.08	0.20	0.08
Neemuch	-0.41	0.47	0.66	0.14	0.53	0.28
Panna	-0.76	0.42	0.50	0.10	0.27	0.11
Raisen	-0.32	0.16	0.89	0.14	0.42	0.26
Rajgarh	-0.85	0.66	0.93	0.48	0.27	0.30
Ratlaam	-0.81	0.14	0.68	0.18	0.38	0.11
Rewa	-0.60	0.79	0.00	0.16	0.03	0.08
Sagar	-0.61	0.82	0.61	0.14	0.24	0.24
Satna	-0.46	0.67	0.32	0.15	0.10	0.16
Sehore	-0.14	0.61	0.55	0.12	0.58	0.34
Seoni	-0.67	0.59	0.39	0.21	0.14	0.13
Shahdol	-0.54	0.90	0.72	0.14	0.05	0.25
Shajapur	-0.52	0.05	0.64	0.44	0.42	0.21
Sheopur	-0.72	0.88	0.50	0.20	0.49	0.27
Shivpuri	-0.58	0.41	0.86	0.04	0.65	0.28
Sidhi	-1.00	0.83	0.39	0.14	0.01	0.07
Tikamgarh	-0.88	0.54	0.80	0.00	0.26	0.15

District	Agri Labor	Rural Literacy	Rural sex Ratio	Cropping Intensity	Rural Productivity	Rural Transformation Index
Ujjain	-0.43	0.28	0.73	0.21	0.58	0.27
Umaria	-0.67	0.52	0.52	0.01	0.00	0.08
vidisha	-0.23	0.77	0.86	0.17	0.50	0.41
Displayed Values are normalized Values						
Author's Calculation						

Table 3: Rural Urban Convergence Index

District	U-R Female literacy rate	Agri ILP	R-U MPCE Gap	Rural Urban Health Gap	Rural Urban Sex Ratio Gap	Rural Urban Convergence
Balaghat	0.12	0.26	0.44	0.06	0.28	0.23
Barwani	0.66	0.18	0.51	0.17	0.39	0.38
Betul	0.46	0.16	0.41	0.36	0.37	0.35
Bhind	0.00	0.26	0.16	0.58	0.44	0.29
Bhopal	0.37	0.35	0.90	0.50	0.15	0.45
Chhatarpur	0.39	0.32	0.11	0.56	0.13	0.30
Chhindwara	0.39	0.57	0.04	0.42	0.11	0.31
Damoh	0.38	0.11	0.63	1.00	0.03	0.43
Datia	0.17	0.49	0.33	0.19	0.29	0.29
Dewas	0.37	0.01	0.01	0.36	0.11	0.17
Dhar	0.52	0.16	0.42	0.00	1.00	0.42
Dindori	0.46	0.04	0.39	0.03	0.58	0.30
Guna	0.33	0.49	0.22	0.78	0.06	0.37
Gwalior	0.43	0.68	0.83	0.25	0.22	0.48
Harda	0.40	1.00	0.48	0.31	0.06	0.45
Hoshangabad	0.35	0.43	0.08	0.86	0.00	0.34
Indore	0.39	0.53	1.00	0.50	0.25	0.53
Jabalpur	0.31	0.49	0.37	0.28	0.27	0.34
Jhabua	1.00	0.71	0.58	1.00	0.63	0.78
Katni	0.38	0.19	0.54	0.81	0.38	0.46
Khandwa	0.52	0.01	0.69	0.19	0.04	0.29
Khargone	0.48	0.08	0.18	0.28	0.29	0.26
Mandla	0.54	0.03	0.68	0.94	0.54	0.55
Mandsaur	0.37	0.49	0.09	0.39	0.08	0.28
Morena	0.12	0.72	0.17	0.28	0.28	0.31
Narsimhapur	0.26	0.11	0.80	0.86	0.00	0.40
Neemuch	0.40	0.45	0.81	0.42	0.58	0.53
Panna	0.32	0.15	0.23	0.42	0.06	0.24

District	U-R Female literacy rate	Agrito ILP	R-U MPCE Gap	Rural Urban Health Gap	Rural Urban Sex Ratio Gap	Rural Urban Convergence
Raisen	0.15	0.04	0.09	0.64	0.13	0.21
Rajgarh	0.40	0.13	0.10	0.50	0.08	0.24
Ratlam	0.57	0.16	0.34	0.92	0.14	0.43
Rewa	0.20	0.12	0.22	0.61	0.29	0.29
Sagar	0.29	0.03	0.00	0.42	0.19	0.18
Satna	0.22	0.18	0.53	0.97	0.37	0.45
Sehore	0.32	0.67	0.03	0.11	0.08	0.24
Seoni	0.39	0.13	0.56	0.03	0.28	0.28
Shahdol	0.36	0.00	0.92	0.22	0.80	0.46
Shajapur	0.28	0.33	0.16	0.17	0.03	0.19
Sheopur	0.34	0.56	0.48	0.61	0.00	0.40
Shivpuri	0.41	0.69	0.39	0.33	0.19	0.40
Sidhi	0.30	0.03	0.65	0.58	0.51	0.41
Tikamgarh	0.30	0.19	0.36	0.08	0.10	0.21
Ujjain	0.45	0.21	0.59	0.50	0.11	0.37
Umaria	0.28	0.01	0.66	0.17	0.44	0.31
Vidisha	0.29	0.49	0.13	0.64	0.24	0.36
Displayed Values are normalized Values						
Author's Calculation						

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4p's of Marketing Mix and its Effect on Buying Behavior on Food Products

Prof. Anju Kohli*
Ms. Amrita Mehta†

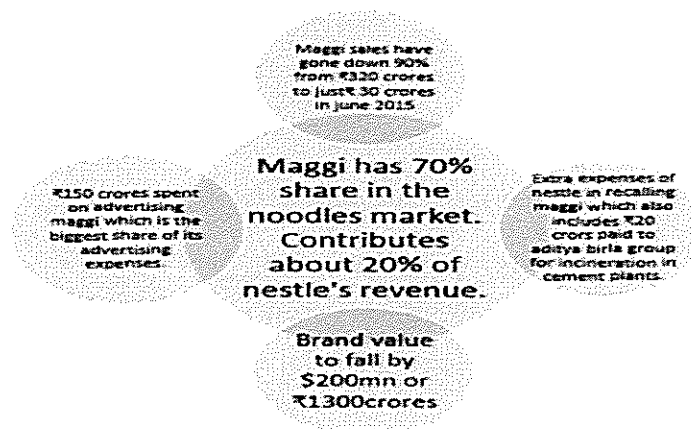
Abstract

The Food industry, which is ever growing in Indian market, has witnessed as one of the lucrative industry due to ever increasing growth of food demand. Due to the increase in disposable income in both rural and urban sector and also easy availability of finance in the recent past has significantly encouraged the consumer to prefer and habituate to the use and purchase of food products like ready to eat products, instant noodles, juices etc. The competition, brand personality, features; quality and nutritional property is attracting the consumer at large. In view of this emerging scenario, the present study provide field based investigation primarily makes analysis on the consumer buying behavior toward food products along with study of market mix strategies adopted by the food industries and the perception of the consumer on various aspects of food products.

KEY WORDS: *Buying behavior, food products, features, market mix.*

Introduction

Customer, Consumer, Buyer, Shopper, Purchaser, Client etc. all are the words with same meaning and has a very important role in present market scenario. So, who is a consumer? In easy language "A consumer is a person or organization that uses Economic services or Commodities provided or manufactured by Producer or Manufacturer. With the increasing disposable income population, their per capita consumption of electric goods and other products is increasing. They are desirous of improving their standards of living with the hygiene and reasonably high quality products. The consumer search for the product with good quality, approachable price and easily availability. It is remarked that the markets were developed not because of the initiatives of Indian marketers but the "PULL" from the consumer consuming system itself.

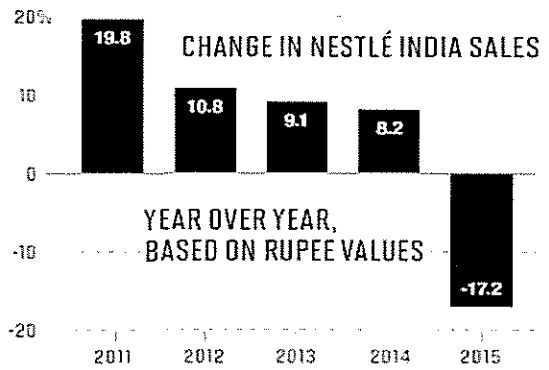
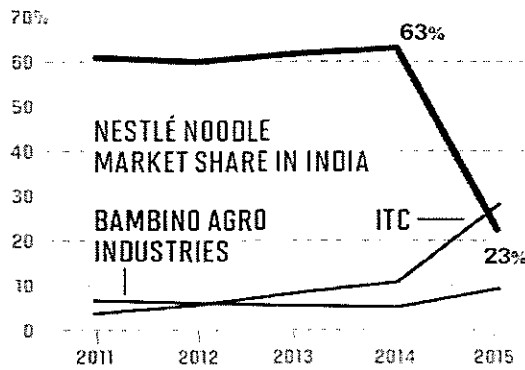
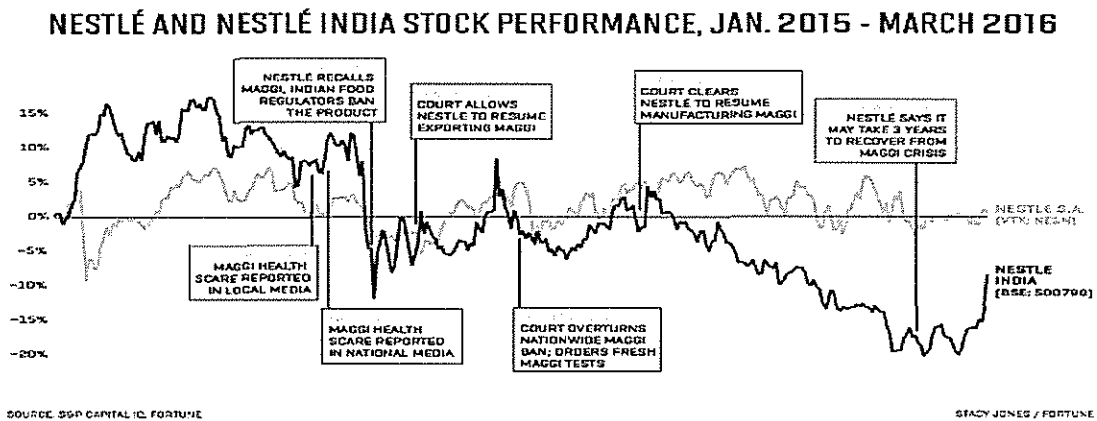


Source: Secondary Data

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To develop more understanding let us see the case study of Nestlé. A jaw dropping headline in Times of India says “SC nod to destroy 550 tons of Maggi stocks” on July 2015. Maggi was banned in India. The consumer’s trust was shattered, as Maggi was pronounced unsafe and hazardous for human consumption by FSSAI. Nestle the world’s largest Food and Beverage Company has sold Maggi in India for more than 30 years. Maggi accounted for roughly a quarter of company’s \$1.6 billion in revenue in country and was named one of India’s 5 most trusted brands in same year i.e. 2015.

Knowing this news-enraged consumer wasted no time venting their anger. The brand value and the trust of the people on brand were shaken. The protestors in the street smashed and set fire to packs of noodles and photos of Bollywood stars who were paid endorsers. Nestlé lost at least \$277 million in miss sales. Another \$70 million was spent to execute one of the largest food recalls in history. And the damage to brand value was pegged at \$200 million and the fallout continued. In June and July 2015 the sale of instant noodles falls to 80%.



Source: Secondary Data

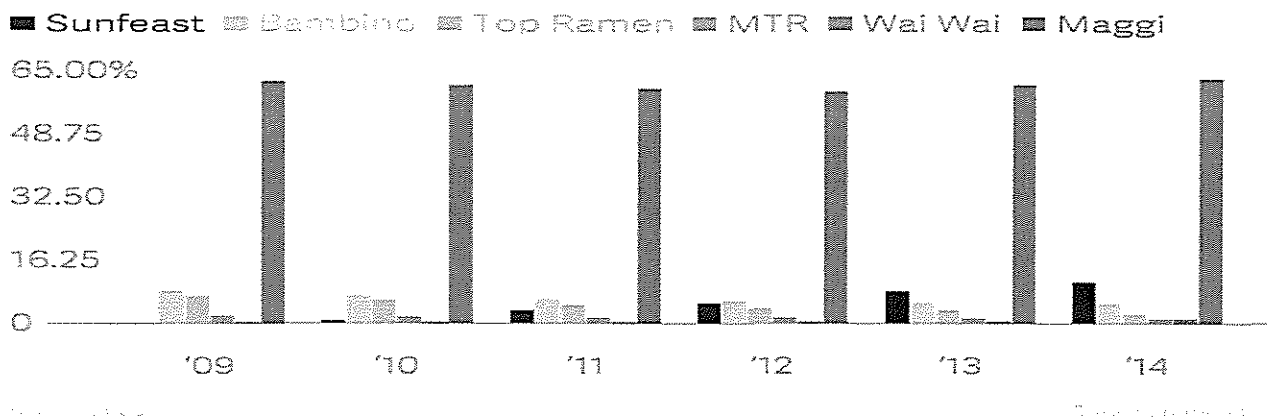
By this time the other competitors like ITC, Chings were loading their barrels to gain long-term market share. Patanjali also introduced instant noodles with “Lead and MSG free” tag line. The consumers shifted their brand choice from Maggi. Very few consumers accepted the new flavor of instant noodles. The market share of ITC was increased by 10-12% after ban. The consumer sale dropped, the brand was able to imitate the Maggi and thus was not accepted by the consumer. “2 minute Maggi noodles makes a comeback as Bombay HC quashes ban,” a new headline in newspaper emerged. By this time customers were missing Maggi. Maggi was welcomed in market with hash tag #WeMissedYouToo #MaggiMother #WelcomeBackMaggi.

Several videos were viral by the brands. There was no change in price and product flavor, though it was now safe to eat. Maggi campaign was started with hash tag #NothinLikeMaggi. The brand planned to play with the memories, good times and fond moments of consumer with Maggi. Though ITC was very quick to take over the market but after Maggi comeback most of the customer migrated back. The consumer's trust was regained and Maggi again recaptured 75-80% of market. The customer of age group 15-20 years was highly satisfied and accepted the product. By working on the mistake and gaining the trust of the consumer again the 2 Minutes Maggi stands no. 1 again in instant noodles in India.

Conceptual Overview and Literature Survey of Consumer Buying Behaviour Towards Food Products

Buying behavior is a study of how individuals make decision to spend their resources (time, money and effort) on consumption related items(what they buy, why they buy, when they buy, where they buy, how they buy, how often they buy and use a product service). With the increasing disposable income population, their per capita consumption of ready to eat products or convenience food is increasing. Consumers are desirous of improving their standards of living with the hygienic and reasonably high quality products and get rid of spurious and substandard products being supplied to them. Further, they deserve quality products, correct information about a product and proper services. It is remarked that the market is not developed because of the initiatives of Indian Marketers but the "PULL" from the consumers consuming system itself.

Brand share in India's noodle market



Source: Secondary Data

Buyer behaviors comparatively new field of study. It is the attempt to understand and predict human activities in the buying role. It has assumed giving importance under the marketing oriented or consumer oriented marketing, planning and management. Buying market for many products and the growth of consumerism and consumer legislation since 1960 has created special interest in buyer behavior and formation of Marketing Mixes to respond favorably buyer behavior in the marketing place. Buyer behavior is defined as "all psychological, social and physical behavior of potential consumers as they became aware of evaluate, purchase, consume and tell others about products and services."

Kardes, F.R.(2002) has defined Consumer behavior as the study of human response to products or services and the marketing of products and services. Consumer behavior is the behavior that consumers display in searching for, purchasing, using, evaluating products or services and ideas that they expect will satisfy their needs

(Schiffman, G.L and Kanuk, L.L.2002). Philip Kotler et al. (1985) assumed Consumer behavior as the buying behavior of final consumers, individuals and households. Consumer is the behavior of the ultimate consumers, those who purchase products for personal or household use, not for business purpose (Ferrell, O.C. and Pride, W.M., 1989). Consumer decision-making styles in the modern world has recognized with cognitive and affective or mental orientation characterizing a consumer's approach to the overall decision-making process (Sproles & Kendal 1986).

Consumer behavior is to understand how a consumer makes decision to buy goods by using the available resources such as time, money, and effort for buying, using, and disposing goods and services (Chetan Bajaj). It is a decision making process of an individual physically by engaging in assessing, buying and using or disposing the goods and services. (David L. Loudon) It is defined as a combination of emotional, mental and physical activity of an individual for purchase and use of goods and services for a demand or need (Shukazmi). Consumer buying behavior is an art and science of knowing needs and wants of consumers, and developing an understanding how prospective buyers decide to spend their resources like time, money and efforts during different stages of buying process. Consumer behavior is a field of study concentrating on consumer activities (Rogers D. Blackwell). Individual towards a product or service defines consumer behavior as a study of responses. (Kardes) Consumer behavior is to understand how a consumer makes decision to buy goods by using the available resources such as time, money, and effort for buying, using, and disposing goods and services (Chetan Bajaj). It is a decision making process of an individual physically by engaging in assessing, buying and using or disposing the goods and services. (David L. Loudon) It is defined as a combination of emotional, mental and physical activity of an individual for purchase and use of goods and services for a demand or need (Shukazmi).

Consumer behavior is associated with the culture and economy of a country. Economic growths in India and young Indian population over 21 years have influenced the consumers to spend and buy more. The study made by Praveen Chiruthoti (2015) on "Consumer Purchasing Behavior Of Instant Food Products" have revealed that – A fast paced urban lifestyle, increasing prevalence of nuclear family structure rising disposable income, increasing large number of globe-trotting consumers with an experimental palate are all favorable demographic factors spurring the adoption of instant food at global level.

Ninh Nguyen, Thi Thu Hoai Phan and Phuong Anh Vu (2015) in their joint study on "The Impact of Marketing Mix Elements on Food Buying Behavior". They result of their study was that the consumer buying decision, is followed by shopping convenience, store atmosphere, price, promotion and personnel respectively.

Another study by Dr. Kiran Mor and Ms. Sanveet Sethia (2015) in the study on "A Investigation of Consumer Buying Behavior for Food Products" analyzed the factors that led to the purchase of processed, packaged, ready to use and branded food products (marketing mix). The food consumption in India is rapidly changing from unprocessed unbranded low quality food products to processed, ready to use, packaged and branded food products.

Objective

The Primary objective of the study is to analyze the consumer behavior towards food industry with special emphasis on the Convenience food products. In order to investigate the primary objective, the framework is segregated to the following objectives.

- 1). To present the overview of Indian Food Industry with special reference to convenience food products and its brands.
- 2) To study the consumer buying behavior towards food products both in urban and rural areas.
- 3) To make comparative analysis on consumer level of satisfaction towards marketing mix practices applied for food products.

Finally, the study will present the findings and suggestions on the basis of survey results.

Methodology and Sample Design

The primary data is collected with the help of a detailed questionnaire, which is used to analyze the perceptions of consumers particularly from Udaipur city (Rajasthan) with reference to various determinants and its impact on buying behavior. Further, the personal interview and direct observation methods will also be used for the collection of primary data. A sample size of 300 is selected in order to analyze the perceptions of the consumers who use food products.

The secondary data is collected from the sources which include the Annual reports select food companies, research reports, magazines, various marketing & management books and the latest updates will also be collected from the newspapers and internet sources.

Indian Market Overview

A Food Revolution, which is transforming the way people prepare meals across the country, appears to be under way. As families grow smaller, and both the man and woman of the house are earning for their living, the women gets less time to prepare food for the family which in turn results in increasing preference of fully prepared meals and food products instead of fixing them from scratch. Though the market is full of convenience food but the preference of the customer is towards the product with good quality and nutrition as the people are more conscious about their health. Regarding it there is an extensive competition between the Food processing Industries.

Food Processing industry's contribution to India's GDP through manufacturing (FY16*)



Source: Ministry of Food Processing Industries (MOFPI), TechSci Research
Notes: * - Till December 2015, As per latest data available

Source: Secondary data

Food Processing Industry is one of the largest industries in India and ranks 5th in terms of Production, Consumption and Exports. In FY16 food processing industry constituted 14% to India’s GDP through Manufacturing. The food industry in India is currently valued at US \$39.7 billion is expected to grow at a compound annual growth rate of 11% to US \$65.4 billion by 2018.

India never lacked behind in export business as well, during FY 11-16 Indian export of processed food and related products grew at CAGR of 11.74% reaching US \$16.2 billion. According to the data provided by Department of Industrial Policies and Promotions (DIPP) the food processing sector in India has received around US \$7.47 billion worth of Foreign Direct Investment during the period April 2000-December 2016 seeing the potential in Indian market and customers.

