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The tree in the Crest is the Historic Mango tree where the founders of this seat of learning started their activity and the rising sun behind the tree represents the light of learning that is being spread by this Rural Centre of Education. The Sanskrit dictum in the form of a crest presents the ideal viz. "Character and conduct are the fruits of learning" - "शीलवृत्तफलं श्रुतम्" - that is set before it by the great personality after whom this place and this University are named.

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Editorial

The Indian economy is getting increasingly linked with global economy since economic liberalization. Business activity is increasingly becoming more challenging due to dynamic environment and more number of variables affecting the same. This has further given impetus to quality research in order to improve decision making.

The present issue of 'Synergy' Volume 18 No. 2 consists of research papers on varied topics related to management. It is our constant endeavor to give opportunity to researchers to publish in different areas of management. This volume of Synergy focuses on some of the current research undertaken by researchers on topics of relevance today. The present issue covers research papers on issues across functional areas of Management including General Management, Rural Marketing, Consumer Behaviour, Brand Management, Finance, Human Resources, etc.

In all ten blind peer reviewed papers have been included focusing on topics such as demonetization, development in tribal people, brand loyalty for cosmetics products, inter-organisational knowledge sharing, CSR initiatives by Indian Banks, green marketing initiatives, employee engagement, HRM practices, impact of non-financial incentives on performance, telecommuting and work life balance.

On behalf of our editorial team, we sincerely thank all the contributors and look forward to their continued support in sharing of facts, opinions and views in the form of research papers in forthcoming issues as well.

We humbly invite your views and suggestions to strengthen our efforts in making further improvements.

(Dr. Yogesh C. Joshil)

I/c Director

Foreword

The Post Graduate Department of Business Management (MBA Programme) is a constituent department of Sardar Patel University (NAAC Accredited Grade A with 3.25 CGPA) is offering management programme since 1989. It is one of the leading management institutes in Gujarat state.

The University Grants Commission, New Delhi, in recognition of the quality of research in the department had elevated its status for award of special assistance under DRS - II for "Consumer Research in Rural Areas", which it completed successfully in March 2016. The department has also received SAP DRS III (2016 to 2021) for undertaking research on "Transformation of Rural Economy" for five years. The department has also received a project on "Knowledge, Attitude and Perception of Voters in Gujarat from Election Commission of India. All through its journey of providing management education, it has exemplary record in terms of quality education and placements.

The department has been contributing to research activities continuously. All the faculty members are actively involved in research publications. It also organises national level seminar every year on varied topics relevant to current scenario to promote research in Management. All the ten faculty members are recognized Ph.D. Guides. More than 100 students have successfully completed their Ph.D. degree from department and fifty are pursuing their doctoral research.

This research journal provides a platform for regular interaction and exchange of views, opinions and research findings among peer groups. I am confident that this issue of "Synergy", Journal of Management, Sardar Patel University, provides for a great deal of information sharing among teachers and research scholars belonging to the discipline.

I congratulate the editors for bringing out yet another volume of Synergy and appreciate the painstaking task undertaken by them.

Date : 5th May, 2017
Sardar Patel University
Vallabh Vidyanagar

Dr. Shirish kulkarni
Vice-Chancellor

Demonetization: Will it curb the corruption and black money?

Jayashree Dubey*

Abstract

Historic declaration of demonetization of 500 and 1000 rupee banknote in India was done to curb various negative practices like corruption, black money, counterfeit notes etc. having negative repercussion on the socio-economic development of the country. The step was a nightmare for people sitting on the cash pile generated from undeclared income sources. However, to ease the trouble to common man in managing their daily cash requirement, the demonetized currency was made acceptable for purchase of a few products and services deemed important. While this step eased the problem caused by the demonetization led cash vacuum, this was also used by many as a route to convert the black money into white. The article is an opinion article on the decision of extension of date for acceptance of demonetized notes.

Introduction

In the night of 8th November 2016, millions of law-fearing citizens, who always fretted over misuse of their tax money, exulted over historic step of 'demonetization' of Rs 500 and 1000 banknotes. The move promised to gag corrupts strutting in various forms: businesspersons who never paid their taxes, government officials who made the bribe a norm, and anti-nationals who had been waging war against India with support of fake currency. No other night in the history of India had such contrast: common men were celebrating, corrupts were mourning.

This definitely was a great move, which with a single stroke destroyed the great effort done by many since years and decades to earn black money. It appeared that it will be very difficult for people holding black money to make anything good of those discontinued notes, which turned into useless paper within no time after the honorable Prime Minister made this announcement. Though the decision resulted into short-term cash crunch to large proportion of people, some got severely affected, like those who were facing medical emergency in home or other big events like marriage etc. For others, however, it was temporary and manageable.

This was not an easy option though. Tendering currency notes of 500 and 1000 denomination illegal necessitated a major overhaul of entire monetary system. With these currencies making a significant proportion of daily cash transaction, government had to come out with options that allowed their restricted use at several points (e.g. petrol pumps, hospitals, travelling etc.) to mitigate the consequent pain to the general public. The move did bring pain, albeit with varying extent, to general populace. The majority opinion, however, remained firmly in favor

of the move expecting significant long-term impact on reducing corrupt practices.

Over next several days and weeks, government kept tweaking rules in order to ease the pain to public. The result of these changes was both, desired, as well as undesired.

Enablers, Spoilers, and Impact

Around 68% of the transactions in India are cash based. As per RBI annual report (31st March 2016) value of 500 & 1000 Rupee notes in circulation amount to 86.4% (Wadhwa, 2016) of the total value of the banknotes in circulation. For such nature of economy, the move created a difficult situation for public to arrange for acceptable banknotes and deposit demonetized notes, they held, in bank. Ensuring people do not face tough time in managing their day-to-day requirements of necessary items was the responsibility of the government. Thus to ensure that people got some time to utilize the notes they held and simultaneously find time to arrange for acceptable banknotes, the demonetized notes were made acceptable till 24th November 2016 at some places like hospitals, petrol pumps, railways, airports, exchange in banks etc. However, deposits in bank account was allowed until 31st December. These opportunities eased the pain for people holding legitimate cash under such cash starved situation. Government allowed deposits of demonetized notes in bank account, where deposits up to an amount of Rs.2,50,000 in saving account and Rs. 50,000 in case of Jan Dhan Khata, account holder would not be subjected to inquiry about the source of money by administration (HT, 2016). Higher deposits though were subject to Income Tax (IT) investigation and needed a proper justification on source of income to discourage use of bank accounts of poor by black money holders.

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This, created problem for those sitting on unaccounted cash appropriated through corrupt practices, tax evasion, income from untraceable sources, counterfeit currency, or terror funds etc. Limiting the overall cash market, the move also aimed to increase cashless transaction and made it difficult for business owners who, until now, had not been showing their actual income due to cash transaction and evading paying income tax.

Making the rogue elements amend their ways, however, was easier said than done. What played out over next several days highlighted the mindset to innovate loopholes in the system for further corruption. That Indians are innovative and are perfect in applying the principle of 'Jugaad' innovation for finding solution was proved once again-this time for a negative cause. The goal for the black money holders was to get some value out of the demonetized cash holding. Some of the quick fixes adopted by these crooks were: exchanging old notes at discount; luring poor people for depositing cash in their bank account; paying advance salaries of several months to employees etc. A new temporary business of 'note exchange' got quickly setup to help people holding unaccounted cash that had been turned overnight into waste papers. The result was emergence of several ways to turn black cash into white.

Extension of Date for Acceptance: Boon for Black-money Holders

On 24th November, Government further extended the last date for acceptance of the demonetized notes till 15th December. Further, government also added new items in the list of transactions where the banned notes were to be accepted. Sadly, this was days after several news reports of rush to push black money through various means as mentioned above. Government failure to plug those leaks, and rather facilitating them by extending dates, created a golden opportunity for black-money hoarders to convert their unaccounted money through various points of exchange e.g. Airport, Railways, Petrol pumps, Hospitals etc. Apart from creating scope of safe avenues for black money, this also went against the sub-objective of making India a cashless economy. It was puzzling why cashless transactions was not enforced at some of these points, at least for transactions above certain value, e.g. INR 5000. Many of these transaction points, e.g. booking tickets for airlines, or AC coaches of trains and buses etc., have established infrastructure and the type of customers capable to make electronic payments.

Similarly, there are many places where the price or fee is less than 100. These places offered avenues to exchange demonetized notes of 500 and 1000 with notes of other denominations (e.g. 100s or less) in return of a small fee. With people indulging into such wrong practices to convert their black money, extension of dates to use old currency notes would most likely lead be a big defeat, underwhelming the impact of the hard-hitting 'demonetization' step that was expected to curb many wrong practices.

Analysis: Acceptance of Old Currency

Unfortunately, there were just too many points for accepting old currency notes supposedly to ease the day-to-day and emergency needs of people at large. While there is no dispute that these relaxations would have brought relief to many people in managing their daily and emergency needs due to scarcity of cash, it's also true that it provided extra time-window to corrupt people to get their black-money utilized or exchanged. Keeping a check on these points by limiting the avenues to use the older notes, or encouraging electronic transaction would have deterred such misuse. There were many places in the list where instead of extending acceptability of old notes, purchase/ payment could have been postponed, or where payment could have been made using electronic mode. Similarly, there were certain places in the list where people go well prepared with the required cash and some places where maximum limit for transaction could have been decided.

Analyzing the list of places (Roy, 2016) where the demonetized Rs 500 note were accepted till 15th December 2016, it can be broadly divided into four parts, based on its importance to help people facing problem and those going against the objectives of demonetization. These are:

- A. Places that warranted the extension;
 - B. Places that created huge scope for unfair practices;
 - C. Places where the payment dates should have been extended rather than accepting old notes; and
 - D. Places where use of old notes could further stress on need for 100 and lower denomination notes.
- A. Places that warranted extension:** Based on the severity of need, following activities warranted

extension to ensure people have access to important and unavoidable things. These activities would usually not provide much opportunity for unfair practices.

- ❖ *Payments towards purchase of seeds from designated state-run outlets:* November being the harvest of Kharif crop and beginning of sowing of Rabi crop and therefore an important phase for selling the harvest and purchasing inputs for sowing. As the transaction is mainly cash based, non-availability of cash has affected both, the sale of harvest and purchase of required inputs. It was very important to ensure farmers capable of buying seeds. However, it has already found that powerful people are using their coercive power on poor people for getting their money deposited in bank account, thus to ensure that farmers do not become a potential source for exchange, rationing on purchase based on amount of land ownership or lease should have been effective in limiting such practices.
- ❖ *Payments towards fees, charges, taxes or penalties, payable to central or state governments including municipal and local bodies:* This should have been done only for payment of old dues as it will help government earn revenue from defaulters. For current dues, extension of dates would have been better rather than accepting old notes.
- ❖ *Payments at crematoria and burial grounds.*
- ❖ *Payments in government hospitals for medical treatment.*
- ❖ *Use in all pharmacies for buying medicines with doctor's prescription.*
- ❖ *Payment of current and arrear dues to utilities will be limited to only water and electricity.*
- ❖ *Payments towards court fees.*

B. Places that create huge scope for unfair practices: These activities provide huge scope for unfair practices & are not often amenable for making electronic payment. These activities have been in news almost on a daily basis with people being caught trying to use or exchange large amount of demonetized currency. Such malpractices will continue till some businesses are allowed to accept

old currency. Higher the number of such places, higher would be the chances of such illegal practices, especially where it is practically not possible to keep complete check. Some of such places are listed below:

- ❖ *Purchase of LPG gas cylinders:* Though LPG cylinders are very important for any household, use of older notes should have been limited only for domestic cylinders, preferably for only one cylinder during this period. For commercial cylinders, looking at the nature of businesses that uses LPG, business owners are most likely to have no dearth of acceptable cash, thus making no sense with this set of people. However, as per one Hindi daily, it is allowed for domestic use only (Dainik Bhaskar, 2016).
- ❖ *Payments towards on-board catering during travel by rail:* Generally, people travel well prepared with enough cash to make payment for travel needs. Under the situation of less cash, they can carry home cooked food to avoid or reduce cash requirement. Around 23 million passengers travel in 12,617 passenger trains in India (2013, March) of which 676 trains have pantry car (MoR, 2015). Apart from that, there is option to order from e-catering services. These numbers indicate the potential of this avenue in converting black money to white through this route where it is practically difficult to keep control on malpractices due to its size. Under such conditions keeping option open to pay using discontinued notes could have been avoided.
- ❖ *At railway ticketing counters, bus ticket counters of government or public sector undertakings and airline counters at airports for purchase of tickets:* Giving a blanket permission to book tickets in all the important mode of transport without categorizing the customers on the basis of their ability to make cashless payment after almost three weeks of demonetization is a wrong decision by all means. Especially in case of airlines, passengers travelling in 3rd AC and above reservation classes in trains, and AC coach buses where passengers are expected to be capable of making electronic payment. This should only have been kept open for booking at railway stations and bus stations of small towns and villages and for

passengers traveling in unreserved or sleeper (non-AC) class.

- ❖ *Use at international airports for arriving and departing passengers up to Rs. 5,000:* Passengers travelling to and from international destination are expected to have debit or credit cards and therefore managing expenses in airport is not be a problem for this segment of people. There are chances, however, of arriving passengers facing problem. Thus, it should have been limited only for arriving passengers & foreigners- arriving and departing. Again, a detail on what one can purchase is not mentioned as there are so many shops in international airport selling large variety of stuffs many of which are luxury products and not important or emergency products. Under such circumstances, keeping check on maximum expenditure limit of Rs.5000 looks difficult. Keeping the option to pay using demonetized currency at airport is not just creating scope for using black money, but is also against the objective of cashless economy.
- ❖ *Payments towards pre-paid mobile top-up to a limit of Rs. 500 per top-up:* Large number of people (seller & customers) are involved in this business, thus resulting in a huge scope of replacing received notes with demonetized notes. Possibility of control in such practices is less due to administrative problems in keeping check on involvement of large number of people.
- ❖ *Payment at petrol pumps:* This should have been limited only on petrol pumps located in rural areas or at best for commercial vehicles. Petrol pumps, with huge number of customers, provide an easy opportunity for black money holders to connive with rogues elements in the crowd and inject the banned currency into the system.
- ❖ *Purchases at consumer cooperative stores operated under authorisation of central or state governments with identity proof (Safal, Mother Dairy) up to Rs. 5,000 at a time:* Many of such stores are located in metros and their large proportion of customers are capable of making cashless payment. Instead of accepting Rs 500 note, installation of micro ATM in these stores would have been better option. Again, limit of 5000 Rs was based on per time purchase only. This

decision cannot control expenses done at the family level nor number of times one person can make purchase. The procedure of putting an ink, adopted in bank to control number of times one can visit banks to exchange notes, could have been applied here also.

- C. **Places where the payment dates should have been extended rather than accepting old notes:** To avoid misuse for certain transactions as mentioned below, extension of date for making payment could have been a better option rather than extending date for accepting old notes.

- ❖ *Payment of school fees up to Rs. 2,000 per student in central government, state government, municipality and local body schools.*
- ❖ *Payment of fees in central or state government colleges.*
- ❖ *Payments towards utility charges including water and electricity, but no advance payments:* This should have been restricted only in those places where payment through electronic media is not possible or only from people who have not paid old bills.

- D. **Places where use of old notes could further stress on need for 100 and lower denomination notes:** Places mentioned below, are often small priced (less than 100) and customers often give a small denomination notes for payment. Allowing payment using demonetized currency would result in more pressure on notes of Rs 100 & lower denomination to return the remaining money and administrative problems for the staff and long waiting time for customers at the ticket counters apart from threat for creating another hub for exchange business.

- ❖ *Purchase of tickets for suburban and metro rail travel:* The maximum fare is about Rs. 50 and minimum is about Rs. 10 in case of Bangalore / Chennai metro, and Mumbai metro (discounted fare). Thus, for such a small denomination it was not justified. At the most, it could have been an option for those buying monthly/ seasonal pass.
- ❖ *Purchase of entry tickets monument maintained by the Archaeological Survey of India:* The entry

fee for majority of such monuments is very small-Rs. 15 only-for Indian and citizens of some other countries like Nepal, Bangladesh etc., & Rs. 200 for the citizens of other countries. The case is quite similar to metro tickets, except for the fact that under cash crunch situation one can postpone visiting such monuments, which is not possible in case of Metros. Looking at this, acceptance of old currency should have been kept open only from citizens of countries for whom the entry ticket is Rs. 200.

- ❖ *Payment at toll plazas:* Government gave Toll tax exemption until 2nd December to ensure no disruption in movement of commercial vehicles to ensure smooth functioning of businesses and availability of essential goods to public. Date for tax exemption was increased multiple times from 11th November to 14th November to 18th November, then to 24th November, and finally to 2nd December (DNA, 2016). This way government had given enough time to transporters and individual travelers to prepare themselves with required currency to make payment. If acceptance of old 500 note was needed even after that to ease the situation, it should have been done from the very beginning rather than extending the date of toll tax exemption multiple times that resulting into revenue loss to the government/ operator. At least on 24th November when they decided to extend toll tax exemption till 2nd December and acceptance of old notes till 15th December, further exemption should have been avoided, if the decision makers felt that paying through old notes will not be a problem for the commuters. To manage the chaos in tollbooth and manage return of balance money, temporary coupons could have been issued for use in next trip or any other national tollbooth. Taxes should have been temporarily rounded off to 100 or 50 temporarily to make issue/use of such coupons easy. This would have prevented the revenue loss to government from toll taxes.
- ❖ *Purchases at milk booths under central or state governments:* Despite being essential items, customers spend much lower on milk making little sense for using notes of Rs. 500 denomination.

Impact on Corrupt People

While it was still difficult for offenders holding

large cash to get their unaccounted money legitimized through the loopholes within the current 'demonetization' framework, there is still a significant number of black-money holders, albeit with smaller amount of cash piles, who would manage to use their cash without any penalty. Going by 80:20 rule, while 20% of corrupt people who have 80% of overall black money in the country will have to face consequences, 80% of them having 20% of the black money will still be able to exploit the system. Worse, they managed to sail against the wind using multiple routes created for utilizing the demonetized currency due to further extension of date for accepting demonetized banknotes. This lot will only be emboldened to continue their malpractices without any fear instead of learning a tough lesson.

In fact the lack of fear from legal punitive consequences can already be gauged from everyday reports of seizures of heaps of new currency notes that were illegally exchanged for demonetized notes, flood of money into Jan-Dhan accounts, officials caught taking bribe for facilitating money exchange, bankers getting corrupt etc.

Missed Strategies and the Silver Lining

A couple of weeks after demonetization, the cash was mainly a problem in places (rural & semi-urban) with low bank density. In urban areas, people had access to cash in addition to significant penetration of electronic mode of payment. Therefore, if any such extension was warranted to help people tackle problems in managing daily essentials, it should have been restricted to rural & semi-urban places with low bank density. In all those places where urban people may find problem in buying important daily need products, micro ATM could have been installed rather than extending acceptance of Rs. 500 notes.

As the wrong mechanism was already put in place by some to get their back money converted into white before 24th November, 2016, extending the acceptance of old notes at large places was by all means not very appropriate decision and, in fact, was against many objective behind this great and bold decision. To keep a check on possibility of misuse of extension of acceptability of old notes some standard operation procedures should have been framed to be practiced at all of these avenues. Wherever old notes were acceptable, separate register should have been maintained to record money received in old notes along with the identity of

person paying through that as was done in banks for exchange, at least for those making payment above certain specified amount. This could have resulted into fear in the minds of people and some check in misusing the situation for exchanging the notes received with discontinued notes.

The decision of demonetization of banknotes has created some temporary problematic situations especially for people having no means for making cashless payment, people in areas with low bank density, small business based on small cash transaction, people undergoing emergencies etc. However, it was a war against insider enemy engaged in corruption, illegal practices, parallel economy, counterfeit currency, funding for anti-social activities etc. Presences of such elements has become a big deterrent in the holistic development of the nation that can't be achieved unless government gets more revenue and reduces leakages of the money allocated for development. Demonetization resulted in many involved in unlawful activities for utilizing black money, but at the same time news related to raids to arrest people involved in note exchanges gave a tough message that the government is serious in eradication of black money & corruption. People are becoming aware of the importance of online/ cashless payment in avoidance of creation of black money & parallel economy. What is required is the continued aggression of government in arresting corrupt people & developing habit of cashless transactions by giving monetary benefits to the users so that the actual earning can be traced which otherwise adds to black money. At the same time, it is important to make it difficult for people with undeclared income to invest or make expenditure (e.g. by bringing transparency in purchase of all products/ services like land, gold & bullion, precious stones, international pleasure trips, big fat marriages etc.) by bringing both buyer and seller under scanner. If done will, demonetization could bring an everlasting positive impact. On the contrary, with shoddy implementation and follow up, habitual offenders will soon start using the new currency to reestablish the black empire.

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Dynamics of development in tribes: A district level analysis of Gujarat state

Dr. Nasheman Bandoorkwala*

Abstract

Development consists of removal of poverty, tyranny, poor economic opportunities, systematic social deprivation and poor public facilities. Removal of these factors results into equality in opportunities and enlarging of capabilities. Although, passionate attention of authorities has been initiated towards this direction - a lot needs to be done yet. Moreover, penetration in this regard for marginalised section opens up a diverse dynamics. The inclusive development - equality in opportunities loses its sheen when marginalised social groups are analysed and synthesized. Voluminous work has been done in this direction but serious dearth is experienced at district level. Recognizing this gap the present study is initiated to ameliorate the understanding about development dynamics of tribes in Gujarat.

The parameters like demography of tribes across Gujarat, education attainments, Work participation rate, BPL population and living standard indicators like electricity connections, clean drinking water and use of banking facility are considered to have comprehensive and cohesive understanding.

Development is defunct, redundant and incomplete if half of the millions of the population remain voiceless, undervalued and underutilized. Sen, recognizes that increase of income alone has at best uneven and at worst detrimental impacts on the majority of a country's population, and radical redistributive measures are necessary for the poor to benefit from growth. These measures are offered by Human Development Index (HDI), in Human development report published by UNDP since 1990. Development consists of removal of poverty, tyranny, poor economic opportunities, systematic social deprivation and poor public facilities. Removal of these factors results into equality in opportunities and enlarging of capabilities. Although, passionate attention of authorities has been initiated towards this direction - a lot needs to be done yet. Moreover, penetration in this regard in terms of social groups opens up a diverse dynamics. The inclusive development - equality in opportunities loses its sheen when marginalised social groups are analysed and synthesized. The present study attempts to evaluate and address development discourse - with human development at its centre for schedule tribes (ST) across the districts of Gujarat. Voluminous work has been done at international, national and state level in this direction but serious dearth is experienced at district level. Recognizing this gap the present study is initiated to ameliorate the understanding about development dynamics of tribes in Gujarat.

The study begins with analysis of demography of schedule tribes across districts of Gujarat and regional names these tribes with their percentage in total ST population in Gujarat. This will be followed by education

attainments amongst tribes with literacy and enrollment as a focus point. Work participation rate (WPR) amongst ST's across districts of Gujarat will be analysed and will be compared to determine the gap -inequality in opportunity. Tribal population below poverty line (BPL) indicates economic status of the group vis. a vis. rest of the populace. The study incorporates the BPL for schedule tribe population to gauge the living standard of the group. Other indicators like availability of electricity, sanitation facility, clean drinking water and use of banking facility is incorporated in the study to have comprehensive understanding about the group.

1. Demographic dimension of Schedule caste in districts of Gujarat

Tribes are groups which according to anthropological literature are characterized by features like isolated group with low density and primitive economy, technology and political organization. In India such groups are declared as Schedule tribes (ST) In Gujarat ST out of total population constitutes 14.75%. The state ranks 5th with share 8.6% of total ST population of the country. The highest is at Madhya-Pradesh (14.7%) followed by Maharashtra (10.1), Odisha (9.2%) and Rajasthan(8.9%). Across districts of Gujarat low percentage of ST population is recorded. Dahod records highest ST population of 17.73% of total state population followed by Vadodara district with 12.9% and Valsad with 10.12%. Lowest ST populated district is Amreli with 0.08%. Moreover, Dang being tribal district with 94% of its populace being tribe constitutes only 2% of state population indicating low density in the district. As of 2015,

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there are 31 tribes spread over different areas of Gujarat according to List_of_Scheduled_Tribes_in_Gujarat

Tribes and their local identification (names) in Gujarat

1. Barda
2. Bavacha, Bamcha
3. Bharwad (in the Nesses of the forests of Alech, Barada and Gir)
4. Bhil, Bhil Garasia, Dholi Bhil, Dungri Bhil, Dungri Garasia, Mewasi Bhil, Rawal Bhil, Tadvil Bhil, Bhagalia, Bhilala, Pawra, Vasava, Vasave.
5. Charan (in the Nesses of the forests of Alech, Barada and Gir)
6. Chaudhari (in Surat and Valsad districts)
7. Chodhara
8. Dhanka, Tadvil, Tetaria, Valvi
9. Dhodia, Dhodi
10. Dubla Talavia, Halpati
11. Gamit, Gamta, Gavil Mavchi, Padvi
12. Gond, Rajgond
13. Kathodi, Katkari, Dhor Kathodi, Dhor Katkari, Son Kathodi, Son Katkari
14. Kokna, Kokni, Kukna
15. Koli Dhor, Tokre Koli, Kolcha, Kongha
16. Kunbi (in the Dang Districts)
17. Naikda, Nayaka, Cholimvala Nayaka, Kapadia Nayaka, Mota Nayaka, Nana Nayaka,
18. Padhar
19. Pardhi, Advichincher, Phanse Pardhi (excluding Amreli, Bhavnagar, Jamnagar, Junagadh, Kutch, Rajkot and Surendranagar district)
20. Patelila
21. Pomla
22. Rabari (in the Nesses of the forest of Alech, Barada and Gir)
23. Rathwa
24. Siddi, Siddi-Badshan (in Amreli, Bhavnagar, Jamnagar, Junagadh, Rajkot and Surendranagar Districts)
25. Varli
26. Vitolia, Kotwalia, Barodia

Table : 1 Tribes wise population in Gujarat 2011

Name of the tribes	Total population	Proportion to the total ST population
Bhil, Bhil Garasia, Dholi Bhil, Dungri Bhil, Dungri Garasia, Mewasi Bhil, Rawal Bhil, Tadvil Bhil, Bhagalia, Bhilala, Pawra, Vasava, Vasave	4,215,603	47.28%
Chaudhri (in Surat and Valsad districts)	302,958	3.40%
Dhanka, Tadvil, Tetaria, Valvi	280,949	3.15%
Dhodia, Dhodi	635,695	7.13%
Dubla, Talavia, Halpati	643,120	7.21%
Gamit, Gamta, Gavil, Mavchi, Padvi	378,445	4.24%
Kokna, Kokni, Kukna	361,587	4.05%
Rathwa	642,348	7.20%
Varli	328,194	3.68%
All Schedule Tribes	8,917,174	100%

Source : www. List_of_Scheduled_Tribes_in_Gujarat

Among tribes in Gujarat Bhil, Dholi, Bhagalia, Bhilala, Pawara and Vasave constitute 47% of population, while Dhanka, Tadvil, Tetaria, Valvi are minority with only 3.15% of population. Chaudhari tribes are habitant of Valsad and Surat district are also in minority constituting 3.4% of population to total population of ST in Gujarat. Varli is other minority tribes living in mountains or coastal areas of Gujarat. Kokna, Kokni, Kukna tribes

are concentrated in Valsad and Dangs - it is believed that this tribe has migrated from Kokan region and hence they are called Kokna .

In order to have in depth understanding of tribes in Gujarat , district wise distribution of ST population is inevitable. The Table 2 depicts the district wise percentage of ST population.