Marketing Mix

Marketing Mix is the set of marketing tools that the firm uses to pursue its marketing objectives in the target market. Marketing Mix refers to the set of actions, or tactics that a company uses to promote its brand or product in market. In other words marketing mix is a tool that combines a number of components in order to strengthen and solidify a product’s brand and to help sell the product or service. Companies have to come up with strategies to sell their product and attract maximum customers.



It was in the late 1940s when the term “Market Mix” first emerged. Marketer E. Jerome McCarthy came up with the first of the theories for marketing mix. This was called the Four P’s, representing Product, Price, Place, and Promotion.

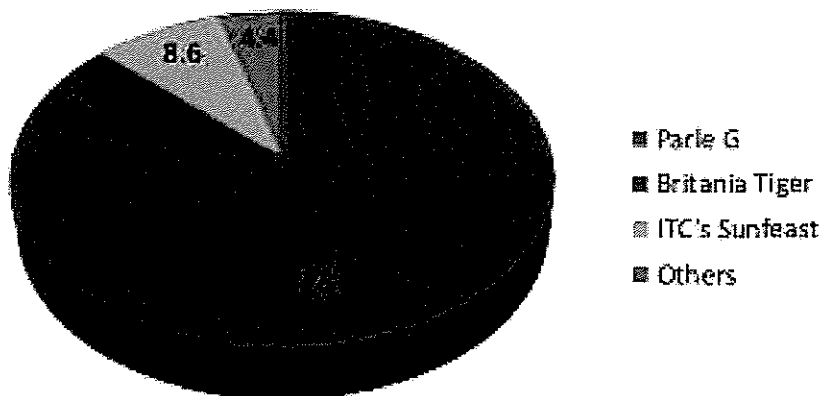
Let’s understand it with an example: The biscuit market in India is worth Rs. 9,000 crore. And the most famous brand in biscuit is Parle Agro that was established in 1929, whose first products were Parle Glucose and Parle Monaco. Both the products are very popular and one of the favorite product of the customer. Along with Parle biscuits the other major industry players are Britannia, Sunfeast, Priyagold and Horlicks.

Though there are many brands in competition but Parle G market accounts for 35% which is the highest amongst all other brands. The trust build up by the brand amongst the customers is so strong that the all class

of customers accepts the product. Parle G has been strong household name. It all happened because of the strategically control on the 4P's.

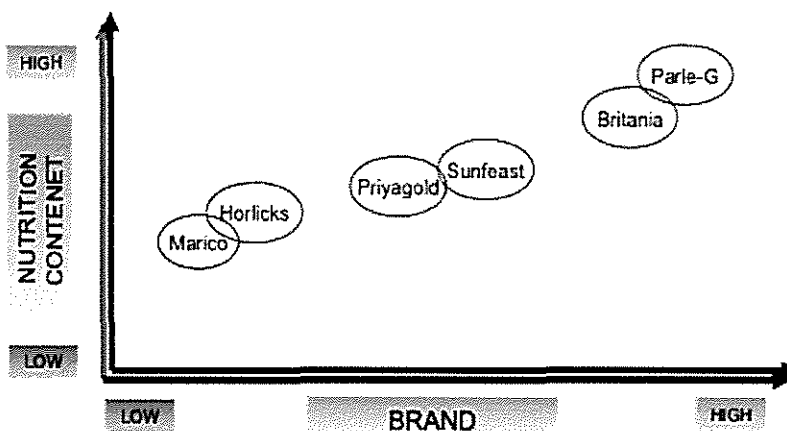
The product Parle G has great taste, high nutrition, and the international quality makes the product stand out from all other products. Though time changed and variety of biscuits come and goes but there was no change in Parle G, which made it more popular. Parle G adopted market penetration strategy that is Low Price along with capturing of large market, which also resulted in large sale. As the product is consumed by people of all ages, from rich to poor, living in cities and in villages which make it important for the brand to be available at all the geographical areas. The extensive distribution network, built over years is a major strength for Parle products. Parle G is available to consumers, even in the most remote places and in the smallest village with just population 1500.

Market Share in Percentage for glucose biscuits in 2012



Source: Secondary Data

Parle - G and Competitors Nutrition content – Brand



Source: Secondary Data

The promotional strategies are also very strong, advertisements in press ads and interesting commercials from using Shaktiman to Amir Khan is one of the main attractions for the consumers. All the above factors are the cause of more market of Parle G then other brands. The key factor, which makes the brand still going, is the trust amongst the customers along with the product quality, low price, availability at all places and attractive promotional strategies.

From the primary data the observation was as follows:

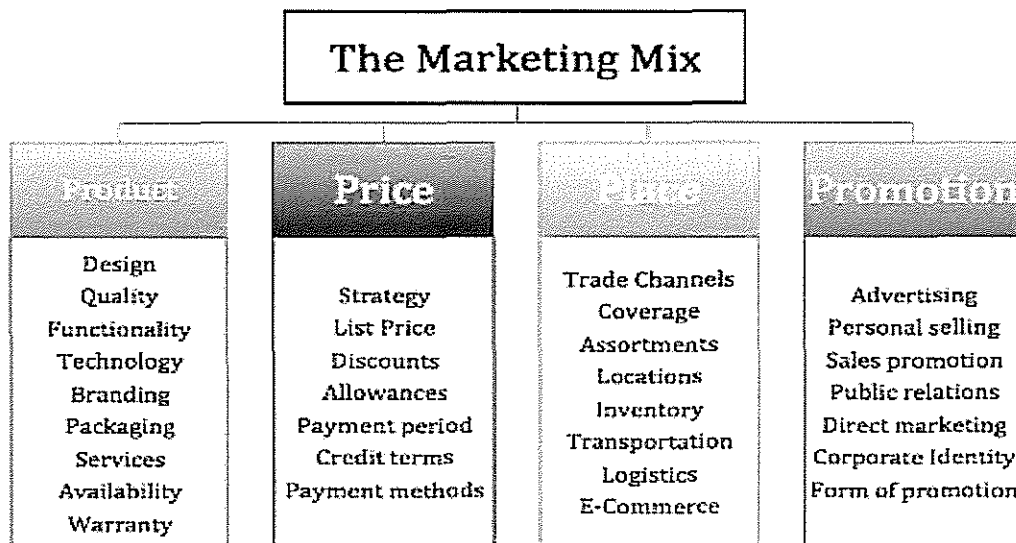
Consumer's response for Parle G on the following terms		
	Preferred	Not Preferred
Product Preference	237	63
	Satisfied	Not Satisfied
Price Satisfaction	249	51
	Available	Not Available
Product Availability (Place)	275	25
	Visible	Not Visible
Product Visibility (Promotion)	230	70

Source: Primary Data

The survey was conducted amongst 300 people from Udaipur City, which included all class of people. From the result, it is interpret that majority of customer prefer Parle G biscuits i.e. 237 out of 300. The customers are satisfied by the product quality and price offered with 249 satisfactory customers. Nearly 275 people mentioned that the product is easily available to them whereas 25 believed that that the product is not available in their nearest market. The product visibility to the consumer is also good as 230 people on TV ads, newspaper ads, and many other means notice the product. The overall survey shows that the customers can be easily attracted by the product if its market mix strategy is unique, so is the case with the very old biscuit product Parle G.

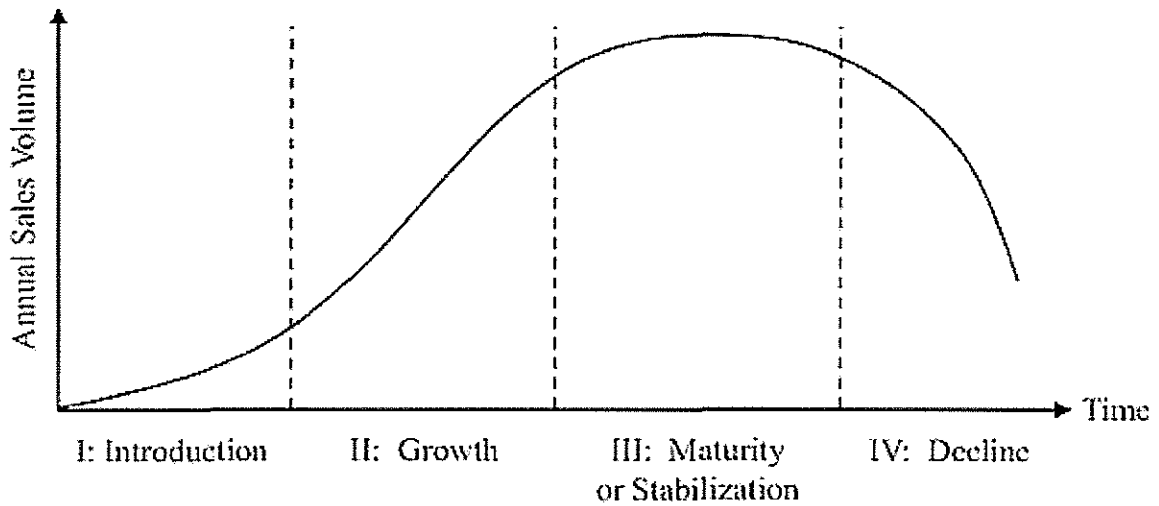
From the whole story we can conclude that the consumer is supreme and the buying behavior of the consumer is highly influenced by product, price, place and promotion. Let us now learn in detail about the 4 P's:

Marketing Mix 4 P's



1. Product

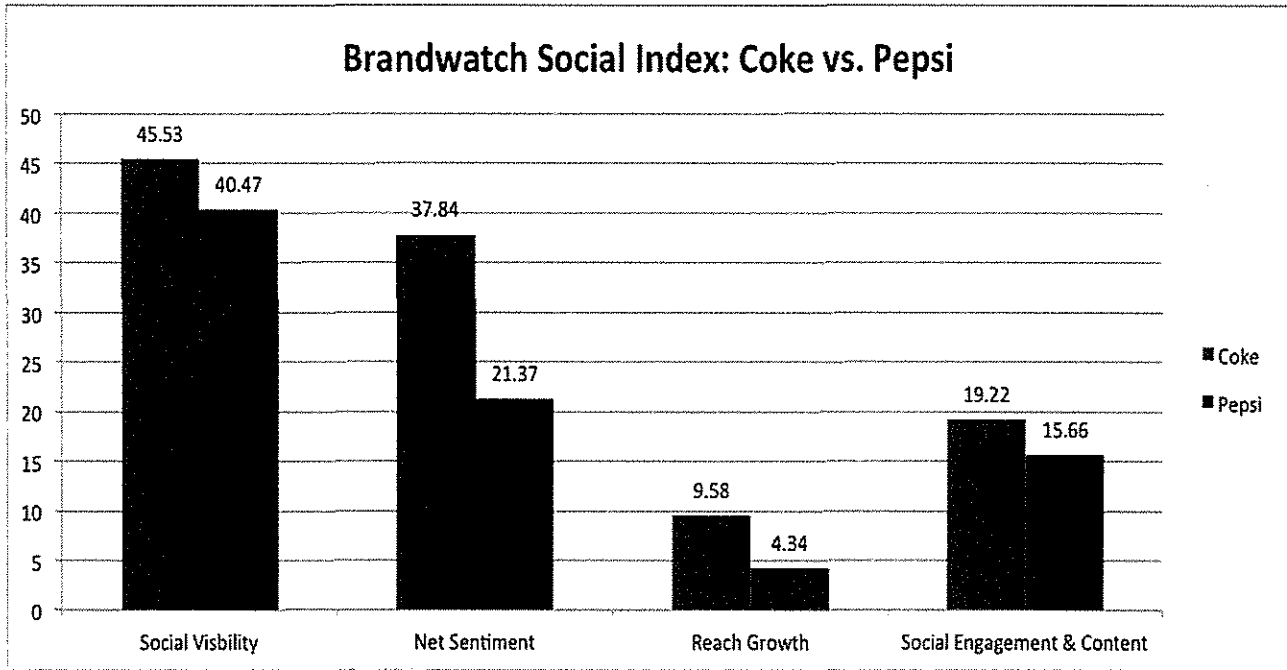
A Product is an item that satisfies the need and desire of the consumer. Today's generation customer is very conscious about their health so they prefer the product of a brand with good quality and nutrition factor. The competition nowadays between the brands is of producing a quality product. Along with quality how convenient is the product to prepare is another factor for choice of a customer. All the products follow a logical Product Life Cycle and it is vital for marketers to understand and plan for various stages and their unique challenges.



Before people use to think that good product will sell itself but in today's competitive world there is no bad product. Also many rights are given to the customer, which makes him supreme. So the focus goes on what customer wants? And the industry develops accordingly. The product basically depends on the Functionality, Quality, Appearance, Packaging, Brand, Services, Support, Warranty etc.

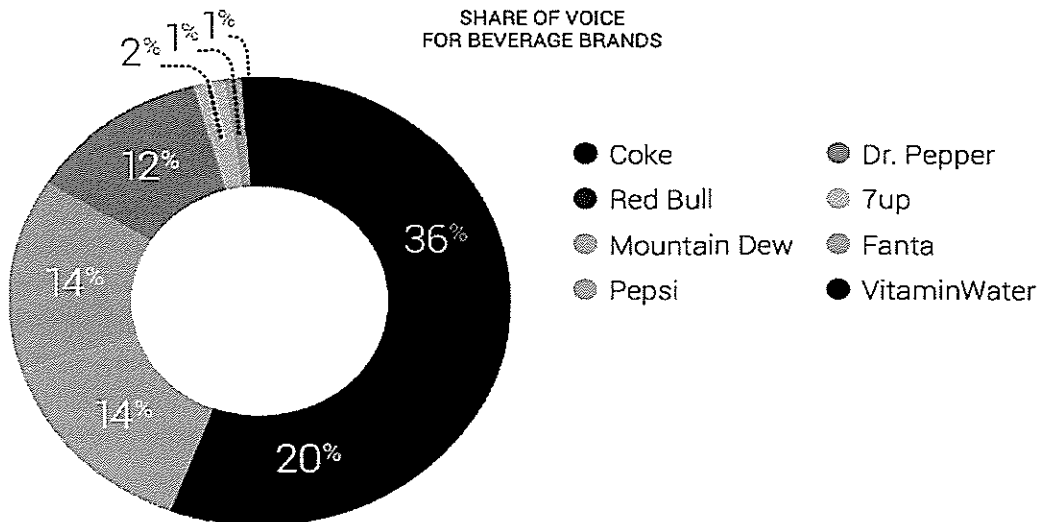
Aspects	Brief explanations or examples
The appearance	Color, size, shape, etc. must meet the consumer needs.
The function	Able to be used Convenient for use Meeting special needs of customers
The cost	Production costs must be low enough to earn some profit. High cost, higher price. Too high price, customers unlikely to buy.

Everyone has heard of Coca-Cola, and you would be hard pressed to find somebody who was unable to recognize the iconic white lettering against the bright red background of this global brand. Soft drink demand market is very strong all over the world because of two major company Coca Cola and Pepsi Co.



Source: Secondary Data

The largest beverage company Coca Cola began more than a century ago and is a famous brand amongst the consumers. The product produced by the Coca Cola Company gives consumer the pleasure of world-class drinks to fill up their hydration, refreshment, and nutrition need. The regular customers are attracted by its features, Brand, Service, innovation, style and image. It has become a part of all the festivals and celebrations in India from birthday parties to Diwali celebration everyone serves Coca Cola. To attract more customers the company diversified itself, it was not only limited to soft drinks but also started producing Energy drinks, Juice drinks, Sports drinks, Tea and Coffee and Water. There are many brands in soft drinks but the consumers are more attracted towards Coca Cola because of its better product quality and diversified products leaving behind brands like Pepsi Co., Red Bull etc.



Source: Secondary Data

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Features	Coca-Cola	Pepsi	Mountain Dew
Quality and Hygiene	123	98	79
Flavor	131	111	58
Appearance and Packaging	109	92	99
Availability	131	103	66
Favorite Brand	134	99	67

Source: Primary Data

From the above data we can observe that from the comparative study of three carbonated drinks the Coca Cola product got more priority from customers in all aspects that are Quality and Hygiene (123/300), Flavor (131/300), Appearance and Packaging (109/300), Availability (131/300) and Favorite Brand (134/300) which is higher in comparison to Pepsi and Mountain Dew. We can conclude from above data that if the product has to cover maximum market then it should have good quality, appearance, flavor, packaging etc. to be one of the favorite brands amongst customer choice.

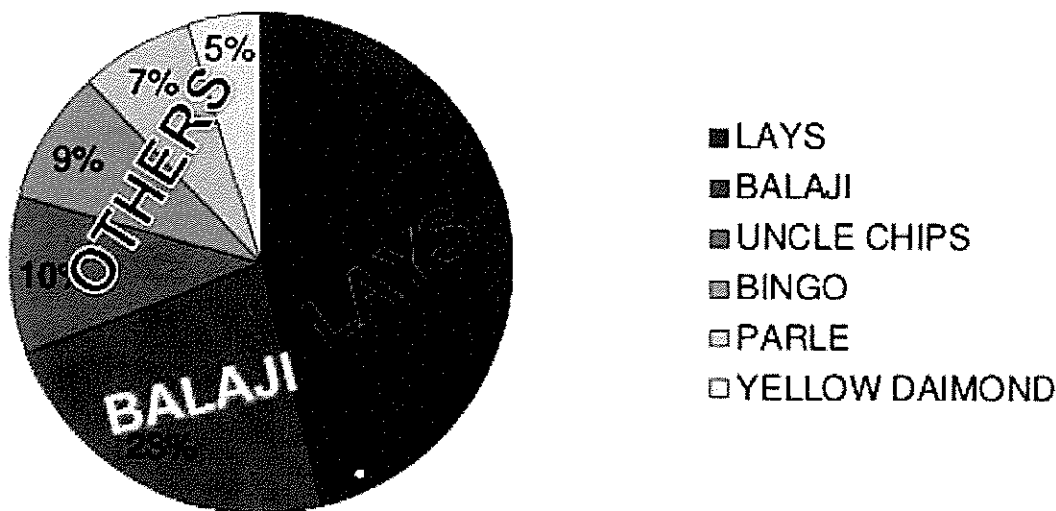
2. Price

Pricing is one of the most important elements of the marketing mix, as it is the only element of marketing mix, which generates a turnover for organization. The other 3 elements of marketing mix are the variable cost for the organization. Price is not only an organization element but also a customer element as too high a price of a product may result in less customers buying it and too low a product price may result to loss of company. Pricing is further divided into 3C's:

- Cost - it is the expense paid to buy and produce product by the company.
- Competitors' prize – Price of the product is set according to the competitor's prize. It can be low as Parle G amongst all other biscuits or high as Maggi in comparison to other instant noodles brands.
- Customer willingness to pay – it is one of the important factor to determine the price of the product. The price is set according to the target customer for the product. If it's frozen products of McCain its target customer will be upper class not the rural area customer so the product price will be accordingly whereas Parle G is targeting all class groups so the price of the product will be accordingly.

So, price of a product is an important factor to attract customers so as to increase the purchase hence the market reach of the company.

MARKET SHARE



Source: Secondary Data

The journey of Balaji group started in year 1976 by the member of Virani Family. The brand use t sell wafers and namkeen in local market but gradually the expanded their market and now has the second largest market share. The main objective was to compete effectively with the players who were already existed in the market. Hence they launched the product with Indian Twist, with cheaper rates and more quantity than those, which were offered by their competitors helped attention of the customers. Though Balaji came after Uncle chips and Lays but still managed to give strong completion. These examples shows how price help to attract customer and help the company establish its own market.

BalajiChips	Rs. 5	Rs.10	Rs.20	Total
Urban Sector	16	85	49	150
Rural Sector	92	43	15	150

Source: Primary Data

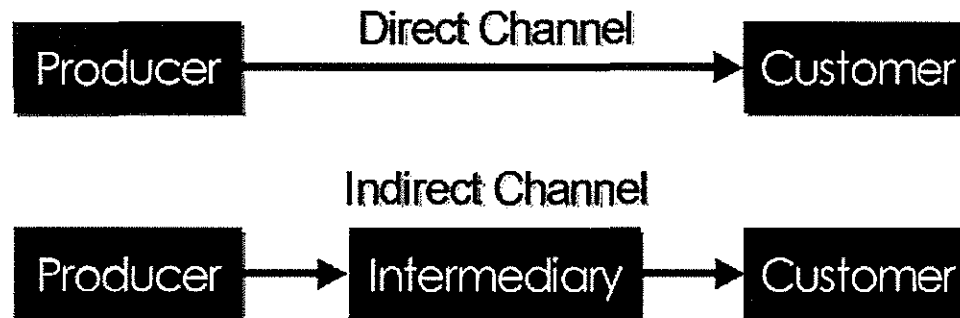
From the above survey conducted amongst 150 people from rural and 150 people from urban area we can conclude that the people in urban area prefer the product of Rs.20 more, than the people in rural sector. Whereas the people in rural sector prefer’s Rs.5 for Balaji chips. So the strategy used by the company is to cover the entire market i.e. rural as well as urban sector with the varied price rate. This difference in price rate helps to attract consumers and convince them to buy the product, which is affordable by them.

3. Place

In marketing mix, the process of moving products from the producer to the intended user is called Place. Through the use of right place, a company can increase sales and maintain these over longer period of time. In turn this would mean a greater share of the market and increased revenues and profits. Correct placement is a vital activity that is focused on reaching the right target customer at the right time.

There are mainly 2 main types of Distribution Channel:

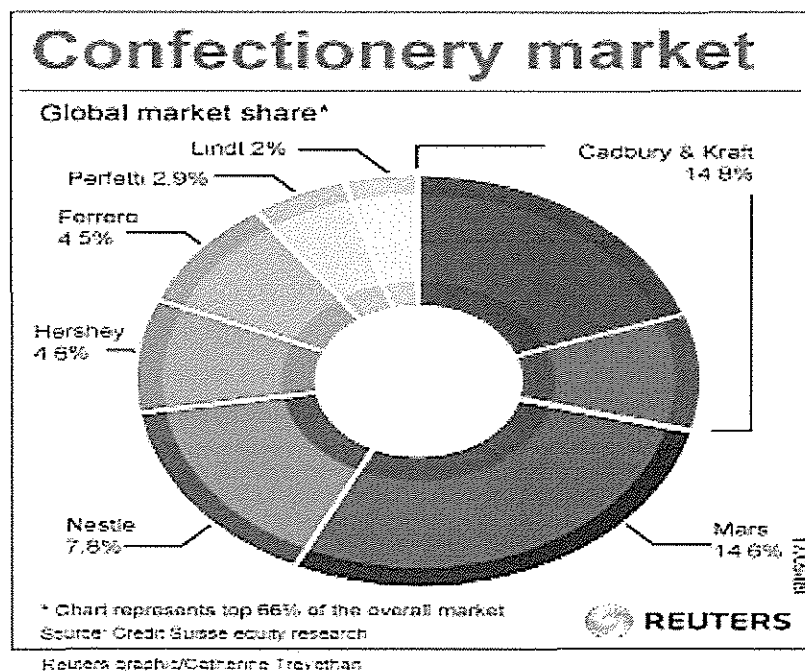
- a) **Direct Channel:** it involves direct distribution of product from producer to consumer eg. Fruits and vegetables from farmer vendor to the consumer.
- b) **Indirect Channel:** it involves distribution of product by the use of an intermediate for eg. a manufacturer selling to a wholesaler and then on to the retailer.



It is very important for the company to be clear about its target audience and the place where the product is to be launched so as to provide easy accessibility of the product by the customers.

Cadbury India began its operation in 1948 by importing chocolates; slowly it established its market in India and now has become the leading producer of confectionary. The distribution of Cadbury and its reach to the customers is fantastic and widespread. It is present in all urban areas as well as A, B and C category towns. The rural market is little weak but still due to its availability in all price group and easy accessibility makes it customer favorite. It has a proper distribution channel, which makes it availability to almost all parts in India thus making it the favorite confectionary product of India.

Globe Market Share Confectionaly of Cadbury and Nestle:



Source: Secondary Data

Cadbury Products	Rural	Urban
Dairy Milk (Rs.5)	53	15
Dairy Milk (Rs.10)	15	43
5 Star (Rs.10)	8	13
Perk (Rs.10)	74	31
Dairy Milk Silk (Rs.65)	-	16
Bournville (Rs.99)	-	15
Temptation (Rs. 89)	-	17
Total	150	150

Source: Primary Data

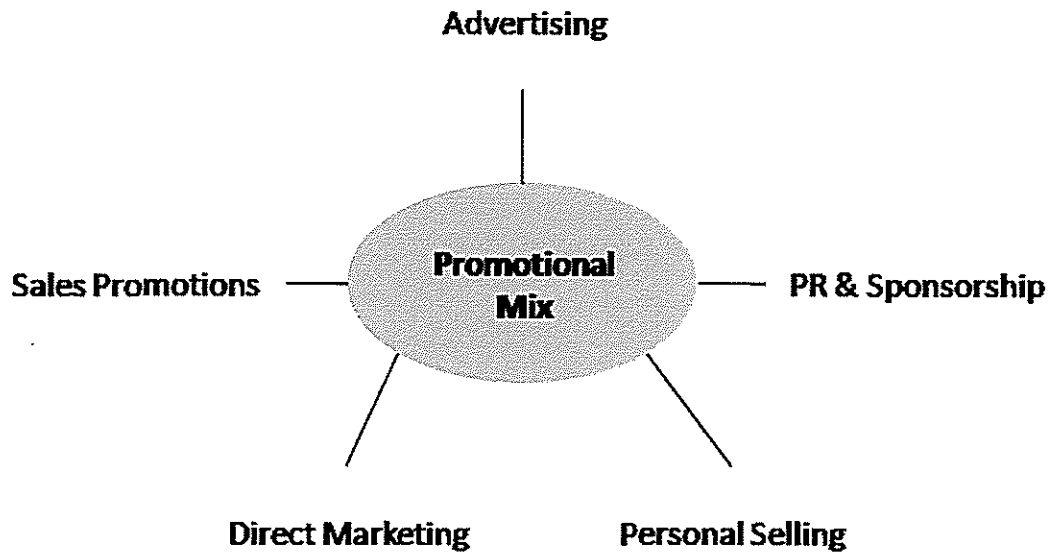
Cadbury produces various types of chocolates and it is available in various price ranges. From the above survey conducted amongst 150 people of rural sector and 150 people of urban sector from Udaipur. The above survey clearly shows that the rural sector is unaware of the high range chocolates and prefers more of the chocolates in range Rs.5 to Rs.10. The company’s high range market is more in urban area. 48 people from urban sector go for high range chocolates. Though the market for chocolates lies between Rs.10 to Rs.20 is more as a whole in both sectors. So the company manufactures the product keeping in mind the target audience and according to that the price is determined so as to capture the maximum consumers.

4. Promotion

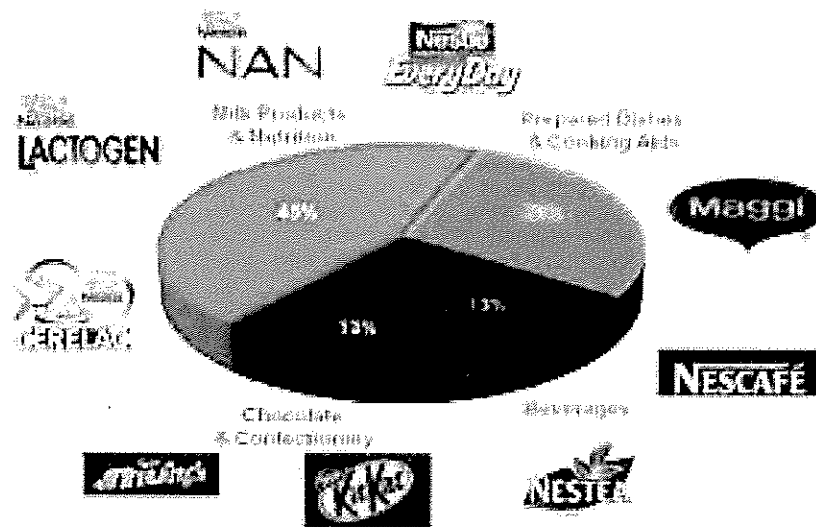
Promotion includes all activities that involve communicating with the customer about the product and its benefits and features. Once company has worked on the product and price elements, it starts a conversation with the consumer about the product. This includes raising awareness through different mediums to increase sales, as well as to create and foster brand loyalty.

5. Elements of Promotional Mix:

- a) **Advertising:** it is usually paid and is displayed on mass media such as TV, radio, newspaper and magazines are always carrier of these messages. Apart from these posters, web pages, brochures and direct mails also fall in same category.
- b) **Public Relations and Sponsorship:** it helps to increase positive mention of the product or brand in influential media outlet. For eg. Sponsoring a major event and increasing brand visibility.
- c) **Personal Selling:** it is the way of connecting company’s representative with consumer. The interaction can be in person, over the phone and over mail or chat.
- d) **Direct Marketing:** this targets specific influential potential users through telemarketing, customized letters, emails and text messages.
- e) **Sales Promotion:** These are short-term strategic activities, which aim to encourage a surge in sales. These could be “buy one get one free” options, seasonal discounts, contests, samples or even special coupons.



All the promotional activities are the major part of attraction for customers. Most of the consumer's response towards a new product is due to the new promotional activity adopted by the company.



Source: Secondary Data

We all remember the most widely known tunes of Nescafe. It was one of the best advertising campaigns and was launched 2 decades back. However that brought Nescafe strongly in market as consumer were very attracted by the campaign leading to high sale of the product. Where Nescafe focused on value and good things in life, Maggi focuses on moments you had with Maggi making it the favorite instant noodles of the customers. Promotion of all the products manufactured by Nestlé was done smartly. Endorsement of the products by actors, advertisements through mass media was the major push for the company. Consumers got influenced by the strategies used by the brand and hence making Nestlé one of the top brands of the country.

Awareness About Nestle Products Through	Out of 300 People
Newspaper	8
TV Advertisements	218
Hoarding-Boards	16
Radio/Internet	39
Campaigns	19

Source: Primary Data

When surveyed amongst 300 people regarding how they get aware about the Nestlé products, the result then observed were that majority of the people i.e. 218 got aware through TV Ads. Attractive slogans like Kitkat break bantahai, it all starts with a Nescafé etc. and presence of famous personalities in Ads increases the willingness of the customer to buy the product. 39 out of 300 people get aware through radio or Internet whereas only 8 people were aware because of newspaper ads. The promotional activities are the heart of the products, this is the way the consumers get aware about the product and thus purchase it for self-satisfaction.

Findings and Suggestions

From the study on “4P’s OF MARKETING MIX AND ITS EFFECT ON BUYING BEHAVIOUR ON FOOD PRODUCTS”, the following findings and suggestions are made.

- 1) Since Food industry is one of the most vibrating industries, there is still lot of gap in between the international brand and national brand performance. The Food industry is still dominated by the international companies as there is a clear technology gap for the Indian companies and this is a major concern for the Indian companies for focus.
- 2) A perfect market mix strategy was adopted by Nestle Maggi to come back in the market and conquer it again; it covered almost 70-80% of the market share in instant noodles after the fallout. The promotional activities added like cherry on cake as they viral several videos with hash tag #NothingLikeMaggi and tried to regain the trust of the customer by making them remember their memories with Maggi through TV Ads.
- 3) Every brand goes through the Product Life Cycle. Some companies fall out at the earlier stage whereas few get successful in maintaining their brand name. Every company should try to get upper hand on 4P’s so as to get satisfactory feedback.
- 4) Marketing Mix is the set of marketing tools that the firm uses to pursue its marketing objectives in the target market. Marketing Mix refers to the set of actions, or tactics that a company uses to promote its brand or product in market. In other words marketing mix is a tool that combines a number of components in order to strengthen and solidify a product’s brand and to help sell the product or service. Companies have to come up with strategies to sell their product and attract maximum customers.
- 5) A Product is an item that satisfies the need and desire of the consumer. The features of the product should be exceptional in comparison to other products so as to stand out in the competition. The features of a product includes its Quality, Nutritional value, Packaging, Color, convenient to use, Easy to handle etc. the company which is able to maintain its standard in all this aspects and maintained its position amongst beverage industries is Coca Cola.

- 6) Pricing is one of the most important elements of the marketing mix, as it is the only element of marketing mix, which generates a turnover for organization. The price should be determined such that it is affordable by the Target audience. Balaji Chips stands second with market share of 23% and is growing day by day because of its affordable price range, which starts from Rs.5 and twisted Indian flavor product.
- 7) Through the use of right place, a company can increase sales and maintain these over longer period of time. In turn this would mean a greater share of the market and increased revenues and profits. The distribution channel should be so adopted by the producers that the product is in easy reach of the consumer. Cadbury is one such brand, though the rural market is little weak but still due to its availability in all price group and easy accessibility makes it customer favorite.
- 8) Promotion includes all activities that involve communicating with the customer about the product and its benefits and features. Once company has worked on the product and price elements, it starts a conversation with the consumer about the product. All the promotional activities are the major part of attraction for customers. Most of the consumer's response towards a new product is due to the new promotional activity adopted by the company. When surveyed amongst 300 people about the Nestlé products, the result were that majority of the people got aware through TV Ads. This suggests that the promotional activities are very important part to spread awareness about the product at initial stage and then becomes the way to survive in the market competing with other similar products.
- 9) From above all examples we can finally conclude that, in the competitive market the survival of product is not so easy, for the product to survive the producer need to make strategies regarding the Product Quality, Price Affordability, Place availability and Promotional tactics. Unique marketing mix strategies, which make you, stand out of the box, can be the Mantra of success.

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Economics for Environmental Sustainability and State of Happiness

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Abstract

The field of economics has taken a beating over the past couple of decades for all their brilliant models and complex analysis. But most economists completely failed to predict the disastrous outcome in terms of housing bubble, jobless growth, environmental degradation, stress in human lives etc. The policy of optimizing size of the economy or growth rate has thus generated some basic problems and threats for sustainability of growth and well-being. There is therefore a need to relook into the scope and subject matter of economics and the model of economic growth in the new perspectives of efficiency and equity. This can be achieved by planning economics and growth models for environmental efficiency. The Happy Planet Index approach is a step in that direction. It, in real sense combines all three aspects of the economic activities i.e. economic wellbeing, environmental sustainability and happy living. It is possible to produce high level of well-being with low consumption of earth-resources.

Key Words: Optimizing economy, Environmental Sustainability, Economic well-being, Efficiency and equity,

Introduction

The uncertain global economic outlook and fight for the control on the natural resources has created a need for proper link between environmental sustainability, social well-being and economic growth. But the approach for prosperity in economics is based on the exploitation of natural resources for maximization of income and growth. Planning and policy making at national as well as international levels is largely driven by this approach. The economic growth thus becomes the primary driver of development and progress. This has led to uncertainty about future growth rate and its sustainability. The modern economics does not have the capacity or scope to resolve the proper parity between the three issues of well-being i.e. environmental sustainability, social well-being and economic growth. We thus have to redesign the scope of traditional economics so that a proper link can be developed between the three pillars of human well-being i.e. environmental sustainability, social well-being and economic growth. This can be achieved by minimizing ecological footprint i.e. the requirement of production and consumption.

Nature of Economics

The origin of modern economics starts with the classical work 'An Enquiry into the Nature and Causes of Wealth of Nations' (Smith, 1776). Smith advocates capital formation and exports for creation of national

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wealth for prosperity. This becomes the classical principle of economics. He assumed that market will automatically set for perfect competition which will ensure efficiency in resource utilization and allocation. The perfect market and the self-interest are the agents for efficiency. The market forces but never allowed us to enjoy the benefit of perfect competition. Another book 'On the Principles of Political Economy and Taxation' (Ricardo, 1817) also advocates the idea of Adam Smith for development. Ricardo explained that even a country without absolute advantage in cost of production can get benefits from trade. The theory of comparative advantage in international trade became the major instrument for accumulation of national wealth. The countries thus should create wealth through specialization where that country has comparative advantage under the conditions of perfect competition. But in reality; cartels, monopolies and lobbying are common ways to extract profit and exploitation. He also explained on price-front that marginal land is rent-free and so does not get involved in the cost of production. It thus gives free license for the use of natural resources and production as well as consumption. Economics thus does not provide much guidance on the appropriate pricing of natural resources.

As a result, the economic development has created the situations of deforestation, degradation of land, non-availability of water, polluted rivers and polluted air in the economy. The revolutionary work 'General Theory of Employment, Interest and Money' (Keynes, 1936) tries to give a new direction to economics but on the same lines. Keynes advocates the enhancement of aggregate demand (consumption+ investment+ government expenditure + exports - imports) for growth. The focus is thus on expenditure and on exports for the promotion of growth. The potential of economic growth for the country depends upon its productive capacity which can be enhanced by increase in capital stock, quality of labour force and export growth. This will help the countries to shift their production possibility curve upwards. Many countries have used or rather have manipulated undervalued exchange rate as a tool for promotion of exports which is commonly known as export-led growth theory. This has motivated the third world countries to enhance their growth trajectory just by exporting natural resources. The traditional economics puts the size of Gross Domestic Product (GDP) at the core of economic activities. The economics is thus about translating individual selfishness into general wealth and thus has poor link with ethics, environmental sustainability and social well-being.

Welfare Economics

'Welfare Economics' is the branch of economics where the ethical issues are made explicit. In this way it makes economics a normative science. It suggests conditions for efficient allocation of goods and services in consumption and production. The Pareto optimality is the most efficient allocation (Pareto, 1906). A state of affairs is Pareto optimal if and only if there is no alternative state that would make some people better off without making someone else worse-off. It thus assumes that anyone would prefer an option that is cheaper, more efficient or more reliable or that otherwise comparatively improves one's condition. The competitive market equilibrium will ensure optimal situation in the economy. The market perfection leads to social optimum and therefore no intervention in the market is desirable. Hence, the market has the capacity to create the condition of maximum social welfare. However, this allocation may be efficient but not necessarily ethical. Market can create conflicting situations. Moreover, the market never creates the condition of perfect competition. It is therefore clear that any deviation of market from perfect competition leads to inefficiency and undesirable outcomes. We therefore cannot expect social justice and sustainability from such market conditions.

GDP as a measure of well-being

The well-being of a nation is usually measured by the size of its GDP. But, in reality, the concept of GDP was never intended to function as an indicator of well-being. The famous work 'Principles of Economics' (Marshall, 1890) tries to give more focus on man-kind through materialistic aspects of economic well-being. It thus stressed on the role of man in the creation of income and its uses. But in reality, the modern man became greedy, selfish and cruel to nature. In all these principles, the market is assumed as the basic agent for efficient allocation of resources. The economy has failed to create such type of market. The modern market rather has become an agent of exploitation of natural and social wealth of the nation. Therefore, the efficient resource allocation is not possible through the present structure and power of the market. We need proper regulation and code of conduct for the efficient functioning of the market.

Economist Simon Kuznets; a central figure in the development of the concept of GDP, urged that the welfare of a nation can scarcely be inferred from the size of GDP (Kuznets, 1934). But until recently, it has been assumed that well-being of the society is strongly correlated with the size of the economy. It demonstrates that all else being equal, general well-being will increase as the size of the economy grows. This is not simply true in actual practice. A relationship exists between income and well-being only up to certain level of income. The measurement of GDP is mainly based on marketable goods and services. GDP interprets every marketable transaction as a positive and does not distinguish welfare enhancing activities from welfare reducing activities (Cobb, Halstead, & Rowe, 1995). It thus is insensitive to the distribution of income, quality of life, environmental issues, social justice and equality. For example development of virus and then anti-virus both enhances the size of the economy. The concept of GDP thus fails to distinguish expenditure that is incurred in correcting or compensating for undesirable economic activities. Natural disasters, floods, Tsunami etc. are thus tend to boost the size of Gross Domestic Product. But, in actual practice these do not enhance the quality of well-being. Same situation holds true for many marketable goods which keep on enhancing GDP but are detrimental to overall quality of lives of humans.

Issues of Economic Growth

Too much focus on the size of the economy i.e. GDP has thus created many problems globally.

Dr. Raghuram Rajan in one of his speeches has very rightly emphasized that growth has to be obtained in the right way. It is possible to grow too fast with substantial stimulus, as we did in 2010 and 2011, only to pay the price in future in terms of higher inflation, higher deficits and lower growth in 2013 and 2014 (Rajan, 2016). Similarly Brazil was growing at about 7.6 percentages a few years back but fast expansion and rapid interest rate cuts had dragged down the country's economy. The field of economics has taken a beating over the past couple of decades for all their brilliant models and complex analysis. But most economists completely failed to predict the disastrous outcome in terms of housing bubble, jobless growth, environmental degradation, stress in human lives etc. Sometimes the determinants of poor health condition are inequality, poverty, social exclusion and so on and not really due to lack of health care infrastructure. This may be because of imperfect market conditions. The policy of optimizing size of the economy or growth rate has thus generated some basic problems and threats for sustainability of growth and well-being. Some of the issues emerged from the so-called growth process are:

- (i) Increase in inequalities
- (ii) Depletion of natural resources
- (iii) Environmental degradation and climate-change
- (iv) Social injustice and poverty
- (v) Exploitation of weaker section and malnutrition among children and women

New Economics

There is therefore a need to relook into the scope and subject matter of economics and the model of economic growth in the new perspectives of efficiency and equity. The size of GDP and ecological foot-prints has a strong trade-off. The path of such economic growth thus cannot sustain itself and nor it is socially desirable. We need a strong economy not only for current generation but also for future generations. Robert Kennedy emphasized that GDP measures everything except that which makes life worthwhile (Kenedy, 1968). The economics thus need to be concerned more with social and environmental sustainability. We therefore have to redesign the model of economic development which can incorporate –

- (i) Economic Welfare
- (ii) Social Equity
- (iii) Environmental Sustainability

The overall sustainable economic development thus requires a balance between three goals of the economy i.e. economic welfare, social equity and environmental sustainability. It is grounded on the ethical commitment to the well-being not only of contemporary population but also the well-being of the future generation. This can be achieved by planning for environmental efficiency. The economics thus should focus on the use of ecological resources as the most scare resource.