Table:2 District wise percentage of ST population vis.a vis. Total population 2001 and 2011

Sr. No.	State/District	Population		% share of ST Pop. to Total ST Pop. of the State		% share of ST Pop. to Total Pop. of the District		Percentage change in 2011 over 2001 (State percentage)	Percentage change in 2011 over 2001 (State percentage Over 2001(district Percentage)
		Total	Scheduled Tribes	2001	2011	2001	2011		
1	2	3	4	5	6	7	8	9	10
	Gujarat	60439692	8917174	100.00	100.00	14.76	14.75	-0.01	-
1	Kachchh	2092371	24228	1.74	0.27	8.22	1.16	-7.06	-85.9
2	Banaskantha	3120506	284155	2.75	3.19	8.22	9.11	0.89	10.83
3	Patan	1343734	13303	0.17	0.15	1.07	0.99	-0.08	-7.48
4	Mehsana	2035064	9392	0.12	0.11	0.49	0.46	-0.03	-6.12
5	Sabarkantha	2428589	542156	5.62	6.08	20.18		2.14	10.60
6	Gandhinagar	1391753	18204	0.24	0.20	1.32	1.31	-0.01	-0.76
7	Ahmadabad	7214225	89138	0.78	1.00	1.00	1.24	0.24	24
8	Surendranagar	1756268	21453	0.19	0.24	0.95	1.22	0.27	28.42
9	Rajkot	3804558	24017	0.18	0.27	0.42	0.63	0.21	50
10	Jamnagar	2160119	24187	0.14	0.27	0.55	1.12	0.57	103.60
11	Porbandar	585449	13039	0.09	0.15	1.20	2.23	1.03	85.83
12	Junagadh	2743082	55571	0.25	0.62	0.77	2.03	1.26	163.60
13	Amreli	1514190	7322	0.04	0.08	0.23	0.48	0.25	108.70
14	Bhavnagar	2880365	9110	0.10	0.10	0.30	0.32	0.02	6.66
15	Anand	2092745	24824	0.31	0.28	1.23	1.19	-0.04	-3.25
16	Kheda	2299885	40336	0.43	0.45	1.60	1.75	0.15	1.37

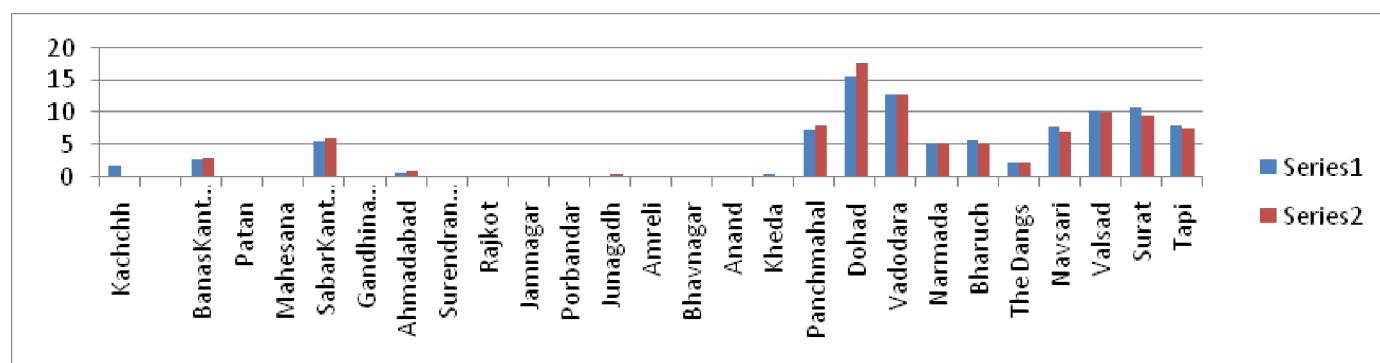
17	Panchmahal	2390776	721604	7.43	8.09	27.45			2.73	9.94
18	Dohad	2127086	1580850	15.81	17.73	72.26			2.06	2.85
19	Vadodara	4165626	1149901	12.93	12.90	26.56			1.04	3.91
20	Narmada	590297	481392	5.37	5.40	78.08			3.47	4.44
21	Bharuch	1551019	488194	5.94	5.47	32.40			-0.92	-2.84
22	The Dangs	228291	216073	2.34	2.42	93.76			0.89	0.94
23	Navsari	1329672	639659	7.90	7.17	48.08			0.03	0.062
24	Valsad	1705678	902794	10.32	10.12	54.76			-1.83	-3.34
25	Surat	6081322	856952	10.79	9.61	18.88	14.09		-4.79	-25.4
26	Tapi	807022	679320	8.04	7.62	83.53			0.65	0.778

Analysing demography of ST within the districts- Dang records 94.65% of its populace as ST- meaning is predominated by ST, while least is recorded at Bhavnagar of 0.32%. Other districts with high ST population as percentage of districts are Narmada and Tapi with 81% and 84% respectively. Districts with ST population above 50% of district population are Valsad and Dahod with 52% and 74% respectively. Districts like Ahmedabad, Surat, Vadodara and Gandhinagar - relatively developed districts of Gujarat records low ST population of 1.24%, 14.09%, 27.6% and 1.31%. Evaluating decadal change in ST population during 2001 to 2011 across districts of Gujarat highest is recorded at Narmada with rise of 3.47 % while lowest is at Kachchh with decrease in ST population of (-7.06%). Other districts that exhibits decrease in ST population are Patan, Mehsana, Gandhinagar, Anand, Bhavnagar, Valsad and Surat. Analysing change in ST population within the districts as percentage of district population- Junagadh records 163% rise in ST population during decade, mostly all the district except Kachchh, Mehsana, Sabarkantha, Gandhinagar, Anand and Bharuch reports increase. Infact, districts like Rajkot, Jamnagar, Porbandar, Junagadh and Amreli reports 50% increase in ST population. Moreover highest fall in ST population is recorded at Kachchh with 85% fall.

2. Education attainments amongst ST's across districts of Gujarat

Early philosophers such as Aristotle and Plato pointed out that education was central to the moral fulfillment of individuals and the well-being of the society in which they live. In the past few decades, research has supported this conventional wisdom, revealing that education not only enables individuals to perform better in the labour market, but also helps to improve their overall health, promote active citizenship and curtail violence. Educated individuals in total can make society better place to live in .Education can definitely bring significant benefits to society, not only through higher employment opportunities and income but also via enhanced skills, improved social status and access to networks. The present section is an attempt to evaluate education attainments amongst tribes across districts of Gujarat. The education attainments are gauged through literacy rates and enrollments in school.

Chart: 1 ST population in 2001 and 2011 across districts of Gujarat



2.1 Literacy rates amongst tribes across districts of Gujarat

Districts of Gujarat records low literacy rate amongst tribes. Dang- the tribe dominated district reports 74% literacy. However, female literacy (66%) in Dang is much lower than that of males (82%). The inequality in literacy with total literacy of state is lowest in Dang as district has 94% of its populace as ST. Surendranagar records lowest literacy amongst ST of 44%. In tribal males Amreli has lowest literacy of 53%. While for female lowest literacy is recorded at Surendranagar of 31%.

It is worth gauging inequality in literacy for ST vis. a vis. total literacy of the districts. Across districts of Gujarat inequality prevails in ST literacy rate. While highest inequality of 38.49% is recorded at Amreli lowest is recorded at Dang- already mentioned earlier. Districts like Kachchh, Banaskantha, Surendranagar Rajkot, Jamnagar, Porbandar, Amreli, and Anand. Kheda,

Vadodara and Surat records inequality in ST literacy vis. vis. total district literacy by above 20%. Lower literacy is indicative of the fact that human development is low in ST in these districts as education is an important indicator of development, enlightenment and awareness.

The analysis of ST literacy across districts of Gujarat depicts standard deviation of 9.4, indicating high variation in literacy with some districts having better literacy rate while some record low literacy amongst tribes. The average literacy of ST is 63% much lower than total literacy average of 76.4%.

High variance is also recorded of 88.5 meaning within districts of Gujarat literacy amongst ST has high deviation. Gender literacy rate as well records high inequality with female average being 53% and male average being 72% Variance in female literacy is very high of 108.9 and standard deviation of 10.4, indicating ST female lacks literacy and empowerment.

Table:3 Literacy rate in tribes across districts of Gujarat

Districts	ST literacy	ST Males	ST Females	Total Literacy rate	Inequality in ST vis. a vis. Total literacy
Kachchh	53.9	63.5	42.9	70.6	23.65
Banaskantha	50	61.3	38.4	65.3	23.43
Patan	67.7	80	54.7	72.3	6.36
Mehsana	78.2	85.9	69.9	83.6	6.46
Sabarkantha	65.2	76.1	54.4	75.8	13.98
Gandhinagar	78.9	85.1	72	84.2	6.29
Ahmedabad	68.4	76.6	59.3	85.3	19.81
Surendranagar	44.3	56.3	31.5	72.1	38.56
Rajkot	57.3	64.6	49.4	81	29.26
Jamnagar	56.5	63.9	48.7	73.7	23.34

Porbandar	56.4	65.7	46.4	75.8	25.59
Junagadh	66.5	75.7	57	75.8	12.27
Amreli	45.7	53.7	36.7	74.3	38.49
Bhavnagar	73.5	82.6	63.5	75.5	2.65
Anand	66.1	74.4	57.3	84.4	21.68
Kheda	63.8	73.6	53.1	82.7	22.85
Panchmahal	59.1	70.3	47.4	71	16.76
Dahod	53.8	64.6	43.1	58.8	8.50
Vadodara	54.3	64.7	43.4	78.9	31.18
Narmada	69	78.7	59.1	72.3	4.56
Bharuch	65.6	74.6	56.2	81.5	19.51
The Dangs	74.4	82.5	66.5	75.2	1.06
Navsari	74.6	81.7	67.5	83.9	11.08
Valsad	67.3	75	59.6	78.6	14.38
Surat	67.3	74	60.4	85.5	21.29
Tapi	64.9	72.4	57.7	68.3	4.98

Source: Statistical Abstract of Gujarat 2014

2.2 Enrollments in ST's

Enrollments are indicative of improvements in literacy and are important parameters of gauging education attainments. Although the GER, unlikely NER - only indicates that children are enrolled in the school not necessarily to right age and right standard. GER in most of the districts of Gujarat is nearing 100% and in some districts it has exceeded 100%. The Table 4, indicates that despite of sharp rise in overall GER the same among

downtrodden remained highly unequal. Low GER is recorded in most of the districts among ST and the lowest is at Mehsana of 0.83%. Dang records GER of 53.8% for ST, being predominantly tribal district- low enrollments certainly indicates weak education scenario. Districts like Dahod, Narmada, Navsari, Valsad and Tapi records enrollments above 50% rest all the districts have enrollments below 50% which is quite disappointing and sad since if children do not go to school development is unimaginable and unresponsiveness.

Table 4 Statistical parameter of literacy amongst ST in districts of Gujarat

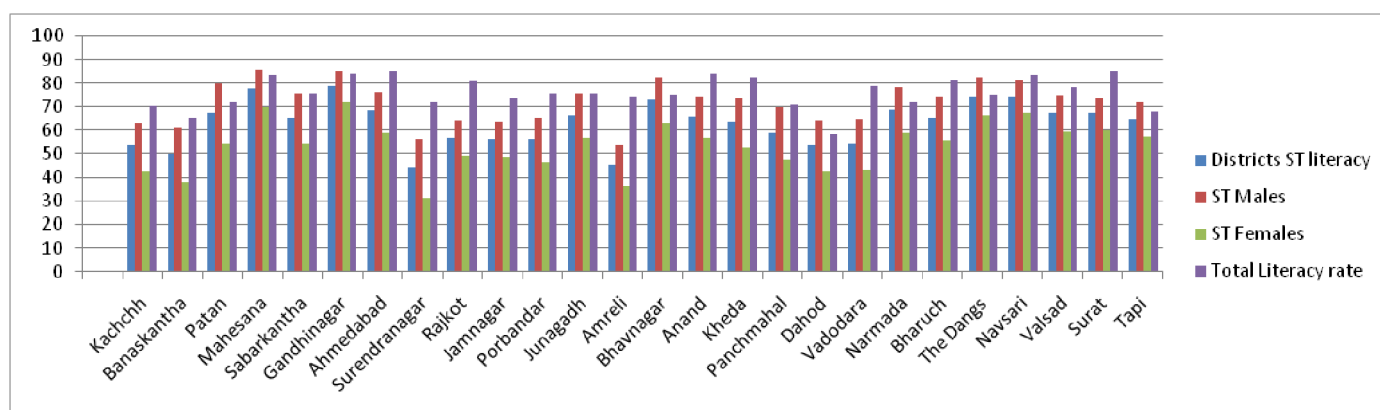
Parameters	Literacy ST	Literacy ST males	Literacy ST females	Literacy Total
Standard deviation	9.411356	8.736742	10.43707	6.697522
Average	63.18077	72.21154	53.69615	76.4
Variance	88.57362	76.33066	108.9324	44.8568
Co-efficient of Variation	14.89592	12.09882	19.43727	8.76639

Tables: 5 Tribes enrollments and girls enrollments in primary and upper primary

Districts	Primary	Upper primary	Average Enrollments (GER)	GER general
Kachchh	2.9	1.9	2.4	108.45
Banaskantha	12	8.3	10.15	120.25
Patan	1.5	1.6	1.55	96.25
Mehsana	0.90	0.77	0.835	88.75
Sabarkantha	30.2	25.9	28.05	96.7
Gandhinagar	3.2	3.2	3.2	87.05
Ahmedabad	3.1	2.7	2.9	75.7
Surendranagar	3.2	1.7	2.45	100.35
Rajkot	2.6	1.5	2.05	79.2
Jamnagar	2.1	1	1.55	66.55
Porbandar	2.5	1.7	2.1	89.6
Junagadh	1.9	1.8	1.85	93.35
Amreli	1.4	0.70	1.05	86.85
Bhavnagar	1.1	0.731	0.9155	101.6
Anand	2.3	2	2.15	91.5
Kheda	2.8	2.6	2.7	93.65
Panchmahal	34.9	31.1	33	103.1
Dahod	78.6	75	76.8	121.6
Vadodara	32.9	27.7	30.3	75.35
Narmada	86.3	85.3	85.8	93.25
Bharuch	36.4	35.5	35.95	89.15
The Dangs	97.9	9.7	53.8	130.35
Navsari	53.1	53.8	53.45	77.8
Valsad	58.6	60.1	59.35	93.7
Surat	16.1	16.7	16.4	65.9
Tapi	85.9	85.9	85.9	NA

Source Calculated

Chart 2 Literacy rate of Schedule Tribes in districts of Gujarat



Turning the analysis further deeper and evaluating gender related enrollments the scene is further disappointing with low female (girls) enrollments vis. a

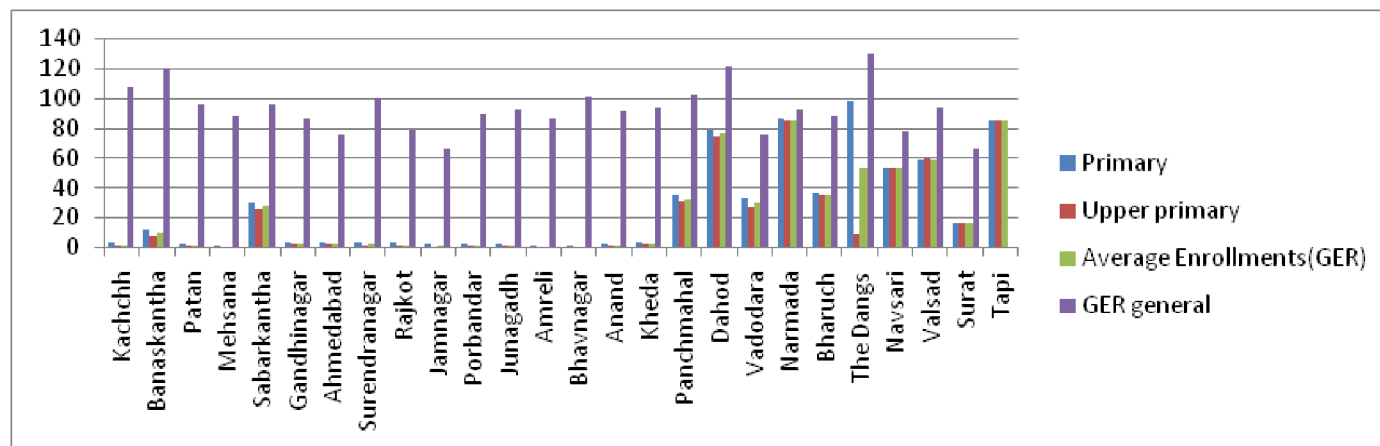
vis. boys amongst ST in districts of Gujarat. Mostly all the districts have girls enrollments less than 50%. Moreover Dangs where 94% of population is ST girls' enrollment of 49.3% is worth noting.

Table : 6 Enrollments amongst ST girls

Districts	Girls in Primary	Girls in Upper primary	Average Enrollments Girls
Kachchh	42	39	40.5
Banaskantha	46.4	43.6	45
Patan	43.8	41.7	42.75
Mehsana	42.4	38.4	40.4
Sabarkantha	47.9	47.7	47.8
Gandhinagar	41.7	38.6	40.15
Ahmedabad	46.1	41.6	43.85
Surendranagar	40.5	35	37.75
Rajkot	38.9	39	38.95
Jamnagar	37.6	39.5	38.55
Porbandar	43.4	45.4	44.4
Junagadh	43.9	44	43.95
Amreli	37	39.3	38.15
Bhavnagar	38.9	36	37.45
Anand	44.5	40.9	42.7
Kheda	42.4	38.4	40.4
Panchmahal	48.2	47.6	47.9
Dahod	47.8	47	47.4
Vadodara	47.8	46.3	47.05
Narmada	48.6	48.5	48.55
Bharuch	48.6	48.1	48.35
The Dangs	48.4	50.3	49.35
Navsari	48.3	49	48.65
Valsad	49.1	48.5	48.8
Surat	48.6	48.7	48.65
Tapi	48.9	49.5	49.2

Source: *www.DISE.in* retained on 1st Feb 2016.

Chart 3 ST enrollments and Total enrollments across districts of Gujarat



3 Work Participation rate (WPR) of ST's in districts of Gujarat

WPR is indication of growth and when WPR is gauged across social groups it indicates equality or inequality within the group. Transformation of labour from agricultural to industry is real indication of development. Although across country and in the state of Gujarat WPR has recorded increase, barring some districts where it has fallen. Nonetheless, growth in WPR has remained sluggish. WPR amongst ST's in districts of Gujarat against total WPR is recorded higher- indicating economic independence of tribes against rest. At state level ST's

records higher WPR of 49% vis. a vis. of 41% in all categories. At both rural and urban level ST's records higher WPR against all categories. District-wise WPR of ST is higher than general category barring districts like Banaskantha, Patan, Mehsana, Porbandar, Junagadh and Bhavnagar where WPR is marginally less by 1 to 3%. The average WPR for ST in Gujarat is 49% but surprisingly districts like Ahmedabad, Gandhinagar, Patan, Kachchh, Mehsana, Rajkot, Jamnagar, Bhavnagar, Anand and Kheda records WPR less than average. The inter-district variance and standard deviations works out to be 36 and 6 which is reasonably in controlled limits.

Chart 4 WPR amongst ST across districts of Gujarat

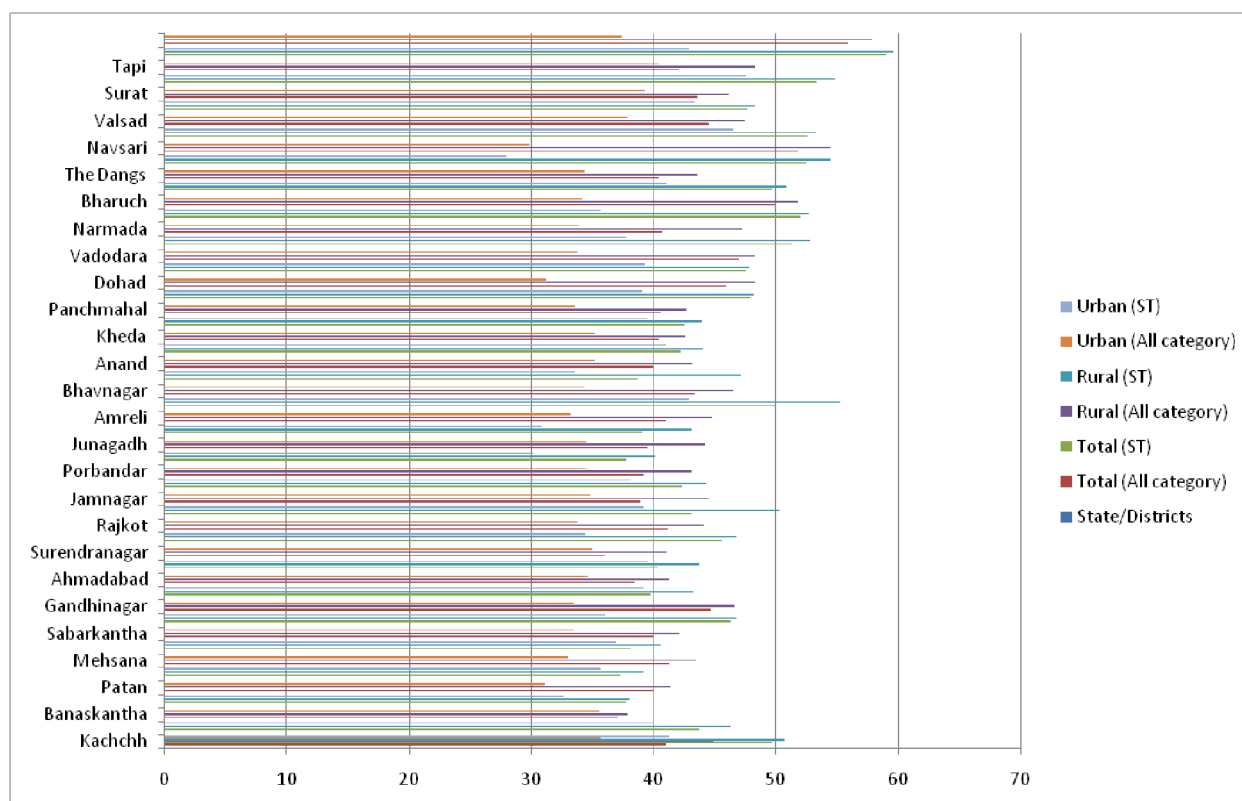


Table: 7 Work Participation rates of ST vis. a vis. All categories in districts of Gujarat

State/Districts	Total (All category)	Total (ST)	Rural (All category)	Rural (ST)	Urban (All category)	Urban (ST)
Gujarat	41.0	49.71	44.9	50.65	35.7	41.29
Kachchh	37.1	43.73	37.9	46.31	35.6	40.02
Banaskantha	40.0	37.79	41.4	38.04	31.1	32.58
Patan	41.3	37.31	43.5	39.19	33.0	35.67
Mehsana	39.9	38.14	42.1	40.59	33.5	36.91
Sabarkantha	44.7	46.31	46.6	46.75	33.5	36.02
Gandhinagar	38.4	39.78	41.3	43.24	34.6	39.21
Ahmadabad	36.0	40.34	41.1	43.75	35.0	39.55
Surendranagar	41.2	45.59	44.1	46.83	33.8	34.39
Rajkot	38.9	43.06	44.5	50.27	34.8	39.18
Jamnagar	39.2	42.36	43.1	44.33	34.5	38.13
Porbandar	39.5	37.76	44.2	40.12	34.5	30.16
Junagadh	41.0	39.13	44.8	43.09	33.2	30.83
Amreli	43.4	49.89	46.5	55.29	34.3	42.87
Bhavnagar	39.9	38.68	43.2	47.18	35.2	33.60
Anand	40.4	42.23	42.6	44.08	35.2	41.01
Kheda	40.6	42.47	42.7	43.93	33.6	39.44
Panchmahal	45.9	47.94	48.3	48.24	31.2	39.08
Dohad	47.0	47.52	48.3	47.84	33.8	39.30
Vadodara	40.7	51.36	47.3	52.78	33.9	37.77
Narmada	49.9	51.99	51.8	52.70	34.1	35.68
Bharuch	40.4	49.74	43.6	50.87	34.3	41.06
The Dangs	51.8	52.54	54.5	54.49	29.9	27.98
Navsari	44.5	52.57	47.5	53.29	37.9	46.47
Valsad	43.6	47.66	46.1	48.30	39.3	43.41
Surat	42.0	53.40	48.3	54.88	40.4	47.57
Tapi	55.9	59.08	57.9	59.63	37.4	42.87

Source: State, district and talukawise schedule caste and schedule tribes statistics in Gujarat state 2011 and State, district and Talukawise occupational classification of Gujarat state 2011, Directorate of Economic and Statistics GOG

4. Poverty and Vulnerability amongst ST's in districts of Gujarat

The relationship between deprivation and development is crucial for understanding the significant impact that deprivation has on outcomes in adulthood. There is a very clear pathway -from childhood poverty to reduced employment opportunities, with earnings estimated to be reduced by between 15% and 28% and the probability of being in employment at age 34 reduced by between 4% and 7% (Blanden, Hansen & Machin, 2008). Crucially, those who end up with lower earnings are ones with a lack of skills and qualifications in other words; deprivation has a negative impact on educational attainment, leaving young people with fewer qualifications

and skills which in turn affect future employment. Poor educational attainment has short? as well as longer?term consequences. There are direct effects on health (for example, quality of diet, chances of smoking) and indirect effects (for example, lower skilled people are more likely to find employment in hazardous occupations where they are at greater risk of accidents) (Feinstein et al. 2006). There is further evidence that lower levels of educational achievement can have a negative impact on an individual's engagement with society, for example there is increased likelihood that an individual will engage in criminal activity (Feinstein et al., 2008). The present study with focus on tribes attempts to evaluate poverty and vulnerability amongst tribes across districts of Gujarat through percentage of population below poverty line (BPL).

Table: 8 ST population below poverty line across districts of Gujarat

Districts	% of family BPL (0-16)	% of family BPL (17-20)	% of ST family BPL (0-16)	% of ST family BPL (17-20)
Ahmedabad	21.94	18.62	1.00	0.68
Amreli	15.04	14.29	0.68	0.41
Anand	23.24	22.42	0.92	0.62
Banaskantha	26.79	21.80	4.33	2.97
Bharuch	28.43	17.89	21.51	10.38
Bhavnagar	7.81	14.71	0.21	0.28
Dahod	45.45	26.30	38.44	20.03
Dang	48.31	21.83	45.42	20.38
Gandhinagar	6.40	14.18	0.29	0.31
Jamnagar	9.74	12.83	0.59	0.51
Junagadh	8.29	11.69	0.43	0.41
Kachchh	16.29	18.88	2.31	2.01
Kheda	17.10	24.97	0.73	0.63
Mehsana	15.49	16.12	0.35	0.27
Narmada	45.94	26.51	41.01	22.48
Navsari	12.64	15.8	10.66	12.21
Panchmahal	25.16	25.57	11.30	8.63
Patan	19.68	22.46	0.65	0.57
Porbandar	10.85	13.53	0.22	0.27
Rajkot	13.36	14.43	0.39	0.35
Sabarkantha	14.18	18.72	5.28	5.82
Surat	20.57	20.43	19.08	18.56
Surendranagar	25.08	21.58	1.36	0.59
Vadodara	24.93	21.72	14.71	12.01
Valsad	28.49	20.04	25.06	16.41

Source: ses2002.guj.nic.in, District query report/ dynamic list as on 28/2/ 2014, 1.14pm

It would be worth understanding the methodology used to identify the families below poverty line. The latest methodology is based on 13 socioeconomic indicators, indicting the quality of life and by score-based ranking for all households. Each indicator has 0 to 4 marks. Thus, for 13 indicators, the tentative marks obtained by the families are from 0 to 52 for all the districts. Families scoring 0 to 20 are categorized as poor and those who score 0 to 16 are identified as extreme poor families.