The main challenge for the Economics is to use ecological resources most efficiently. Most of economic growth models measure efficiency of capital use or labour use as the constraint of growth. This has unnecessarily created the situation for inefficient and unsustainable use of the stock of natural capital. As a result, the depletion of natural capital has increased many times and thus has created doubt about the sustainability of growth process. Environmentalists are thus now suggesting the efficiency in the use of natural capital. This can be measured through ecological foot print analysis (William & Wackernagell, 1997). It is the measurement of the land area required to sustain certain size of population. It incorporates water, energy, use of land for infrastructure and different forms of agriculture, forests and all other forms of energy and material input that people require in their day to day lives. It also accounts for the land area required for waste assimilation. It thus measures the ecological requirements of producing specific goods and services. The footprints thus indicate how much nature is available for a defined population to use. The WWF's Living Planet Report found that in 2010, the global ecological foot print was 18.1 billion global hectares (gha) or 2.6 gha per capita(WWF, 2014). The earth's total bio capacity was only 12 billion gha or 1.7 gha per capita. We thus are consuming much more natural capital than available on this earth. This means that in 2010 people used about 50 percent more natural resources than the planet could regenerate. A fair share would be about 2.1 Global Hectare, one planet living. Instead the population of most advanced countries is using in excess of two and some of the countries are using as many as four planets for satisfying the consumption of their population.

There have been sustained efforts to incorporate measures of life satisfaction, happiness and environmental efficiency into the evolution of welfare particularly after the release of Stiglitz-Sen-Fitoussi Report (Stiglitz, Sen, & Fitoussi, 2009). One of the most striking findings in the developed countries is that despite sustained economic growth since 1950's people's satisfaction level has not risen. This is known as the Easterlin paradox which suggests that there is no link between the level of economic development of a society and the overall happiness of its members. In several papers Richard Easterlin has examined the relationship between happiness and GDP both across countries and within (Easterlin, 1995). There is thus a basic need to incorporate the ethical guidance and environmental efficiency into the real path of progress and development to make it sustainable and for the improvement of social well-being. The formulation of Happy Planet Index is a step in this direction.

The Happy Planet Index

The Happy Planet Index developed by Professor Nic Marks of New Economic Foundation gives new direction to the economics (Marks, 2010). The focus of his economics is on environmental efficiency. The ultimate goal for most of the people is to live healthy life and not just to accumulate wealth. The quality of life of a population refers to a combination of attributes that provide physical, mental, spiritual and social well-being. This type of development will ensure to meet the needs of the present without compromising the ability of the future generations to meet their own needs as indicated in Bruntland Report.(World Commission on Environment and Development, 1987). The economics thus should create the condition of ecosystem that maintains its capacity to support human life and others. This requires that the rate of depletion of resources should be matched with the regenerating capacity of the ecosystem. The economics or the development economics thus should integrate economy, environment and society for better service of mankind. This requires conservation of natural resources and reduction of greenhouse gases. This can be measured in terms of per capita emission of greenhouse gases. This reflects the ecological efficiency in the production. For example the Costa Rica has achieved high life expectation with low GHG. The Happy Planet Index (New Economics Foundation, 2012) measures the ecological efficiency on which human well-being is delivered around the world. It incorporates –

- (i) Countries average ecological footprint i.e. GHA/ capita
- (ii) Life satisfaction year
- (iii) Life Expectation

$$\text{Happy Planet Index} = \frac{\text{Life Satisfaction Year} \times \text{Life Expectancy}}{\text{Ecological Footprint}}$$

It is thus based on three different variables. Life satisfaction is subjective variable which shows how many years you have lead the satisfactory life. Life expectation at birth is the estimate of health indicator. It is thus estimated variable. The next is ecological footprint per capita which measures the ecological efficiency of the resource use in the economic activities of the nations. Happy Planet Index is overall a measure of efficiency with respect to use of ecological resources. It quantifies the environmental impact of a country in relation to the ability of its people to live a long and happy life. It shows the degree by which happiness correlates to the consumption of resources. It does not indicate the happiest country or the best place to live. Nor does it indicate the most developed country or the most environmentally friendly country of the world. It, in real sense combines all these three aspects of the economic activities. It is thus possible to produce high level of

well-being with low consumption of earth-resources. The index in essence first time establishes that happiness does not have to cost the earth. The index aims to establish that people can live long and a happy life without using more than that of their fair share of Earth's resources.

The policy implication his newly established Happy Planet Index can be presented in the Figure 1 as depicted below. The estimates suggests that we all have to improve our ecological efficiency from the current world level of 3 GHA/ capita with 40 years of happy life to 2 GHA/capita with 70 years of happy life. The Happy Planet Index can easily be increased to eight years just by reducing the current ecological footprint of 3 GHA/Capita to 2 GHA/capita. Figure 1 show this relationship through three curves depicting Resource efficiency, Life expectancy as well as Life satisfaction and finally; reduction in CO₂ emissions as percentage change since 1961 as shown on y-axis; across a decadal time-line as shown on x-axis.

The authors of Happy Planet Index (2012) thus have estimated this on a scale of 0 to 100 for 151 countries. This index has completely reversed the ladder of development across different countries as depicted in Table 1. Rankings of selected nations have been presented in the table with respect to three popular measures namely - GDP per capita based on purchasing power parity (PPP) - GDP is gross domestic product converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power over GDP as the U.S. dollar has in the United States, Human Development Index and Happy Planet Index.

It can be easily seen from the table that the smaller countries which are laggards in terms of GNP Per Capita are leaders in terms of Happy Planet Index. These include countries like Costa Rica, Vietnam, Belize, Panama, Nicaragua, Bangladesh and Venezuela. The Happy Planet Index also shows that around the world, high level of resource consumption do not reliably produce high level of well-beings. A perfect illustration of this statement are countries like Qatar, Luxemburg, Singapore, United States of America, United Kingdom, United Arab Emirates, Australia, Canada and Japan which are well placed in terms of both GNP Per Capita (PPP) and HDI but are poorly placed in terms of overall social wellbeing in terms of ecological efficiency as exhibited by Happy Planet Index. Few countries, however; do exist which have maintained a fine balance in terms of all the three indices namely Norway, New Zealand, Switzerland and Israel. This is simply possible by conservation of natural resources. Costa Rica did it by reducing its army expenditure and by using 70 percentage renewable energy resources. The basic principle of this is that the human being can enjoy happier life with following activities which are important in the human society as quoted by Prof. Nic Marks (Marks, 2010). They have been further been supported with appropriate reasoning.

1. **To connect** – “Social relationships make us feel good about our self. Connecting with our friends, families and others around us is important for enhancing our wellbeing. Connecting will not only benefit you, but others too!” To connect with people i.e. develop social relations or socialization of life. Socialization is extremely important for internalization of definition and understanding about social roles, positions and related expectations of members of a society with each-other. It leads to development of culture and harmonious growth. Many important attributes can be enthused in an individual through culture which cannot simply be achieved through law-enforcement.
2. **Be active** – “Exercise not only has a beneficial effect on physical health but it also enhances wellbeing. Discover an activity that suits your level of fitness and mobility. Pick something you enjoy! Try to do 30 minutes of moderate exercise a day, this can be broken up. “The purpose of Exercise is to take care of yourself. Regular physical activity helps the body to retain and gain physical fitness and stamina. It acts as an effective anti-depressant and helps in managing stress and blood-pressure. It even prevents

occurrence of many fatal diseases like those of cancer. Overall, it boosts energy level, improves immune system, and enhances enthusiasm and optimism which all in turn leads to building of a stronger self-image.

3. **Take notice of the surroundings** – “Take some time to notice your surroundings, be curious, be in the moment and not the past or the future. Notice your body, your breathing and how you feel. Having this awareness can have positive effects on wellbeing.” It is as important to take notice of the beautiful and unusual as well as mundane and non-thrilling in our daily lives. It is important to appreciate the efforts of others. Staying curious of the happenings around oneself has been proven to help fighting many mental diseases and keeps depression at bay.
4. **Keep Learning** – “Learning can increase wellbeing and provide a sense of achievement. Choose something you enjoy and interests you. Learning and discovering new things will allow your self-confidence to grow. What’s stopping you?!” Learning is something different from formal education. It is about casually getting integrated with new experiences and insights. Always try new things. It keeps youth and ability intact and significantly reduces the risk of diseases like those of Alzheimer. It helps make life much more enjoyable. It readily expands one’s domain of knowledge and enables one to take better informed decisions.
5. **Give** – “People who invest time to help others rate themselves as more happy. An act of kindness, small or large can enhance wellbeing. This can be hugely rewarding and helps create connections with people around you. “Help others. It gives a sense, direction and purpose to life. It significantly boosts positive feelings about oneself and about others around them. Many neurological studies have already confirmed that acts of gratitude boosts reward areas in brain and generate positive sense of well-being. Charity works – be small or large act in a significant manner to establish self-worth in an individual.

These five simple principles of a good human life as suggested by Professor Nic Marks are not even distantly related to the traditional manner in which Economics is accounted. They appear more like life-style suggestions by a motivational speaker. However, leading a simple and effective life enhances satisfaction to a great deal and reduces dependence on a consumption driven lifestyle which ultimately leads to ecological deterioration. It is thus easily evident that whole of Economics discipline is now standing at crossroads where it needs a new direction to successfully address the core issue of addressing well-being of the people in an effective manner. It has to integrate with the holistic way of life rather than confining itself with respect to money and material based living-assessment.

Conclusion

It may be clearly stated that world faces an enormous challenge in this era to improve people’s lives in a way that is sustainable, equitable, ethical and socially justifiable. In this light; the developing world of today’s era simply cannot afford to follow the growth-path that was being followed by today’s high income countries over the course of the twentieth century. In fact; the latter also do need to slow down and do some corrections for the mistakes committed in the not-so distant past. Ever growing GDP cannot be used as the measure of progress and growth in face of dwindling world resources. The field of economics has taken a beating over the past couple of decades for all their brilliant models and complex analysis. But most economists completely failed to predict the disastrous outcome in terms of housing bubble, jobless growth, environmental degradation, stress in human lives etc. This may be because of imperfect market conditions. The policy of

optimizing size of the economy or growth rate has thus generated some basic problems and threats for sustainability of growth and well-being.

There is therefore a need to relook into the scope and subject matter of economics and the model of economic growth in the new perspectives of efficiency and equity. This can be achieved by planning economics and growth models for environmental efficiency. The environmental impact of a country should be assessed in relation to its ability to provide its people to live a long and happy life. The Happy Planet Index approach is a step in that direction. It, in real sense combines all three aspects of the economic activities i.e. economic wellbeing, environmental sustainability and happy living. It is possible to produce high level of well-being with low consumption of earth-resources.

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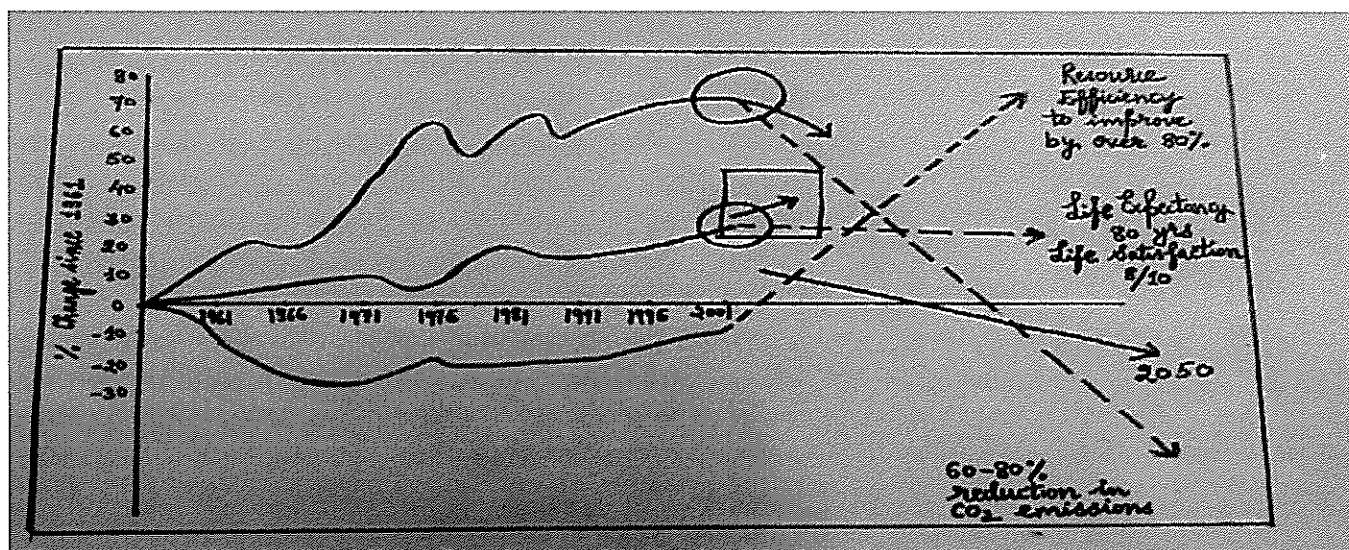
Table 1 : Comparative Analysis of Selected Countries of the World on Three Different Criteria

Name of the Country	*GNP Per Capita Based on PPP (Current US \$) based Ranking	**Human Development Index based Ranking	***Happy Planet Index Based Ranking
Algeria	112	83	26
Australia	14	2	76
Bangladesh	179	142	11
Belize	145	101	4
Brazil	103	75	21
Canada	32	9	65
China	113	90	60
Costa Rica	105	69	1
Cuba	137	67	12
France	38	22	50
Germany	28	6	46
Hong-Kong	18	12	102
Japan	42	20	45
India	158	130	32
Israel	55	18	15
Luxemburg	2	19	138
Mexico	94	74	22
Morocco	147	126	42
Myanmar	164	148	61
Nepal	197	145	58
Nicaragua	171	125	8
Norway	11	1	29
New Zealand	49	9	28
Panama	82	60	7
Peru	122	84	24
Philippines	153	115	25
Qatar	1	32	149
Russia	73	50	122
Saudi Arabia	22	39	56
Singapore	6	11	90
South Africa	118	116	142
Sri Lanka	135	73	35
Switzerland	16	3	34
Thailand	101	93	20
United Arab Emirates	12	41	130

Name of the Country	*GNP Per Capita Based on PPP (Current US \$) based Ranking	**Human Development Index based Ranking	***Happy Planet Index Based Ranking
United Kingdom	39	14	41
United States of America	19	8	105
Venezuela	96	71	9
Vietnam	161	116	2
Zimbabwe	202	155	115

*Source: (International Monetary Fund World Economic Outlook, Database, 2015); **Source: Human Development Report (United Nations Development Programme, 2015); ***Source: The Happy Planet Index (New Economics Foundation, 2012)

Figure 1 : Time-Series Comparison of Resource Efficiency, Life Expectancy as well as Life Satisfaction and Reduction of CO₂ Emissions



Source: Free Hand Sketch based on available information.

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Trends in Inter-industry Linkages and Leakages for India and China – An Input-Output analysis

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Abstract

Input-Output analysis of India and China during the two years - 2000 and 2014 - indicates contrasting trends. During the period, India's annual growth of 7.1 percent happened without evidences of improvement in inter-sectorial interdependence at the 'economy' level. Moreover, 'leakages' increased, with domestic manufacturing increasingly losing out to 'imports'. This effectively reduced the overall multiplier effect of sectors on the economy. In China, not only was there a 60 percent increase in coefficient of interdependence at the 'economy' level, but its leakages also remained at the same levels in 2000 and 2014.

China witnessed a spike in coefficient of interdependence along with years of strong growth (nearly 10 percent p.a). It followed the usual route of structural transformation – by undergoing rapid industrialization before its industry lost its market share to services in the economy. While both India and China showed evidences of having made the structural transition, for India it happened without improvement in intensity of inter-sector activities. Perhaps, it's because industry which usually plays a pivotal role in ushering inter-sector linkages failed to grow to its full potential in India.

Industrialization is the only way forward to improving inter-sector linkages of the Indian economy. India needs to spruce up its manufacturing policies – with utmost focus on 'textiles, wearing apparel and leather products' and 'chemical and chemical products'.

Keywords: Input-Output analysis, linkages, leakages, structural transition, manufacturing

Introduction

During the period 2000-2014, Chinese economy grew at an annualized growth rate of 9.9 percent, while Indian economy grew at a lower rate of 7.1 percent. China's agriculture share in the economy fell during the period from 15 percent to 9 percent; it fell for India also from 23 percent to 18 percent by 2014. However, the fall in the agriculture was juxtaposed by a rise in share of the industrial sector for India. In contrast, China's service sector fully benefitted from the fall in share of agriculture and industry.

Table 1 : Percentage share of Agriculture, Industry and Services in GDP in 2000 and 2014 for India and China

	India (in %)		China (in %)	
	2000	2014	2000	2014
Agriculture	23	18	15	9
Industry	26	30	46	43
Services	51	52	40	48

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While China passed through long phase of industrialization and during the period 2000-2014, China's service sector overtook Industry to become the largest sector in the economy, India remained an outlier. India's growth path leapfrogged the phase of industrialization (Rangarajan C, 2006). In 2000, the share of industry remained at lower at 26 percent of GDP for India as against 46 percent for China.

Inter-sectorial dependence is indicative of extent of industrialization, where higher degrees of sectorial linkages underscore higher economic development (Hirschman 1959; Yotopoulos and Nugent 1973). Input-output analysis, in that sense, could help gauge the extent of structural transformation of an economy at the granular level. Input-Output models usually probe the interdependence of constituent sectors of an economy by estimating the change in inputs across industries due to a change in output in one or more specific industries. The compilation of Input-Output tables in India is closely linked to the economic planning policy adopted by the government. The two-sector growth model proposed by P C Mahalanobis in the 50s ultimately led to computation of Input-Output tables by Indian Statistical Institute, of which Mahalanobis was the founder.

Review of Literature

Usually the focus of input-output analysis is to understand linkages at the 'individual' sector level. There are hardly studies that look at inter-sector linkages at the 'economy' level, which was earlier proposed by Jones (1976). It is popularly known as 'coefficient of interdependence'.

Moreover, negligible literature focuses on 'leakages' – by differentiating inputs that are domestically sourced from that of the imported ones. Usually the input-output analysis clubs both the above items. However, it is important to segregate it – given that there is a chance of overestimating multipliers as pointed out by the study of Dietzenbacher et al. (2005). Importing inputs, for instance, reduces actual backward linkages as the domestic economy does not benefit from it – thereby reducing the actual multiplier. By segregating imports, a realistic multiplier could be calculated while also assessing trends in the leakages over the years.

The 1969 input-output analysis of districts in Oklahoma by Doeksen and Little used a slightly different methodology to calculate leakage coefficient and overall leakages. It first calculated multipliers (input-output coefficient that is) by considering both domestic and imported inputs and later multipliers as found from only its domestic inputs. Its differences reveal the leakage coefficient. This methodology is different from that of the 2006 Input-Output study by Reis and Rua on the Portuguese economy. They arrive at economy's leakages by calculating import-weighted average of either backward or forward leakages. However, we have used the methodology used by Doeksen and Little to calculate leakages.

The study by Hansda in 2003 analyzed inter-sectorial linkages in India, at both the aggregated level as well as at the disaggregated level of 115 activities. He used the 1993-94 Input-Output transaction tables provided by Central Statistical Office. However, a new study with latest data tables is needed. Moreover, none of the studies so far have attempted to look at using harmonized I-O tables to compare inter-sector linkages between two or more nations.

Objective

The various objectives of the study are as follows:

- Empirically compare the inter-sector linkages at the economy level for India and China

- Ascertain trends in inter-sector dependency at the disaggregated level
- Evaluate the extent of leakages in the system
- Identify the relative strength of linkages at the sectorial level and its trends over the years for India and China
- Compare linkages at the sector level between India and China
- Identify sectors in India that could offer the best multiplier effects for the economy

Hypothesis

1. India has made the structural transition during the period 2000-2014
2. China has made the structural transition during the period 2000-2014

Alternate Hypothesis

1. India has not made the structural transition during the period 2000-2014
2. China has not made the structural transition during the period 2000-2014

Method

For better economic research and structural analysis at the international level, annual Input-Output transaction tables were analyzed for India and China for 2000 and 2014 using OECD database of harmonized I-O tables (industry by industry approach). It classifies industries into 55 sectors, according to the International Standard Industrial Classification revision 3 (ISIC Rev. 3).

An open Leontief model was used for the study where only the productive sectors of the economy were assumed to be endogenous. Leontief inverse matrix, with its local coefficients indicated the multiplier effect of an activity on the economy.

In effect, we created components to populate the standard Input-Output equation of

$$X = (I - A)^{-1} Y$$

Where X is the total output, $(I - A)^{-1}$ indicates the total multiplier effect and Y the final output.

Forward and Backward linkages

Backward intensity, forward intensity and total intensity were calculated using the Rasmussen methodology (1956). The sector linkages are analyzed for India and China within the Hirschman (1958) - Rasmussen framework.

Coefficient of interdependence and leakage

Leakage is the net amount of a change in total output as a result of a one dollar change in final demand that is not realized within the economy due to imports. To compute coefficient of leakage, one needs to calculate output-weighted average multiplier for the economy as a whole or the coefficient of interdependence. Then,

recalculate the coefficient of interdependence by taking into consideration only the domestic factors of production (imports are to be ignored). Coefficient of leakage is the difference between these multipliers. Leakage percentage is a percentage of the coefficient of leakage to that of coefficient of interdependence (calculated using domestic and imported inputs).

Results

An input-output analysis using both domestic and imported inputs gave a coefficient of interdependence of 1.94 each in 2000 and 2014 for India. During the period, for China, it went up from 2.76 in 2000 to 3.13 in 2014. China's figures were not only higher than India during these years, but it also managed to improve it by about 60 percent.

Table 2 : Coefficient of interdependence and leakages of India and China in 2000 and 2014

	India		China	
	2000	2014	2000	2014
Coefficient of interdependence (Domestic and Imports)	1.94	1.94	2.76	3.13
Coefficient of interdependence (Only domestic)	1.72	1.67	2.39	2.71
Coefficient of leakage	0.22	0.28	0.37	0.42
Leakage ratio (in %)	11.44	14.16	13.30	13.30

Coefficient of leakage, in contrast, for India surpassed that of China in 2014, with an overall leakage ratio of 14.2 percent as against 11.4 percent in 2000. While coefficient of leakage was marginally up during 2000-2014 for China, leakage ratio remained constant at 13.3 percent, thanks to growth in coefficient of interdependence.

Table 3 : Trends in backward and forward intensity of top sectors in India between the years 2000-2014

Sector		Output Rank		Annualized output growth in %	Trends 2014-2000 (differences)		
		2000	2014		Forward Intensity	Back intensity	Total Intensity
Agriculture & Allied activities	Crop and animal production, hunting and related service activities	1	2	8.4	-0.069	-0.067	-0.136
	Manufacture of food products, beverages and tobacco products	6	5	11.6	0.005	0.006	0.011
Industry	Manufacture of textiles, wearing apparel and leather products	5	7	9.3	-0.014	-0.026	-0.040
	Manufacture of coke and refined petroleum products	11	8	12.9	0.003	0.013	0.016
	Manufacture of chemicals and chemical products	8	12	10.4	-0.013	-0.014	-0.027
	Manufacture of basic metals	9	6	13.3	0.020	0.026	0.046
	Construction	2	1	12.3	0.015	0.028	0.043

Services	Retail trade, except of motor vehicles and motorcycles	4	4	13.0	0.025	0.014	0.039
	Land transport and transport via pipelines	3	3	11.9	0.013	0.010	0.023
	Real estate activities	10	11	11.9	0.003	0.005	0.008
	Public administration and defence; compulsory social security	7	10	9.3	-0.010	-0.010	-0.021
	Wholesale trade, except of motor vehicles and motorcycles	15	9	14.7	0.029	0.016	0.045
Note: Shading (or a positive figure) indicates improvement in intensity levels in the year 2014 as against that of 2000							

Among the top 10 sectors of India in 2000, 'textiles, wearing apparel and leather products' and 'chemical and chemical products' saw a decline in its backward and forward linkages during the period 2000-2014. Annual output growths for these sectors were among the lowest. Construction and basic metals, in contrast, saw a good improvement in total linkages, thanks to its fast growth rates during the period. The former also replaced 'crop and animal production' as the largest sector in the country. Outside top 10 sectors, furniture manufacturing and wholesale trade improved its overall linkages, while it deteriorated for 'Electricity, Gas, Steam and Air-conditioning supply'. Rubber and plastic manufacturing remained an oddball – with its forward intensity improving but not backward intensity.

Table 4 : Trends in backward and forward intensity of top sectors in China between the years 2000-2014

	Sector	Output Rank		Annualized output growth in %	Trends 2014-2000 (differences)		
		2000	2014		Forward Intensity	Back intensity	Total Intensity
Agriculture & Allied activities	Crop and animal production, hunting and related service activities	1	5	12.9	-0.027	-0.067	-0.094
Industry	Mining and quarrying	11	10	19.6	0.100	0.038	0.138
	Manufacture of food products, beverages and tobacco products	6	3	19.5	0.067	0.048	0.114
	Manufacture of textiles, wearing apparel and leather products	3	8	14.8	-0.025	-0.034	-0.059
	Manufacture of chemicals and chemical products	7	7	17.9	0.014	0.029	0.043
	Manufacture of basic metals	5	2	19.1	0.028	0.054	0.082
	Manufacture of computer, electronic and optical products	8	4	19.5	0.055	0.059	0.114
	Manufacture of machinery and equipment n.e.c.	9	11	17.3	-0.001	0.014	0.014
	Manufacture of motor vehicles, trailers and semi-trailers	22	9	24.1	0.049	0.091	0.140

	Electricity, gas, steam and air conditioning supply	10	13	17.0	0.022	0.012	0.034
	Construction	2	1	19.6	0.025	0.102	0.127
Services	Wholesale trade, except of motor vehicles and motorcycles	4	6	15.8	-0.026	-0.045	-0.070

For China, total linkages improved for most of its 10 top sectors excepting that of ‘textiles, wearing apparel and leather products’ and ‘wholesale trade’. Despite being a laggard, textiles, wearing apparel and leather products managed to grow at annualized rate of 14.8 percent (1.6 times that of India). In contrast, mining and quarrying, food products and beverages and ‘manufacture of computer, electronic and optical products’ saw a good improvement in its total linkages. These sectors grew at annualized growth rate of about 20 percent each.

Like that of India, Construction replaced ‘crop and animal production’ as the number one sector in 2014. Outside top 10 sectors, linkages improved for manufacture of coke and petroleum products’ and that of motor vehicles’. In contrast, linkages deteriorated for furniture manufacturing and water transport.

Table 5 : Differences of backward and forward intensity between India and China over the years 2000-2014 for sectors, where India has or have had relatively better linkages than China

	Sector	2014			2000			Output Rank (2014)
		Backward intensity	Forward intensity	Total intensity	Backward intensity	Forward intensity	Total intensity	
Agriculture & Allied activities	Crop and animal production, hunting and related service activities	0.044	0.013	0.057	0.044	0.055	0.099	2
Industry	Manufacture of coke and refined petroleum products	-0.007	-0.049	-0.056	0.039	0.021	0.060	8
	Manufacture of motor vehicles, trailers and semi-trailers	-0.080	-0.061	-0.142	0.014	-0.004	0.010	15
	Manufacture of furniture; other manufacturing	0.064	0.043	0.107	-0.012	-0.017	-0.029	13
	Construction	-0.113	0.023	-0.090	-0.039	0.033	-0.006	1
Services	Retail trade, except of motor vehicles and motorcycles	0.062	0.099	0.161	0.039	0.068	0.107	4
	Land transport and transport via pipelines	0.096	0.065	0.161	0.082	0.041	0.123	3
	Accommodation and food service activities	0.005	-0.005	0.000	-0.013	-0.016	-0.028	18

Computer programming, consultancy and related activities; information service activities	0.015	0.024	0.040	0.008	0.008	0.016	17
Financial service activities, except insurance and pension funding	-0.006	-0.028	-0.033	0.013	0.010	0.023	14
Real estate activities	0.010	-0.006	0.004	-0.004	-0.004	-0.008	11
Education	-0.014	0.002	-0.013	-0.020	0.001	-0.019	16
Note: Shading (or a positive figure) indicates favourable situation for India as against that of China							

India-China

India has an edge on very few industrial sectors. As of 2014, furniture manufacturing was the only industry where the overall linkages were found to be higher than that of China. Over the years, India lost its edge in the manufacture of coke and refined petroleum products as well as motor vehicle manufacturing.

However, in the field of crop and animal production, India continued to maintain the lead over that of China. In services, it continues to maintain its lead since 2000, in retail trade, land transport and Computer programming, consultancy and related activities. During the period 2000-2014, it has gained a relative edge over furniture manufacturing, 'accommodation and food services' and real estate activities.

Discussion

Coefficient of interdependence remained constant during the period 2000-2014 for India. However, these years also witnessed strong economic growth. It only indicates that India's growth was driven by sector that had fewer inter-linkages. Usually, the path of structural transformation for an economy is by way of agriculture making way for industry and later industry for services. But in India's case, services grew without the proper peaking of industrialization. Also, many of the services which propelled economic growth during 2000-2014 for India— be it computer programming and consultancy services, financial services and insurance— could be classified as 'modern' services; they had very low linkages with industry or that of agriculture. Transport, wholesale trade and hotels, in contrast, with its strong linkages to manufacturing are among the 'traditional' services. With Indian manufacturing failing to pick up, traditional services didn't become as big as it became in China.

China witnessed a spike in coefficient of interdependence along with years of strong growth. It followed the usual route of structural transformation – by undergoing rapid industrialization before its industry lost its market share to services in the economy. While both India and China showed evidences of having made the structural transition, for India it happened without improvement in intensity of inter-sectorial activities. Perhaps, it's because industry which usually plays a pivotal role in ushering inter-sectorial linkages failed to grow to its full potential in India.

Moreover, India's leakages are now higher than that of China. While imports are part of parcel of being a participation in global value chain, increasing leakages only indicate that domestic manufacturing is losing out to the world.

India should look at ways to propel manufacturing growth by tweaking its manufacturing policies. Two sectors- textiles, wearing apparel and leather products as well as chemical and chemical products should be given the highest priority. Improving growth in the former will not only improve overall linkages for the country, but also create the much-needed jobs.

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“The Study of Impact on Export performance of Handicraft Industry form India Pre and Post Economic Reforms”

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Introduction

Handicrafts industry is an industry where machine does not dominate and it's much decentralized structure prevents the exploitation by a capitalist tycoon sitting far away, controlling production and people. Crafts, by their very nature, are not mass produced. But if people are working with their hands, albeit with the assistance of tools and machines, producing goods required in a wide market space, selling to make profits and thereby contributing to national wealth, crafts can be termed as a decentralized creative industry where human mind and hand is more important than small machines and tools they may use. There is, therefore, a world of industry without industrialization in the traditional sense, and there is both sufficient scope and need for this to come out of the disorganized, diminishing and low-end profile that it has been carrying for long. One of the very interesting developments taken place during the last few years has been the growth in exports of handicrafts from India to China. Indian hand-made items are in more demand than mostly machine-made Chinese products in metal ware, art ware, giftware and wood craft categories. This indicates that Indian “handmade” handicraft products are gaining demand in the global market, including China.

Handicrafts are unique expressions of a particular culture or community through local craftsmanship and materials. It is no longer possible to look at traditional artisan communities and their products in isolation from global market trends and competition. Handicrafts are part of a much larger home accessory market, which includes handcrafted, semi handcrafted, and machine-made goods. The home accessory market is strongly influenced by fashion trends, consumer purchasing patterns, and economic conditions in end markets. In many cases, artisans are out of touch with those end markets, which presents a challenge to those seeking to export their products. The response of consumers to handicraft is unpredictable. Handicraft production is a major form of employment in many developing countries and often a significant part of the export economy. Handcrafting has its roots in the rural crafts—the material-goods necessities—of ancient civilizations, and many specific crafts have been practiced for centuries, while others are modern inventions, or popularizations of crafts which were originally practiced in a limited geographic area.

Handicrafts in Indian Economy

India is a diverse country in terms of ethnic traditions and culture and also a treasure house of Indian handicrafts. Exquisite handicrafts using diverse raw materials are sourced from different parts of the country. This include art metal ware, wood ware, hand printed textiles and scarves, leather crafts, hand knotted carpets and embroidered goods, wood design, shawls as art ware, stone carvings, imitation jewelry and miscellaneous

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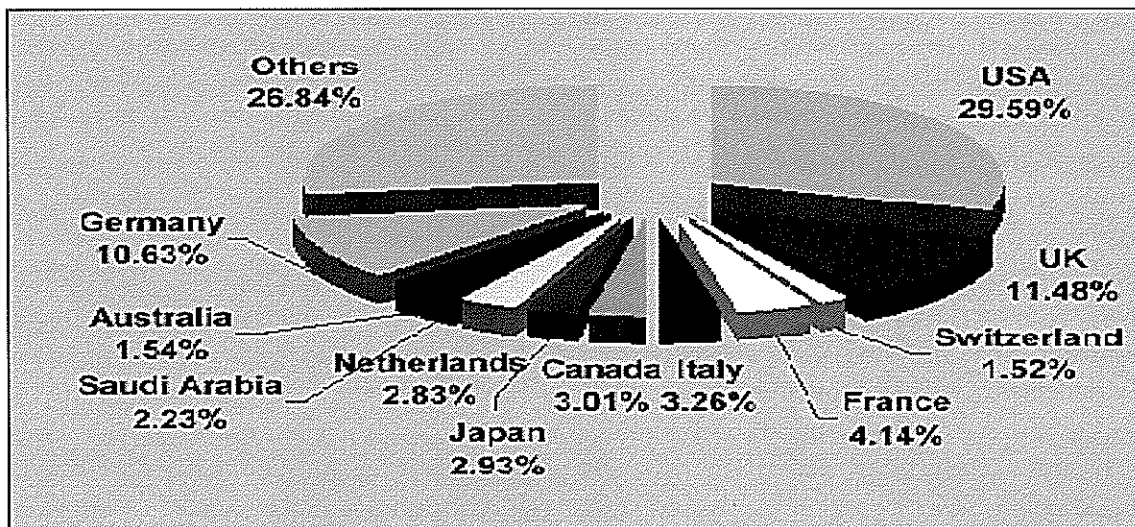
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other handicrafts. One of the unique feature of the handicrafts is that more often the same item of the handicraft, produced in different regions are different from each other in terms of the craftsmanship, style, color combination and finish by artesian creativity. The Indian handicrafts industry is highly labor intensive cottage based industry and decentralized, being spread all over the country in rural and urban areas. Numerous artisans are engaged in crafts work on part-time basis. Handicrafts industry plays a substantial role in building up of country in terms of its share in employment, output production and prosperity creation (Syed Khalid-2012). The handicrafts of a society often become the dominant means of livelihood. It also satisfies their daily requirements of the people and provides employment to the members of the households of the society which in turn leads towards socio-economic development. The industry provides employment to over six million artisans who include a large number of women and people belonging to the weaker sections of the society. The Handicrafts Sector plays a significant & important role in the country's economy. It provides employment to a vast segment of craft persons in rural & semi urban areas and generates substantial foreign exchange for the country, while preserving its cultural heritage. Handicrafts have great potential, as they hold the key for sustaining not only the existing set of millions of artisans spread over length and breadth of the country, but also for the increasingly large number of new entrants in the crafts activity. Presently, handicrafts contribute substantially to employment generation and exports. In addition to the high potential for employment, the sector is economically important from the point of low capital investment, high ratio of value addition, and high potential for export and foreign exchange earnings for the country. The handicraft sector is still being fully explored in order to tap the other opportunities like its contribution to socio-economic development of the state. In order to efficiently utilize this asset, there is a need to create it as benchmark and discover the new techniques and tools that will help it to stabilize as competitive edge in the world market. There is a need to focus the hidden obstacles and opportunities that will serve as an instrumental to create a niche in the global business environment and thereby facilitating the process of wealth creations and employee generation to raising the standard of living of millions of skilled and semi-skilled artisans of the Indian subcontinent. The business environment is flexible and so is the customer residing there in. The challenge can be profitable to handicraft products by maintain the outside-in view in order to create value and deliver the same through continuous effort in the value chain process.

Indian handicrafts are exported across geographies, with the top 10 destinations being the US, the UK, the UAE, Germany, France, Latin American countries (LAC), Italy, the Netherlands, Canada and Australia. The products exported included art metal ware, wood ware, hand printed textiles and scarves, embroidered and crocheted goods, shawls, zari and zari goods, imitation jewelry and miscellaneous handicrafts such as lace, toys, etc. In 2014-15, India exported handicrafts (excluding carpets) worth US\$ 1,376.02 million. The Export Promotion Council for Handicrafts (EPCH) is the apex body of the Government of India and works under the administrative control of the Ministry of Textiles, Government of India. EPCH has the distinction of being considered a 'model council', a self-sustaining body that self-finances all promotional activities. According to the provisional data available the exports of Handicrafts have shown an increase of Rs. 2009.93 crore, from Rs. 10995.42 to Rs. 13005.35 crore, an increase of 18.28% in rupees term. In dollar terms, the exports have shown the increase of US \$ 231.17 million i.e. the exports increased by 13.50% over the similar period in 2015-2016

In addition to the high potential for employment, the sector is economically important from the point of low capital investment, high ratio of value addition, and high potential for export and foreign exchange earnings for the country. The export earnings from Indian handicrafts industry for the period 1998-99 amounted to US\$ 1.2 billion. Handicraft exports from India increased by 13.5 per cent year-on-year during April-September 2016 to US\$ 1.9 billion. During this period, the exports of various segments registered positive growth like Art

Metal ware (28.23 per cent), Wood wares (9.52 per cent), Hand printed Textiles & Scarves (8.54 per cent), Embroidered & Crocheted goods (11.00 per cent), Shawls as Art wares (4.76 per cent) and Imitation Jewelry (15.90 per cent). The handicrafts sector is important for the Indian economy as it is one of the largest employment generators and accounts for a significant share in the country's exports. The state and regional clusters contribute significantly to handicrafts export. The Indian handicrafts industry is fragmented, with more than seven million regional artisans and more than 67,000 exporters/export houses promoting regional art and craftsmanship in the domestic and global markets.



Source: Journal of Economics and Sustainable Development (www.iiste.org ISSN 2222-1700

(Paper) ISSN 2222-2855 (Online) Vol.5, No.9, 2014

Review of Literature

Sharma & Sezhiyan (2014) deduced in their study "A Study of the Impact of Government Policies on Marketing Strategy of Handicrafts" that as handicrafts sector plays a significant role in the economy of the Sikkim state. It provides employment to a vast segment of craft persons in rural and semi urban areas and generates plenty income. The handicraft sector had suffered due to poor infrastructure, transport facilities, low capital and poor exposure to new technologies, absence of market intelligence and a poor institutional framework. However handicraft has great growth potential in the changing scenario with its basic strength being the abundant and cheap manpower.

Khan, W. A and Amir. Z (2013) revealed in his paper "Study of Handicraft Marketing Strategies of Artisans in Uttar Pradesh and Its Implications" that handicrafts depend on how well the artisans can produce the articles and introduced in the market keeping with the tastes and preferences of consumers. This research paper is based on marketing concepts of four P's i.e., Product, Price, Place and Promotion.

Syed Khalid Hashmi, (2012) the sector is economically important from the point of low capital investment, high ratio of value addition, and high potential for export and foreign exchange earnings for the country. Sanyal, Banerjee and Majumder (2010) performed study on the Leather Industry in India by using the Constant Samuel Kutty (1992) identifies eager markets for the astonishing range of handicrafts among all sections of people in India and abroad. Market Share (CMS) Analysis, find the change in export from (1991-

2006) and conveys that the leather export has been seen decreasing due the change in demand in the world, change and market competitiveness.

Laila Tyabiji (1994) suggests in her report that identifying the product and its potential markets are crucial for promoting handicrafts. Rao (1990) in his book "Marketing of Handicrafts" observed that "Handicrafts offer solution to India, which is characterized by unemployment and foreign exchange crunch." Dak.T.M (1989) has been listed out reasons for the failure of village crafts such as poor designs, low quality materials and inefficient market approaches; consequently, these weaknesses are exploited by machine made urban craft units, who apparently lockout village crafts from global markets.

Research Methodology

The nature of data used is exploratory in nature. Study areas are the major countries where India is exporting the handicraft product. Secondary data has been used here. The period of study is from 1975-2015. The data has been collected from various published sites, Ministry of Commerce, Directorate General of Foreign Trade, India's Trade Data Bank, Foreign embassy of other countries.

Research Objective

- To study the impact of pre and post economic reforms.
- To study the competitiveness of handicraft products with context of other countries.
- To study the global scenario of Indian handicrafts in 2025.

Tool Used

Regression: In statistical modeling, regression analysis is a statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables. The performance of regression analysis methods in practice depends on the form of the data generating process, and how it relates to the regression approach being used.