For, schedule tribes Dang exhibits highest percentage of population below poverty line for 0-16 score (identified as extremely poor) i.e. 45.42%, while lowest are at Bhavnagar of 0.21%. For score of 17 to 20 highest is at Narmada 22% and lowest is at Porbandar 0.27%. It can be seen that of total BPL families percentage of ST is less but that is due to lower ST population.

Some districts records more than 80% of STs' below poverty line, it is depicted in Table 9 below

Table 9 Percentage of ST population BPL vis. a vis. total BPL population in selected districts

Districts	Total BPL Population (%)	ST BPL Population (%)
Bharuch	28	21
Dahod	45	38
Narmada	45	41
Navsari	12	10
Panchmahal	25	11
Dang	48	45
Surat	20	29
Valsad	28	25

Source Calculated

The Table 9 exhibits more than 80% percent of total population BPL constitute ST in districts listed above. This is the matter of concern for the listed districts and needs intense and immediate amendments and corrections. Critically these districts have exhibited skewed growth of few social groups ignoring the downtrodden.

5. Living standard amongst ST in districts of Gujarat

Living standard in the present study for tribes is gauged through clean drinking water, electricity connection and sanitation available for tribes across districts of Gujarat. The data for each parameter is drawn from Census 2011, Government of Gujarat (GoG).

5.1 Clean Drinking water in ST household across districts of Gujarat

Clean drinking water is inevitable for healthy life; the Table 10 depicts number of ST household deprived of clean drinking water. On basis of percentage at state level- Gujarat level 84% of ST populace is deprived of clean water. In rural areas of Gujarat 93% of ST population is deprived of clean treated source of water which is matter of critical concern. District wise analysis also depicts dismal scenario

It would be interesting to categorize districts on deprivation. Ten districts of Gujarat viz. Banaskantha, Bharuch, Sabarkantha, Panchmahal, Dahod etc see Table 11 reports deprivation above 80% which is matter of concern as 80% of populace does not have access to clean drinking water and is susceptible to water born disease. Surendranagar and Surat reports deprivation of 70% to 79%. Ahmedabad, Gandhinagar and Rajkot have relatively low deprivation of less than 40%. However, ideally there should be 100% availability of clean drinking water to all.

5.2 Electricity connection in ST household across districts of Gujarat

Electrification as popularly known is fairly good in Gujarat and across districts. Even for ST household same scenario prevails. Except Banaskantha where deprivation is about 5.45% all other districts have low deprivation of 1% to 3%. It is certainly a commendable for a state to provide almost 70% to 80% electricity connection.

Table 10 ST household with and without clean drinking water availability

		Main Source of Drinking Water												
	Total Number of Households	Tap water from treated source	Tap water from untreated source	Covered well	Uncovered well	Hand pump	Tube well/ Borehole	Spring	River/ Canal	Tank/ Pond/ Lake	Other sources	% receiving treated tap water	% receiving untreated and other source of water	
	Gujarat/Total	1,837,844	284,966	265,005	80,657	233,337	768,567	159,965	8,759	17,932	3,574	15,082	15.51	84.49
	Gujarat/Rural	1,525,331	96,982	210,845	77,096	229,262	737,564	135,798	8,517	17,452	3,440	8,375	6.36	93.64
	Gujarat/Urban	312,513	187,984	54,160	3,561	4,075	31,003	24,167	242	480	134	6,707	60.15	39.85
	Ahmedabad	57,708	39,468	7,648	767	487	1,329	6,683	20	341	19	946	68.39	31.61
	Amreli	2,904	1,070	959	83	77	310	212	1	43	6	143	36.85	63.15
	Anand	7,819	3,761	2,430	148	61	238	979	-	-	6	196	48.10	51.90
	Banaskantha	46,899	3,641	8,417	3,434	10,648	15,339	4,528	84	172	81	555	7.76	92.24
	Bharuch	110,128	26,506	41,685	1,614	3,343	27,896	5,630	197	1,145	32	2,080	19.07	80.93
	Kachchh	8,395	3,448	2,312	154	102	152	988	2	2	41	1,194	41.07	58.93
	Patan	3,980	1,378	2,207	55	15	25	184	2	9	10	95	34.62	65.38
	Mehsana	3,717	1,959	1,208	71	2	25	359	1	26	-	66	52.70	47.30
	Sabarkantha	95,391	2,523	4,771	5,750	16,840	31,106	33,003	91	260	75	972	2.64	97.36
	Gandhinagar	6,948	4,823	1,319	16	13	127	478	4	-	1	167	69.42	30.58
	Surendranagar	5,441	1,408	2,020	270	1,209	102	248	3	31	73	77	25.88	74.12
	Rajkot	17,541	11,152	2,869	135	80	1,229	701	5	48	41	1,281	63.58	36.42
	Jamnagar	10,307	4,845	2,295	377	412	1,173	446	3	6	11	739	47.01	52.99
	Porbandar	3,466	1,399	654	288	316	461	148	-	2	76	122	40.36	59.64
	Junagadh	13,476	2,738	4,538	830	1,106	2,284	988	-	11	55	926	20.32	79.68
	Bhavnagar	4,997	2,916	1,159	82	73	337	210	-	7	8	205	58.36	41.64
	Kheda	11,123	3,919	3,549	233	210	1,781	1,169	1	52	5	204	35.23	64.77
	Panchmahal	122,010	3,127	3,880	8,614	35,972	63,468	4,515	339	1,566	286	243	2.56	97.44
	Dohad	234,600	3,509	1,664	19,112	77,935	118,624	3,739	2,204	5,315	1,708	790	1.50	98.50
	Vadodara	239,539	48,393	43,035	7,460	13,677	112,624	8,514	1,217	2,678	279	1,662	20.20	79.80
	Narmada	98,460	6,978	14,866	1,179	1,249	66,733	4,469	829	1,757	215	185	7.09	92.91
	The Dangs	46,149	3,373	4,193	4,350	9,478	21,128	1,745	952	904	9	17	7.31	92.69
	Navsari	141,847	12,636	29,704	4,621	14,233	54,703	24,803	359	368	19	401	8.91	91.09
	Valsad	183,563	15,659	11,687	11,902	26,115	84,808	27,294	2,257	2,711	486	644	8.53	91.47
	Surat	210,077	62,055	51,568	4,942	7,387	67,895	15,164	30	77	16	943	29.54	70.46
	Tapi	151,359	12,282	14,368	4,170	12,297	94,670	12,768	158	401	16	229	8.11	91.89

Source Census 2011 GoG

Table : 11 Categorizing districts on percentage of clean water deprivation

Above 80%	70-79%	60-69%	50-59%	40-49%	Less than 40%
Banaskantha	Surendranagar	Patan	Anand		Ahmedabad
Bharuch	Surat	Kheda	Kachchh	Bhavnagar	Gandhinagar
Sabarkantha			Anand		Rajkot
Panchmahal					
Dohad					
Narmada					
The Dangs					
Navsari					
Valsad					
Tapi					

Source calculated

Table : 12 Electricity connection in ST households across districts of Gujarat

	Main source of Electricity								
	Total Number of Households	Electricity	Kerosene	Solar energy	Other oil	Any other	No lighting	% household with electricity	% of household without lighting
Gujarat/Total	1,837,844	1,470,147	323,333	8,077	4,844	4,738	26,705	79.99	1.45
Gujarat/Rural	1,525,331	1,185,820	301,611	7,746	3,975	4,073	22,106	77.74	1.45
Gujarat/Urban	312,513	284,327	21,722	331	869	665	4,599	90.98	1.47
Kachchh	8,395	7,346	633	21	52	37	306	87.50	3.65
Banaskantha	46,899	22,616	20,525	115	655	431	2,557	48.22	5.45
Patan	3,980	3,169	625	6	25	17	138	79.62	3.47
Mehsana	3,717	3,290	310	-	10	15	92	88.51	2.48
Sabarkantha	95,391	80,782	11,967	74	149	260	2,159	84.69	2.26
Gandhinagar	6,948	6,239	568	3	22	19	97	89.80	1.40
Ahmadabad	57,708	54,670	2,023	12	89	58	856	94.74	1.48
Surendranagar	5,441	4,624	691	15	12	7	92	84.98	1.69
Rajkot	17,541	16,346	803	25	55	50	262	93.19	1.49
Jamnagar	10,307	8,742	1,107	98	31	133	196	84.82	1.90
Porbandar	3,466	3,035	368	31	11	3	18	87.56	0.52
Junagadh	13,476	12,274	897	144	23	22	116	91.08	0.86
Amreli	2,904	2,603	258	2	1	13	27	89.63	0.93
Bhavnagar	4,997	4,667	217	3	51	8	51	93.40	1.02
Anand	7,819	6,283	1,135	9	60	23	309	80.36	3.95
Kheda	11,123	8,091	2,661	20	40	7	304	72.74	2.73
Panchmahal	122,010	100,651	19,294	135	152	211	1,567	82.49	1.28
Dohad	234,600	164,952	63,685	518	855	386	4,204	70.31	1.79
Vadodara	239,539	191,354	40,426	2,207	690	478	4,384	79.88	1.83
Narmada	98,460	79,610	13,579	3,867	111	335	958	80.86	0.97
Bharuch	110,128	92,771	15,291	60	345	635	1,026	84.24	0.93
The Dangs	46,149	27,790	17,625	83	95	37	519	60.22	1.12
Navsari	141,847	119,010	20,982	38	324	169	1,324	83.90	0.93
Valsad	183,563	155,436	25,859	190	262	309	1,507	84.68	0.82
Surat	210,077	174,411	32,088	252	398	746	2,182	83.02	1.04
Tapi	151,359	119,385	29,716	149	326	329	1,454	78.88	0.96

Source Census 2011 GOG

5.3 Sanitation in ST household across districts of Gujarat

Sanitation literally means measures necessary for improving and protecting health and well being of the people. Sanitation is a system that promotes proper disposal of human and animal wastes, proper use of toilet and avoiding open space defecations. For a healthy society efforts should be sincerely made by individuals and institutions to provide proper sanitation.

Sanitation issues are more serious when penetrated in rural dwellings and amongst sacred tribes. ST households across districts of Gujarat reports low

availability of sanitation facility.

The districts like Banaskantha, Sabarkantha, Panchmahal, Dahod and Narmada reports 80% and above deprivation in terms of latrine facility within premises. Such deprivation is indication of underdevelopment and needs immediate address. The Table 14 above depicts categorization of districts on basis of deprivation percentage. The districts like Kachchh, Mehsana, Gandhinagar, Ahmedabad, Rajkot and Bhavnagar reports deprivation below 40%. Nonetheless, this level of deprivation as well is unacceptable and every state and district should strive for 100% availability of sanitation facilities for its masses.

Table: 13 Sanitation facilities in ST household across districts of Gujarat

	Total Number of Households	No. of household with latrine facility within premises	No. of household with latrine without facility within premises	% with latrine facility within premises	% without latrine facility within premises
Gujarat/Total	1,837,844	447,371	1,390,473	24.34	75.66
Gujarat/Rural	1,525,331	227,589	1,297,742	14.92	85.08
Gujarat/Urban	312,513	219,782	92,731	70.33	29.67
Kachchh	8,395	5,067	3,328	60.36	39.64
Banaskantha	46,899	3,084	43,815	6.58	93.42
Patan	3,980	1,883	2,097	47.31	52.69
Mehsana	3,717	2,326	1,391	62.58	37.42
Sabarkantha	95,391	11,097	84,294	11.63	88.37
Gandhinagar	6,948	5,254	1,694	75.62	24.38
Ahmadabad	57,708	46,176	11,532	80.02	19.98
Surendranagar	5,441	1,225	4,216	22.51	77.49
Rajkot	17,541	12,692	4,849	72.36	27.64
Jamnagar	10,307	5,646	4,661	54.78	45.22
Porbandar	3,466	1,313	2,153	37.88	62.12
Junagadh	13,476	7,253	6,223	53.82	46.18
Amreli	2,904	1,497	1,407	51.55	48.45
Bhavnagar	4,997	3,190	1,807	63.84	36.16
Anand	7,819	4,593	3,226	58.74	41.26
Kheda	11,123	3,617	7,506	32.52	67.48
Panchmahal	122,010	12,606	109,404	10.33	89.67
Dohad	234,600	11,180	223,420	4.77	95.23
Vadodara	239,539	49,173	190,366	20.53	79.47
Narmada	98,460	13,229	85,231	13.44	86.56
Bharuch	110,128	23,115	87,013	20.99	79.01
The Dangs	46,149	12,359	33,790	26.78	73.22
Navsari	141,847	47,133	94,714	33.23	66.77
Valsad	183,563	40,007	143,556	21.79	78.21
Surat	210,077	90,794	119,283	43.22	56.78
Tapi	151,359	31,862	119,497	21.05	78.95

Sources Census 2011 GOG

Conclusion

The present study analyses and synthesizes the development dynamics of ST in districts of Gujarat from

various parameters like education- literacy and enrollments, Work participation rates, ST population living below poverty line and living standard-drinking

Table : 14 Categorizing districts on percentage of sanitation deprivation

Above 80%	70-79 %	60-69 %	50-59 %	40-49 %	Less than 40 %
Banaskantha	Surendranagar	Porbandar	Patan	Jamnagar	Kachchh
Sabarkantha	The Dangs	Kheda	Surat	Junagadh	Mehsana
Panchmahal	Valsad	Navsari		Amreli	Gandhinagar
Dohad	Tapi			Anand	Ahmadabad
Narmada					Rajkot
					Bhavnagar

Source Calculated

water availability, electricity connection and sanitation. Each parameter is evaluated at state and district level to ameliorate understanding about tribes of Gujarat and their socio-economic condition which can be substantiated as the indicator of their development.

Focusing on educational attainments - tribes of Gujarat exhibit weaker performance with 63% literacy rate versus 79% overall literacy. Across districts as well literacy amongst ST has remained low and high incidence of inequality prevails. Gender biasness in literacy is rampant with low female literacy as against male literacy across districts. Enrollments -the another indicator of education attainments depicts weak scenario with enrollments in wide gap of 1% to 76% - districts like Junagadh and Amreli have enrollments of 1% while Bhavnagar and Mehsana have enrollments of less than 1%, conversely Dohad has enrollment of 76%. Against this all these district have above 80% to 100% enrollments for general category. This clearly focuses weak education amongst tribes in districts of Gujarat.

WPR in district of Gujarat for tribes records better scenario with relatively more percentage of tribes in work force against general category barring districts like Banaskantha, Patan, Mehsana, Porbandar, Junagadh and Bhavnagar where WPR is marginally less by 1 to 3%. Certainly, this indicates higher economic independence. WPR in both rural and urban dwellings of tribes is higher than that of general category which is beyond doubt noteworthy.

The study further encompasses population below poverty line for ST with an objective to evaluate their economic status. The Table 8 depicts that out of total population BPL, ST constitute wide range from 2% to above 80%. Indicating in some districts poverty and vulnerability amongst ST is high and undesirable.

The living standard of the ST has been studied through clean drinking water availability, electricity

connection and sanitation. Out of three electricity connections across districts of Gujarat is good. Conversely, other two parameter exhibits dismal scenario with more than 80% of household in some districts already mentioned above in Table 10 and Table 13 experience deprivation. Except few i.e. 10% districts (3 districts) and 20% (6 districts) for clean drinking water and sanitation respectively have deprivation above 40% which is a serious matter and needs to be immediately addressed.

In a nutshell the study concludes that ST across districts of Gujarat is not well attended in all the parameters evaluated in the study and development claimed is dubious and skewed. The wholesome, complete and satisfactory development can be attended when each individual gets equal opportunity i.e. Equal world and equal space. Nonetheless, full equality though desirable is not possible, gap needs to be addressed and redressed. Gujarat is rich and vibrant state - be it in terms of economic growth, heritage, trade, culture or development. However, today we strive for inclusive development- so let us look behind the mask, remove our mask of perceptions and inequality and offer equal opportunity of growth to all and grow with hand in hand.

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Linkage between Telecommuting and Work-life Balance

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Abstract

The information technology evolution has made an enormous impact on all aspects of an individual's personal and professional life. It has fundamentally altered the way work is carried out in contemporary time thereby adding complications of balancing work and life. In the prevailing climate, an important human resource management area that is hailed to have the potential to cope with the mutual incompatibility between paid work and life is telecommuting.

Terms such as network, knowledge-based firms and the virtual organizations are associated with the concept of telecommuting. Telecommuting refers to alternative work arrangement whereby the employee does work from a location other than the conventional work place typically from home by using computers, telephones and other telecommunication equipments. The study examines the concept of telecommuting in depth and the various forms attached to it. It explores the common and documented benefits associated with telecommuting and the pitfalls that are experienced when one uses the option of telecommuting. The added dimension of the paper is the gender perspective regarding telecommuting. The results of this conceptual paper has implications for researcher as well as practitioners.

Introduction

The development and diffusion of information technology revolution has brought about sweeping changes in all facets of an individual's personal and professional life. The distances between continents, countries, organizations and individuals have virtually vanished with far reaching economic, trade and societal implications. At a micro level, it has fundamentally changed in organisation structures, systems and processes thereby radically altering an individual's work methods. The 24/7 accessibility due to technological advancement has intensified paid work. Further, pressure experienced by an individual is amplified by radical changes in the social domain such as increased participation of women in work-force, greater personal growth aspirations and higher materialist and leisure consumption (Robinson and Godbey, 1997; Schor, 1992). In the prevailing climate to prove efficacy an individual has to put extra efforts which adds complexities and dimensions to their work-life condition.

Work-life balance programmes and practices are commonly occurring theme in the discussion to overcome these complexities. A number of work-life balance initiatives in form of flexible work arrangements, leave options and other wellness and support programs are recommended. Telecommuting which is part of flexible arrangement, has the common premise of, rising demand for flexibility, family and work-life balance in its discourse and hence it is hailed to have the potential to reduce work-life incompatibility (Sullivan and Lewis, 2006).

Nevertheless, research into the effectiveness of telecommuting in facilitating work-life balance is still relatively scare.

The practice of telecommuting as a flexible work option is wide-spread in countries in the West, especially in the United States of America, telecommuting as a flexible work options is widespread across regions, sectors and jobs. In India though it is not a widely adopted work option. The few instances of telecommuting practices are limited to the Information Technology (IT) and the Information Technology Enabled Services sector and that too with regional concentration in ITES providing cities like Bangalore. The causes for poor adaptation ranges from, inadequate infrastructure especially internet reach and connectivity, importance of presenteeism, lack of employer's awareness to acceptability of the benefits of telecommuting ('Indians Still Shy', 2007). On the other hand in India, the upsurge in population, scarcity of cheap commercial places, rise in nuclear families and increasing congestion and commuting woes demonstrates the mounting need for an work arrangement like telecommuting. In the prevailing situation it is therefore essential to begin a discussion on telecommuting. Through a systematic literature review, this paper attempts to generate attentiveness and acceptability of this work option and its influence on work-life balance. Specific prepositions are examined in this study. Attempts are being made to examine the concept of telecommuting and the forms attached to it. Further, various dimensions attached to this concept i.e. common and documented benefits associated with telecommuting, the pitfalls that are

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experienced when one uses the option of telecommuting and the gender perspective regarding the impact of telecommuting on work-life balance are explored in depth.

Telecommuting

Telecommuting a sub-form of flexible work option, is an alternative work arrangement which is a departure from customary arrangement is not known by a universal name. A number of terms are interchangeably used to describe the unconventional style of working. Terms such as '*Telecommuting*', '*Teleworking*', '*Work-at-home*', '*Telehomeworking*', '*Remote Working*', '*Mobile Working*', '*Virtual Working*', '*E-working*', '*Outworking*' and '*Distance Working*' are used interchangeably to describe this alternative form of work arrangement. Just as there is no universal terminology describing this work arrangement; similarly there is no all-purpose definition for this concept. Multitudes of definitions are available having varied shades of expression depending on the form of telecommuting and the agency defining this work arrangement.

The review of the definitions show a certain pattern based on the history of how the present concept of telecommuting has evolved over a period of time. In the early stages of the research discourse, Shamir and Salomon (1985) were location specific and have defined telecommuting only as "working from home". An individual operating in a cottage industry from home however cannot be considered as telecommuter and hence Grant (1985) detached the location limitation and defined it as "a kind of remote working while away from one's normal workplace". Further, with a view of widening the scope of the definition, apart from the facet of multiple location, Cross and Raizman (1986) added the dimension of technology and Huws et al. (1990) added the dimension of time frame.

A look at contemporary definitions reveals varying emphasis on the facets of location and use of technology. Bailey & Kuland (2002) defined telecommuting as working outside the conventional workplace and communicating by means of communications or computer based technology. Kossek (2003) has given an elaborate definition, wherein telecommuting is defined as a subset of alternative work options where work is conducted at an off-site location and the employee uses telecommunications technology, including computers, video, and telephone systems, fax machines and high-speed modems for data transfers.

According to Korte and Wynne (1996), for an alternative work arrangement to be called telecommuting it should comprise three principle fundamentals namely, location of the working- partially or full detachment from the normal place of work provided by the employer, use of technology - use of telephones, computers and internet and attachment to an organization form- self-employed individual is not included. Thus, from the review of the definitions it can be said that telecommuting refers to an alternative work arrangement whereby the employee has the flexibility of working from a location other than the conventional work place by using information and communication technologies. It entails substituting telecommunication to physical transportation.

Forms of Telecommuting

Considering the wide view of the concept, a number of forms of telecommuting emerge. These forms can be broadly classified into three categories on basis of location i.e. telecommuting from a fixed location, telecommuting from a variable location and telecommuting from a hybrid location that includes both working from a fixed and a variable location.

Home-based telecommuting is when an employee works at home instead of traveling to an employer's premises. Here telecommuting may be for full-time from home or partially from home. The partial telecommuting is known as alternate telecommuting.

Telecommuting center is a site, other than the home, from which a group of professionals work for their employer(s). The telecommuting center has facilities set up by a single organization for its employees called Satellite work centers or it can have telecommuting facilities shared by two or more employers called *Local or neighborhood or shared work centers*. Telecommuting centers thus provide facilities to those who do not wish to work from home and who want to avoid the cost and time inconvenience of commuting.

Mobile or Nomad telecommuting is used by professionals or service workforce to enable them to deliver results while traveling and at the same time to maintain contact with the head office.

Networked telecommuting is a form in which a physically dispersed team is working in collaboration with each other like a scattered team of researchers and experts. In network telecommuting the time difference is

exploited by each team working and serving customers in different time zones.

The emergence of various forms of telecommuting has resulted in number of functions in organizations being relocated. For instance, the most customer centric activity such as selling which was earlier conducted in physical proximity of the customer significantly changed. It is now possible to have the customers and sellers which are countries and continents apart concluding the selling transaction through telecommuting. Similarly, it is no more novel for customer services and maintenance activities to be conducted across national borders. The phenomenal growth and development of the Indian IT and ITES sector is a shining example of this. This form of work, has different implications for the various stakeholders, be it the employee, organizations, economies and societies involved. The impact of India's IT and ITES capabilities has economic benefits for the Indian economy, the organizations and employees involved, it however it has negative economic connotation in form of underemployment for the outsourcing country. On the other side, this form of work necessitates working across time zones and has resulted in experience of time pressure and stress creating challenges of work-life balance. It is therefore essential to go beyond the economic implications and look at the impact on work-life balance at an individual's level.

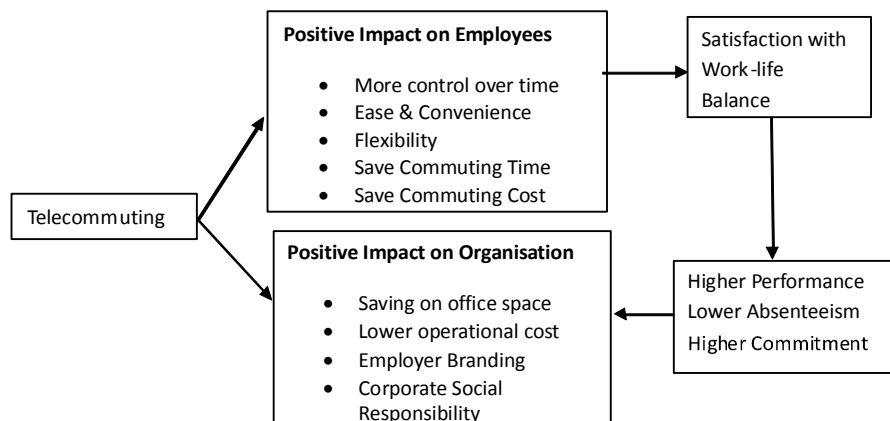
Telecommuting and Work-life Balance

Telecommuting is hailed by academicians and researchers as an important strategy to attain work-life balance as there are certain common and documented benefits associated with it. In studies conducted by France et al. (2002); Tremblay (2000) and Vitterso et al. (2003) it was found that teleworkers were in a position to plan

and complete their work activities with ease and convenience and hence gain greater control over time and flexibility in the face of intense competition. As a result of this, Hill et al. (1996) found that in comparison to on-site working, teleworking proves to be more flexible. On the positive impact on work-life balance, Baruch and Nicholson (1997) found that telecommuting allowed employees to handle the incompatible demands from work and family. Similarly, in another study conducted by Duxbury et al. (1998) it was established that the start of telecommuting results in notably fewer problems of managing family time for employees than earlier. On account of fewer compatibility issues between personal and professional life, a study conducted by Collins (2005) found that teleworkers reported higher levels of satisfaction with their work-life balance.

One of the benefits of telecommuting is economy of time because employee saves commuting time and also save the cost of transportation. On the human side of management, organizations that offer telecommuting facilities are perceived as being employee friendly and hence can attract and retain talented individuals. According to Tronco (2001) companies found that employees who were entrepreneurial, independent, and creative were frequently found to be best telecommuters and their satisfaction with the work-life balance resulted in increased performance and reduction in absenteeism and a committed work force. On the cost side the organizations benefited by not investing heavily in the escalating real estate cost and thereby reducing operational cost. Looking at the larger picture, telecommuting has positive implications for the society too. Since, telecommuters are not required to commute large distances, it helps in conservation of fuel and reduction in automobile emission pollution and attenuation of traffic congestions.

Figure 1. The Virtuous Cycle

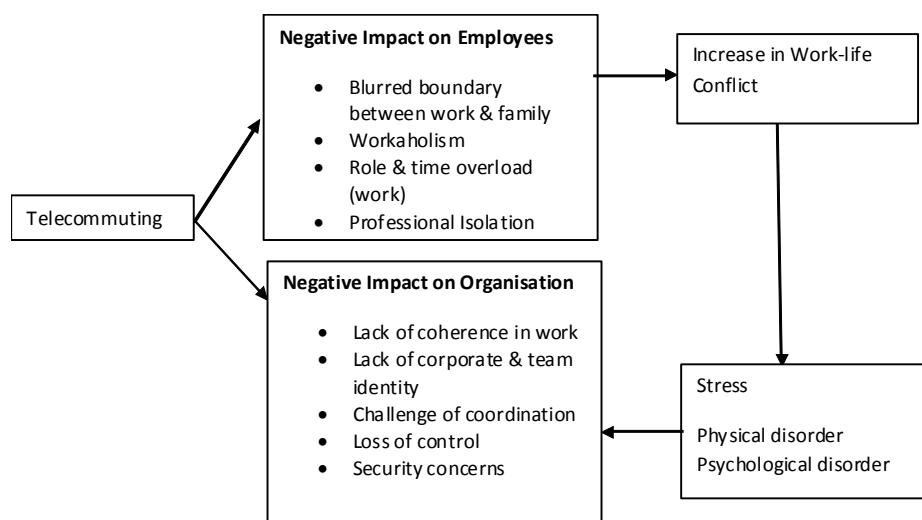


On the flip side, literature draws out certain pertinent concerns about the human aspect of telecommuting. According to Mirchandani (2000), at times thoughts and emotions from work domain spilled over into the house domain resulting in loss of demarcation work time and family time. This observation is supported by Baruch (2000), Families (2002) and Hill et al. (1998) that teleworkers not only use the time saved in commuting but also invest part of non-working time in finishing their work. The higher level of productivity at work that is thus achieved is found to be beneficial to both employers and employees yet it would result in physical and psychological disorder in the long run. According to Dikkers et al. (2004) the strain developed during work time may hinder employees' functioning in their personal

life. Thus telecommuting that is hailed as a work-life balance strategy ends up increasing the work-life conflict.

Human resource management of virtual employees poses many challenges for the organizations also. According to Watson-Manheim et al., (2002) telecommuting causes gap and lack of coherence in aspects of work. It causes challenges of coordination and loss of control. In addition to this due to physical distance from the work place telecommuters identify less with the organization. Kirkman et al., (2002) have identified five challenges organizations encounter namely building trust, cohesion, and team identity, and also overcoming isolation among team members. Security concerns and problems associated with tax deductions are other areas of dispute.

Figure 2. The Vicious Cycle



Gender and Telecommuting behavior

Work-life balance strategies in general and telecommuting in particular have found to promote gender equity. Sinclair (2000), Liff and Ward (2001), Smithson and Stokoe (2005), however have established that flexible working and telecommuting are consistently viewed by organizations and co-workers as appropriate principally for women. In addition to this, the rationale for assuming telecommuting work arrangement by male and female employees is not identical. According to Felstead et al., (2000), mothers were more likely to take up telecommuting to harmonize their work and family responsibilities, while men's telecommuting behavior and childcare responsibilities were often unrelated.

Sullivan and Smithson (2007) conducted a study on telecommuters and co-residents to to examine their

perspective on flexibility and work at home in relation to gender contracts and division of domestic labor. The study supported the perception of telecommuting being more flexible than on-site working. The concept of flexibility however was different for men and women. Flexibility was constructed as being beneficial to women as it facilitated their role to fulfil household and care responsibilities and in case of men flexibility meant more control over actual work.

In another study conducted by Peters and Van der Lippe (2007) the results showed gender played an important role on the telecommuting experience of the teleworker. It was found that for male teleworkers working from home, the shift from close supervision to performance based evaluation led to augmented productivity standards and in order to meet them they would put in extra working

hours than the on-site working colleague, this led to work-life imbalance with work domain dominating the home domain. In case of female telecommuters this form of spillover was not observed. Thus, one can conclude that telecommuting experience has different behavioral impact on male and female telecommuters.

Conclusion

The conceptual framework of the human impact of telecommuting explored in this study clearly indicates that telecommuting as an alternative work arrangement has enormous potential. The benefits of telecommuting are far reaching involving all the agencies of human operation. Enhanced work flexibility and control over time, higher job satisfaction and morale, less absenteeism and improved work-life balance motivates employees towards effectivity and higher productivity and performance. Although literature has raised some pertinent concerns about telecommuting, a close look at them reveals that the concerns are not associated with the concept or justification of this form of work but they are largely stemming from imperfect implementation. It is therefore important that, rather than showing concern for the concept what is required is to question the manner of implementation. Blindly following the trend with the sole aim of cost cutting would give detrimental results. Instead, a structured telecommuting program with a thoughtful design, implementation and management is liable to give desired results. Another important finding of this study is that telecommuting is not gender neutral. The reason for choosing telecommuting as an alternative work option has a direct impact on telecommuting experience of an individual and the subsequent behavior. It is proved that males and females experience telecommuting differently.

This implications of this study are evident. Organizations which are in the process of offering or have already adopted this form of work need to be aware that the benefits are not evident in the short term and they have the potential to generating benefits in a longer time frame. A structured program needs to ensure eligibility of the employee, nature of work and optimum exploitation of communication technology. Telecommuter should be given the required training about the company and its goals so that an association is established between the company and the employee. In addition to this, regular communication and interaction with the superiors and peers is likely to help the employee to overcome the sense

of social isolation. Positive reception of ideas and appreciation of the job accomplished has higher requirement in case of telecommuters to motivate them in the virtual world of work.

In summary, one can say that technology and associated telecommuting is not a simplistic solution to work-life balance problems as often presumed. The paper has proved that the impact of telecommuting is complex. In India, since telecommuting is at a very nascent phase it is important to engage in a dialogue about its potential benefits and uses in order to gain generate awareness and acceptance. It is important to design and implement telecommuting programs in the Indian context, paying attention to some of the unique cultural aspects of presenteeism, family system, gender contracts and subordinate-superior relationship. A need for continuous dialogue between researchers and practitioners is envisaged by this research.

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A Study on Linkages Between HRM Practices and Firm Performance with Special Reference to Size of Selected IT-ITES Organizations of Central Gujarat.

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Abstract

To perform is inevitable for everyone be it an individual or firm itself. Another most important fact for firm now a day is to start accepting the fact that firms cannot perform better without help of most important resource human resource and hence it needs lots of investment to take care of firm's most important resource and it is equally important to measure this investment towards firm performance. Hence the present work includes the detailed study on linking these HRM practices with firm performance. HR managers and Managing heads of selected IT-ITES firms from Ahmedabad, Vadodara and Gandhinagar cities of Central Gujarat State have been included through descriptive research design of non probability convenient sampling technique. The study revealed that there is significant linkage between HRM practices and firm performance like Quality of product provided by employees, job satisfaction level of employees, productivity of employees and size of organization. Factor Analysis reveals that HRM practices like Staffing, Training, Compensation, Pay and Benefits, Family-Friendly work culture and Performance Appraisal system are important out of an array of HRM practices available.

Keywords: *HRM Practices, Firm Performance, IT-ITES Industry*

Introduction

An answer to most important question "Why, do I require policies and practices for my firm or organization?" and the simplest answer isbecause firms deal with humans who work for organization. As human nature in its origin carries the character of testing the limits provided by the firm and act "creatively" accordingly, it becomes inevitable for organization as a firm to develop, communicate and enforce set of policies and practices that is acceptable to firm. It then depends upon organization as how they perceive policies and practices, because the role of practices should not be limited to draw the boundaries, but to address and recognize people's needs. Now once firms are actually exposed to the matter that performance improvement is all about establishing the system of developing and meeting the employee's expectations. Then the centre of the firm should not only be about meeting business objectives, but also about how to achieve them. And the answer to this "how" directly affects the liabilities or responsibilities which firms have in their process. Then it's all about making sure organizations resources particularly human resources have clear and thorough expectations and are treated fair enough as they are the ones to build the firm and make it a profit centre. Hence managing human resources by providing best of the practices and making sure they meet their own performance as firm's performance entirely depends on their performance is crucial task. Much of

the researches have been done in this matter only i.e investment of firm in human resource practices and the return in form of firm performance, as it still remains "black box" in the research language because a direct link or impact or relation of HR practices and performance is still unexposed in almost all sectors. It is very important in today's era to take care about the most important resource and also to get maximum out of them in almost every discipline. In the present study the researchers have tried to explore the linkages between HR practices and performance of the firm specifically in terms of HR and service outcomes, and also whether practices are linked with size of the firm of IT-ITES sector and the scope is limited to HR managers or managing heads of selected IT-ITES firms of three major cities of central Gujarat i.e Ahmedabad, Vadodara and Gandhinagar.

Review of Literature

HRM Practices in ITES Industry

It's an era to consider Human Resource as life and blood of ITES Industry as it carries a pool of talented resources throughout the competitive environment just as arteries carries blood in human body. Due to vibrant environment of the ITES industry there are key anxiety like soaring attrition, crave for of job pleasure, significant job jumps, high demand of flexibilization and individualization in conducting their jobs etc in spite of best of the work culture concepts like virtual office,

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migration which make obvious exclusivity of the sector in itself. Due to this kind of liberty been provided companies are using different strategies like direct and indirect controls to manage the issues faced by the organization (Upadhyay, 2009). The HR practices in Indian ITES Industries like talent acquisition, developing human resources are remarkably poles apart from the manufacturing and other service sector industries. To exemplify Recruitment is considered as an apparatus for realizing strategic intent which includes ongoing recruitment, employee referrals, realistic job previews, and determination of clear-cut selection criteria; Training is indispensable to the steady accomplishment of every organization to enable skills and competencies compulsory to enhance bottom-line results, not limiting to that industry duly understand issues like skill redundancy which is very common in Indian ITES Industry, with fast changing time and technologies Indian ITES companies have started appreciating the magnitude of corporate training and to beat this prophecy organizations give the extreme precedence to training and skill enhancement programs on continuous basis. Performance is the reflection of training, which in turn works as a barometer for the performance appraisal of an employee, and hence the process of Performance Appraisal is the heart of HRM system in Indian ITES Industries. Incentives and benefits plays a vital role in motivating and retaining them in the organization, Compensation and rewards in the Indian ITES industry have long incorporated a basic pay component along with bonus when the company makes higher profits. Work-Life Balance has become a buzzword in the ITES HR system recently. The resources in the present state simply don't find money as the sole motivator for performing aggressively; on the contrary give more emphasis to a significant work which provides ample scope for benefit from leisure with the family and also managing important household errands. This is probably the reason for ITES considered to be a flagship amongst the corporate fraternity to realize the significance of work-life balance and thereby also takes initiatives for promoting employee well-being and satisfaction. Employees obviously discriminate a good employer from others and hence a feeling of 'well-being' at work-place gets generated, contributing towards balanced work and personal goals, and in turn contributes positively to the retention of employees.

Firm Performance in ITES Industry

Firm performance is perhaps on the whole broadly used dependent variable in organizational research today not only in IT-ITES industry but all sectors, yet at the same time it remains one of the most unclear and loosely defined constructs. The thrash about to establish a meaning for performance in IT-ITES sector, has been ongoing for many years, and is not limited to the field of strategic HRM or any other discipline. Hence about thirty years ago, Katz and Kahn (1966) ironically commented that, "The existence of the problem of developing satisfactory criteria of organizational performance is clear enough; its solution is much less obvious". Also about twenty years ago Scott (1977) grieved at the condition of measuring firm's effectiveness and came to a conclusion that "After reviewing a good deal of the literature on organizational effectiveness and its determinants, I have reached the conclusion that this topic is one about which we know less and less.". More lately, Murphy, Trailer & Hill (1996), after reviewing measures of performance in entrepreneurial research, concluded that, "the lack of construct validity for what we call performance is so clear that we as a field should consider discontinuing the use of the term in research".

According to Rowe, Morrow & Finch (1995), inside the HRM regulation, the heart of consideration on the performance build has been more or less entirely on financial measures of performance. Theoretically as per Alchian & Demsetz, (1972); Barney, (1995), it has been viewed as the evaluation of the value shaped by a firm with the value holder expected to receive from the firm. Another narrow definition of performance by Venkatraman and Ramanujam (1986) goes as "centres on the use of simple outcome-based financial indicators that are assumed to reflect the fulfilment of the economic goals of the firm," (1986: 803), but they only further observed that in fact the narrow performance erect of "financial performance" had conquered the strategic management literature, and projected a broader performance build of "business performance" including financial and operational (new products, product quality, market share) indicators. In the end summing up they also proposed a raise of "organizational effectiveness" consisting business performance plus account for the success of the super ordinate target held by multiple stakeholders.

Dyer and Reeves (1995), in their re-evaluating of research on the worth of "bundling" HR practices amongst HRM, anticipated four possible types of measurement for firm performance: HR outcomes i.e. turnover, absenteeism, job satisfaction, organizational outcomes i.e. productivity, quality, service, financial accounting outcomes i.e. ROA, profitability, capital market outcomes i.e. stock price, growth, returns. They primarily projected that HR strategies were firstly to have a straight impact on human resource outcomes, chased by organizational, financial, and capital market outcomes. Noting that according to their, as well as others (Huselid, 1995; Truss & Gratton, 1994) the crucial thought is that, the outcomes can vary at hierarchical levels, with outcomes at one level causal to outcomes at the next level. And hence, with each model differentiating with other, a common form is that HR practices have their most direct influence on HR outcomes, which in turn, add to advanced level firm performance.

HRM Practices and Firm Performance in the present study

After detailed literature review in previous research articles, specifically on HRM practices and Organizational Performance an array of HRM practices were studied like Work design, Training and Development, Single Status/harmonisation/status differentials, Performance Appraisal/Management, Higher-level concepts (HPWPs), Administration, Recruitment and Selection (including placements), Compensation and Reward systems, Family friendly, Employee participation, Total quality management, Miscellaneous etc under which it was anticipated that the majority of individual HRM practices could be grouped, which could then be used as a framework to shape the reviews. It was documented from the beginning that HRM practices were likely to fall into precise grouping out of about thirty to thirty five HRM practices. However, the final list of broad HRM categories included in present study is work design, staffing, training and development, compensation and rewards, family friendly, managing performance appraisal.

To consider the different types of measures of firm performance that have been used in previous HR research so far, a detailed literature review on linking HR practices to organizational performance have been done by the author itself one in detailed literature review article and second on literature article on measuring firm's

performance on ITES companies of selected region. These two studies have been done towards processing step for doctoral program in the same study. This investigation includes majority of work done by studies on the impact of "bundling" HR practices on firm performance Dyer and Reeves (1995) and different studies containing various empirically established relationships between HRM and performance by Paauwe and Richardson (1997). In selecting the different measures of performance, after thorough empirical studying and testing the link between HRM and Firm performance, we have included the terminology used by Dyer and Reeves (1995). According to them their narrow down of performance measures are HR, organizational, financial, and market outcomes. We have limited ourselves to the extent of including only HR and Organizational outcomes, detailing like turnover, absenteeism and Job Satisfaction as per HR outcomes and quality product, quality service and employees productivity as per organizational outcome.

Objectives of the Study

The present paper intends to study HRM Practices of selected IT-ITES companies of Central Gujarat in detail and further to study linkages between HRM Practices and Firm Performance specifically for Job Satisfaction, Quality of the product delivered by employees of the organization, Productivity of employees of selected IT-ITES companies of Central Gujarat and also to study the linkages between HRM practices and size of the firm.

Research Methodology

As mentioned earlier in the study, an array of HRM practices like work design, staffing, training and development, compensation and rewards, family friendly, managing performance appraisal are included and measured on 5-point Likert scale ranging from Strongly Disagree to Strongly Agree. Firm Performance indicators like HR Outcome measured on 3 point Likert Scale of High (above 30%) to Low (below 10%) and Organizational Outcome measured on 3 point likert scale of Deteriorating, Stable and Improving. The present study is conducted with the objective to study linkages between HRM practices and firm performance of selected IT-ITES companies of central Gujarat. The current study is a descriptive study and for primary data collection through personal survey a detailed structured questionnaire was mailed to HR managers/Managing Heads of selected IT-

ITES companies of Central Gujarat. The sampling technique adopted for the survey is non-probability convenience sampling technique. The sample size for the study is first 54 employees ie HR Managers/Managing Heads of IT-ITES companies of Vadodara, Ahmedabad and Gandhinagar cities of Gujarat state, India.

Data Analysis

In the present study, for the purpose of studying HRM practices of selected ITES organizations factor analysis is performed on the 23 statements of HRM Practices like work design, staffing, training, compensation, family-friendly and performance appraisal. The responses of the respondents for these statements were measured on a continuum ranging from one to five (1 - Strongly Disagree to 5 - Strongly Agree).

Bartlett's Test of Sphericity: As shown in Table 1, the significance value of Bartlett's Test is 0.000, this leads to rejection of the idea that the correlation matrix is identity matrix.

Kaiser-Meyer-Olkin Test for Sampling Adequacy: The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is an index used to examine the appropriateness of factor analysis. It compares the magnitudes of observed correlation coefficients to magnitude of partial correlation coefficients. High value (between 0.5 and 1.0) indicates factor analysis is appropriate. Small values of KMO Statistic indicate that correlations between pair of variables cannot be explained by other variables, and hence, factor analysis is not suitable. The data has KMO statistic as 0.769 (Table 1), which is greater than 0.5. Hence, this value is acceptable and justifies the appropriateness of factor analysis.

Communalities

Communality is the amount of variance a variable can explain with all the factors being considered. This is also the percentage of variance explained by the common factors. The method selected for conducting the factor analysis here is Principal Component Analysis. In this method the total variance in the data is considered. The initial communalities for Principal Component Analysis are 1. However, the primary concern is the extracted communalities, which are achieved after extraction of factors. The communalities are shown in Table 2. A look at this table shows that the extracted communalities are high, and hence, acceptable for all the statements.

Variance explained

It is required that the scale constructed and the components extracted should be able to explain maximum variance in the data. For this, an analysis of the Eigen values is required. Eigen value represents the total variance explained by each factor. Table 3 shows the Eigen values of all the components that can be extracted and cumulative variance. However, it is required that the maximum amount of variance should be explained in minimum number of components - for this reason extraction of the components is required. Only those factors are extracted for which the Eigen values are greater than one. These factors are seven in number and together contribute 75.658% of total variance. This is a fair percentage of variance to be explained and assumes of the appropriateness of the factor analysis. Thus extracting seven factors from a total of 23 statements for linking HRM practices and firm performance is good by all means. Further table 3 shows the extraction sum of square loadings for the scale for various HRM practices. However, a careful look at table 3 shows that 75.658% variance is not uniformly distributed across all components where only the first component accounts for 39.173% of variance. Thus in order for the variance to be uniformly distributed across all the components a rotation of the components matrix is required. Components matrix is the loadings of various variables to the extracted components. Although the initial or un-rotated matrix indicates the relationship between the factors and individual variables, it seldom results in factors that can be interpreted, because the factors are correlated with many variables. In such a complex matrix it is difficult to interpret the factors. Therefore, through rotation, the factor matrix is transformed into a simpler one that is easier to interpret. The method of rotation used for this analysis is VARIMAX, which is the most commonly used rotation method. The variance explained by each component after the rotation method is shown in table 3. It is visible from this table that the variance is now evenly distributed in a range of 21.203% - 5.832%, which was 39.173% - 4.606% before rotation.

Rotated Factor Matrix: An analysis of factor loadings in the rotated factor matrix helps in interpreting and naming the seven factors that have been extracted in the rotated component matrix section. Interpretation is done by identifying the statements that have very high loadings on the same component. These factors can then be interpreted in terms of the statements that load highly on

it. Table 4 demonstrates that under Varimax rotation, 9 out of 23 statements have factor loadings >0.500 in case of Factor 1 which reveals that 39.130% of statements are clubbed into Factor 1, 6 statements out of 23 ie 26.08% are clubbed into Factor 2, 2 statements out of 23 ie 8.70% are clubbed into Factor 3, 3 statements out of 23 ie 13.04% in Factor 4 and 1 statement out of 23 ie 4.34% are clubbed into Factor 5, 6 and 7 respectively.

Naming of the factors

The following seven factors were identified as per the factor loading in Table 4

1 Staffing, Training, Benefits and Appraisal: There are 9 statements falling in the first factor they are (1) Selection of Employees is done on the basis of Competency Test, (2) Recruitment Advertisements are meant for Wider Audience and Diverse Groups, (3) Formal Exit Interviews are being Conducted, (4) Employees receive Training for New Technology, Personal Development and Health Awareness, (5) Employees receive Induction Training to become Cultural Fit, (6) Employees receive benefits like Child-Care Assistance, Company Cars, Individual-Family Health Insurance, Provident Fund, Gratuity, Home-Loan Assistance, (7) Employees have Clear Defined Goals to be assessed in Performance Appraisal, (8) Employees receive Peer, Team and 360 Appraisal after Self-Appraisal, (9) Employees receive Detailed Performance Review for their future better performance

2 Work Design and Family-Friendly Working: There are 6 statements falling in the second factor they are (1) Employees use their Independence, Initiative & Judgement to perform their Job, (2) Job Rotation helps Employees to understand Diverse Business Operations, (3) Teamwork helps employees to openly share ideas towards an agreeable solution, (4) Employees receive Working Hours arrangements like Reduced-Hours, Increased-Hours, Job-Sharing, Term-Time, Compressed Hours, Shift-Hours, Flexi-Hours, Work from Home, (5) Employees feels Stressed due to ODD Working Hours, Lack of Sleep, (6) Employees manage Work-Life Balance through Remote Working, Mobile-Working, Virtual-Office etc

3 Job Complexity and Career Training: There are two statements falling in third factor they are (1) Employees Perform Non-Repertive Jobs and (2)

Employees receive various Training like Coaching, Mentoring, Buddying, Succession Planning

4 Socialization, TQM Training and Leaves: There are 3 statements falling in the fourth factor they are (1) Newly Recruited is given Enough Time for Self-Efficacy Level and Peer Relationship, (2) Employees receive Quality Management Training to deliver Quality Products and Service and (3) Employees get Leaves like Maternity-Paternity, Family Emergency, Sabbaticals, Career Leaves

5 Transparent Organization Structure: The statement falling in fourth factor is Formal Promotion is done to meet Internal Vacancies

6 Competent Payment: the statement included in fifth factor goes like Employees receive Performance Payments like Profit-Sharing, Employee Share Scheme, Cash Bonus, and Team-Performance

7 Role Clarity: in the seventh factor the statement included is Employees receive assignment without proper resources and manpower to execute

For the present study, Analysis of Variance is also performed with an objective to study the linkages between HRM practices and Firm Performance of selected IT-ITES companies. For the same following hypothesis are framed.

Hypothesis 1: H0: There is no linkage between HRM Practices and Job Satisfaction.

H1: There is a linkage between HRM Practices and Job Satisfaction.

Table 5 indicates the analysis of variance for various HRM practices and job satisfaction. As seen in table 5 the significance values of 14 statements out of 23 are statistically significant i.e. are either 0.10 or less than 0.10. Hence for all these statements the null hypothesis cannot be accepted. This means that for these statements there is a linkage between HRM practices like Teamwork, Role Clarity, Selection, Recruitment, Induction, Personal Developmental Training, Socialisation, TQM Training for quality product delivery, benefits and services like Benefits like Child-Care Assistance, Company-Car, Individual-Family Health Insurance, Provident Fund, Gratuity, Home Loan Assistance, Maternity-Leave, Paternity-Leave, Family-Emergency Leave, Leave-for-Careers, Sabbaticals, performance goal setting, appraisal, proper feedback for better performance and Job Satisfaction.

Hypothesis 2: H0: There is no linkage between HRM Practices and Quality of Product delivered by employees.

H1: There is linkage between HRM Practices and Quality of Product delivered by employees.

Table 6 indicates the analysis of variance for various HRM practices and Quality of product provided by employees. As seen in table 6 the significance values of 17 statements out of 23 are statistically significant i.e. are either 0.10 or less than 0.10. Hence for all these statements the null hypothesis cannot be accepted. This means that for these statements there is a linkage between HRM practices like role clarity, teamwork, selection, recruitment, formal exit interviews, personal development training, induction, TQM training, pay and benefits received, family friendly practices like flexi working hours, work life balanced etc, the stress level of employees due to odd working hours, various leaves received by employees and goal setting, appraisal and feedback from appraisal system and Quality of product provided by employees.

Hypothesis 3: H0: There is no linkage between HRM Practices and Productivity of employees.

H1: There is linkage between HRM Practices and Productivity of employees.

Table 7 indicates the analysis of variance for various HRM practices and productivity of employees. As seen in table 7 the significance values of 10 statements out of 23 are statistically significant i.e. are either 0.10 or less than 0.10. Hence for all these statements the null hypothesis cannot be accepted. This means that for these statements there is a linkage between HRM practices like role clarity, fair recruitment, personal development training, induction, benefits received, various leaves received, stress level of employees due to odd working hours family friendly practices like flexi working hours, work life balanced etc, goal setting, feedback from appraisal system and productivity of employees.

Hypothesis 4: H0: There is no linkage between HRM Practices and size of the organization.

H1: There is linkage between HRM Practices and size of the organization.

Table 8 indicates the analysis of variance for various HRM practices and productivity of employees. As seen in table 8 the significance values of 17 statements

out of 23 are statistically significant i.e. are either 0.10 or less than 0.10. Hence for all these statements the null hypothesis cannot be accepted. This means that for these statements there is a linkage between HRM practices like job demand and control, job rotation, teamwork, selection of employees based on competitive level, fair recruitment, formal exit interviews, socialization time, personal development training, induction, Training to deliver quality products, benefits received, various leaves received, stress level of employees due to odd working hours, family friendly practices like flexi working hours, work life balanced etc, goal setting, appraisal, feedback from appraisal system and size of the organization.

Findings

This study revealed that through factor analysis seven factors were framed namely (1) Staffing, Training, Benefits and Appraisal, (2) Work Design and Family-Friendly Working, (3) Job Complexity and Career Training, (4) Socialization, TQM Training and Leaves, (5) Transparent Organization Structure, (6) Competent Payment and (7) Role Clarity.

Importance of Staffing, Training, Benefits and Appraisal

The statements under Staffing, Training, Benefits and Appraisal indicates that Selection of Employees is done on the basis of Competency Test, Recruitment Advertisements whenever issued if they are meant for Wider Audience and Diverse Groups, quality and competent resource can enter the firm which in turn may perform better towards attainment of firm performance, in organization where Formal Exit Interviews are being conducted one may know the actual reason of high turnover or absence which can then be controlled through better practices and they serve as important tool towards staffing and recruiting, organizations contributing towards training resources for New Technology, Personal Development and Health Awareness are at an advantageous position as far as firm performance is concerned, also employees are expected to perform better when they receive proper Induction Training to become Cultural Fit, resources when they are provided with benefits like Child-Care Assistance, Company Cars, Individual-Family Health Insurance, Provident Fund, Gratuity, Home-Loan Assistance gives best out of them towards reaching the goal of performance also employees expect Clear Defined Goals to be assessed in their Performance Appraisal and when they are provided with

the same it becomes smooth for them to perform better also Employees expect transparent and unbiased Peer, Team and 360 Appraisal after Self-Appraisal, and Detailed Performance Review for their future better performance thereby firm performance.

Importance of Work Design and Family-Friendly Working

Work Design and Family-Friendly Working indicates that when employees use their Independence, Initiative & Judgement to perform their own task, also Job Rotation to understand Diverse Business Operations, Teamwork to openly share ideas with fellow teammates, etc contribute better for firm performance. Employees when given freedom of working Hours arrangements like Reduced-Hours, Increased-Hours, Job-Sharing, Term-Time, Compressed Hours, Shift-Hours, Flexi-Hours, Work from Home, etc through which it becomes easy for them to manage Work-Life Balance through Remote Working, Mobile-Working, Virtual-Office helps them reduce stress due to Odd or different working Hours, Lack of Sleep, etc heavily contributing towards firm performance.

Importance of Job Complexity and Career Training

Job Complexity and Career Training indicate that when employees Perform Non-Repetitive Jobs and receive various Training like Coaching, Mentoring, Buddying, Succession Planning are expected to perform better towards firm performance.

Importance of Socialization, TQM Training

Socialization, TQM Training and Leaves indicates that in the organization where newly Recruited is given Enough Time for Self-Efficacy Level and developing Peer -Relationship, and where Employees receive Quality Management Training to deliver Quality Products and Service are expected to perform better. Also performance gets affected where employees get various Leaves like Maternity-Paternity, Family Emergency, Sabbaticals, and Career Leaves etc

Importance of Transparency and Competency based pay

Transparent Organization Structure indicates that employee's feels motivated to contribute their best where formal Promotion is done to meet Internal Vacancies. Competent Payment indicates that employees give their competent level of inputs where they receive

Performance Payments like Profit-Sharing, Employee Share Scheme, Cash Bonus, and Team-Performance ultimately contributing towards firm performance. Role Clarity indicates that employees expect completion of any given even most difficult one with proper manpower and resources to execute.