OBJECTIVE 1

The historical perspectives on handicrafts, reviewed in various literatures, highlight the progress of this sector as an industry during the period of Muslim rulers. Handicrafts flourished in India mainly, during the era of Zain-ul-Abidin, (A.D. 1320 to 1586), who was always referred nostalgically for invention to new style in arts and crafts. Talented craftsmen from central Asia were invited to his kingdom, to disseminate their skill in production of unique models. The influence of this craftsmen along with the inspiration of an Islamic missionary, Amir-I-Kabir, who was a well versed artist, encouraged the sultan to organize this sector as an industry. Eventually all the successors to the sultan, with their relish for arts and crafts continued to encourage the spread of this industry in domestic and foreign markets. Similarly, the Mughal Kingdom (A.D 1586 -1757) also patronized the arts and crafts and commissioned the whole community of artisans as an independent industry. The emperors developed industrial and production units to uplift handicrafts to a level of worship with markets in different countries. Prior to the 18th century, and before the rise of modern industrial system there was a wide spread historical view that the Indian products had a worldwide market. Indian exports

consisted chiefly of hand weaved cotton and silk fabrics, calicoes, artistic wares, wood carving etc. The quality in production distinguished the genius of Indian inhabitants from other Asiatic lands, and she enjoyed this proud position till the end of the century.

However, the decline of this industry began towards the beginning of 18th century and become more pronounced by the middle of the century, i.e., after 1830's with the invasion by English industrial manufactures. The impact of British connection along with industrial revolution encouraged import of machine made goods which led to the decay of handicraft sector in India. The eclipse of the Indian handicrafts adversely impacted on her economy, ruining millions of artisans and craftsmen. This situation was not remedied by any alternative growth of new forms of industries.

Progress in the post-Independence period -: Being conscious of the adverse impact experienced by the artisans due to the intervention of British rule, the government of India took significant measures for a better deal for handicrafts at the central and state level. The first measure adopted by the government for the development of handicrafts was revitalizing and streamlining this sector into small scale industry. The main objective of amalgamating these two sectors was to establish handicrafts as an industry, competent enough to face the modern and large scale production. Therefore, after independence handicrafts were declared as small scale industries. In view of the above objective, due recognition was given to small scale sectors after independence. The major task for uplifting small industries were first entrusted to the Industrial Policy Resolutions passed in 1948 and 1956. These Resolutions declared small industries as the potential sectors for creating additional employment with low capital investment.

Result

Regression= $\log_{10}(\text{export data})$

CAGR= $\text{Antilog } b^{\wedge}$

Before economic reforms 0.0481 value is $1091 + 1 = 1091$ is antilog value 0.481 that implies $1.091 - 1 * 100 = 9.91\%$

After economic reforms, 0.0465 values is $1112 + 1 = 1113$ is antilog value 0.0465 that implies $1.113 - 1 * 100 = 11.38\%$

Interpretation

After post economic reforms, the growth of handicraft industry is due to the following reasons:

Export is the dependent variable and the reasons for growth are independent variable. Indian handicraft industry has large, diversified and potential market in maximum European countries and United States. There is large product variety and range is available because of diversified culture and the demand for those products is increasing year by year. A much women oriented sector has a huge potential market across the country. It has strong, diversified and supportive retail infrastructure. Availability of handicraft products in not only Indian but also in other market is easy and convenient. The strong retail bases of handicraft products make buyer options at all levels. Diversified product range that carter their services in different markets, each market has their own demand or Indian handicrafts products s this industry fulfill the same. India is in abundance of cheap labor rates for skilled semi-skilled and unskilled and also helps the products more handmade which results into competitive price in every market.

Need low capital investment, as this industry does not require any technological assistance or any other technical aspects so the investment required is very less comparative to other Indian industry. There is a flexible production assortment. There is no need of complex or rigid development of products likewise it is needed in chemical or mining industry. There are low barriers of new entry because government also wants this industry to boost as much as there potential so there are not entry restrictions as well as government are also taking measures for incentives.

Advantages and Critical Success Factors

Easy creation and development of production centers because the cost involved in setting up of any unit is very easy there is no huge investment required. There is no need for macro-investment because this industry comes under medium and small scale category which does not require any huge amount of investment. Industry provides potential sources of employment in villages this industry is giving huge amount of employment especially for women's which is also at a counterpart increasing employment. Products are high value added, and handicrafts have various applications the product have much potential and huge value is added at every stage of production from start to end.

It is the potential source of foreign revenue because it generates a huge revenue from exports of handicraft products like shawls, zari products etc. Generally considered a cottage industry, Indian Handicrafts and Gifts Industry has outgrown its image to evolve into a rapid growing industry with a turnover from US \$ 1.2 million to US\$ 1.9 billion in the last decade. There has been a consistent annual growth rate of more than 15 per cent over a 10-year period, from 3.6% to a respectable 10% share in global handicraft exports. In 2005-2006 the exports of Indian handicrafts has shown an increase of US\$ 298.87 million, i.e. the exports increases by 10.02% over the similar period during 2004-2005. Though India's share in international handicrafts market is just about 2 %, the world handicrafts market is estimated to be of the order of US \$235 billion. The industry is expected to triple its export turnover to Rs. 39,000 crore by 2009-10 that in turn will also create around 20 lakhs new job opportunities.

According to hypothesis the calculated 8.531 and critical two- tail is 2.20621 so null hypothesis will be rejected and alternative will be selected so that there is a significant growth after economic reforms.

OBJECTIVE 2

Study of the competitiveness of handicraft products with context of other countries.

India is the leading exporter of handicrafts but still it lacks behind in comparison with Austria, USA, Australia, Japan, Canada. Here, the main objective is to study about the competitiveness of the handicraft products. The major exporting countries are Australia, Austria, Canada, Japan & USA. Also, the competitiveness of the handicraft products is calculated by RCA.

Revealed Comparative Advantage

It is an index used in international economics for calculating the relative advantage or disadvantage of certain of goods or services as evidenced by trade flows. It is based on Ricardian comparative advantage.

The formula is

$$RCA = \frac{\frac{\text{Total handicraft exports from country A}}{\text{Total exports of handicraft from world}}}{\frac{\text{Total exports from country A}}{\text{Total world exports}}}$$

The CAGR for countries as follows: - USA is leading by 160 percentage followed by Japan 44.2 percentage then Australia 41.7 percentage India 40.1 percentage Austria 18.17 percentage and Canada 7.3 percentage. At the time of 2014-2015 there was a increased in investment in human capital which improved the quality of labor force. There was a change in institutional framework regarding the exports of handicraft products. India in period 2013-2014 grew because the supply base constraints were ease to some extent the govt. and private sector were able to coordinate to increase the cash flow in economic cycle. Foreign capital was keeping rupee value stable as comparison from other years.

There is lack of infrastructure and communication facilities due to establishment of this industry in remote areas the feasibility of reaching infrastructure is very less. The employees if this industry are unawareness about international requirements and markets the problem starts with identification of actual buyers sometimes this cause fraud and heavy losses to people involved in manufacturing of handicraft products. Lack of co-ordination between government bodies and private player, partnerships only work when both parties benefit from the relationship and the expected benefits are made clear in advance. A second key element is the mutual responsibilities. Partners must understand that they will share both the risks and the benefits of any joint venture, and how this sharing will occur must also be specified in advance. If partnerships are to be successful, and have both clear mutually agreed upon objectives and risks

Inadequate information of new technology if the parties do not understand who else is involved, what they're doing, and why, it is very easy for them to adopt strategies that are unlikely to succeed. Unfortunately, the communication and information gathering needed to provide needed information are expensive and time consuming. If the parties do not work efficiently they may not have the resources needed to obtain critically needed information. There is also a problem of resource commitments. Less interest of young people in craft industry India's richness in art and craft can be seen in every product whether garments, jewelry or household furnishings. These products are a perfect mix of traditional designs and modern techniques. Due to their diversity in designs and their being utilitarian in nature, they are high in demand. This has given many Indian traders to invest in the industry and flaunt India's custom across the world but youth is ignoring this sector.

Still confined to rural areas and small cities and untapped market. Though there is huge potential and substantial growth opportunities in the rural markets, yet there are some challenges too, which caused hurdles in tapping rural markets. Lack of promotion of products government has shown limited interest for handicraft, though the activities from government side are increasing but till date there is no direct support from government side in terms of subsidy or market support towards handicraft products. The quality products produced by competing countries like Japan, United kingdom are way far from Indian quality and that is why we are not able to compete with them. Better Trade terms offered by competing countries there free trade agreement are very good as compare to our offered agreements. Increased and better technological support and Research and Development facility in competing countries.

Solution

This situation can be controlled by following ways:- Emerging demand for handicrafts goods in developed countries such as USA, Canada, Britain, France, Germany, Italy etc. Rising demand and usage of handicrafts products in fashion industry Development of sectors like Retail, Real Estate that offers great requirements of handicrafts products. Developing of domestic and international tourism sector E-Commerce and Internet are emerged as promissory distribution channels to market and sell the craft products

OBJECTIVE 3

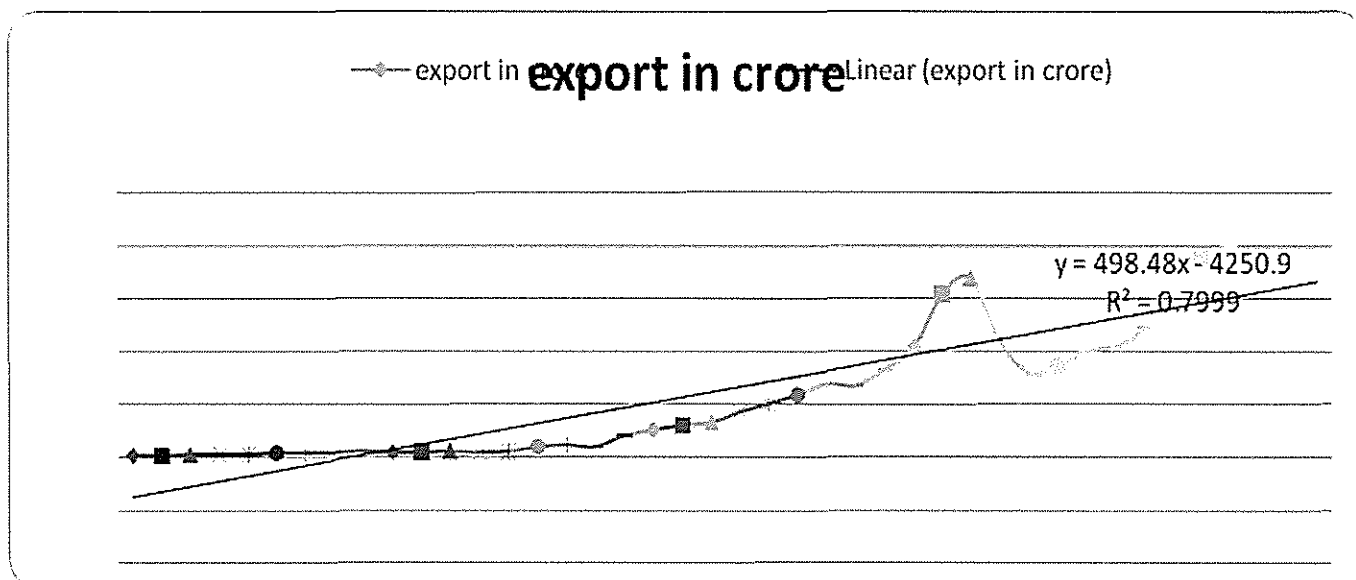
To study the global scenario of Indian handicrafts in 2025.

The new handicraft policy aims to achieve \$500 billion handicrafts exports by 2024-25 and envisages creation of additional 35 million jobs with focus on a three-pronged approach to boost the growth of Indian handicraft sector facing tough competition from international players. It had set up an expert committee headed by Ajay Shankar, member secretary, national manufacturing competitiveness council, for review and revamp of the handicraft policy 2000.

According to sources, the approach involves incentivizing expansion of production base for quality manufacturing of handicraft products used for interior decoration and lifestyle purposes.

A senior handicraft Ministry official said that they are focusing on promoting premium handicraft products for the niche market along with preservation and protection of heritage and endangered crafts. Handicraft industry in India, one of the oldest industries in Indian economy, is expected to generate 50 million jobs, majority of them for women by 2025, if the industry achieves breakout growth as per its potential. This has been stated in a report that 'Indian handloom, Made-ups and handicraft Industry' by the Confederation of Indian Industry (CII) and Boston Consulting Group (BCG). The potential economic benefits have been identified as revenue of US \$ 300 billion by 2025, a multiple of three from the current position. In this, the domestic market could account for a 2.5 times jump to US \$ 150 billion and even the foreign exchange earnings could go up to a similar size.

Small scale, fragmented clusters, restrictive labour laws and unpredictable wage movements, high operating costs due to taxation and subsidy structures, market access barriers in key markets such as the EU and the US, high cost of working capital, low brand visibility, poor infrastructure, logistics delays, and lack of product development and process improvement have emerged as key obstacles in meeting this potential. The report has also suggested some labour regulation changes like more flexible work hours and fixed term employment, as per industry concerns. The report found that job-linked scale through a 'Make in India' scheme could provide a slab-based incentive linked to the number of additional jobs created, to be availed of by entrepreneurs or industrial parks. The report also recommends rationalization of duties and taxes to avoid inefficiencies and high energy and overall costs. A power subsidy, inclusion of power charges under GST, and similar rates for both cotton and synthetic products are recommended. Industry should engage in driving productivity through extensive training and investments in process improvements and automation, added the report. According to linear forecasting method below in coming two years by the end of 2018 India will touch 170 billion and estimated is 500 billion which can be achieved in 10 years if the growth trends continue.



Conclusion and Suggestions

Handicraft is such a product that when a buyer likes it, he is prepared to pay a price, which may be far in excess of the standard price of the product. The prime consideration is his liking of the product. Channel agents, such as middlemen, retailer or distributor try to capitalize on such possibilities and earn significant profit almost wholly at the cost of the craftsmen. Handicraft product may be categorized on the basis of price, export on domestic market, ease of maintenance, ease of storage, utility value or decorative value and modernity or traditional orientation. Besides, it is necessary for likeminded institutions to come together to provide the strategic direction and action plans to evolve systems. Procedure and norms related to design, market, technology, innovation and quality of life so that product designs, technology and marketing become integral part of the craft up gradation and repositioning process. Craft is the standard mark of creativity and the essential differentiator for a country in the sweeping wines of globalization. Most importantly, craft has to become a fountainhead for both industrial design and communication design, for deriving the differential advantage of Indian design in the global market place.

Suggestion

India should create another council for handicraft products as compare with other developing they have 2 minimum councils for handicraft exports. The involvement of youth is very less as compare to other countries youth is not taking part in handicraft so programs should be launch by government to encourage youth to take part in handicraft. Government should also increase their support towards export of handicraft products and also consider this industry as the major sector for contributing to total exports. Better Trade terms offered by competing countries there free trade agreement are very good as compare to our offered agreements. India should also develop their system to improve research and development. India has a trade potential for handicraft products but there is lack of information to manufacturers about the actual buyer whom to export and the pricing schemes. A training program should be launched for exporters so that they can identify the actual exporters. Quality parameters of handicraft products are not as per ISO standard norms so government should keep a clear check at the time of manufacturing of products so that quality can be matched by ISO standard norms.

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Estimating India's Human Capital Stock

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Abstract

This article presents experimental estimates of India's human capital stock in the year 2010. This article discusses the concept of human capital and its importance in the present global era.

Thereafter, different approaches advocated by different economist to estimate the human capital have been discussed. This study adopts the income-based approach, a variant of the jorgenson and Fraumeni (1989,1992a and 1992b) for the measurement of human capital estimates which is based on net present value of the wage rates over a lifetime (or lifetime labour income). The methodology is applied to data from National Sample Survey Organization to produce estimates of the value of India's human capital stock in the year 2010. The key findings are that using a discounted lifetime labour income approach and assuming a discount rate of 4 per cent, real growth rate of wage for different work force (Self- employed, Regular and Casual) for rural and urban areas as mentioned in NSSO , value of India's human capital stock was worth Rs 421 trillion in 2010. This shows a high potential for the human capital base in India.

Introduction

The concept of human capital has relatively more importance in labour-surplus country like India. Human resource can be transformed into human capital with effective inputs of education, health and moral values. The problem of scarcity of tangible capital in the labour surplus countries can be resolved by accelerating the rate of human capital formation by investing more in education and health sectors. It is common to measure the capital embedded in physical and natural resource assets and include these in Wealth Accounts. The net present value of the stream of earnings over a lifetime of an asset such as physical capital represents the 'value' of this capital stock and is taken to be the value of these resources in the Wealth Accounts. Similarly, each individual has a lifetime earnings profile that can be thought of as the potential earning. The net present value of these earnings are considered as the embedded capital of an individual and referred to as human capital in the economics literature.

In this paper an attempt is made to present experimental estimates of India's human capital stock in the year 2010. The accumulation of human capital is an important part of long run development process.

This article is classified into six sections. Section one discusses the concept of human capital and literature related to the human capital. Section two explains the income based approach to estimate the human capital stock in India. In section three, income based approach methodology is applied to produce the human capital estimate of India. Section four discusses the result. Section five compares the productivity of different type of employment. Last section will be the summary and conclusion. Suggestions are also put forth for strong human capital base.

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SECTION- 1

Concept of Human Capital

Broadly, the concept of human capital is semantically the mixture of human and capital. In the economic perspective, the capital refers to 'factors of production used to create goods or services that are not themselves significantly consumed in the production process' (Boldizzoni, 2008) and the human is subject to engaging in all economic activities such as production, consumption, and transaction. Combining both concepts, it can be recognized that human capital means one of production elements which can generate added-values through inputting it.

OECD (2001a: 18) define human capital as "the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being." This is a broad definition, encompassing a range of attributes (such as knowledge, skills, competencies and health conditions) of individuals. For the purposes of this paper, the term human capital is restricted to people's knowledge, skills and competencies, i.e. excluding other attributes such as the health of the population. Thus, any activity that adds to these can be thought of as investment in human capital. These activities can take place throughout an individual's life and in a range of environments. OECD (2001) identifies four main contexts for human capital development:

➤ **Learning within family and early childcare settings**

Families contribute to the development of human capital in their children through direct expenditures on educational materials etc and through time spent fostering learning habits and attitudes.

➤ **Formal education and training**

This includes activities ranging from early childhood education, school-based compulsory education, post-compulsory vocational or general education, tertiary education, public labour market education, adult education etc.

➤ **Workplace training**

Firms and organizations invest in human capital to develop those skills and competencies with economic value.

➤ **Informal learning**

This is a wider concept taking place through 'on-the-job' learning, in daily living and through civic participation.

Originally, focus was on measures of physical capital. But more recently, experimental estimates have been produced of the amount of human capital. Estimates of the amount of human capital, its quality have been at the heart of investigations for economic growth and sustainability by many economists. During the several past decades economists have been interested in valuing the productive capacity of the workers in an economy. Keeping this in view, the Atkinson Review (2005) and commission on the Measure of Economic Performance and Social Progress (CMEPSP, 2009) recommended the development of measures of stock of human capital. Similarly, Department Environment, Food and Rural Affairs (DEFRA) advocated capital based approach.

Kendrick (1976) used a cost-based approach for the measurement of human capital and estimated human capital as the accumulated value of all expenditures related to human development, such as costs related to the rearing and education of children. Laroche and Mérette (2000) calculated an index of human capital as a weighted sum of the number of workers with different education levels and experience. An alternate approach based on lifetime income was developed by Jorgenson and Fraumeni (1989, 1992a, and 1992b) that treats the net present value of incomes over a lifetime as a proxy for the earnings potential and thus the embedded capital inherent in the individual. The income-based approach has been used to estimate total human capital for Sweden (Ahlroth, Björklund and Forslund 1997), Australia (Wei 2004, 2007, 2008), New Zealand (Le, Gibson and Oxley 2002), for the United Kingdom (O'Mahony and Stevens 2009), and for Norway (Greaker and Liu 2008). This paper contributes to those recent studies on human capital measurement by applying the Jorgenson and Fraumeni income-based approach to measure human capital stock for India.

SECTION- 2

The income-based approach to human capital measurement

This study adopts a variant of the Jorgenson and Fraumeni (1989, 1992a and 1992b) income-based approach for the measurement of human capital and estimates the value of human capital stock as the expected future lifetime income of an individual. This approach treats 'individuals' as entities that embody capital with an earning potential. As value of human capital assets cannot be observed directly from market transaction, just as in case of physical assets, therefore the value of human capital assets is estimated here as net present value of the wage rates over a lifetime labour income (or lifetime labour income). Labour income is defined as the concept that is used in the NSSO.