Linkages between HRM practices and performance with special reference to size of firm

Through Analysis of Variance conducted on variables of various HRM practices like work design, staffing, training, compensation and pay, family friendly work culture, performance appraisal system and firm indicator like HR outcome like Turnover, Absence Ratio, job satisfaction and Organization Outcomes like product quality, service quality and productivity of employees, the study reveals that there is significant linkage between HRM practices and firm performance HR outcome of Job Satisfaction. The study also reveals that there is significant linkage between HRM practices and firm performance Organization outcome of quality of product provided by employees and productivity of employees. Also to the surprise, there is significant linkage between HRM practices and size of organization. However, in spite of providing best of the HRM practices, there is no significant relationship between practices and HR outcomes like turnover and absenteeism. One can say that however investing major in handling human resources there is no significant linkage between HRM practices provided by the firm and turnover of employees or employees' absenteeism.

Conclusion

The study concludes that in the selected industry, for the organizations which are presently studied, out of an array of HRM practices available, HRM practices like Staffing, Training, Pay and Performance, Family-Friendly work environment, Transparent and fair performance appraisal system are most important. As far as studying the linkages between HRM practices and firm performance, there is significant linkage between HRM practice and job satisfaction, Quality of product provided by employees and productivity of employees and there is also significant linkage between HRM practices and size of organization ie bigger the size, better the practices one can afford and can achieve better firm performance. Whereas one cannot have direct control over employees turnover and absenteeism in spite of providing best of the practices.

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List of Tables

Table 1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.769
Bartlett's Test of Sphericity	Approx. Chi-Square	753.578
	df	253
	Sig.	.000

Table 2: Communalities

Statements	Initial	Extraction
Employees Perform Non-Repetitive Jobs	1.000	.790
Employees use their Independence, Initiative & Judgement to perform their Job	1.000	.696
Job Rotation helps Employees to understand Diverse Business Operations	1.000	.827
Teamwork helps employees to openly share ideas towards an agreeable solution	1.000	.828
Employees receive assignment without proper resources and manpower to execute	1.000	.821
Selection of Employees is done on the basis of Competency Test	1.000	.773
Formal Promotion is done to meet Internal Vacancies	1.000	.821
Recruitment Advertisements are meant for Wider Audience and Diverse Groups	1.000	.739
Formal Exit Interviews are being Conducted	1.000	.647
Newly Recruited is given Enough Time for Self-Efficacy Level and Peer Relationship	1.000	.746
Employees receive Training for New Technology, Personal Development and Health Awareness	1.000	.763
Employees receive various Training like Coaching, Mentoring, Buddying, Succession Planning	1.000	.724
Employees receive Induction Training to become Cultural Fit	1.000	.646
Employees receive Quality Management Training to deliver Quality Products and Service	1.000	.822
Employees receive Performance Payments like Profit-Sharing, Employee Share Scheme, Cash Bonus, Team-Performance	1.000	.774
Employees receive benefits like Child-Care Assistance, Company Cars, Individual-Family Health Insurance, Provident Fund, Gratuity, Home-Loan Assistance	1.000	.655
Employees get Leaves like Maternity-Paternity, Family Emergency, Sabbaticals, Career Leaves	1.000	.800
Employees receive Working Hours arrangements like Reduced-Hours, Increased-Hours, Job-Sharing, Term-Time, Compressed Hours, Shift-Hours, Flexi-Hours, Work from Home	1.000	.782
Employees feels Stressed due to ODD Working Hours, Lack of Sleep,	1.000	.697
Employees manage Work-Life Balance through Remote Working, Mobile-Working, Virtual-Office etc	1.000	.778
Employees have Clear Defined Goals to be assessed in Performance Appraisal	1.000	.772
Employees receive Peer, Team and 360 Appraisal after Self-Appraisal	1.000	.747
Employees receive Detailed Performance Review for their future better performance	1.000	.754

Note: Extraction Method: Principal Component Analysis.

Table 3: Total Variance Explained

Statements	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.010	39.173	39.173	9.010	39.173	39.173	4.877	21.203	21.203
2	2.105	9.151	48.324	2.105	9.151	48.324	3.571	15.526	36.729
3	1.521	6.611	54.935	1.521	6.611	54.935	2.558	11.120	47.849
4	1.278	5.555	60.490	1.278	5.555	60.490	2.140	9.304	57.153
5	1.236	5.375	65.865	1.236	5.375	65.865	1.526	6.633	63.787
6	1.193	5.187	71.052	1.193	5.187	71.052	1.389	6.039	69.826
7	1.059	4.606	75.658	1.059	4.606	75.658	1.341	5.832	75.658
8	.760	3.306	78.964						
9	.727	3.162	82.125						
10	.633	2.753	84.879						
11	.579	2.515	87.394						
12	.465	2.020	89.415						
13	.399	1.737	91.151						
14	.385	1.672	92.824						
15	.377	1.639	94.463						
16	.255	1.110	95.573						
17	.215	.934	96.507						
18	.199	.866	97.374						
19	.178	.776	98.149						
20	.142	.617	98.767						
21	.114	.497	99.264						
22	.111	.484	99.748						
23	.058	.252	100.000						

Note: Extraction Method: Principal Component Analysis.

Table 4: Rotated Component Matrix^a

Statements	Component						
	Factors						
	1	2	3	4	5	6	7
Selection of Employees is done on the basis of Competency Test	.501						
Recruitment Advertisements are meant for Wider Audience and Diverse Groups	.554						
Formal Exit Interviews are being Conducted	.568						
Employees receive Training for New Technology, Personal Development and Health Awareness	.624						
Employees receive Induction Training to become Cultural Fit	.621						
Employees receive benefits like Child-Care Assistance, Company Cars, Individual-Family Health Insurance, Provident Fund, Gratuity, Home-Loan Assistance	.738						
Employees have Clear Defined Goals to be assessed in Performance Appraisal	.763						
Employees receive Peer, Team and 360 Appraisal after Self-Appraisal	.713						
Employees receive Detailed Performance Review for their future better performance	.729						
Employees use their Independence, Initiative & Judgement to perform their Job		.568					
Job Rotation helps Employees to understand Diverse Business Operations		.727					
Teamwork helps employees to openly share ideas towards an agreeable solution		.778					
Employees receive Working Hours arrangements like Reduced-Hours, Increased-Hours, Job-Sharing, Term-Time, Compressed Hours, Shift-Hours, Flexi-Hours, Work from Home		.774					
Employees feels Stressed due to ODD Working Hours, Lack of Sleep,		.505					
Employees manage Work-Life Balance through Remote Working, Mobile-Working, Virtual-Office etc		.715					
Employees Perform Non-Repetitive Jobs			.836				
Employees receive various Training like Coaching, Mentoring, Buddying, Succession Planning			.734				
Newly Recruited is given Enough Time for Self-Efficacy Level and Peer Relationship				.509			
Employees receive Quality Management Training to deliver Quality Products and Service				.835			
Employees get Leaves like Maternity-Paternity, Family Emergency, Sabbaticals, Career Leaves				.710			
Formal Promotion is done to meet Internal Vacancies					.878		
Employees receive Performance Payments like Profit-Sharing, Employee Share Scheme, Cash Bonus, Team-Performance						.775	
Employees receive assignment without proper resources and manpower to execute							.873

Note: Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 13 iterations.

Table 5: ANOVA of HRM Practices and Job Satisfaction level of Employees in Organization

Statements		Sum of Squares	df	Mean Square	F	Sig.
Employees perform Non-Repetitive Jobs in organization	Between Groups	4.037	2	2.019	1.822	.172
	Within Groups	56.500	51	1.108		
	Total	60.537	53			
Employees uses their Independence, Initiative and Judgement to carry out their job	Between Groups	1.204	2	.602	.837	.439
	Within Groups	36.667	51	.719		
	Total	37.870	53			
Job Rotation in Organization helps Employees to understand Diverse Business Operations	Between Groups	1.508	2	.754	.665	.519
	Within Groups	57.825	51	1.134		
	Total	59.333	53			
Teamwork in Organization helps Employees to openly share Ideas to reach towards an 4able solution	Between Groups	3.148	2	1.574	3.389	.041**
	Within Groups	23.685	51	.464		
	Total	26.833	53			
Employees receive Assignment without proper resources and manpower to execute	Between Groups	8.879	2	4.439	2.500	.092**
	Within Groups	90.547	51	1.775		
	Total	99.426	53			
Selection of Employees is done on the basis of Competency Test	Between Groups	2.959	2	1.479	3.533	.037**
	Within Groups	21.356	51	.419		
	Total	24.315	53			
Selection is done on the basis of Formal Promotion to meet Internal Vacancies	Between Groups	.074	2	.037	.030	.970
	Within Groups	62.074	51	1.217		
	Total	62.148	53			
Recruitment Advertisements are meant for wider audience and for Diverse Groups	Between Groups	5.275	2	2.637	2.943	.062**
	Within Groups	45.707	51	.896		
	Total	50.981	53			
Formal Exit Interviews are being conducted in organization	Between Groups	10.455	2	5.227	4.903	.011**
	Within Groups	54.379	51	1.066		
	Total	64.833	53			
Enough time is given to Newly Recruited Employees to meet Self-Efficacy level and develop Peer Relationships	Between Groups	3.000	2	1.500	3.732	.031**
	Within Groups	20.500	51	.402		
	Total	23.500	53			
Employees receive Training for New Technology, Personal Development, Health Awareness etc	Between Groups	6.007	2	3.003	7.355	.002**
	Within Groups	20.827	51	.408		
	Total	26.833	53			
Employees receive Career Development Training like Coaching, Mentoring, Budding, Succession Planning etc	Between Groups	2.019	2	1.009	1.223	.303
	Within Groups	42.074	51	.825		
	Total	44.093	53			

Employees receive proper Induction Training to get themselves cultural fit	Between Groups	11.467	2	5.734	11.338	.000**
	Within Groups	25.792	51	.506		
	Total	37.259	53			
Employees receives Quality Management Training to deliver Quality Products and Service	Between Groups	1.852	2	.926	4.397	.017**
	Within Groups	10.741	51	.211		
	Total	12.593	53			
Employees receive various Performance Payments like Profit-Sharing, Employee Share Scheme, Cash Bonus, Team-Performance etc	Between Groups	3.488	2	1.744	1.627	.206
	Within Groups	54.660	51	1.072		
	Total	58.148	53			
Employees receive various Benefits like Child-Care Assistance, Company-Car, Individual-Family Health Insurance, Provident Fund, Gratuity, Home Loan Assistance, etc	Between Groups	13.270	2	6.635	8.666	.001**
	Within Groups	39.045	51	.766		
	Total	52.315	53			
Employees are given various leaves like Maternity-Leave, Paternity-Leave, Family-Emergency Leave, Leave-for-Careers, Sabbaticals etc	Between Groups	8.490	2	4.245	7.245	.002**
	Within Groups	29.881	51	.586		
	Total	38.370	53			
Employees receive Working hours arrangements like Reduced-Hours, Increased-Hours, Job-Sharing, Term-Time, Compressed-Hours, Shift-Hours, Flexi-Hours, Work from Home etc	Between Groups	.377	2	.189	.296	.745
	Within Groups	32.456	51	.636		
	Total	32.833	53			
Employees often feel Stressed due to odd Working Hours, Lack of Sleep and Rest, resulting into Health Problems	Between Groups	.714	2	.357	.548	.581
	Within Groups	33.212	51	.651		
	Total	33.926	53			
Employees can manage work-life-balance through adjusted working environment like Remote Working, Mobile Working, Virtual Office etc	Between Groups	4.519	2	2.259	2.251	.116
	Within Groups	51.185	51	1.004		
	Total	55.704	53			
Employees have clearly defined goals to be assessed in their Performance Appraisal	Between Groups	6.593	2	3.296	10.087	.000**
	Within Groups	16.667	51	.327		
	Total	23.259	53			
Employees receive Peer-appraisal, Team-appraisal and 360-appraisal after their self-appraisal annually	Between Groups	3.941	2	1.971	3.254	.047**
	Within Groups	30.892	51	.606		
	Total	34.833	53			
Employees receive detailed Performance Review which helps them to perform better in future	Between Groups	8.667	2	4.333	9.750	.000**
	Within Groups	22.667	51	.444		
	Total	31.333	53			

** Hypothesis is not accepted at 0.05 level of significance

Table 6: ANOVA of HRM Practices and Quality of Product provided by employees

Statements		Sum of Squares	Df	Mean Square	F	Sig.
Employees perform Non-Repetitive Jobs in organization	Between Groups	1.680	2	.840	.728	.488
	Within Groups	58.857	51	1.154		
	Total	60.537	53			
Employees uses their Independence, Initiative and Judgement to carry out their job	Between Groups	6.640	2	3.320	5.421	.007**
	Within Groups	31.231	51	.612		
	Total	37.870	53			
Job Rotation in Organization helps Employees to understand Diverse Business Operations	Between Groups	4.315	2	2.158	2.000	.146
	Within Groups	55.018	51	1.079		
	Total	59.333	53			
Teamwork in Organization helps Employees to openly share Ideas to reach towards an 4able solution	Between Groups	3.141	2	1.571	3.381	.042**
	Within Groups	23.692	51	.465		
	Total	26.833	53			
Employees receive Assignment without proper resources and manpower to execute	Between Groups	.468	2	.234	.121	.887
	Within Groups	98.958	51	1.940		
	Total	99.426	53			
Selection of Employees is done on the basis of Competency Test	Between Groups	3.099	2	1.549	3.724	.031**
	Within Groups	21.216	51	.416		
	Total	24.315	53			
Selection is done on the basis of Formal Promotion to meet Internal Vacancies	Between Groups	.712	2	.356	.296	.745
	Within Groups	61.436	51	1.205		
	Total	62.148	53			
Recruitment Advertisements are meant for wider audience and for Diverse Groups	Between Groups	19.817	2	9.908	16.215	.000**
	Within Groups	31.165	51	.611		
	Total	50.981	53			
Formal Exit Interviews are being conducted in organization	Between Groups	8.930	2	4.465	4.074	.023**
	Within Groups	55.903	51	1.096		
	Total	64.833	53			
Enough time is given to Newly Recruited Employees to meet Self-Efficacy level and develop Peer Relationships	Between Groups	2.835	2	1.418	3.499	.038
	Within Groups	20.665	51	.405		
	Total	23.500	53			
Employees receive Training for New Technology, Personal Development, Health Awareness etc	Between Groups	5.427	2	2.713	6.464	.003**
	Within Groups	21.407	51	.420		
	Total	26.833	53			
Employees receive Career Development Training like Coaching, Mentoring, Budding, Succession Planning etc	Between Groups	1.338	2	.669	.798	.456
	Within Groups	42.755	51	.838		
	Total	44.093	53			

Employees receive proper Induction Training to get themselves cultural fit	Between Groups	15.853	2	7.926	18.884	.000**
	Within Groups	21.407	51	.420		
	Total	37.259	53			
Employees receives Quality Management Training to deliver Quality Products and Service	Between Groups	1.481	2	.740	3.398	.041**
	Within Groups	11.112	51	.218		
	Total	12.593	53			
Employees receive various Performance Payments like Profit-Sharing, Employee Share Scheme, Cash Bonus, Team-Performance etc	Between Groups	.296	2	.148	.131	.878
	Within Groups	57.852	51	1.134		
	Total	58.148	53			
Employees receive various Benefits like Child-Care Assistance, Company-Car, Individual-Family Health Insurance, Provident Fund, Gratuity, Home Loan Assistance, etc	Between Groups	20.601	2	10.300	16.564	.000**
	Within Groups	31.714	51	.622		
	Total	52.315	53			
Employees are given various leaves like Maternity-Leave, Paternity-Leave, Family-Emergency Leave, Leave-for-Careers, Sabbaticals etc	Between Groups	9.544	2	4.772	8.443	.001**
	Within Groups	28.826	51	.565		
	Total	38.370	53			
Employees receive Working hours arrangements like Reduced-Hours, Increased-Hours, Job-Sharing, Term-Time, Compressed-Hours, Shift-Hours, Flexi-Hours, Work from Home etc	Between Groups	4.212	2	2.106	3.753	.030**
	Within Groups	28.621	51	.561		
	Total	32.833	53			
Employees often feel Stressed due to odd Working Hours, Lack of Sleep and Rest, resulting into Health Problems	Between Groups	4.336	2	2.168	3.737	.031**
	Within Groups	29.590	51	.580		
	Total	33.926	53			
Employees can manage work-life-balance through adjusted working environment like Remote Working, Mobile Working, Virtual Office etc	Between Groups	13.127	2	6.563	7.862	.001**
	Within Groups	42.577	51	.835		
	Total	55.704	53			
Employees have clearly defined goals to be assessed in their Performance Appraisal	Between Groups	7.159	2	3.579	11.338	.000**
	Within Groups	16.101	51	.316		
	Total	23.259	53			
Employees receive Peer-appraisal, Team-appraisal and 360-appraisal after their self-appraisal annually	Between Groups	7.436	2	3.718	6.921	.002**
	Within Groups	27.397	51	.537		
	Total	34.833	53			
Employees receive detailed Performance Review which helps them to perform better in future	Between Groups	14.982	2	7.491	23.364	.000**
	Within Groups	16.352	51	.321		
	Total	31.333	53			

** Hypothesis is not accepted at 0.05 level of significance

Table 7: ANOVA of HRM Practices and Productivity of Employees in Organization

Statements		Sum of Squares	df	Mean Square	F	Sig.
Employees perform Non-Repetitive Jobs in organization	Between Groups	1.573	2	.786	.680	.511
	Within Groups	58.964	51	1.156		
	Total	60.537	53			
Employees uses their Independence, Initiative and Judgement to carry out their job	Between Groups	5.203	2	2.602	4.062	.023**
	Within Groups	32.667	51	.641		
	Total	37.870	53			
Job Rotation in Organization helps Employees to understand Diverse Business Operations	Between Groups	4.266	2	2.133	1.976	.149
	Within Groups	55.067	51	1.080		
	Total	59.333	53			
Teamwork in Organization helps Employees to openly share Ideas to reach towards an 4able solution	Between Groups	.216	2	.108	.207	.814
	Within Groups	26.617	51	.522		
	Total	26.833	53			
Employees receive Assignment without proper resources and manpower to execute	Between Groups	2.437	2	1.219	.641	.531
	Within Groups	96.989	51	1.902		
	Total	99.426	53			
Selection of Employees is done on the basis of Competency Test	Between Groups	.601	2	.300	.646	.529
	Within Groups	23.714	51	.465		
	Total	24.315	53			
Selection is done on the basis of Formal Promotion to meet Internal Vacancies	Between Groups	2.510	2	1.255	1.073	.350
	Within Groups	59.639	51	1.169		
	Total	62.148	53			
Recruitment Advertisements are meant for wider audience and for Diverse Groups	Between Groups	10.234	2	5.117	6.405	.003**
	Within Groups	40.747	51	.799		
	Total	50.981	53			
Formal Exit Interviews are being conducted in organization	Between Groups	1.995	2	.997	.809	.451
	Within Groups	62.839	51	1.232		
	Total	64.833	53			
Enough time is given to Newly Recruited Employees to meet Self-Efficacy level and develop Peer Relationships	Between Groups	.826	2	.413	.929	.402
	Within Groups	22.674	51	.445		
	Total	23.500	53			
Employees receive Training for New Technology, Personal Development, Health Awareness etc	Between Groups	2.616	2	1.308	2.755	.073**
	Within Groups	24.217	51	.475		
	Total	26.833	53			
Employees receive Career Development Training like Coaching, Mentoring, Budding, Succession Planning etc	Between Groups	1.128	2	.564	.670	.516
	Within Groups	42.964	51	.842		
	Total	44.093	53			
Employees receive proper Induction Training to get themselves cultural fit	Between Groups	12.259	2	6.130	12.504	.000**
	Within Groups	25.000	51	.490		
	Total	37.259	53			

Employees receives Quality Management Training to deliver Quality Products and Service	Between Groups	.164	2	.082	.337	.716
	Within Groups	12.429	51	.244		
	Total	12.593	53			
Employees receive various Performance Payments like Profit-Sharing, Employee Share Scheme, Cash Bonus, Team-Performance etc	Between Groups	.258	2	.129	.114	.893
	Within Groups	57.890	51	1.135		
	Total	58.148	53			
Employees receive various Benefits like Child-Care Assistance, Company-Car, Individual-Family Health Insurance, Provident Fund, Gratuity, Home Loan Assistance, etc	Between Groups	17.076	2	8.538	12.357	.000**
	Within Groups	35.239	51	.691		
	Total	52.315	53			
Employees are given various leaves like Maternity-Leave, Paternity-Leave, Family-Emergency Leave, Leave-for-Careers, Sabbaticals etc	Between Groups	4.273	2	2.137	3.196	.049**
	Within Groups	34.097	51	.669		
	Total	38.370	53			
Employees receive Working hours arrangements like Reduced-Hours, Increased-Hours, Job-Sharing, Term-Time, Compressed-Hours, Shift-Hours, Flexi-Hours, Work from Home etc	Between Groups	1.976	2	.988	1.633	.205
	Within Groups	30.857	51	.605		
	Total	32.833	53			
Employees often feel Stressed due to odd Working Hours, Lack of Sleep and Rest, resulting into Health Problems	Between Groups	4.287	2	2.144	3.689	.032**
	Within Groups	29.639	51	.581		
	Total	33.926	53			
Employees can manage work-life-balance through adjusted working environment like Remote Working, Mobile Working, Virtual Office etc	Between Groups	9.665	2	4.833	5.353	.008**
	Within Groups	46.039	51	.903		
	Total	55.704	53			
Employees have clearly defined goals to be assessed in their Performance Appraisal	Between Groups	4.455	2	2.227	6.041	.004**
	Within Groups	18.804	51	.369		
	Total	23.259	53			
Employees receive Peer-appraisal, Team-appraisal and 360-appraisal after their self-appraisal annually	Between Groups	2.943	2	1.472	2.354	.105
	Within Groups	31.890	51	.625		
	Total	34.833	53			
Employees receive detailed Performance Review which helps them to perform better in future	Between Groups	4.259	2	2.130	4.011	.024**
	Within Groups	27.074	51	.531		
	Total	31.333	53			

** Hypothesis is not accepted at 0.05 level of significance

Table 8: ANOVA of HRM Practices and Size of Organization

Statements		Sum of Squares	df	Mean Square	F	Sig.
Employees perform Non-Repetitive Jobs in organization	Between Groups	7.208	4	1.802	1.656	.175
	Within Groups	53.329	49	1.088		
	Total	60.537	53			
Employees uses their Independence, Initiative and Judgement to carry out their job	Between Groups	6.461	4	1.615	2.520	.053**
	Within Groups	31.410	49	.641		
	Total	37.870	53			
Job Rotation in Organization helps Employees to understand Diverse Business Operations	Between Groups	8.800	4	2.200	2.133	.091**
	Within Groups	50.533	49	1.031		
	Total	59.333	53			
Teamwork in Organization helps Employees to openly share Ideas to reach towards an 4able solution	Between Groups	7.229	4	1.807	4.517	.003**
	Within Groups	19.605	49	.400		
	Total	26.833	53			
Employees receive Assignment without proper resources and manpower to execute	Between Groups	11.321	4	2.830	1.574	.196
	Within Groups	88.105	49	1.798		
	Total	99.426	53			
Selection of Employees is done on the basis of Competency Test	Between Groups	5.010	4	1.253	3.179	.021**
	Within Groups	19.305	49	.394		
	Total	24.315	53			
Selection is done on the basis of Formal Promotion to meet Internal Vacancies	Between Groups	3.067	4	.767	.636	.639
	Within Groups	59.081	49	1.206		
	Total	62.148	53			
Recruitment Advertisements are meant for wider audience and for Diverse Groups	Between Groups	21.905	4	5.476	9.229	.000**
	Within Groups	29.076	49	.593		
	Total	50.981	53			
Formal Exit Interviews are being conducted in organization	Between Groups	10.086	4	2.521	2.257	.076**
	Within Groups	54.748	49	1.117		
	Total	64.833	53			
Enough time is given to Newly Recruited Employees to meet Self-Efficacy level and develop Peer Relationships	Between Groups	3.848	4	.962	2.398	.063**
	Within Groups	19.652	49	.401		
	Total	23.500	53			
Employees receive Training for New Technology, Personal Development, Health Awareness etc	Between Groups	4.652	4	1.163	2.569	.049**
	Within Groups	22.181	49	.453		
	Total	26.833	53			
Employees receive Career Development Training like Coaching, Mentoring, Budding, Succession Planning etc	Between Groups	2.797	4	.699	.830	.513
	Within Groups	41.295	49	.843		
	Total	44.093	53			
Employees receive proper Induction Training to get themselves cultural fit	Between Groups	11.864	4	2.966	5.723	.001**
	Within Groups	25.395	49	.518		
	Total	37.259	53			
Employees receives Quality Management Training to deliver Quality Products and Service	Between Groups	1.983	4	.496	2.290	.073**
	Within Groups	10.610	49	.217		
	Total	12.593	53			

Employees receive various Performance Payments like Profit-Sharing, Employee Share Scheme, Cash Bonus, Team-Performance etc	Between Groups	1.586	4	.397	.344	.847
	Within Groups	56.562	49	1.154		
	Total	58.148	53			
Employees receive various Benefits like Child-Care Assistance, Company-Car, Individual-Family Health Insurance, Provident Fund, Gratuity, Home Loan Assistance, etc	Between Groups	14.439	4	3.610	4.670	.003**
	Within Groups	37.876	49	.773		
	Total	52.315	53			
Employees are given various leaves like Maternity-Leave, Paternity-Leave, Family-Emergency Leave, Leave-for-Careers, Sabbaticals etc	Between Groups	7.408	4	1.852	2.931	.030**
	Within Groups	30.962	49	.632		
	Total	38.370	53			
Employees receive Working hours arrangements like Reduced-Hours, Increased-Hours, Job-Sharing, Term-Time, Compressed-Hours, Shift-Hours, Flexi-Hours, Work from Home etc	Between Groups	4.324	4	1.081	1.858	.133
	Within Groups	28.510	49	.582		
	Total	32.833	53			
Employees often feel Stressed due to odd Working Hours, Lack of Sleep and Rest, resulting into Health Problems	Between Groups	6.474	4	1.618	2.889	.032**
	Within Groups	27.452	49	.560		
	Total	33.926	53			
Employees can manage work-life-balance through adjusted working environment like Remote Working, Mobile Working, Virtual Office etc	Between Groups	13.066	4	3.266	3.754	.010**
	Within Groups	42.638	49	.870		
	Total	55.704	53			
Employees have clearly defined goals to be assessed in their Performance Appraisal	Between Groups	8.864	4	2.216	7.543	.000**
	Within Groups	14.395	49	.294		
	Total	23.259	53			
Employees receive Peer-appraisal, Team-appraisal and 360-appraisal after their self-appraisal annually	Between Groups	11.586	4	2.896	6.105	.000**
	Within Groups	23.248	49	.474		
	Total	34.833	53			
Employees receive detailed Performance Review which helps them to perform better in future	Between Groups	9.510	4	2.377	5.338	.001**
	Within Groups	21.824	49	.445		
	Total	31.333	53			

** Hypothesis is not accepted at 0.05 level of significance

Identifying Antecedents of Interorganisational Knowledge Sharing: A Theoretical Perspective

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Abstract

In this conceptual paper the author consolidates, annotates and critiques existing research on antecedents and consequences of interorganisational knowledge sharing. The author reveals limitations of the current body of literature and provides directions for future research.

Key Words: *Knowledge Management, Knowledge Sharing, Interorganisational Knowledge Sharing.*

Introduction

Knowledge is a critical organizational resource that provides a sustainable competitive advantage in a competitive and dynamic economy (e.g., Davenport & Prusak, 1998; Foss & Pedersen, 2002; Grant, 1996; Spender & Grant, 1996). Knowledge management is a systematic management of organisational knowledge which involves the process of creating, gathering, organising, diffusing use and exploitation of knowledge for creating business value and generating a competitive advantage. Knowledge management develops an organisation's capacity to acquire, share and utilize knowledge that enhances its survival and success. Internally created knowledge may not be sufficient for companies to stay competitive (Quinn, 1999). Organisations cannot simply rely on internal knowledge; they also need to be exposed to new ideas from the external environment to remain competitive (Matusik and Hill, 1998). Knowledge sharing creates opportunities to maximize ability of the organisation to meet those needs and generates solutions and efficiencies that provide a business with a competitive advantage (Reid, 2003). A firm can successfully promote a knowledge sharing culture not only by directly incorporating knowledge in its business strategy, but also by changing employee attitudes and behaviors to promote willing and consistent knowledge sharing (Connelly and Kelloway, 2003; Lin and Lee, 2004).

This paper contributes to our understanding of knowledge sharing in general and interorganisational knowledge sharing in particular. We review and integrate the literature from several different disciplines investigating how different factors influence the interorganisational knowledge sharing. Studies of individual-level, group-

level, organisational-level knowledge sharing have been conducted in information systems (Wasko & Faraj, 2005), organizational behavior (Bordia, Irmer, & Abusah, 2006), strategic management (Reagans & McEvily, 2003), and psychology (Lin, 2007a) by different researcher. Prior reviews have focused on technological issues involved in knowledge sharing or knowledge transfer across units, organizations, or within interorganisation networks (Alavi & Leidner, 2001; Argote, 1999; Argote, McEvily, & Reagans, 2003). This review focuses on understanding the factors that influence on interorganisational knowledge sharing behaviour. This is important because no systematic review on interorganisational knowledge sharing has been conducted to date.

The paper begins by discussing how we identified the studies included in the review and defines important concepts found in knowledge sharing research (e.g., knowledge, knowledge sharing). Next, section of paper emphasis on theoretical foundations, factors influencing and reviews research results on interorganisational knowledge sharing. The last two sections of the paper discuss emerging issues and future research questions that need to be addressed to advance our understanding of interorganisational knowledge sharing and the practical implications of interorganisational knowledge sharing research.

1. Identification of Studies

We conducted a narrative review of the literature contributing to interorganisational-level knowledge sharing research, the small number of empirical studies investigating any one of the factors in each emphasis area and our interest in understanding the different theories that have been used as the basis for

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interorganisational knowledge sharing research. The articles included in this review were primarily identified using Electronic journal database (SAGE, Sciencedirect, Wiley inter science, IEEE explorer, Inspce, Ebsco, Ingnta connect, Proquest, Emerald and Google Scholar). Articles published in academically refereed journals in management, organizational behavior and information systems were included in the review. Work published in books, conferences, or working papers was excluded. Reference sections of articles found were also searched. Knowledge sharing, knowledge exchange, knowledge transfer and their variations were used as search terms.

2. Knowledge sharing

Many of the concepts behind the knowledge sharing, as there are knowledge management writers and practitioners. This situation reflects the complex and immature state of knowledge sharing. Different perspective on the concept of knowledge can lead to different meaning of knowledge sharing definition. In the literature, different terms have been used to describe knowledge sharing: "Knowledge flow" (Gupta and Govindarajan, 2000; Schulz, 2001), "Knowledge movement" (Wijk et al., 2008; Easterby-Smith et al., 2008), "Knowledge acquisition" (Darr et al., 1995; Lyles and Salk, 1996), "Knowledge transfer" (Mowery et al., 1996; Tsai, 2001), and "Knowledge sharing" (Hansen, 1999; Tsai, 2002). However, "Knowledge sharing" is the most widely accepted term in academic literature as well as trade literature. Knowledge sharing has received enormous attention from academia and industry alike in the last few years. Despite (or perhaps due to) this broad interest, no clear definition of Knowledge sharing has emerged. Instead, the literature is cluttered with different, albeit similar, versions. The following definitions of knowledge sharing are illustrated after systematic review of available literature.

- ❖ Knowledge sharing refers to "activities of transferring or disseminating knowledge from one person, group, or organisation to another" (Lee, 2001)
- ❖ Knowledge sharing can be defined as a social interaction culture, involving the exchange of employee knowledge, experiences, and skills through the whole department or organisation. Knowledge sharing comprises a set of shared understandings related to providing employees

access to relevant information and building and using knowledge networks within organisations (Hogel, 2003).

- ❖ For an organisation, knowledge sharing is capturing, organising, reusing, and transferring experience-based knowledge that resides within the organisation and making that knowledge available to others in the business (Lin and Lee, 2004).
- ❖ Organisational knowledge transfer refers to the process through which organisational actors - teams, units, or organisations - exchange, receive and are influenced by the experience and knowledge of others (Mowery et al., 1996; Tsai, 2001).

To summarise different view, it can be said that knowledge sharing is activities of transferring or disseminating knowledge from one person, group, or organisation to another to maximize an organisation's competitive success. After systematic review of literature, an increasing trend in publications on knowledge sharing is evidenced over the last few years. From total set of publication, three terms i.e. "Knowledge flow", "Knowledge transfer", and "Knowledge sharing" were often used in management issues and also managerial aspects of knowledge sharing. By reading of the titles and abstracts of the papers, the term transfer is used more often in relation with IT-mediated knowledge transfer, whereas knowledge flows is more often used in addressing more or less random knowledge flows in e.g. cluster studies or other studies at a geographical level, and knowledge sharing appears to be more common among papers that view knowledge sharing as a governed process among firms or individuals. In this study, researcher will, therefore, use the term knowledge sharing more often, but still consider the three terms as synonyms.

Few authors differentiated between knowledge transfer and knowledge sharing. While knowledge transfer is "largely a one-way process", knowledge sharing is more optimal because it "focuses on a two-way process, in which each partner has access to skills and competencies of their partners and suggest equally beneficial flow of information".

Moreover, knowledge sharing occurs at the individual and organisational levels. For individual employees, knowledge sharing is talking to colleagues to help them get something done better, more quickly, or

more efficiently. For an organisation, knowledge sharing is capturing, organising, reusing, and transferring experience-based knowledge that resides within the organisation and making that knowledge available to others in the business.

Knowledge sharing process

Lee (2001) stated knowledge sharing as "activities of transferring or disseminating knowledge from one person, group, or organisation to another". The process of knowledge sharing involves both the creation and the transfer of knowledge through different artifacts, such as documentation or communication, among entities. The entities may refer to individuals (Weiss, 1999), groups (Sole, and Applegate, 2000), organisations (Ciborra and Andreu 2001), or networks of organisations (Apostolou, Sakkas, and Mentzas (1999). Knowledge is initially created from individuals (Nonaka, 1994), but it can be produced and held collectively (Brown and Duguid, 1998). When the sharing activity involves a larger number of individuals who are exposed to different values, environments, or interests as a result of being part of different organisations, the sharing may not be as straightforward.

Knowledge Sharing Process involves sharing of knowledge at multiple levels, - individuals, groups, and organisations. Effective knowledge sharing includes the ability to use the knowledge acquired from the partners which cannot be accomplished unless the acquired knowledge is shared among individuals within an organisation.

3. Interorganisational knowledge sharing

Interorganisational knowledge sharing has been defined in various but related ways. Prior research has labeled it as the movement or flow of knowledge across organisational boundaries (Wijk et al., 2008; Easterby-Smith et al., 2008; Gupta and Govindarajan, 2000, Schulz, 2001), as knowledge sharing (Appleyard, 1996; Hansen, 1999; Postrel, 2002, Tsai, 2002), as knowledge transfer (Mowery et al., 1996; Tsai, 2001; Yang & Chen, 2007) and the diffusion of knowledge within a network of interorganisational relationships (Powell et al., 1999; Spencer, 2003b). Knowledge transfer has also been considered as the "learning race" between alliance partners that reflect a competitive nature of inter-firm relationships (Hamel, 1991). For some researchers, transferring knowledge between firms forming an alliance implies

"grafting" new knowledge on the partner (Huber, 1991; Lane et al., 2001). The terms "access" and "acquisition" of new knowledge carry two distinct meanings of inter-organisational knowledge transfer (Powell et al., 1999; Simonin, 1999; Mowery et al., 1996; Lyles and Salk, 1996; Zahra et al., 2000). Different theoretical approaches have been used to explain the interorganisational knowledge transfer phenomenon. But it is purely strategic that involves calculating the risks and benefits of transferring knowledge beyond organisational boundaries (Hamel, 1991; Appleyard, 1996; Postrel, 2002).

The organisation's ability to create, acquire, integrate and deploy knowledge quickly is believed to be the only source of sustainable competitive advantage in today's knowledge economy (Winter 1995). Knowledge management refers to identifying and leveraging the collective knowledge in an organisation to help the organisation compete (Von Krogh and Care, 1998). The processes include creating, preserving, using, and sharing knowledge (Warkentin, Sugumaran and Bapna 2001). The capability to gather, leverage, and use knowledge effectively is a major source of competitive advantage (Trussler 1998). Internally created knowledge may not be sufficient for companies to stay competitive (Quinn 1999). Organisations cannot simply rely on internal knowledge; they also need to be exposed to new ideas from the external environment to remain competitive (Matusik and Hill, 1998). Interorganisational knowledge sharing has been consistently found to be critical for the organisation's competitive success (Levinson and Asahi, 1995), (March and Simon, 1958).

Loebecke, Van and Powell, (1999) stated that organisations may encounter a difficult decision whether to share the knowledge or to use it internally when there is a concern regarding the trade-off between releasing the knowledge and gaining benefit from the knowledge exchanged. Loebecke et al. (1999) identified three dimensions of interorganisational knowledge transfer which are synergy, leveragability, and negative reverse impact. Synergy refers to the extent to which cooperation yields additional value from interdependent knowledge sharing. Leveragability means the potential of the shared partner to increase its value from exploiting the shared knowledge. Negative reverse impact is the extent to which a receiver's use of acquired knowledge may lower the sender's original value of knowledge.

Interorganisational knowledge sharing occurs as a result of knowledge asymmetry between the organisations. The two organisations exchanged the knowledge that each lacked but desired to gain through the collaboration. Interorganisational knowledge sharing started from an individual level, then escalated to the group and the organisational levels. Knowledge sharing occurred horizontally (within the individual, group, and organisational levels) and vertically (among the levels).

Learning is an indicator of effective knowledge sharing between organisations. Learning indicates the attainment of knowledge which is then applied to similar situations. When knowledge is shared, the flow of knowledge may travel back and forth between the entities. This does not mean the sharing is effective, unless the entity is able to apply the knowledge to the encountered situations. When effective knowledge sharing between organisations is observed through the learning achievement at each collective level, interorganisational knowledge sharing is effective when each organisation's collective learning is achieved. This starts with the knowledge that each individual representative of an organisation acquires and applies to the tasks. The effect of knowledge gets manifested in their performance. Individual knowledge is then accumulated as collective knowledge that results in collective performance of the higher collective entities, i.e., group and organisation. Ultimately, the knowledge obtained from the external partner results in collective learning within an organisation.

Organisations also vary in their abilities to absorb new external knowledge - i.e. understand, assimilate and apply knowledge to commercial ends (Cohen and Levinthal, 1990). Moreover, low motivational dispositions of the donor and recipient firms to transfer and acquire knowledge inhibit knowledge flows between organisations (Gupta and Govindarajan, 2000; Steensma et al., 2005).

4. Factors (Drivers) of Interorganisational Knowledge Sharing

The traditional KM approaches have been limited to an intra-organisational scope in that they focus mainly on the internal knowledge exchanges within a single firm. In contemporary scale-driven and technology-intensive global economy, the new concept of KM initiative transcending organisational boundaries is essential. Thus, the interorganisational knowledge network concept is emerging as the next generation of KM strategy

with the growing importance of acquiring and exploiting external knowledge (Contractor and Monge 2002, Jarvenpaa and Tanriverdi, 2003). As knowledge is continuously changing and evolving, no firm can possess all required knowledge within its formal boundaries (Anand, Glick, and Manz, 2002). Such evolution may shift the level of competition from between individual firms to between networks of firms (Chung, Yam, and Chan, 2004, Van de Van, 2005).

Knowledge-based resources are usually complex and cannot be imitated; as a result, knowledge assets in organisations can potentially produce long-term sustainable competitive advantage (Grant et al. 2002). No single organisation can rely only on internal knowledge resources. In recent years, interorganisational (IO) knowledge sharing has received increasing attentions by researchers and practitioners (Albino et al. 1998, Nieminen 2005, Hau and Evangelista 2007, Wijk et al. 2008, Cummings & Teng 2003).

Previous research, for instance, has argued that transferring knowledge across different firms is more complicated than transferring knowledge between units within the same organisation (Inkpen and Tsang, 2005). Most studies so far have focused on the intention to share knowledge within an organisation (Bock and Kim, 2002). Many studies have investigated inter-organisational knowledge sharing (Hau and Evangelista, 2007), (Easterby-Smith et al., 2008) but very few focused on identifying the factors contributing to an organisation's decision to share knowledge with other organisation.

Studying the interorganisational knowledge sharing phenomenon is particularly appealing due to a multifaceted nature of boundaries that transcend various levels of analysis and also difficult to examine causal links between knowledge sharing and organisational performance. However, although research on interorganisational knowledge sharing is budding, yet understanding of its antecedents and consequences remains unclear in Indian corporate environments.

Various researchers have empirically studied various factors (Drivers) for interorganisational knowledge sharing. In a recent related study, a systematic review of the current literature is conducted to identify factors that are most frequently addressed in the literature as the factors affecting interorganisational knowledge sharing. Electronic journal database (SAGE, Sciencedirect, Wiley inter science, IEEE explorer, Inspce, Ebsco, Ingnta

connect, Proquest, Emerald and Google Scholar) available was used to search certain keywords to identify empirical and conceptual studies that investigated factors influencing interorganisational knowledge sharing. The

findings of these studies were thoroughly examined and as a result many factors affecting interorganisational knowledge sharing were identified that are listed below with their definition and Author / Researcher.

List of Factors affecting Interorganisational Knowledge Sharing

Factors	Definitions	Author / Researcher
Top management Support	Only top management can send the right signals to the affected parts of the organisation. Top management support is also necessary for convincing trading partners to participate in information sharing.	Kleinschmidt et al., 2007, Ramamurthy, Premkumar and Crum 1999
Information sharing policy	A firm's general willingness to disseminate information outside its boundaries to different stakeholders is considered to ease or hinder information sharing.	Mohr and Spekman 1994, Mohr and Nevin 1990
Trust	It is simply a belief that one organisation acts in a consistent manner and will perform in accordance with expectations and intentions.	Madlberger 2009, Li 2005, Easterby-Smith et al. 2008, Speckman et al. 1998, Kumar et al. 1995
Interdependency	Organisations are dependent to one another when their interactions and collaboration are vital to remain in a competitive environment.	Madlberger 2009, He et al., 2006
Cultural proximity	The degree to which two organisation share the same or close culture based on factors including, norms, values, meanings, vision and beliefs.	Nieminen 2005, Li 2004, Cummings & Teng 2003
Tie strength	Tie strength reflects the closeness of the relationship and the level of previous interactions between two organisations.	Madlberger 2009, Easterby-Smith et al. 2008, Wijk et al, 2008
ICT use, IT Competency, ICT infrastructure	Technology is considered as one of the components of KM systems to link the members together and support members to use and share knowledge within the KM system	Turban et al, 2006, Barson et al. 2000, Hendriks 1999
Perceived Benefit	The anticipated advantage that an organisation can improve its own performance through knowledge Sharing or information sharing behavior.	Chwelos et al, 2001, Williamson, 1975
Cooperative norms and Culture	Degree to which a firm can share the same organisational culture and value systems for exchanging knowledge or information in the dyadic relationship.	Reagans and McEvily, 2003, Nahapiet and Ghoshal, 1998
Embedded relationship	An Embedded relationship with trading partners is characterized by its focus on long-term relationships, its intensity and average time horizon.	Easterby-Smith et al. 2008, Moberg et al., 2002
Relative power	Relative power of trading partner influences information sharing behavior and internal decision.	Easterby-Smith et al. 2008, Hart, Saunders, 1997, Bakos and Brynjolfsson, 1993.

Internal readiness	From a technological point of view, Internal readiness denotes the existence of appropriate electronic links to trading partners.	Eisenhardt, Martin 2000. Chatfield, Yetton, 2000. Bharadwaj, Zmud Sambamurthy, 1998 Teece, Pisano, Shuen, 1997, Iacovou, Benbasat, and Dexter, 1995
Absorptive capacity	An organisation's ability to recognize the value of new external knowledge, assimilate it, apply it to commercial end.	Seyyedeh, daneshgar, aurum, 2009 Cohen, Levinthal 1990.
Geographical Proximity, Physical Proximity	Higher geographical proximity foster face to face communication and brings companies together.	Seyyedeh, daneshgar, aurum, 2009
Perceived cost	Perceived cost to trading partner by information sharing. Transaction cost and coordination mechanisms.	Morrell & Ezingard, 2002, Williamson, 1975
Prior Experience	Trustworthy prior experience with trading partner indicates more intention to share knowledge with the partner.	Seyyedeh, daneshgar, aurum, 2009
Intention to learn	Extent of desire and the will of one firm to acquire from its partner.	Simonion 1999, Tsang 2002
Nature of Knowledge	The nature of knowledge refers to tacitness or explicitness of knowledge.	Wijk et al., 2008, Nonaka, 1994
Asset specificity	Degree to which the assets of one firm are specific to the requirements of the other party in the interorganisational knowledge sharing relationship.	Zaheer, Venkatraman, 1995
Partnership Uncertainty	Partnership uncertainty as the inability to predict a partner's action in response to various contingencies in future knowledge sharing.	Benbasat, Goldstein, Mead, 1987
Shared values	Extent to which partners have common beliefs about what behaviors, goals, and policies are important or unimportant, appropriate or inappropriate, and right or wrong.	Sahay, 2003, Morgan and Hunt, 1994, Anderson and Weitz, 1989; Dwyer et al., 1987
Participation	Degree to which a mutual commercial goal to be achieved is included in decision making, including the idea generation, decision making involvement, and goals setting.	Hernandez- Espallardo and Arcas-Lario, 2003, Dwyer and Oh, 1988
Communication	Formal and informal sharing of meaningful and timely information between organisations.	Treleaven, 2004, Gilbert and Cordey-Hayes 1996; Anderson and Narus 1990,
Learning capacity	The ability of a firm to assimilate and apply new knowledge successfully to its commercial goals.	Szulanski, 1996, Jordan and Lowe, 2004
Opportunistic behavior	Opportunistic behavior is defined as self interest seeking with guile, leading to deceit-oriented violation of implicit or explicit promises.	Morgan and Hunt, 1994, Williamson, 1975
Resource fitness	Firm's ability to share its explicit and tacit knowledge with its partners, including knowledge resources, expressiveness, and time.	Haldin-Herrgard, 2000.

The different researchers has taken the different number of factors from the above list and tested the different research model empirically. Mixed results have been found in studies examining the relationship of the factors influencing the interorganisational knowledge sharing. The result of the research has not found clear consensus due to different test condition and control environment. This needs to be explored in much more detail in the future research.

5. Interorganisational Knowledge sharing and Organisationl Performance

Empirical findings suggest that interorganisational knowledge sharing contributes to higher sales growth, improved profitability and market share (Lyles and Salk, 1996; Zahra et al., 2000; Lane et al., 2001; Sorenson, 2003), increased employee productivity (Steensma et al., 2005), new product development (Tsai, 2001; Yli-Renko et al., 2001; McEvily and Chakravarthy, 2002), higher product quality and customer satisfaction (Tsang et al., 2004) and improved organisational efficiency (Yli-Renko et al., 2001). Despite the growing evidence that knowledge can serve as a basis for competitive advantage, many researchers agree that interorganisational knowledge transfer embodies a multifaceted nature of boundaries, cultures and processes that make the creation and transfer of knowledge far from easy (Kogut and Zander, 1992; Grant, 1996; Szulanski, 1996; Daugeliene and Krisciunas, 2004; Easterby-Smith et al., 2008).

Knowledge Sharing and Supply Chain Management

Knowledge sharing encompasses the sharing of information, but it does not stop there. Much of the information that companies share data on inventory levels, sales, production schedules and prices is easy to codify and transmit. But other types of knowledge are just as important to exchange and more difficult to codify: know-how, managerial and communication skills and organisational memory. Knowledge sharing in supply chain is a joint activity between supply chain partners; the parties share knowledge and then jointly interpret and integrate it into a relationship-domain-specific memory that influences relationship-specific behavior (Selnes and Sallis, 2003). They found three types of knowledge sharing within the supply chain, each offering distinct benefits to buyers and suppliers: information sharing, joint sense making and knowledge integration.

- ❖ Information sharing takes place when companies exchange important data about sales, customer needs, market structures and demand levels.
- ❖ Joint sense making occurs when supply chain partners work together to solve operational problems, analyze and discuss strategic issues and facilitate communication about the relationship. Since individual partners often interpret the same information differently, intercompany teams can help create a common understanding.
- ❖ Knowledge integration occurs when supply chain partners develop relationship-specific memories, providing everyone with a common understanding of idiosyncratic routines and procedures governing the relationship. This often results in collective problem solving that benefits both the companies and the relationship as a whole. These knowledge-sharing activities constitute mechanisms that can make or break supply chain partnerships.

Research on knowledge sharing model in supply chain is a hot issue, and at present most scholars establish models of supply chain knowledge sharing by analyzing the levels and processes of knowledge sharing (Wang, 2006) (Zhu and Zhang, 2005) (An, Zhang and Zhang, 2007) (Peng 2004). In the development of supply chain management, the efficiency of knowledge circulation in supply chain has a great impact on the overall operation of supply chain. From the early stage of supply chain to dynamic alliance (Dimitris Folinas, Vicky Manthou, Marianna Sigala and Maro Vlachopoulou, 2004), knowledge sharing among supply chain enterprises becomes more and more important. According to Chngli, fend, Zhang, Li and Li (2010) studies find out the three model of knowledge sharing in the development of supply chain management, (1) knowledge chain transmission model (KCTM) based on knowledge one-way flow (2) network knowledge sharing model (NKSM) based on knowledge two-way exchange (3) collaborative knowledge sharing model (CKSM) based on knowledge linkage.

Impact of Interorgnisational Knowledge Sharing on Buyer-Supplier Relationships

Knowledge sharing in customer (Buyer) - supplier relationship is not considered as the main target and usually takes place informally (He et al., 2006). On the other hand, there are other forms of interorganisational

relationships that are based on formal agreements and various other arrangements in which exchanging knowledge is the main target of those relationships such as 'licensing agreement', 'research contract', and 'equity position' (Hau & Evangelista 2007, Easterby-Smith et al. 2008).

Interorganisational knowledge sharing could come in different forms for different types of relationships like Collaboration, Partnership, Joint venture, Merger and Acquisitions, Licensing, Client-vendor relationship, Supplier-customer relationship, Technology development relationship, Contractual relationship. Properties of inter-organisational relationships may facilitate (or inhibit) the flow of knowledge between firms and help to explain their performance differentials.

Inter-firm knowledge transfer is seen as a competitive collaboration between alliance partners that is driven by firms' incentives to reduce partner dependency, increase bargaining power, and gain competitive advantage over alliance partners outside the collaboration (Hamel, 1991). Collaboration has become commonplace in the information technology (IT) industry where trading knowledge is one of the motives (Drago 1997). Collaboration enables organisations to acquire, integrate, and benefit from external knowledge (Hamel, Doz and Prahalad 1989), especially technology based capabilities (Mowery, Oxley and Silverman, 1996). For the information technology (IT) industry, technology related collaborations are used as a means to share the cost and risk involved in the technological development, a means to develop complex technologies that each organisation could not accomplish individually, or a mechanism to assist knowledge transfer (Dodgson 1992). Lyles and Salk, 1996; Zahra et al., 2000 suggested that in equity modes of market entry organisations acquire the partner firm's knowledge faster than firms collaborating in contractual alliances.

Partnership arrangements are, therefore, a means of transferring and exchanging knowledge between organisations (Beeby and Booth, 2000). When knowledge is a crucial resource transferred between organisations, inter organisational knowledge sharing becomes critical to the success of the cooperation between partners (Hardy, Phillips and Lawrence, 2003) (Warkentin, Sugumaran and Bapna, 1998). In supply chain partnership, knowledge sharing is not explicitly defined as the main target by the supply chain partners and it

usually takes place informally and spontaneously (He et al. 2006). Supply chain partnership is a special type of IO relationship that is highly knowledge-intensive and for this reason the current study associated to this kind of IO relationship. The effectiveness of interorganisational knowledge transfer increases when unintended risks of knowledge transfer are reduced and inter-firm relationships are built on the basis of high partner commitment and mutual trust (Yli-Renko et al., 2001; Tsang et al., 2004; Becerra et al., 2008).

6. Barriers of Interorganisational Knowledge sharing

Nonaka & Takeuchi (1995) stated that knowledge cannot be easily transferred considering different organisational cultures, structures, and goals. Therefore, there are more issues involved in order to accomplish the sharing process. At the interorganisational level, the collaboration between partners may be difficult because of obstacles such as lack of trust, difficulties in relinquishing control, complexity of a joint project, and differential ability to learn new skills (Powell, Koput and Smith-Doerr 1996), which may prevent effective knowledge sharing between the partners. Sharing knowledge between organisations involves the challenges arising from differences in organisational culture, processes, knowledge domain, and technologies. These difficulties could hinder effective interorganisational knowledge sharing which may in turn prevent or reduce the likelihood of successful cooperation. Grant, 1996; Szulanski, 1996 argued that organisational knowledge is characterized by high levels of tacitness, specificity and complexity that generate causal ambiguity and, consequently, make knowledge difficult to transfer.

Hamel, 1991; Becerra et al., 2008 raised concerns of unintended "leakage of knowledge" to partner firms that may result in negative externalities, such as involuntary expropriation of knowledge, and the risk of creating a new competitor. Bearing these risks of knowledge transfer, firms are less transparent and less willing to share knowledge with their alliance partners that may pose conflicts and subsequently impair transfer of knowledge between partners (Kogut, 1988; Lyles and Salk, 1996). One of the barriers to knowledge sharing is a lack of motivation to share knowledge which in turn will lead to lack of intention at both individual and organisational levels (Hinds and Pfeffer, 2003).

7. Practical Implication of Interorganisational Knowledge Sharing Research

There are several implications for management practices we can draw from the consistent findings in the existing interorganisational knowledge sharing literature. First, Cultural proximity play a critical role in increasing the ability to share knowledge. When organisational cultures are similar, organisations are expected to interact more easily and with better results without any need to explicate difficult interpretations. An important limitation is that a positive culture alone may be insufficient to facilitate interorganisational knowledge sharing. Trust based relationship between the organisation play vital roles for success of interorganisational knowledge sharing. Second, an important internal factors identified in prior research of interorganisational knowledge sharing behavior are top management commitment and Information communication technology. Top management support is also necessary for convincing organisation to participate in interorganisational knowledge sharing. Technology is considered as one of the components of KM systems to link the members together and support members to use and share knowledge within the KM system (Barson et al. 2000). ICT have a positive effect on creating strong tie and link between organisations and also increase the ability to share knowledge. Third, the kind of interorganisational relationship between the two organisations decides the extent and frequency of knowledge sharing between them. Higher the formal relationship (Contract, Outsource, Alliance, Enterprise extension etc.) between the organisations tends to higher knowledge sharing between them. Lack of knowledge sharing policy between the organisations seems to be the biggest hurdles for interorganisational knowledge sharing environment.