To construct lifetime labour incomes and human capital embodied in the population, the value of non-market activities are excluded and focus is on the human capital embodied in the working-age population, aged 15 to 64. It is assumed that expected incomes in future periods are equal to the incomes of individuals of the same gender and education, with the age that the individuals will have in the future time period, adjusted for the increase in real income. The human capital of those people not in employment is valued at zero. Thus the individual aged between 15 to 64 years is included for the purpose of our calculation. Total workforce during the year 2010 is considered for estimating human capital. Total workforce is classified into three segments; self-employed, regular and casual. These groups are further used for urban and rural areas as well as for male and female separately. We estimate market lifetime labour income for all individuals aged 15 to 64 years with cross-sectional data benchmarked to National Accounts totals. The lifetime incomes can be calculated by a backward recursion, starting with age 64, which is assumed to be the oldest age before retirement. The expected income for a person of a given age is their current labour income plus their expected lifetime income in the next period multiplied by survival probabilities*.

*For example, the present value of lifetime income of 64-year-olds is their current labour income. The lifetime income of 63-year-olds is equal to their current labour income plus the present value of lifetime income of the 64-year-olds, adjusted for increases in real income.

SECTION- 3

METHODOLOGY

The methodology to implement the income based approach can be explained in two stages.

Stage one

The first stage is the construction of a database containing the economic value of labour market activities for various categories of people. This database contains information regarding the category of employment viz, Self-employed, Regular and Casual employees, number of employees in each category, their earnings (when employed), and employment rates, growth of real income and survival rates. All these data should, ideally, be cross-classified by gender and age. The main source of data used in the analysis is the National Sample Survey Organization. The survival rate is the conditional probability that a person who is alive in year t will also be living in year $t+1$. Information on survival rates, by gender and individual year of age.

Lack of proper availability of data put limitations on the study. The key assumption used here is that wage rate given for an individual, separately for gender and type of occupation is assumed as his embedded capital after attaining education level. Different wage rate are used for different class of occupation like self-employed, regular and casual employees, as their current level of income for calculating the lifetime labour income. Real growth rate of wage rate or real income growth rate for various categories of employees as well as for rural and urban areas is taken separately as mentioned in NSSO data. For computing the Net Present Value, discount rate of 4 percent has been used. Similarly, the data on annual earnings of self-employed workers are not available. To estimate the annual earnings of self-employed workers, daily wage rate for self-employed is assumed to be equal to that of casual workers. The data on survival rates are derived from India's Life table through Sample Registration System. It is assumed that the survival rates do not vary with different class of occupation and location.

Stage Two

In the second stage the dataset is used to produce the estimates of the human capital stock. Net Present Value of the real income of an individual for the whole life adjusted for the growth of real income is calculated for a representative individual in each classified category (i.e. by gender, age and occupation wise) in the database using the following equation:

Equation One

$$V_t = \sum_{\tau=1}^T \frac{f_{t+\tau-1}}{(1+r)^\tau} \quad (1)$$

Where V_t is the present value at the beginning of year t ,
 f is the real income earned in each period,
 T is the service life of an Individual in years,
 τ takes values of 1,2,3.... T ,
 r is the discount rate.

The corresponding equation for a labour asset involves using total labour market earnings as the rental income and working life as the service. Thus the real market value of an individual at the beginning of year t , is the present value of lifetime labour income.

Formally, combining the equation (1), following equation for estimating average human capital per capita for a cohort of individuals with gender (s), age (a), can be used -

$$ha = [(w1.a \cdot y1.a) sr.a + (w2.a \cdot y2.a) sr.a + (w3.a \cdot y3.a) sr.a] / (1+g) / (1+r). \quad \dots (2)$$

where

a = ages: 15 to 64; ages being average of four years, total ages from 15-64 being divided into ten groups.

ha = average human capital or average lifetime labour income per capita for individuals with age (a)

$w1.a$ = probability of engaging in self-employment for individuals with age (a), defined as the number of self-workers over the population for that cohort;

$y1.a$ = annual labour compensation of self-employment worker with age (a)

$w2.a$ = probability of engaging in Regular-employment for individuals with age (a) defined as the number of self-employed workers over the population for that cohort;

$y2.a$ = annual labour compensation of Regular-employed workers with age (a)

$w3.a$ = probability of engaging in casual employment for individuals with age (a) , defined as the number of casual workers over the population for that cohort;

$y3.a$ = annual labour compensation of Casual-employed workers with age (a)

$sr.a$ = the probability of surviving one more year from age (a); and

g = real income growth rate;

r = discount rate.

The lifetime labour income measures estimated through Equation two are also applied to all individuals in each age and occupational categories, to compute the human capital stock for each category. Summing up the stocks of human capital across all classified categories yields the estimate of the aggregate value of the human capital stock (HC).

$$HC = \sum_{age} \sum_g \sum_c LLI_{age} N_{age} \dots \dots \dots \quad (3)$$

Where N is the number of individuals in the corresponding age, c denotes category of employees and g denotes the gender. Hence it can be applied separately to both males and females to estimate the stock of human capital by gender.

SECTION-4

Results

Applying the methodology described in the previous section and using an annual discount rate of 4 per cent adjusted for real growth rate, the estimated market value of the India's human capital stock in 2010 was 421 trillion as shown in table 1.

Table 1: TOTAL HUMAN CAPITAL STOCK (in trillions)

AGE	SELF EMPLOYED	CASUAL EMPLOYEES	REGULAR EMPLOYEES	TOTAL HUMAN CAPITAL STOCK
15-19	9.96	6.48	12.44	28.88
20-24	19.98	12.72	29.84	62.54
25-29	23.03	14.56	36.93	74.51
30-34	22.12	14.05	35.82	71.99
35-39	20.19	12.88	33.09	66.16
40-44	15.81	10.11	24.64	50.55
45-49	10.75	6.87	17.19	34.80
50-54	6.02	3.83	9.89	19.74
55-59	2.59	1.69	3.57	7.85
60-64	1.44	0.96	1.49	3.89
TOTAL	131.88	84.15	204.89	420.92

Computed.

Above table suggest that regular employees contribute about 50 percent of the total capital stock while self-employed and a regular employee contributes 30 percent and 20 percent respectively. Looking deep insight the picture, it is found that total human capital stock raises with the increase in the age till 30 years, thereafter it declines gradually and at the end of retirement age it is minimum of only 3.89 trillion. It is because an individual near the end of life have higher yearly income as compare to the initial years of earnings as a result of accumulation of experience or education but to the extent they have fewer remaining years the net present value of the remaining earnings or the value of human capital will be lower. Thus, just like the natural and physical resources law of diminishing return is also applicable to human resource. It can also be exhibited graphically in figure 1, figure 2 and figure 3 and figure 4.

Table 2 : TOTAL HUMAN CAPITAL STOCK ON BASIS OF AREA (In Trillions)

AGE	RURAL MALE	RURAL FEMALE	URBAN MALE	URBAN FEMALE	TOTAL
15-19	11.60	3.64	10.28	3.36	28.88
20-24	21.44	7.17	26.26	7.67	62.54
25-29	22.64	9.39	33.09	9.39	74.51
30-34	21.17	9.85	30.85	10.11	71.99
35-39	19.19	9.36	27.36	10.25	66.16
40-44	15.51	7.01	22.04	5.99	50.55
45-49	10.77	4.46	15.38	4.19	34.80
50-54	6.17	2.29	8.85	2.44	19.74
55-59	2.80	1.05	2.90	1.10	7.85
60-64	1.72	0.59	1.06	0.52	3.89
TOTAL	133.01	54.81	178.07	55.03	420.92

Computed.

Table-2 exhibits that the value of human capital stock on the basis of area, that is for rural and urban area. It shows that urban male constitutes highest stake with 42 percent, rural male contributes 31 percent while rural female and urban female shares 13 and 12 percent respectively. Higher earning by rural male at very early age (15-19) suggest that rural male started earning in very early age. To put it differently, it exhibit the problem of child labour in rural area. While higher earnings for the urban male from ages 20-54 may be due to engaging in higher skill and knowledge-based occupation. This shows the impact of education on human capital.

SECTION -5

Productivity Analysis

In this section results are expressed in economic terminology to interpret it clearly. The value of human capital enables us to estimate the productivity on the basis of area and different type of employment. Table 3 compares the productivity of human stock on the basis of area. Productivity generated by rural male workforce based on average life time labour income is 5.74 lakh per person. Similarly productivity for the rural female is 5.24 lakh per person. On the other hand productivity based on average life time labour for urban male is 17.8 lakh per person and for the urban female is about 25 lakh per person. This shows that productivity for urban male about three times more than that of rural male similarly, productivity for urban female is about five times more than that of rural female. Implicitly, it suggests high unequal distribution of income between the rural and urban areas in India. It may be plausible to say that the higher productivity in urban areas may be due to the impact of higher education and skill-based knowledge among urban work force.

Table 3 : Productivity on the basis of area

	RURAL MALE	RURAL FEMALE	URBAN MALE	URBAN FEMALE
Total value of human stock (In millions)	133010000	54810000	178070000	55030000
Number of work force (in millions)	231.9	104.5	99.8	22
Productivity (based on average lifetime labour income per person)	573566	524498	1784269	2501364

Computed

Table 4: Productivity analysis on the basis of type of employment

	SELF- EMPLOYED	CASUAL EMPLOYED	REGULAR EMPLOYED	TOTAL
Total value of Human stock (in million)	131878316	84146719.64	204890996	420916032
Total number of workforce engaged (in million)	232.4	74.8	151.1	458.3
Productivity (based on average Life time labour income per person.)	567462.68	1124956.14	1355996	918429.046

Computed.

Table-4 represents the productivity of Indian work force on the basis of type of employment. It reveals that productivity based on average life time labour income (LLI) per person for regular employees is 13.5 lakhs, for casual employees is 11.2 lakhs while for the self-employed is 5.67 lakhs. This shows that productivity for regular employees is highest, with about two and half times more than that of self-employed. Similarly, Productivity for casual employees is about two times more than that of self-employed.

The latest trend of employment, data released by 66th round of NSSO, suggests that there is a shift in the labour force from self-employment towards the regular and casual employment. This is in accordance with the computed results, which shows that productivity of regular and casual employees is higher. Thus, shift in labour force from less-productive to more productive area is an indicator of strong human capital formation in India.

To compare with the studies done in other countries based on estimation of human capital, Jones and Valerie Fender concludes in their study and found that the total human capital for US is 17.2 trillion dollar for the year 2010 whereas for India it is Rs. 421 trillion. Looking towards the productivity of the labor force for the US and for India, it seems huge difference. In India about 458 million workforce force embedded Rs 421 trillion or 8.42 trillion dollar (if converted into dollar by assuming Rs 50=1 \$) while for US about 28 million labor force possess 17.2 trillion dollar of human capital. Productivity based on average lifetime labor income per person for US is 614286 \$ while for India it is 18384 \$. Thus US labour productivity is about 33 times more than that of India's labour productivity. This shows that India has to emphasis more on higher education and skill-based knowledge so as to raise the productivity of its labour force . Further unemployed human resource should also be converted into human capital to constitute a strong human capital base in India.

Fig.1

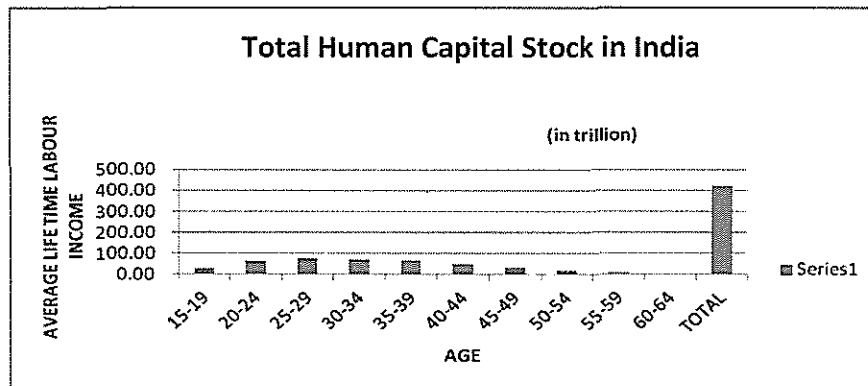


Fig. 2

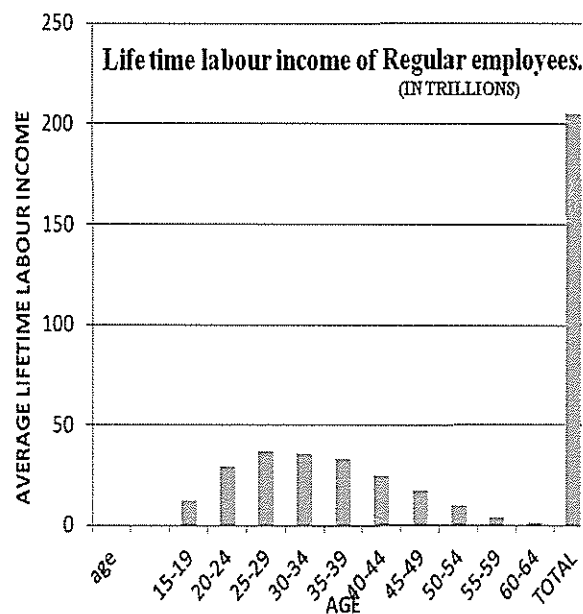


Fig-3

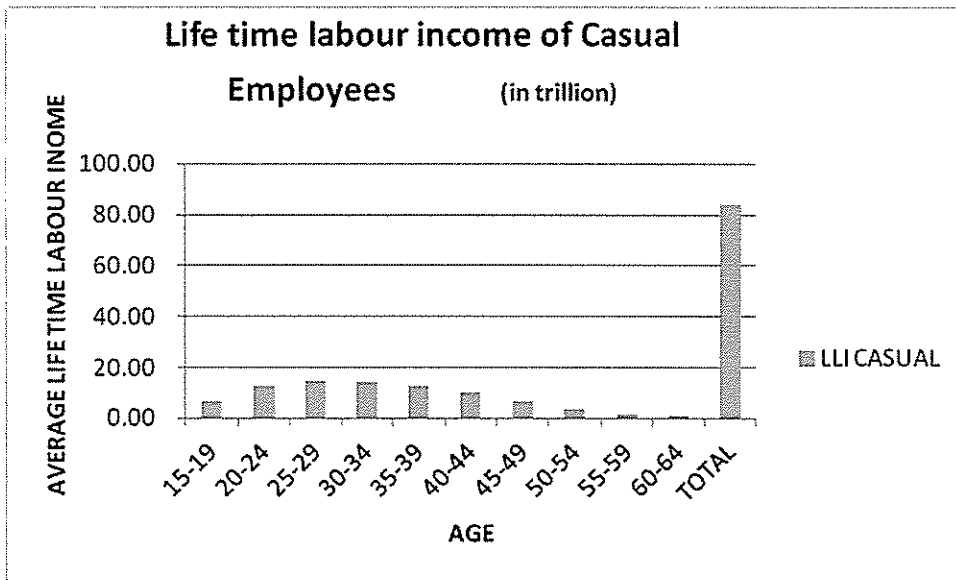
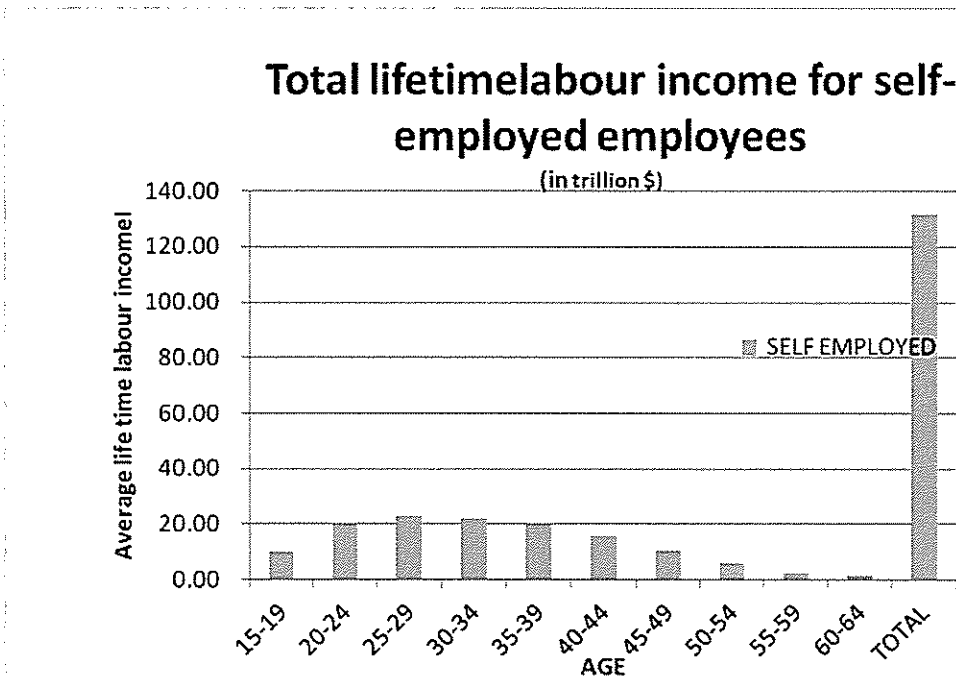


Fig-4



SECTION-6

Conclusion

In this paper an attempt has been made to estimate the human capital stock for the year 2010 on the basis of income based approach. For this discount rate is assumed 4 per cent, and real growth rate of wage for different work force (Self- employed, Regular and Casual) for rural and urban areas is as mentioned in NSSO . The

value of India's human capital stock was worth Rs 421 trillion for the year 2010. Implicitly, at the disaggregated level, the study suggests that productivity based on average lifetime labour income per person for the regular employees is two and half times more than that of self-employed similarly; productivity for casual employees is about two times than that of self-employed. Similarly, on the basis of area, productivity for urban male is three times more than that of rural male, while productivity for urban female is about five times than that of rural female. This shows the impact of education and skill-based knowledge in the urban areas. The result obtained exhibit that although India possess a strong human resource in the form of workforce but the productivity of India's labour force is low (approximately 30 times less than US). India has a high potential for human capital growth in form of strong labour force, only need is to utilize them properly and transform them into productive sources. Human capital is the building block on which the economic development exists so human capital should be strongly built and utilized. The problem of scarcity of tangible capital in the labour surplus countries can be resolved by accelerating the rate of human capital formation by investing more in education and health sectors.

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Ripple Effects of Demonetization: A Theoretical Analysis of Post-Demonetization Era of Indian Economy

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Abstract

For long the Indian economy has been suffering and facing unfavorable consequences of its own policies. At the verge of an economic crisis, once a monumental decision of economic reforms (Liberalization, Privatization and Globalization) was taken and brought in application which came to nation's rescue. However, with increase in country's economic growth and GDP, the most haunting demons had been Corruption, Black Money and Counterfeiting of currency. It was high time to deal with these demons and curtail those with adequate measures. But when those measures were taken, it was something at such a large proportion that it took over everyone with shock and awe. With highest percentage of cash currency in circulation at 12.1% of GDP, an abrupt decision of flushing out higher denomination currency notes of Rs.500 and 1000 which instantaneously wiped out 86% of liquidity from the economy caused a mass frenzy among the common folks. Amidst the shock and despair, citizens were left stranded in middle; halting their lives. From postponement of weddings to inability to afford basic necessities, the only plausible explanation provided was that it is meant as a sacrifice for a better future. And to the credit of the people and government, the spirit of resilience and motto to make corruption free nation, an epic move was materialized. Despite of the cautions by renowned economists, the government did put

forward an example of a strong leadership and surgically removing the decaying component of the economy along with sustaining the growth rate. But their gestures were also put under scrutiny and questioned since the claims of the accomplishments of the government and the actual figures were quite a mismatch. Thus, the nation is divided into two-fold about the real outcome of the note ban. This paper is an attempt to look into this matter. It is an assessment based on the facts after 9 months of demonetization to determine whether it was a worthy cause.

Keywords: Demonetization, Note ban, Black money, Corruption.

Introduction

It was that fateful night of 8th November 2016 when the current Prime Minister of India almost declared a war on black money when he announced that note ban is applicable from midnight. He christened this unique tool of monetary policy as "Demonetization". He mentioned that it is a bitter pill that is needed to be swallowed by all to curb the socio-economical menaces of black money, corruption, terrorism and counterfeiting of currency. With immediate effect, highest denominations in circulation i.e. Rs.500 and 1000 Indian currency

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lost their legal tender status within four hours of declaration. Most shocking part was that these notes formed almost 86% of total currency in circulation. The markets crashed down and the life economical or otherwise came to a stand-still. Being on the verge of being a global superpower, impact of demonetization was felt not only in India but also abroad. This announcement was met with mixed reactions as some applauded the bold decision whereas others expressed their strong condemn. But the bottom-line was; it was done.

Many even questioned the government's authority to do so. However, there is clearly mentioned in section 22 of RBI Act 1934, that Reserve Bank holds monopoly and is sole authority to issue higher denominations of currency in India but section 30 mentions that Central government has power to supersede the authority of central board of RBI and section 28 mentions that how legal tender of currency notes can be ceased by a simple procedure. So, questions on the procedure have been quite baseless. But what actually matters were the real objectives behind this move.