8. Conclusion

Till today, interorganisational knowledge sharing research has been based on the limited selection of multinational organisations found in developed countries. The outcome of the research is often narrowly focused on organisations within one region, and refers to application exclusive within that region. Therefore, the published work in interorganisational knowledge sharing has little direct relationship to what is going on in another part of the world. This is the reason for a lack of synergy between the existing interorganisational knowledge sharing literature and the reality of developing countries like India. The systematic review of the current literature

identified that there is not only a dearth of knowledge sharing studies in India but an absence of empirical research that investigated the role various factors on interorganisational knowledge sharing simultaneously. From management literature available in the Indian context, it was clear that interorganisational knowledge sharing in India is still a relatively emerging field for research. There are very few organisations which have initiated to share their organisational knowledge with their suppliers in India; there is no specific evidence available for their success and failure.

9. Future Direction

The situation in Indian corporate makes the applicability of interorganisational knowledge sharing different from the western countries and requires further understanding. However, the only available framework and examples were based on organisations in western industrialized countries. Interorganisational knowledge sharing factors (drivers), which are identified from the experience and the interpretation of research from western industrialized countries, need to be tested in a different context. This requires a need of further interorganisational knowledge sharing research of Indian organisation to strut up research of western country. Currently, there is no such research to support interorganisational knowledge sharing in Indian organisations. In order to realize the benefits of this relatively new "discipline", a research is needed. We are intended to conduct the empirical study in the same direction.

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A Study on Determinants of Brand Loyalty for Cosmetic Products in Gujarat: An Empirical Study

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Abstract

The purpose of this study is to understand relationship between the brand determinants' (brand association, perceived quality, brand name, perceived risk) on the brand loyalty shown by the respondents. Brand association, brand name and perceived quality have strong relationship with brand loyalty. In order to increase brand loyalty marketers should aggressively focus on the like building strong brand name, creating brand association and to provide satisfactory products based on perceived quality of the customers and have to be conscious for consumers' perceived risk.

The study is an empirical study with primary data collected from the cities like Vadodara, Ahmedabad, Surat, Rajkot and Bhavnagar in Gujarat for the cosmetic products. The sample size of the study was 500 s working women from the above mention cities of Gujarat, with an objective to understand relationship between the brand determinants' (brand association, perceived quality, brand name, perceived risk) on the brand loyalty shown by the respondents. ANOVA have been used to analyse the data as well as reliability test is conducted to test reliability of scale used in the questionnaire. The results of this survey show that there exists relationship between brand name, brand association, perceived quality and brand loyalty. While for perceived risk marketers have to define appropriate strategy so that they can influence consumers for the repeat purchase.

Keywords: *Brand Association, Perceived Quality, Brand Name, Perceived Risk, Brand Loyalty*

Introduction

The Indian cosmetic industry is highly competitive in nature. The industry depends on ability of the firm to introduce innovative products. Cosmetic Industry holds huge potentials for further growth. From 1970 to 2010 industry has been achieving a remarkable growth. Indian consumers awareness towards cosmetics products has being increase which leads to the rise in further growth of the industry. According to Indian Cosmetic Sector Forecast to 2015, The Indian cosmetics market registered impressive sales worth INR 264.1 Billion in 2011, with rising purchasing power and growing fashion consciousness.

Today in competitive world every decision of the organization, can be judge through how strong its brand relationship with customers which could claim customer satisfaction and end to brand loyalty. Loyalty is one of the basic criterions which evaluate the tendency of consumers to brand. Those consumers, who are comfortable with the brand, will buy the product despite of competitors' top product features, price and easy function. Brand loyalty means a strong commitment by the customer for the brand. (Yoo, 2000). Brand Loyalty is a core concept and according to Aaker brand loyalty is a core of brand equity.

Literature Review

Brand Loyalty

Brand loyalty is considered an essential element for sustaining in a competitive environment and for the success of any organization. It is a way of keeping customers attached to a company for longer time and for gaining competitive advantage. Brand loyalty shows the trust and commitment of customers towards a brand.

Brand loyalty is a customers' commitment towards products and services and in future are consistent repeat purchase, the resulting behaviour of repeat purchase is called as brand loyalty (Oliver, 1999). Brand Loyalty is considered as an important construct for making a consumer psychology for purchasing a particular brand. (Blomer and Kasper, 1995, Howard and Sheth, 1969). Loyalty is assessed in two aspects; attitudinal loyalty and behavioural loyalty. Behavioural loyalty refers to repeat purchase while attitudinal loyalty refers to psychological communication of the customers. (Nam, Ekinci, & Whyatt, 2011). The loyalty to the specific brand of consumer will remain unchanged if the brand is as long available (Iqbal. Et. al., 2013).

The marketers can succeed their brand not only with the number of consumers buy their products once,

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but on the basis of number of consumers who buys it on a regular basis. (Jacoby and Chestnut, 1978). The sentence focuses on the importance of brand loyalty. The perspective behind understanding brand loyalty is being centred on the relationship between brand equity, perceived quality, perceived risk, brand association, brand trust, brand name, product attributes and brand loyalty.

However, many researchers have opined that affective loyalty as best way to measure brand loyalty (Bennett and Rundle-Thiele, 2000). Groth and McDaniel (1993) suggested that affective loyalty represents the consumer loyalty to a particular brand in all manners. Brand loyalty can be measured with the help of these measurements. A customer having high brand loyalty will interact enthusiastically with the brand and keen to share his experience. It tells the nature of relationship between brand and customer. Brand loyalty is a consistent purchase pattern and positive attitude towards a particular brand over the time.

Brand Association

Brand association and brand equity are strong influencing variable which is affecting brand loyalty and enhances association of the customer towards a particular brand. Aaker (1992). According to Keller (2003), brand association can be created via the association with attitudes, attributes and benefits respectively. Brand association also acts as an information collecting tool (van Osselaer & Janiszewski, 2001) to execute brand differentiation and brand extension. James (2005) also discusses that highly effective association helps to boost brand and equity. In addition, Yoo et al. (2000) and Atilgan et al. (2005) have stated that strong brand association leads to higher brand loyalty.

H1: There is a relationship between brand association and brand loyalty.

Perceived Quality

The quality of product is different from the perceived quality because it is buyer's perception and expectations from the buyer (Zeithaml (1988) and Erenkol and Duygun (2010). Zeithaml (1988) asserts that perceived quality can act as a key influencing factor in determining consumer's choices. According to Motameni and Shahrokhi (1998) and Yoo et al. (2000), perceived quality is positively related to the brand equity.

H2: There is a relationship between perceived quality and brand loyalty.

Brand Name

Brand name is the most important which gives identity to a brand and it also helps consumers not only to identify the brand but also to relate value of the brand with the name. Consumers are usually able to evaluate each product and product attributes (Keller, 2003). Consumers may prefer to trust major famous brand names. These prestigious brand names and their images attract consumers to purchase the brand and bring about repeat purchasing behaviour and reduce price related switching behaviours (Cadogan and Foster, 2000).

H3: There is a relationship between brand name and brand loyalty.

Perceived Risk

As customers purchase cosmetics, if they feel unknown and dubitable, their purchase intention will be affected. This behaviour in psychological dimension is a perceived risk (Bauer, 1960). Johnson (2004) was of the opinion that the decreasing customer perceived risk; the well-known brands, brand equity, store image, reassurance and price can make customers acquire product knowledge and reduce customers' unknown and doubtable feelings.

H4: There is a relationship between perceived risk and brand loyalty.

Research Methodology

Brand loyalty is most important factor for the marketers as high number of loyal consumers increases company's profitability and market share. The current study is a descriptive study with an objective to study determinants of brand loyalty. For this primary data is collected and data collection method used is personal survey method. The data is collected through a structured questionnaire with a five point likert scale ranging from strongly disagree to strongly agree for all the statements related to Brand loyalty. The sampling technique adopted for the survey is non-probability convenience sampling technique. The total samples size is 500 working women which are collected from the five major cities Ahmedabad and Vadodara, Surat, Rajkot and Bhavnagar, Gujarat state, India.

Objective of the study

To understand the relationship between the brand determinants' (brand association, perceived quality,

brand name, perceived risk) on the brand loyalty shown by the respondents.

Data Analysis

For the present study Analysis of Variance is performed with an objective to find relationship between the brand determinants' (brand association, brand name, perceived quality, perceived risk and brand trust) on the brand loyalty shown by the respondents For the same the following hypothesis was framed:

H0: There is a no relationship between brand association and brand loyalty.

H1: There is a positive relationship between brand association and brand loyalty.

Table 1 indicates the analysis of variance for brand association and brand loyalty. As seen in table 1 the significance values of 4 statements are statistically significant i.e. are either 0.05 or less than 0.05. Hence for all these statements the null hypothesis cannot be accepted. This means that for these statements there is a relationship between the brand association and brand loyalty.

Table: 1 ANOVA of Brand Association and Brand Loyalty

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
My brand helps to attain the life I strive for	Between Groups	24.398	1	24.398	38.301	.000
	Within Groups	317.240	498	.637		
	Total	341.638	499			
I use this brand to define and express I and me within myself	Between Groups	23.277	1	23.277	38.426	.000
	Within Groups	301.673	498	.606		
	Total	324.950	499			
I can make many association between my life and brand	Between Groups	18.381	1	18.381	29.184	.000
	Within Groups	313.657	498	.630		
	Total	332.038	499			
I think other judge me as person by brand which I use	Between Groups	53.414	1	53.414	49.912	.000
	Within Groups	532.944	498	1.070		
	Total	586.358	499			

H0: There is no relationship between perceived quality and brand loyalty.

H1: There is relationship between perceived quality and brand loyalty.

Table 2 indicates the analysis of variance for perceived quality and brand loyalty. As seen in table 2 the significance values of 4 statements are statistically significant i.e. are either 0.05 or less than 0.05. Hence for all these statements the null hypothesis cannot be accepted. This means that for these statements there is a relationship between the perceived quality and brand loyalty.

Table: 2 ANOVA of Perceived Quality and Brand Loyalty

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
I feel that well known brand/s perform better as compared to less known brands	Between Groups	5.900	1	5.900	12.027	.001
	Within Groups	244.282	498	.491		
	Total	250.182	499			
Cosmetics products from well known brands are always stylish as compared to less known brands	Between Groups	4.936	1	4.936	11.852	.001
	Within Groups	207.392	498	.416		
	Total	212.328	499			
Cosmetics products from well known brands are always durable as compared to less known brands	Between Groups	7.289	1	7.289	19.847	.000
	Within Groups	182.893	498	.367		
	Total	190.182	499			
A high priced cosmetic products usually has all day staying power	Between Groups	4.494	1	4.494	7.871	.005
	Within Groups	284.306	498	.571		
	Total	288.800	499			

H0: There is no relationship between brand name and brand loyalty.

H1: There is a relationship between brand name and brand loyalty.

Table 3 indicates the analysis of variance for perceived quality and brand loyalty. As seen in table 3 the significance values of 6 statements are statistically significant i.e. are either 0.05 or less than 0.05. Hence for all these statements the null hypothesis cannot be accepted. This means that for these statements there is a relationship between the brand name and brand loyalty.

Table: 3 ANOVA of Brand Name and Brand Loyalty

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
My brand is reputable in the market	Between Groups	26.825	1	26.825	65.477	.000
	Within Groups	204.023	498	.410		
	Total	230.848	499			
Brand name attracts me to purchase the products	Between Groups	12.720	1	12.720	19.250	.000
	Within Groups	329.062	498	.661		
	Total	341.782	499			
Image of my brand attracts me to purchase	Between Groups	5.726	1	5.726	9.566	.002
	Within Groups	298.056	498	.599		
	Total	303.782	499			
Brand name is most important regardless of price	Between Groups	6.678	1	6.678	12.453	.000
	Within Groups	267.074	498	.536		
	Total	273.752	499			
I can recognise my brand among competing brands	Between Groups	13.377	1	13.377	34.713	.000
	Within Groups	191.911	498	.385		
	Total	205.288	499			
Even if other brand have same feature i would prefer to buy from my brand	Between Groups	8.799	1	8.799	19.525	.000
	Within Groups	224.423	498	.451		
	Total	233.222	499			

H0: There is no relationship between perceived risk and brand loyalty.

H1: There is a relationship between perceived risk and brand loyalty.

Table 4 indicates the analysis of variance for perceived risk and brand loyalty. As seen in table 4 the

significance values of 2 statements are statistically significant while significance value of 2 statements are not significant. Hence there is 50% chance of positive relationship between perceived risk and brand loyalty. Hence marketers need to be really conscious with the perceived risk factors which are affecting consumers while taking buying decision or repeat purchase.

Table: 4 ANOVA of Perceived Risk and Brand Loyalty

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
I feel risky while using new products from the same brand	Between Groups	.034	1	.034	.047	.828
	Within Groups	358.916	498	.721		
	Total	358.950	499			
I always check expiry date before using cosmetic products	Between Groups	1.820	1	1.820	3.428	.065
	Within Groups	264.452	498	.531		
	Total	266.272	499			
My brand is reasonably priced	Between Groups	13.547	1	13.547	27.219	.000
	Within Groups	247.851	498	.498		
	Total	261.398	499			
My brand offers value for the money	Between Groups	19.487	1	19.487	50.050	.000
	Within Groups	193.895	498	.389		
	Total	213.382	499			

Table 5: Pearson's correlation coefficient brand name and brand loyalty

		My brand is reputable in the market	Brand name attracts me to purchase the products	Image of my brand attracts me to purchase	Brand name is most important regardless of price	I can recognise my brand among competing brands	Even if other brand have same feature i would prefer to buy from my brand
My brand is reputable in the market	Pearson Correlation	1	.480**	.328**	.180**	.371**	.207**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	500	500	500	500	500	500
Brand name attracts me to purchase the products	Pearson Correlation	.480**	1	.741**	.512**	.338**	.300**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	500	500	500	500	500	500
Image of my brand attracts me to purchase	Pearson Correlation	.328**	.741**	1	.494**	.311**	.273**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	500	500	500	500	500	500
Brand name is most important regardless of price	Pearson Correlation	.180**	.512**	.494**	1	.455**	.300**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	500	500	500	500	500	500
I can recognise my brand among competing brands	Pearson Correlation	.371**	.338**	.311**	.455**	1	.380**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	500	500	500	500	500	500
Even if other brand have same feature i would prefer to buy from my brand	Pearson Correlation	.207**	.300**	.273**	.300**	.380**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	500	500	500	500	500	500
**. Correlation is significant at the 0.01 level (2-tailed).							

Table 5 indicates that the statements under the study related to brand name and brand loyalty are positively correlated with each other. Reputation of brand name is positively correlated with brand name attracts me at time of buying the products, image of brand name attracts me at time of buying the products, brand name is most important regardless of price, recognising brand among competing brands and even if other brand have same feature consumers would prefer to buy same brand with values 0.480, 0.328, 0.180, 0.371 and 0.207 respectively. Likewise brand name attracts me at the time of buying the products is positively correlated with reputation of brand name, image of brand name attracts me at time of buying the products, brand name is most important regardless of price, recognising brand among competing brands and even if other brand have same feature consumers would prefer to buy same brand with values 0.480, 0.741, 0.512, 0.338 and 0.300 respectively. Also image of the brand name attracts me at time of buying the products is positively correlated with

reputation of brand name, brand name attracts me at the time of buying the products, brand name is most important regardless of price, recognising brand among competing brands and even if other brand have same feature consumers would prefer to buy same brand with values 0.328, 0.741, 0.494, 0.311 and 0.273 respectively. The variable brand name is most important regardless of price is positively correlated with reputation of brand name, brand name attracts me at the time of buying the products, image of brand name attracts me at time of buying the products, recognising brand among competing brands and even if other brand have same feature consumers would prefer to buy same brand with values 0.180, 0.512, 0.494, 0.455 and 0.300 respectively. Also the variable recognising brand among competing brands is positively correlated with reputation of brand name, brand name attracts me at the time of buying the products, image of brand name attracts me at time of buying the products, brand name is most important regardless of price, and even if other brand have same feature consumers would

prefer to buy same brand with values 0.371, 0.338, 0.311, 0.455 and 0.380 respectively. Lastly, even if other brand have same feature consumers would prefer to buy same brand is positively correlated with reputation of brand name, brand name attracts me at the time of buying the products, image of brand name attracts me at time of buying the products, brand name is most important regardless of price with values 0.207, 0.300, 0.273, 0.300, and 0.380 respectively. These variables are significant at 0.01 level of significance.

Reliability Test

A scale was developed to measure the relationship between the brand determinants' (brand association, brand name, perceived quality, perceived risk) on the brand loyalty. Each question was five point Likert scale ranging from strongly disagrees to strongly agree. In order to test reliability Cronbach's alpha was run on a sample size of 500 customers. The Cronbach Alpha for these eight statements is 0.841 and reached conventional standards for scale reliability.

Table: 5 Reliability Statistics

Reliability Statistics	
Cronbach's Alpha	N of Items
.841	18

Results & Managerial Implications

The purpose of this research is to investigate the determinants of brand loyalty for the cosmetic products. Brand loyalty is the important variable to ensure that its product is kept in the minds of consumers so that they will not switch themselves to the other brands. It is really not easy to have brand loyal customers as customers analyse various factors before going for repeat purchase from the same brand. From the analysis of this study, it was proven that there are various key determinants like brand association, perceived quality, and brand name have positive relationship with brand loyalty while for perceived risk researchers are 50% sure to have positive relationship that mean it is challenge for the marketers to implement those strategy which will reduce perceived risk of the consumers and they might go for repeat purchase.

The findings revealed that woman while buying cosmetic products associate brand they also opine that other people judge them with the brand which they used

(Refer table.1) which means that they strongly associate themselves with brand before they buy any cosmetic products.

It is also revealed that consumers always prefer that cosmetic brand which is known and durable in the market, they are also ready to buy high price cosmetic products if it is from reputed brand (Refer table.2)

Further finding proves that image of the brand, brand name, brand reputation are the variables which build association of the customers with the brand and this shows that brand association has positive relationship with brand loyalty (Refer table 3). The study also revealed that while buying new product from the same brand consumers' feel risky and other factors like expiry date of the products is also important for having brand loyal customers (Refer table. 4).

Pearson Correlation analysis indicates that almost all the variables taken under brand name are positively correlated with brand loyalty. This indicates that to increase number of loyal consumers marketers have to frame strategy related with maintaining reputation of the brand name, creating valuable brand name as it attracts customers while taking buying decisions, if marketers are able to create valuable brand name people do not mind paying high price as well as they are able to recognise brand among competing brands. Even if other brands have same feature they are not ready to change their brand. Thus, if marketers are able to establish reputed brand name in the market then they can increase brand loyal consumers (Refer table 5).

Finding of this study have reveal that brand association, perceived quality, and brand name are the key variable affecting brand loyalty. Thus marketer should focus on brand name as well as they should keep in mind perceived quality of the brand and perceived risk factors while designing marketing strategy.

Limitations of the study

The current study is limited to the working women consumers using cosmetic products in the State of Gujarat. Also there are only five cities considered for analysis viz: Vadodara, Ahmedabad, Surat, Rajkot and Bhavnagar. The analysis is limited to 500 sample size. The researchers wish to address these limitations in their future work as mentioned in the next section.

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A Study of Green Marketing Initiatives And Government's Intervention In Consumer Durables Industry In India

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Abstract

Abstract - India is the second quickest developing economy of the world. Quick development and improvement has brought forth technological advancements. But this is drastically affecting the environment and in turn the quality of life. India has been positioned 155 out of 178 nations according to 2014 Environmental Performance Index (EPI). The gigantic businesses have a moral and ethical responsibility to take care of society consequently. Since, pollution is a radically developing crisis; it should be taken care of urgently. The government has been laying down rules and regulations every now and then however there have been a few imperfections in selection and reporting of the green practices of the organizations since long. Keeping in view the above issues, this paper firstly investigates the consumer durables industry in India and evaluates the developments in the adoption of green marketing concept and reporting practices among couple of mainstream electronic organizations. Alongside the organizations, government intercession is equally important so government regulations are also discussed. By analysing both practices, SWOT analysis is done. Finally the results have been discussed and some pragmatic suggestions have been made so that endeavours by the companies turn out to be more robust and effective.

Keywords: Consumer Durables, Green initiatives, Government intercession, EPI

Introduction

With the appearance of globalization and progression, the world is transforming into a worldwide town. There has been exponential development and advancement in creating economies like India with a multiplier effect on the way of life of the general population. Be that as it may, the products of such an improvement are not the distance sweet. There are some sharp and prickly substances which are developing parallel to the examples of overcoming adversity, similar to dualism, westernization, heavier rivalry, deteriorating human ethos and values and natural debasement. With the masses getting fortunate and items getting to be conservative and effectively available, they are incited to purchase increasingly of consumer durables these days. (Chopra, 2015)

In a prevalent report by Corporate Catalyst India published in 2013, "Interest for Consumer Durables is balanced for development as the disposable income increases. Also, the electrification of rural sector will augment demand. The electronic sector attracted demand even during recession". Therefore, Indian markets are exceedingly developing markets.

The developing issues of pollution and environmental degradation have expanded the business sectors for eco-accommodating items. The e-squanders

produced from this, is a noteworthy reason for ecological inconvenience in developing countries. This dynamic debasement in the amount and nature of the ecological assets has energized organizations, governments, and buyers to consider their duty in current natural issues and subsequently they have begun taking activities to accomplish economical advancement (Andres et al., 2009).

Likewise as assets are rare and human needs are boundless, it is critical for the advertisers to use the assets proficiently without waste and additionally to accomplish the organization's target. As a consequence of this, green advertising has developed with maintainable and socially mindful products and services.

The goal of the study is to follow out the blast in customer durables and advancements in the selection of green promoting activities by electronic organizations in India Also to analyse the government intervention in electronic sector and their regulation's applicability.

Consumer Durables Market

Overview of Consumer Durables Market

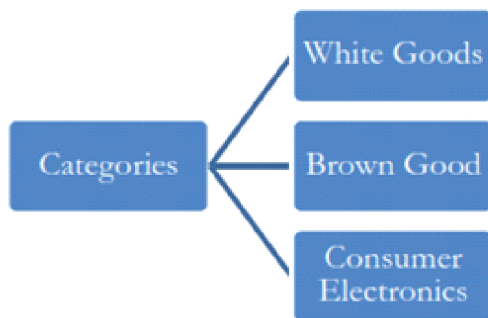
Consumer durables refer to those consumer goods that do not quickly wear out and yields utility over a long period of time. Some of the popular and common examples of these kinds of items are electronic goods,

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kitchen appliances, home furnishings, leisure equipments etc. Consumer durables can be broadly categorized into the following 3 heads:

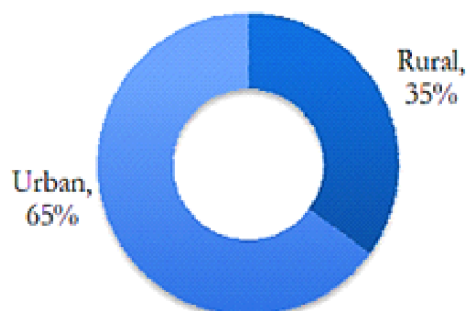
White goods	Brown goods	Consumer electronics
<ul style="list-style-type: none"> · Air conditioners · Refrigerators · Washing Machines · Sewing Machines · Watches and clocks · Cleaning equipment · Other domestic appliances 	<ul style="list-style-type: none"> · Microwave Ovens · Cooking Range · Chimneys · Mixers · Grinders · Electronic fans · Irons 	<ul style="list-style-type: none"> · TVs · Audio and video systems · Electronic accessories · PCs · Mobile phones · Digital cameras · DVDs · Camcorders



Source: Cygnus Quarterly Report, Aug 2007, Edelweiss Report on Industrial Production

India is expected to become the 5th largest consumer durables market in the world by 2025. The consumer electronics market is expected to increase to USD 400 billion by 2020. Urban marketer account for the major share (65%) of total revenues in the consumer durables Sector in the country.

Share in the consumer durables market in India (FY15)



Source: Ministry of Urban Development, TechSci Research, Ministry of External Affairs

Growth prospects of Consumer Durables industry

Because of increment in disposable income and the advancement of technology, the requirement for the varied consumer durable goods are increasing. This thus

is prompting a solid rivalry among the diverse consumer durable brands accessible in the country and in addition the price gap between a similar consumer products of various organizations are narrowing down. Step by step these products are getting to be less expensive. The rural and urban market of consumer durables has been developing at a rate of around 15 % on an average.

India is probably going to develop as the world's biggest working class customer showcase with an amassed shopper spending of about US\$ 13 trillion by 2030, according to a report by Deloitte titled 'India matters: Winning in development markets'.

Fuelled by rising salaries and developing reasonableness, the consumer durables market has extended at a compound yearly development rate (CAGR) of 14.8 percent to US\$ 12.5 billion in FY 2015 from US\$ 7.3 billion in FY 2012. Urban markets represent the significant share (65 percent) of aggregate incomes in the Indian consumer durables division. In rural markets, durables, for example, refrigerator, and consumer electronic merchandise are probably going to witness developing interest in the coming years. From US\$ 2.1 billion in FY 2010, the provincial market has developed at a CAGR of 25 percent to touch US\$ 6.4 billion in FY 2015.

Because of various factors in consumerism and increasing spending power, various factors in this industry that are impacting the Indian consumer are:

- **High Amount Spent On Marketing By Companies:** It is seen that all consumer durables organizations like LG, Samsung, Videocon and so forth are spending tremendous spending plans to draw in the client. This is affecting the clients by giving them more decisions and more edges available to them.
- **Ascend In Disposable Income:** The interest for consumer durable white goods has been ascending with the expansion in extra cash combined with more customers falling under the twofold pay families. The developing Indian middle class is a fascination for organizations.
- **Accessibility Of Newer Variants Of A Product:** Consumers are spoilt for decision with regards to picking items. More up to date variations of an item will help an organization in getting the consideration of purchasers who search for advancement in items.

- **Me Too Attitude:** Due to the "me too" attitude of customers, they are progressively purchasing as drive purchasing regardless of the possibility that there is no quick accessibility of back with them. Influencers for them can be neighbors, companions, peers which force them to purchase more current things frequently.
- **Product Pricing:** The consumer durables industry is profoundly price sensitive, making cost the deciding element in expanding volumes, atleast for lower range purchasers. For center and upper range purchasers, it is the brand name, innovation and product features that are vital.
- **Going Techno Savvy:** Due to availability of more and more gadgets, many of them not really needed, the consumer durables industry has got great demand. Many of the products are upgraded version of the products consumers already possess. For instance, request of hi tech LED TVs when LED or Flat screen TV is now accessible with them. This is a pattern affecting purchaser behaviour.
- **Globalization or Dissolution Of Boundaries:** Today's client is very much aware about the most recent happenings around the globe. For instance, even before the I phone was propelled in India, numerous young definitely knew about this new phone and its features. The internet has been an essential impetus in this procedure peopling to be better educated and teaching them in this procedure. This also makes consumers in creating a pull for a product which is helpful for the consumer durables industry as a whole.

Some Cases of Green Marketing Initiatives

By gathering data on companies' technical and business innovations by use of less resources and their recent conservation efforts that could bring greater benefits in the future; the results are summarized below.

Philips Eco Vision: Phillips has made a noteworthy commitment in green advertising. In 2007 Royal Philips Electronics propelled "EcoVision4" program. In 2012, offers of Eco-friendly products expanded to EUR 11,238 million, contributing essentially to the aggregate income stream. As a percentage of the Group total, Green Product sales rose to 45%, up from 39% in 2011, and on track to reach the new target of 50% in 2015. They put some EUR 569 million in Green Innovation in 2012 so as to guarantee

their green channel stays well stocked. Organization likewise launched 91 new Green Products in the market. Also Philips concentrate on enhancing the vitality proficiency of its products and services, Philips declared new willful reusing activities in India, Brazil, Argentina and China. Through their eco design process, they offer products that reduce costs, energy consumption and CO₂ emissions. Philips Green logo demonstrates that the products have an altogether preferred environmental performance over their rivals. Information recommends that the green promoting effort propelled by Philips has positively affected the consumers as the sales have generously expanded after the dispatch of its Eco Vision4 program. Consumers demeanor towards their product is great and they are even prepared to pay more for it.