It is true that intentions were very noble but the toll taken by the common populace was beyond comprehension. Despite this, credit to the marketing machinery of the government, support of common man towards this move was gained by weaving it with the feeling of nationalism. This could also be attributed to the fact that the objectives were further divided in two fold- stopping counterfeiting as fake money fuels terrorist activities and eliminating black money which is generated by corruption and used to encourage corrupt activities. The planning of the government had been quite elaborated with high targets but this paper tries to analyze that almost after 9 months of inception whether government was successful in reaching the fairytale ending or demonetization was just a debacle.

Review of Literature

C.R. Reddy (2016) in his book "Demonetization and Black Money" examines the policy in the simplest of way and tried to establish the fact that adopting digital payment system will have heavy impact on white-collared tax evaders. His book very well attempts to connect the dots between Indian Polity, black money, banking sector, impacts on common people and policy itself.

Ajit Roy (2017) analyzed the surprising instrument of the monetary policy in his book, "Facts and Figures of Demonetization in India - Views, Reactions and Impact: Impact of Demonetization in India". He mentions that move was welcomed as bold and revolutionary by many but it had been equally criticized as well. He also explained the costs and political aspects of the move. His work presented a concrete analysis after 50 days of the decision.

K.S. Rogoff (2016) has proposed a baseline denoting that higher denomination currency notes are mainly used for illegal activities and are the root cause of black money. He goes on to put forward some radical ideas to control the situation and its glimpse can very well be seen in the policy implications in the Indian scenario.

P. Patnaik, J. Ghosh and C.P. Chandrashekhar (2017) unrelentlessly bash the government on the demonetization move calling it recklessly and politically motivated. They have highlighted the complexities of the procedure and also pointed out its short comings and predicted that the outcomes would be very disintegrating for the socio-economic framework of the nation.

Objective of The Study

The scope of this paper limits only to the theoretical comparison of both pros and cons of the demonetization. This paper sheds light on the claims made; both in favour and against; about demonetization and the facts backing those claims. Attempt is to derive conclusions by analysis of the policy and its impacts.

Demonetization

Although it has been the hottest economic topic of last 9 months still it is imperative to discuss its meaning. It is a unique tool in the arsenal of monetary policy instruments used to check the money supply in the economy and control it. In simpler terms, when a currency note can no longer be used to perform transactional functions or cease to fulfill any other functions of money because it has lost its status to do so as per the directives of the central bank or the government then it is known as demonetization or note ban.

Unlike propaganda or common misconception, it is not the first time this has happened around the world or in Indian economy. Similar steps has been seen in USA (1969), Nigeria (1984), Zaire (1990), Australia (1996), Zimbabwe (2010), and North Korea (2010). In the Indian scenario, it has been done before in 1946 and 2013-14. But it can be argued that the scale, it has been carried on before was not as huge as this.

Alarming cause is that this time not only the scale is huge but timing is abruptly small or almost negligible. Earlier, considerably deadlines were given to submit the notes back to the banks but this time it was all of a sudden to achieve the said objectives and it flushed out 86% of total currency in circulation. This left many stranded in the middle and the long queues in banks to get the notes replaced or deposit those in account was endless.

It was an attempt to surgically remove the black money from the economic system but the cost of it weighed on the common people has proven otherwise.

Demonetization – The Master Stroke

Based on the facts post-demonetization:

- It has dealt the exponentially increasing corruption issue with an iron fist.
- It has performed a surgical strike on black money which can very well be attributed as root of modern evil. When the amount was forced to be deposited in the banks, it created the “House always wins” scenario. Money was finally accounted into the system and can be traced back to the source and the money not deposited back was no longer used to run a parallel economy.
- Banking sector has been reformed and efforts had been made to integrate the banking system and settle the bad debts to strengthen faith in the banking system.
- This accumulated amount would help not only into mobilization of resources but it will also redistribute the resources in an equitable manner.
- Surplus funds caused the banks to lower their interest rates and direct the cash flow in the sectors needing funds.
- It has laid foundation for liberalization of monetary policy in recent future which would see lower interest rates and repo rates.

- MSMEs can be benefited by the surplus cash available with the banks as line of credit can be expanded in this sector. This could result in positive spin-offs.
- Draining of higher notes had tried to curb inflation.
- The instant conversion of black money into white will not happen even if it was “adjusted” in some other accounts as tax department will be scrutinizing the suspicious accounts.
- Tax net has been expanded. A sharp increase in number of taxpayer which is 80.7 lakhs in 2017 than that was 63.5 lakhs in 2015-16. Additional income generated as tax revenue has been Rs.10,600 crores.
- The Public administration has been in boom now that many development projects have been activated.
- Terrorism was hit hard as commotion has considerably reduced in past few months.
- People are still supporting the government. Recent example can be seen while applying GST. This further shows the strength of sound leadership.
- Demonetization has certainly paved the path for long pending digitalization. This has also improved the investment in overall communication infrastructure.
- The gains derived from digitalization as a result of reduced cash transactions had been Rs.3.5 lakh crores.

Demonetization – The Blunt Sword

Based on the facts post-demonetization:

- The hardships of the people out-weigh the noble intentions. Pareto efficiency was misunderstood by policy makers.
- Logic behind re-monetization with a newly designed Rs.500 note and highest denomination in modern times, Rs.2000 is still unexplained and a debate is conveniently avoided.
- Counterfeits of Rs.500 and 2000 notes are already floating in the market and arrests made by prompt police raids verify the fact.
- Economically, government had shown its blatant disregard towards the caution of former Governor of the RBI, R. Rajan, who warned the government that “short-term losses would out-weigh the long-term gains”.
- It was estimated that out of supposed Rs.15.44 lakh crores that were to be returned, till the last editing of this paper, Rs.15.28 lakh crores were deposited back to the banks. But it is not a victory as now returned money is all white.
- The ideology of all extinguished cash being “black money” was shattered as it amounts to only meager 5% to 6%. So, evidently either India is corruption free that level of black money is so less or ideology was wrong.
- Another false base to start with had been “All cash is black money”. Yes, government did not ever say that on record but isn’t that what it implies by asking to deposit higher denomination notes back. May be the government somehow forgot to consider the fact that majority of population still like to keep their hard earned savings in form of cash in higher denomination currencies.
- Practically, most of the black money hoarders escaped unscathed as they “adjusted” their unaccounted amount in the accounts of their family, friends or employees.
- The economic arguments put forward to defend the policy had changed constantly and differences were visible in the claims of RBI, Finance Minister and Prime Minister.

- The trajectory of Indian economic growth rate clearly shows a decline as the GDP growth rate has fallen down to 5.7% from 7%. So, even the long-term gains theory still doesn't seem promising.
- Inflation is at an all-time high. Basic necessities like LPG and fuels –petrol and diesel are establishing new records at being all time high although prices of crude oil has fallen internationally.
- Another baseless assumption had been that black money is stored in cash. Most of it had been invested in real estate way back. So now putting checks on real estate sales would not be more fruitful.
- False promises of depositing Rs.15 lakhs in accounts of the citizens has finally proven to be a façade tarnishing the image of the government.
- Mergers of Public Sector Banks in post-demonetization era shake faith in the banking system as despite of getting so much funding still many PSBs are running into losses.
- Tax reforms like GST if had been implemented in pre-demonetization era and in original form as suggested by earlier government than may be impact of demonetization could have been different.
- Mismatch of government claims confirms the lack of preparation by them like enough preparation done before demonetization and over dependence on non-conventional transactional methods like digitalization.
- It had also been socially regressive move dividing the society into “nationalists” supporting demonetization and “anti-nationalists” who dare criticize the move even if it is done constructively.
- Move was more political than economical as it further strengthened image of our current leader both nationally and internationally and it was quite evident in the victories of local state level elections. However, the wait for a concrete positive economic outcome is still not over.
- More claims to scrutinize the suspected accounts involved with illegal activities will take a very long time with uncertain outcomes given the limited capacity of the tax department and with already so many cases pending in front of the judicial system, it is hard to estimate time to even bring it to trial.
- The costs of demonetization and re-monetization burden the government which is already running in deficit.
- The success of digitalization was not solely due to government's initiative but rather due to lack of options for the people. Although government asserts that they had planned digitalization since coming into the power but infrastructure for the same denies their efforts.
- Sufferings of daily wage earners and small unorganized fair businesses had been insurmountable. Misdirecting those as a necessary sacrifice is not justifiable in an economy like ours. The utter horror occurred at places like Bhiwandi and Mandsaur cannot be described by just statistical data.
- Evident declines are seen in all the sectors whether manufacturing, real estate etc. except for public administration (which has actually grown by 17%). Implementation of GST has done no favours to these sectors as well.
- No verified statistics of the impact of demonetization on the informal sector is collected yet.

Conclusion

The Ripple effects of demonetization has its fair share of both merits and demerits. There has been enough social and economic disruption on the account of the demonetization. In the words of NIPFP (National Institute of Public Finance and Policy); it has been a huge shock to the Indian economy. Although, only a handful real data available to conduct a satisfactory empirical analysis. Indeed a change has been observed but

it is far from the set target. An overnight change is not possible and cash still dominates the transactions in India. Also the hardships of the population were unevenly distributed and bottom most classes took major impact. Agriculture sector has remained indifferent to the effects of the demonetization though.

Innovative ideas with mixture of technology and certain complementary policy changes are needed to take the economy on the desired path. If anything at all, history teaches us that this move if used to cure an inflation-ridden and debt-struck economy like ours then it is doomed to fail. Let us hope that fate would favour the brave.

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A Study of Customer Behaviour towards Green Marketing with Reference to Cosmetics Products at Eastern Indore City

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1. Introduction

Customers and manufacturers have directed their attention toward environment friendly products that are presumed to be “green” or environment friendly like low power consuming (energy-efficient) electrical appliances, organic foods, lead free paints, recyclable paper, and phosphate free detergents. Indian marketers are also realizing the importance of the green marketing concept. Although a variety of research on green marketing has been conducted across the globe; little academic research on consumer perception and preferences has been carried out in India. Green Marketing is a philosophy that runs parallel to the societal marketing concept and with the view that satisfying customers is not enough and marketers should take into account ecological interests of the society as a whole. It is a part of Corporate Social Responsibility (CSR). Green marketing is also termed as environmental marketing or ecological marketing. According to American Marketing Association, marketing of products that are presumed to be environmentally safe is called as Green Marketing. The concept of green or ecological marketing calls upon businesses to follow ethical and green practices while dealing with customers, suppliers, dealers, and employees.

The Green marketing concept emerges from societal marketing (Kotler, 1999). Green marketing is an attempt to characterize a product as being environmental friendly (eco friendly). It states that marketing which is a part of business has to satisfy customers in particular and also has to take into account the interests of society in general. All those who are affected by the activities of a business should be kept in mind when setting the objectives and the policies of an organization. This has already helped the companies to move towards greening concept.

Cosmetics are substances applied onto the skin to enhance the appearance of the human body. Our skin is the largest organ in the body, so it is important for us to understand why organic cosmetics are much healthier for our skin. Cosmetics play a big role everyone’s life or in other words. Cosmetics are daily essentials. Organic makeup is natural makeup that is manufactured organically from plants of organic sources i.e. it is made from essential oils, plant extracts, vitamins and minerals. The ingredients in organic cosmetic product does not having any synthetic relation and it does not contain any genetically modified organisms. In other words, organic makeup is free from harsh chemicals, synthetic preservatives, parabens, synthetic colours, and fragrances. They are not required to test on animals.

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This research provides a brief review of environmental issues and identifies the green values of the customers, their level of awareness about environmental issues, green products and practices. This paper highlights the customers' perception and preferences towards green marketing practices and products with the help of a structured questionnaire. The outcomes of the study reflect that high level of awareness about green marketing practices and products was found among the customers. Green values were found to be average among the customers. Research has given good insights for marketers of the green products and suggested the need of designing the marketing communication campaigns promoting green products due to high green value among the customers. Results of regression analysis reveals the view that overall green values, awareness about green products and practices and the perception regarding seriousness of marketing companies towards green marketing had positive significant impact on consumer persuasion to buy and prefer green products over conventional products.

2. Review of literature

A lot of literature is available regarding green products but hardly study has been made with context to consumer awareness and perception of usage of green products. Some learned scholars have made studies on green marketing and their contributions are as below:-

According to Polonsky (1994), Customers' opinion have been recorded that they require clear information about how choosing one product over another will benefit the environment. Many customers remain confused about which products are better for society and the environment. Research has shown that customers do not always understand environmentally friendly labels attached to products.

Rex and Baumann (2007) have opinion that the green marketing could learn lot of things from conventional marketing to promote green products like addressing a wider range of customers, working with the positioning strategies of price, place and promotion and actively engaging in market creation

Jacquelyn A. Ottman (2008) expressed his views in Marketing Daily that "the power of green lies in marketers' hand". It was not engineers, lawyers or legislators that had the most power to clean up the environment. The creative folks who have the power to design and promote cleaner products and technologies and help customers evolve to more sustainable lifestyles.

According to Aryal, (2009), Eco-labels such as 'Biodegradable', 'Sustainable', 'Environmental friendly', and 'Recyclable' are usually unfamiliar or unknown to customers. The study also revealed that majority of respondents are willing to pay price premium, but the level of acceptability varied considerably.

Purohit (2011) in his study analyzed the consumer attitude, roll of marketing mix in buying intention , relationship between consumer attitude and buying intention towards green marketing. The study was conducted with youngster students. The outcomes of the study reflect that product, price, place and promotion had significant correlation with buying intention of eco friendly products. The remarkable observation has been derived that customers were ready to pay high price for eco friendly which cause less pollution to the environment.

On the other hand, Maheshwari and Malhotra (2011) have observed in their study that customers are not overly committed to their environment and look to lay too much responsibility on industry and government whereas

According to Jacquelyn A. Ottman (2011), Green Marketing has come as a boon to the marketers since it can prevent the further environmental degradation without preventing industrial growth.

While Sachdev, (2011) and Kumar (2011) both have observed in their studies that in general only top two percent will pay more than 20 percent for many green products whereas majority of shoppers are looking for parity in pricing related to more sustainable products.

With above views, an attempt has been to know customers' knowledge, awareness, usage and attitude towards green products marketing.

Objective of Study

1. To study the consumer awareness about green cosmetic products marketing
2. To analyse the attitude and behaviour of consumer towards green cosmetic products

The paper is organized as follows: Section 1 deals with introduction section 2 presents review of literature section 3 methodology and database. Section 4 provides Empirics of the study, followed by the conclusion and policy implications to section 5.

3. Research Methodology

The research has been conducted in eastern part of Indore City. It is based on primary information. 100 those customers, who were selected by the convenient sampling method, used ecofriendly products.

4. Empirics

On the basis of reported facts, following analysis has been made.

The awareness of customers towards Green Cosmetic Product Marketing

Options	Frequency of Respondents	Percentage of Respondents
Yes	82	82.00
No	18	18.00
Total	100	100.00

From above analysis it was found that majority of respondents' i.e. 82 percent are aware about green cosmetic product marketing because of education & awareness. Only 18% are not aware about green cosmetic product marketing due to illiteracy.

Efforts have been made to assess the level of awareness regarding green cosmetic product marketing amongst different age groups, different educational groups and different occupational groups. For this, hypotheses have been set to assess the level of awareness with their age, education and occupation.

Further effort has been made to examine the awareness of customers one, who knows about various green products, has how many know about category wise products.

Category	Not aware	Aware	Total
Bath & body	66(80.48)	16(19.52)	82 (100.00)
Skin care	31(37.80)	51(62.20)	82 (100.00)
Hair care	67(81.71)	15(18.29)	82 (100.00)
Make up	21(25.61)	61(74.39)	82 (100.00)
Others	73(89.02)	09(10.98)	82 (100.00)

Out of 82 customers, only 19.52 percent customers are aware with green cosmetic product related to bath and body care products. Customers have become very conscious and they (62.20) have knowledge of green skin care cosmetic products. Similarly, customers know about green make up cosmetic products. No doubt a large number of customers are still unaware about the green cosmetic products.

Scholars have tried to assess also about the customers’ opinion on price influence on buying Green cosmetic products and it has been also tried to know whether green cosmetic product is influencing male or female regarding buying. From the following table it can be inferred that 48.5% males have expressed no opinion regarding buying of Green Cosmetic products. But 37.11% and 48.02% males and females customers respectively have shown their views that price of green cosmetic products keep matter for them.

Opinion	Male	Female	Total
Strongly Agree	11(31.4)	15(31.91)	82 (100.00)
Agree	2(5.71)	8(17.02)	82 (100.00)
Neutral	17(48.57)	11(23.40)	82 (100.00)
Disagree	2(5.71)	8(17.02)	82 (100.00)
Strongly Disagree	3(8.57)	5(10.63)	82 (100.00)
Total	35 (42.68)	47 (57.32)	82 (100.00)

Hypothesis

The awareness of consumer towards green cosmetic product marketing is associated with different Age groups of the customers.

H₀: The awareness of customers towards green cosmetic product marketing is equally distributed across different age groups of the customers.1

H₁: The awareness of customers towards green cosmetic product marketing is not equally distributed across different age groups of the customers.

Age group (years)	Not aware regarding green marketing (n=18)	Aware regarding green marketing (n=82)	Chi Square value(Cal)	Chi Square Table value
17-26	6 (33.33)	41 (50)	53.11	7.814
27-35	6 (33.33)	29 (35.37)		
36-57	4 (22.22)	8 (9.76)		
58 and above	2(11.12)	4 (4.87)		
Total	18 (100.0)	82 (100.0)		

Test Statistics Details

Calculated Value of Chi square=53.11 & critical value $_{0.05}$ is 7.814

Decision

Thus it may be inferred that the Null hypothesis (H_0) is rejected and Alternative hypothesis (H_1) has been accepted.

In other words it can be said that the awareness regarding green cosmetic product marketing awareness is not equally associated amongst all the age groups because of their different surroundings, knowledge, education etc.

The awareness level between the age group of 17-26 is more as compared to other age groups because they are young and their understanding level is more as compared to others.

Hypothesis

The awareness of consumer towards green cosmetic product marketing is significantly associated with their Education.

H_0 : The awareness of customers towards green cosmetic product marketing is equally distributed across different education groups of the customers.

H_1 : The awareness of customers towards green cosmetic product marketing is not equally distributed across different education groups of the customers.

Education	Not aware regarding green marketing (n=18)	Aware regarding green marketing (n=82)	Chi Square value	Chi Square Table value
SSC	6(33.33)	17(20.73)	50.96	7.815
HSC	3(16.67)	19(23.17)		
Graduate	7(38.88)	22(26.82)		
Post Graduate	2(11.12)	24(29.26)		
Total	18 (100.0)	82 (99.98)		

Test Statistics Details

Calculated Value of Chi square=50.96 & critical value $_{0.05}$ is 7.815

Decision

Thus it is inferred that the Null hypothesis (H_0) is rejected and Alternative hypothesis (H_1) has been accepted.

Once again it has been observed that the awareness regarding green cosmetic product marketing is not equally distributed across different education groups of the customers.

Significantly higher proportion of graduate and post graduates respondents were more aware because of their knowledge and exposure about the green cosmetic product marketing compared to less educated customers..

Hypothesis

The awareness of consumer towards green cosmetic product marketing is significantly associated with their occupational groups

H_0 : The awareness of customers towards green cosmetic product marketing is equally distributed among different occupational groups.

H_1 : The awareness of customers towards green cosmetic product marketing is not equally distributed among different occupational groups.

Occupational status	Not aware regarding green marketing (n=18)	Aware regarding green marketing (n=82)	Chi Square value	Chi Square Table value
Service	5 (27.78)	32 (39.02)	51.65	7.815
Business	1 (5.55)	20 (24.39)		
Student	11(61.11)	28(34.14)		
Others	1 (5.55)	2 (2.43)		
Total	18 (100.0)	82 (100.0)		

Test Statistics Details

Value of Chi square=51.65 & critical value 0.05 is 7.815

Decision

Null hypothesis (H_0) has been rejected and Alternative hypothesis (H_1) accepted. The awareness of consumer towards green cosmetic product marketing is not equally associated between different occupational groups.

The customers who are into service and others are much aware about green cosmetic product marketing as compared to businessman and household people because they are not aware about the happenings in the surrounding.

5. Inferences and Policy Implications

Impact of Environmental consciousness towards popularity of Green products, factors such as; Environmental Sense and Environmental Callousness are the most important. Relating to relevance of price towards popularity of green products, factors such as; Higher Price, Price Sensitivity and Price Barrier plays the most important role. Majority of females consumer have shown their concern that price of green cosmetic product keep matters .After analysing the facts it has been found that the level of awareness has no relationship with age and occupation. It has been found that the level of awareness in different age group and different occupation have different. The customers who are young are more aware. In occupation on who is in service one has more awareness. To raise awareness, It is advisable that every company should make Green Marketing

activities publically, so that it may create awareness. It is also advisable that media should be used in combination to communicate eco-friendly approach.

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