Panasonic Green Innovations:

Panasonic has propelled arrangement of products made with recycled resources, as it keeps on putting endeavors going for turning into the No.1 Green Innovation Company in the Electronics Industry. Therefrigerator's glass wool insulation is made with roughly 90% reused glass from utilized CRT TVs, utilizing Panasonic exceptional reusing innovation. With a specific end goal to make day by day life more comfortable and eco-friendly, Panasonic gives new machines by utilizing intelligent sensors. An earth-tone color is uniformly used for the new line and Earth beige is used on the exterior, with matching colors used for the control panels of all its products. As individuals have turned out to be more aware about the ecological angles, they consider reused content as a vital calculate their acquiring choices, as per a study led by Panasonic the Company has propelled a series of products including a refrigerator, a rice cooker, a washer/dryer and a vacuum cleaner, which joins recycled resin and vacuum insulation made from reused glass. Panasonic AVC Networks Company won a silver prize at the "Eco Mark Award 2013" composed by the Japan Environment Association (JEA).

LG's Greenovation:

Green Marketing has ended up one of LG's Corporate Social Responsibilities. Green Marketing has being utilized by LG Electronics Company in the improvement and advertising of items to minimize negative consequences for nature. LG's green vision is to give values that upgrade the personal satisfaction for its purchasers and make a more beneficial and cleaner environment. LG's green administration exercises include:

the reduction of green house gas emissions all through the whole product lifecycle, the "Green Program Plus" which advances imparted development to its suppliers and green organizations to make a future growth engine. These exercises depend on LG's core values of green and advancement which are spoken to by the "Greenovation". In April 2010, LG Group reported the dispatch of its green administration technique, "Green 2020", to center its abilities on maintainable administration for green development while taking a proactive reaction to environmental change. "Green 2020" is a three-pronged technique which is: (1) making a green work environment, (2) extending greener products and (3) fortifying green businesses. LG was additionally ready to give chances to customers to experience its products and have an opportunity to listen to their voices for future product improvement. LGE is focused on making creative qualities that add to environmental protection through Greenovation exercises.

Videocon Green Initiative:

Videocon likewise contribute towards green advertising. The new logo was uncovered by Shahrukh Khan at LA (USA). They said "The new personality and logo of Videocon depends on the buyer driven approach of the brand and it's situating to be nearer to the consumers heart, both as far as its qualities and theories, and in addition it's servicing perspectives. The brand make-over is gone for Youth-minded consumers who have another worldwide attitude. The Fluid lava reflects the brand thought, 'Experience change'. The shading palette has been reflected the logic of Videocon Group i.e. the shading green is typical to the organization's environment drive. Videocon and Panasonic additionally utilize the Bollywood extravaganza IIFA awards platform to advance their eco-friendly products. The topic of the IIFA honor is 'GoGreen' which gives a stage to advance items which are environment friendly. Videocon Group has upgraded their R&D focuses to "green" innovation to spare vitality and transmit less unsafe substance. The organization likewise celebrates the Vanamahatsava (Annual Festival for Tree Plantation) and World environment day in the association to build mass increase mass awareness amongst the employees. The organization has stepped up with regards to spread awareness among customers in regards to e-waste management and its taking care of and transfer through social sites, print media, and advertising campaign.

Sony Eco Innovation:

Sony is utilizing their innovation as a part of an inventive approach to address ecological issues. Sony has turned into the most recent significant producer to join O2's battle to free the market of superfluous cell phone chargers. Sony has joined manufacturers HTC and Nokia which have effectively joined the O2 activity, called 'Charger out of the box'. The battle intends to remove all chargers from new telephone boxes by 2015, as they are an extreme ecological waste issue for the business. For its proceeded with responsibility to eco-friendly tasks and Eco activities, Sony wins the Greenest Company for 2009 by the Environmental Graffiti site in its yearly honors. The honor perceived Sony particularly for imaginative green undertakings, for example, the Forest Guard Eco activity that included Sony Engineers working with a gathering of kids to build up their thought for preventing wild fires.

3.5. Seiko Epson:

This Company considers the whole life cycle of its printers and different items while they are still in the design stage, gaining the organization 13 eco-design awards in two years. For example, it has made its own particular database of the natural effects of chemicals, built up quantitative measurements of organizations' effect on society, and designed its own labeling system called Eco Leaf. Epson makes its bundling out of trees particularly developed for that reason, and plants 20% a bigger number of trees than are consumed. Every item accompanies a full Ecology Profile that incorporates reusing data about each segment. Printer item segments are likewise 85% recoverable.

Lenovo:

In a brilliant example of the cycle of value, Lenovo is driving the use of post-consumer recycled material in its products. Lenovo's EPEAT Gold screens have more than 25% reused material in them, and this is expanding with the design of each new product. The greater part of Lenovo's product offerings utilize reused plastic and metals; the gold, silver and different valuable metals are recuperated from end-of-life products. Utilizing particularly post-customer material has turned into a keen focus this year for Lenovo and is a compelling differentiator in the market for the organization.

Intel:

Intel's new microchips utilize almost 10 times less power than models from only 18 months back. The Core™ 2 Duo processor utilizes 40% less vitality to do 40% more work than the past Pentium processor. The aggregate vitality funds from all the Core 2 Duo items in the marketplace is proportional to taking taking millions of cars off the road. Further more, the more current Xeon processor gives another 35-60% efficiency gain over past items. Intel additionally attempts to enhance the energy efficiency of business data centers, which consolidate numerous processors. Its Eco-Rack design diminishes power utilization by 16-18%, if it were used by all servers and data centers in the United States, would save the equivalent of the energy used by 986,000 homes. Each Eco-Rack saves about \$ 44,000 in electricity costs. Intel provides employee incentives for innovations in energy efficiency: Bonuses are tied to efficiency milestones, and the Intel Environmental Excellence Award perceives exceptionally creative projects.

Environmental Regulations

The most recent century has seen an unmanageable increment in populace, placing a tremendous burden on natural resources. There is not enough food for the world's hungry. Additionally, the earth itself is exhausted because of excessive farming, utilization of chemicals and pesticides and excessive utilization of ground water. Water assets are seriously dirtied and outflow of lethal vapor from industry and vehicles has denied us of clean air. Industrialization and a developing buyer economy have prompted the formation of tremendous uber strategies with their issues of incapacitated rubbish and uncontrolled sewage. To battle these issues, world bodies like the United Nations and the World Commission on Environment and Development have been detailing thoughts for ecological insurance and supportable advancements.

The Hazardous Waste (Management and Handling) Rules, 2003:

"The Hazardous Wastes (Management and Handling) Rules, 2003" was told on 20 May 2003. According to the Rules, "dangerous waste" is characterized as any waste which by reason of its physical, chemical, reactive, toxic, flammable, explosive or

corrosive characteristics causes risk is likely to cause danger to health or environment, whether alone or when in contact with different wastes or substances.

Under Rule 3, "Definitions", e-waste is characterized as Waste Electrical and Electronic Equipment including all components, sub-assemblies and their fractions except batteries falling under these rules. Batteries are regulated by the Batteries (Management and Handling) Rules, 2001.

There are some important features in Schedule 1, 2 and 3 which cover e-waste.

Schedule 1 characterizes dangerous waste created through different industrial processes. In spite of the fact that there is no immediate reference of the electronic waste, the "disposable process" of e-waste could be described as risky procedures. The demonstrative rundown of these procedures is: Secondary generation as well as utilization of Zinc, Secondary creation of copper, Secondary result of lead Production as well as utilization of cadmium and arsenic and their compounds, Production of primary and secondary aluminum, Production of iron and steel including different ferrous alloys (electric furnaces, steel rolling and finishing mills, coke oven and by product plan), Production or industrial use of materials made with organo silicon compounds, electronic industry Waste treatment processes, e.g. incineration, distillation, separation and concentration techniques.

Schedule 2 records waste substances which could be viewed as dangerous unless their fixation is less than the limit indicated in the said Schedule. E-waste or its fractions come comprehensively under this Schedule.

Schedule 3 mentions the list of hazardous waste to be applicable only for imports and exports. It has isolated dangerous waste into two sections, A and B. Section A of the Schedule manages two arrangements of waste to be appropriate just for imports and export reason. Export and import of things recorded in List A and B of Part A are permitted only as raw materials for recycling or reuse. Wastes under List A are not permitted to be transported into the nation without the Directorate General of Foreign Trade (DGFT) permit. In any case, e-waste is regularly imported for the sake of reuse or reusing with no notice to the naturally stable administration of reusing.

The Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008

On 24 September 2008, these Rules were advised as the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 by the Ministry of Environment and Forests. According to these Rules, each individual desirous of reusing or reprocessing hazardous waste including hardware and electrical waste is required to enlist with the Central Pollution Control Board. The units taking care of e-waste are required to enroll with the CPCB. The waste created is required to be sent or sold to an enlisted or approved re-cycler or re-processor or re-client having environmentally sound facilities for recovery of metals, plastics, and so on. The CPCB has to be satisfied that a candidate for reusing on reprocessing waste is using environmentally sound technologies and processes, adequate technical capabilities, requisite facilities and equipment to recycle, reprocess or reuse hazardous wastes before granting registration to such applicants.

It has placed import of hazardous waste items under three categories:

- Substances that can be imported with prior approval,
- Free imports under Open General license and
- Substances which are restricted for importing into the nation.

The first category incorporates metal and metal-bearing wastes of antimony, lead, galvanic muck and waste lead corrosive batteries, entire or crushed. An importer is required to have a permit from the Directorate General of Foreign Trade. The list in the second classification includes materials, for example, iron, steel and zinc scrap; lead scrap with the exception of lead corrosive batteries; misuse of copper and its alloys. The wastes recorded in this classification are traded under Open General license. The third classification forbids import of waste containing mercury, beryllium, arsenic, selenium, thallium, hexavalent chromium compounds, and so on.

Guidelines for Environmentally Sound Management of E-waste, 2008:

The Guidelines underline the idea of Extended Producer Responsibility (EPR), an idea on which the Western nations base their disposal practices. The EPR is an environment protection strategy that makes the

producer in charge of the whole life cycle of the product, particularly for reclaim, reuse and final disposal of the product. In this way, the makers' obligation is stretched out to the post-customer phase of the product life cycle.

The Guidelines express that incorporation of the EPR in the authoritative structure would make it a compulsory movement connected with the production of electronic and electrical equipments over a timeframe.

Such a move would likewise oblige the producer to set up accumulation places for e-waste either exclusively or mutually. The CPCB has demanded putting the onus of implementation on the State Pollution Control Boards (SPCBs). The State Department of Environment or the SPCB may endorse more stringent standards as considered fundamental.

Aside from publishing the Guidelines on different parts of the risky waste administration, the Ministry of Environment and Forests has additionally given budgetary help to fortifying the SPCBs for encouraging execution of the Rules. Monetary help has likewise been given to setting up Common Treatment, Storage and Disposal Facilities for unsafe waste management. Moreover, the Ministry and the CPCB from time to time sponsor training programmes for creation of awareness about the provisions laid down in the Rules.

The draft E-waste (Management and Handling) Rules, 2010

Considering it necessary in the public interest to empower the recovery and/or reuse of valuable material from waste, in this way lessening the hazardous wastes bound for transfer, and to guarantee the environmentally sound management of a wide range of waste electrical and electronic hardware, the Government presented the draft E-waste (Management and Handling) Rules, 2010.

According to this draft notification the rules shall apply to each producer, dealer, collection center, refurbisher, dismantler, recycler, auctioneer, consumer or bulk consumer involved in the manufacture, sale, purchase and processing of electrical and electronic equipment or components.

As indicated by the draft Rules, the makers of electrical and electronic types of gear including large and small household appliances, PCs, toys, leisure and sports equipments, and therapeutic gadgets shall be liable for

collecting any e-waste produced will need to channelize the same for reusing or disposal. They will set up collection centers for e-waste created from the 'end of life' items in accordance with the standard of the 'Extended Producer Responsibility' and guarantee that such e-waste is channelized to an enrolled refurbisher or dismantler or recycler. They need to guarantee that all electrical and electronic types of gear are given a special serial number or individual recognizable proof code for product tracking in the e-waste management system. They shall also finance and organize a system to meet the costs involved in the environmentally sound management of e-waste generated from the 'end-of- life' of its own products and 'historical waste'. The producers will likewise need to give contact details of dealers and approved collection centers to purchasers to encourage return of e-waste.

Dealers have to make provision for collecting e-waste by providing the consumer a box, bin or a demarcated area to deposit e-waste and ensure the same is transported back safely to the producer or the authorized collection center. The dealers, refurbishers, dismantlers and recyclers need to get enlisted with the SPCB or CPCB, whichever may apply, and guarantee that the storage, transport, dismantling and refurbishing of e-waste does not bring about any unfriendly impact on wellbeing or environment. All the stakeholders need to enroll with the concerned SPCB or Pollution Control Committee (PCC), keep up records of the e-waste handled and also file annual returns to the concerned SPCB or PCC.

The draft Rules have additionally expressed the obligations of the customers and bulk customers. They need to guarantee that e-waste is stored with the dealers or authorized collection centers. They may also avail the pick-up or take back services provided by the producers. According to these Rules, any individual working at collection centers, individually or collectively, is required to acquire approval from the SPCB or PCC concerned. To ensure e-waste management in an environmentally sound manner they need to verify that the storage system is secure and that the transportation to the producer, refurbisher or to the enlisted recycler is safe.

The proposed Rules, for the first time in India, get the idea of Extended Producer Responsibility, making producer responsible for safe transfer of electronic products. It obliges producer to reclaim the product after their life is exhausted. It also aims to promote environment

friendly designs in the making of electronic products that limit the use of hazardous chemicals like lead and mercury. Producer won't just be made in charge of setting up collection centers to supervise the procedure, yet need to likewise guarantee that the dangerous items are taken care of by enrolled dismantlers or recyclers just with a specific end goal to control any conceivable harm to nature and human wellbeing. The draft strategy would suggest that bulk clients like banks, MNCs and other enormous organizations would need to store their e-waste at approved collection centers as opposed to offering them to neighborhood wholesale scrap shops. They would also have to file annual returns on the quantity of the e-waste disposed.

Criticism of the new draft Rules

However, the new draft Rules on e-waste management framed by the Government has been criticized on several grounds by various environmental groups.

- It ignores the unorganized and small and medium sectors where 90 percent of the e-waste is created. The law currently does not accommodate any arrangement to restore those included in informal recycling. The Electronics Industry Association of India (ELCINA) with the support of the Department of Scientific and Industrial Research (DSIR), Ministry of Science and Technology, studied the status and potential of e-waste management in India in February 2009. Their discoveries held that a cooperative relationship between the formal and the informal sector was essential. It said: "The informal sector's part collection, segregation and dismantling of e-waste should be sustained to supplement the formal recyclers as supply chain partners. They should take on the higher technology recycling processes." The collection and segregation and dismantling of e-waste is not dangerous and the procedures are effectively done by the informal sector in light of the fact that the vast majority of the e-waste can be repaired and sold as second hand. The extraction of valuable metals is the dangerous procedure, which ought to be left for the organized sector.
- The Rules likewise don't detail the business model for accumulation of e-waste from customers. The enactments sanctioned by the Government cover generation, storage, transportation and disposal of

risky waste yet don't propose a streamlined collection mechanism. Then again, most nations which have drafted controls on e-waste have looked for the cooperation and contribution of producers as they are best equipped to deliver the answers for the complex composition of such products.

- The draft Rules additionally don't perceive the extent of transboundary development of e-waste under various classes, for instance, under the appearance of metal scraps and used electrical appliances.
- According to the Ministry of MSME, the MSME sector is mainly affected as producer under the new draft rules, forcing numerous obligations on the producer (MSMEs) with respect to gathering, transfer and reusing of e-waste. It has remarked that according to the Fourth All India Census of MSMEs (2006-07), there are around 1,11,754 units occupied with in IT, Telecom equipment, household appliances, consumer and lighting equipment, monitoring and control equipment in the country, out of which as it were 27,415 are enlisted units and 84,339 are unregistered units. The normal gross yield of the enrolled MSME units ranges from Rs. 80.00 lakh to Rs. 1.00 crore per annum/unit. It is stated that an environmentally sound recycling unit may involve heavy investment because of the technology involved and will be economically viable only when there is adequate turnover of e-waste processing. Subsequently, considering the low size of operation and locational perspectives (of producers and users), it may not be economically viable and physically feasible for each and every producer (MSME) to build up an e-waste recycling unit either individually or collectively, nor will it be possible for them to set up collection centers individually or collectively.

The Ministry of MSME is of the view that the duty of the producer (MSMEs) ought to be limited to:

(a) Recycling of e-waste generated during manufacturing of electronic goods, through authorized recyclers, and

(b) Providing information to the consumers regarding authorized e-waste recyclers (at the time of sale of such products in the form of booklets/brochures).

- In the new draft rules, landfill remains a form of disposal. The guidelines characterize "Disposal" as any operation that incorporates includes physio-

chemical or biological treatment, incineration and deposition in secured landfill. The guidelines express that each dismantler might guarantee that non-recyclable/non-recoverable segments are sent to authorized treatment storage and disposal facilities. It will likewise be the obligation of each recycler or reprocessor to guarantee that the office and reusing procedures are as per the principles set down in the rules distributed by the CPCB from time to time, and to ensure that residue generated thereof is disposed off in a hazardous waste treatment storage disposal facility. In such manner, the CPCB's Guidelines for Environmentally Sound management of E-waste, 2008 in its 'guidelines for establishment of integrated e-waste recycling & treatment facility' express that plastic, which can't be reused and is perilous in nature, is prescribed to be landfilled in Treatment, Storage and Disposal Facility (TSDF).

The MoEF has commented that flame retardants in plastics can be discarded through incineration or through co-processing in a cement plant. However, disposal of such plastics in landfill should not be encouraged. Besides, in case lead recovery is low, they can be temporarily stored at e-waste dismantling facility and later disposed in TSDF.

'Reduction in the use of Hazardous Substances (RoHS)'

According to this rule every producer of electrical and electronic equipment will need to guarantee that, new electrical and electronic hardware does not contain Lead, Mercury, Cadmium, Hexavalent Chromium, Polybrominated Biphenyls (PBB) or Polybrominated Diphenyl Ethers (PBDE). Such reduction in use of hazardous substances would be achieved within a period of three years from the date of commencement of the new e-waste rules. The rule also provides for detailed information on the constituents of the equipment in the product information booklet. Further, imports or placement in the market for electrical and electronic equipment would only be permitted for those which are RoHS compliant.

Government assistance for Treatment, Storage and Disposal Facilities (TSDFs)

The Government has taken various activities to deliver issues identified to disposal of wastes. It empowers setting up of coordinated Treatment, Storage and Disposal Facility (TSDFs) for hazardous waste management on Public Private Partnership (PPP) mode in clusters of

hazardous waste generating industries. So far 28 TSDFs have been set up. The Ministry of Urban Development is actualizing the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) for giving help to the State Governments/Urban Local Bodies for different ventures including solidwastemanagement.

A Memorandum of Understanding (MoU) is signed between the Ministry of Environment and Forests, State Pollution Control Board and the entrepreneur before release of financial assistance for setting up of TSDF. One of the conditions of the MoU is to constitute acommittee to monitor progress of the facilityFurther release of financial assistance is made only on submission of audited Utilization Certificate and physical progress report by the respective State Pollution Control Board.

Challenges in following Environmental Regulations

Complying with the environmental regulations requires companies to keep track of all the substances/chemicals being used in their products (including weight/volume information) and use that information to evaluate the products against the regulations to make sure they are within the set limits. Howeverthisisnotaseasyasitmay sound. A host of i ssues beyond the control of individual Original Equipment Manufacturers (OEMs) / Suppliers make compliance a complex undertaking. Here are a few challenges:

Gathering information from providers:

Collecting material declaration data effectively from suppliers is the most troublesome part of the compliance process. The issue is exacerbated when information, for example, lab reports should be revived occasionally. In situations where parts are acquired from more than one suppliers, information must be gathered from all suppliers. Because of the absence of an established process, correspondence with the suppliers gets to be troublesome when individuals change roles at supplierorganizationorwithinthe company.

Consistence parts not yet accessible:

Compliant parts are not yet generally accessible from all producers. Component manufacturers are acquiring compliant parts as and when raw materials and manufacturing resources get to be accessible. A few suppliersuppliersare even choosing to break the level of compliance down into phases, such as releasing a version of a component that is lead-free but not fully RoHS

compliantandthenreleasinga fully RoHS compliant version of the same part at a later date.

Performance and Compatibility:

OEMs need to ensure compatibility and performance with existing products and manufacturing methods during the transition to compliant parts. Some components might not have been intended to endure higher temperature soldering. Lead-free solder pastes typically require higher solder temperatures, but individual components and printed circuit boards are not designed to tolerate the higher temperaturesin items where safety and reliability quality are basic, retesting and recertification of the items ought to be finished. Thiswill increaseboththetimetomarketandthemanufacturing costsofthe products.

Analysing product level compliance:

Companies without automated product compliance solutions are forced to analyse the entire Bill of Materials (BOM) manually for compliance to regulations and customer specific requirements. This is time-consuming and error-prone, creating potential delays in time-to-market of the products and inworst case running the risk of non-compliance.

Ever changing regulations:

When new substances are banned by regulations or clients, organizations need to work with of their suppliers at once and things get complexMass communication inevitably leads to "bounced e-mails". It is hard to track which providers have received the email, what number of them have responded and what was the response.

Customer specific reporting:

When clients, of OEMs, need a certificate of compliance or a material declaration with lab reports, it is hard to give the information as there is no centralized system that keep strack of all this information

SWOT Analysis of Consumer Durables Industry

STRENGTH OF THE INDIAN CONSUMER DURABLE SECTOR

Riseintheshareoforganizedretail:

Organized retailing won't just streamline the supply chain, but also encourage expanded demand, particularly for high- end and branded products.

Organized retail industry is relied upon to cover a market share of 15%-18%, from around 3% right now by 2020. The Indian retail market is as of now worth USD516 billion. The penetration of modern retail is 12.0 per cent in consumer durables segment. The sector is seeing the development of modern durable retail chains and e-retailers like TataCroma, Reliance Digital, Ezone and so on.

Product pricing:

The consumer durables industry is highly price sensitive, making cost the deciding component in expanding volumes, at any rate for lower range consumer. For middle and upper range consumer, it is the brand name, innovation and item includes that are imperative.

Product innovation and availability of newer variants of products:

Customers are spoilt for choice with regards to choosing items. Newer variations of a product will help an organization in getting the consideration of consumers who search for development in products. The consumer durables market is currently overwhelmed with plenty of products, each giving different features and technology, new choices and added advantages and has developed from a market with limited products and few features. The replacement cycle has lessened from 9-10 years to 4-5 years for the majority of the goods in this sector.

Narrowed price gap and increased affordability of products:

Growth in demand for products, once considered luxuries, such as air-conditioners, washing machines and high end colored TVs is the reflection of narrowed price gap. On account of expensive customer merchandise, retailers are giving Easy financing alternatives to buyers by collaborating with banks.

Innovative advertising and brand promotion:

Sales promotion measures, for example, discounts, free gifts and exchange offers help an organization in separating itself from other competitors.

Festive season sales:

Demand for colour TVs usually pick up during the festive seasons. Subsequently most organizations turn out with offers in this period to capitalize on the festive mood. This period will keep on being the development driver for consumer durable companies.

Government Initiatives - Policy Support:

Customs duty relaxation:

Electronics sector the first in India to be allowed complete customs exemption on certain items used for manufacturing electronic goods. The peak rate of basic customs duty is 10 percent and 217 tariff lines (under the ITA-1) are exempted from duty.

Reduced central excise:

The mean rate of excise duty is 12.0 percent. Excise duty is being lessened to 6.0 percent on LED lamps and LEDs required for manufacture of such lights.

Encouragement to FDI:

100 percent FDI is allowed in electronics hardware-manufacturing under the automatic route. FDI into single brand retail has been expanded from 51.0 percent to 100 percent; the legislature is planning to hike FDI limit in multi-brand retail to 51.0 percent.

EPCG, EHTP schemes:

EPCG permits import of capital products on paying 3.0 percent customs duty. EHTP gives advantages, for example, duty waivers and tax incentives, to organizations which replace certain imports with local manufacturing.

National Electronics Policy 2012:

Aims to make an ecosystem for globally competitive electronic manufacturing sector and to accomplish a turnover of about USD400 billion by 2020, including investments of about USD100 billion, and to give employment to around 28 million individuals.

WEAKNESSES OF THE INDIAN CONSUMER DURABLE SECTOR

Worldwide organizations:

The domestic consumer durables sector confronts danger from more newer companies, particularly from worldwide ones who have technologically advanced products to offer.

Competition:

Presence of a substantial number of players in the domestic consumer durables industry prompts rivalry among organizations. Danger from rivalry represents a risk to residential organizations.

Potential markets remaining yet undiscovered:

A substantial section of the domestic market, mostly the rural market is yet to be tapped. Tapping this yet undiscovered and unorganized market is a major challenge for the Indian consumer durables sector.

Substitute products/services:

The domestic consumer durables industry is tormented by dangers from substitute items. Easy accessibility to theatres/multiplexes, especially in urban areas has turned off the viewer ship from TV to a large extent. With the coming of a crowd of FM radio stations, radio sets have now substituted TVs.

Availability of choice:

The accessibility of a wide product offering on account of most products being homogeneous, represents a threat for organizations working in the consumer durables division. Customers have the choice of both domestically produced and imported goods, with similar features.

Capital intensive nature of business:

Cost of production in India is higher when contrasted with China and other SE Asian nation's costs. In addition, given the frequently changing energy manufacturers will need to invest substantial amounts for products with high rating. The cost of capital at ~12%-14% is much higher than the global average of ~5%-7%.

Trouble in setting up and running organizations:

India's position in "Doing Business" annual reports published by the World Bank continues to be less than favourable. The most recent rankings put India 134th among 185 nations. Procedural and regulatory clearances are tedious and complex. Average time taken to procure a land is 14 months and 27 days to begin a business (positioned 179). According to industry sources, it takes up to a year to set up a manufacturing plant in the nation. A new production line could take up to six months to become fully operational.

- Different enactments are to be agreed to, e.g., Factories Act, Industrial Employment Act, Contract Labor Act, Minimum Wages Act, Trade Unions Act, and so on. Manufacturing units also need to agree to IPR laws and environmental laws.
- Cost of Capital: The cost of capital at ~12%-14% is much higher than the worldwide normal of ~5%-7%.

- Manufacturing costs: Lifted cost of Manufacturing (conversion costs) because of lacking accessibility/reliability of power (bringing about its high mixed cost), high cost of land, and so on.

Given the frequently changing energy efficiency norms, manufacturers need to make significant investments for products with high rating.

Different expenses:

The relatively poor perception of India as an electronics-manufacturing destination worldwide has resulted in high international marketing expenses being incurred by domestic manufacturers.

- To sustain demand levels, manufacturers have to incur increased interest costs of "zero-interest" schemes to draw in clients into purchase now-pay-later plans.
- Tax and duty structure: India's taxation system is surprisingly complex, particularly where indirect taxes are concerned. While income tax, excise and customs duty are set by the Central Government, states and municipalities also levy their own taxes. Heavy taxation in the nation which is around 25-30 percent, while the comparing duties in other Asian nations are somewhere around 7 and 17 percent.

OPPORTUNITIES OF THE INDIAN CONSUMER DURABLE SECTOR

Growing demand in rural markets:

India's rural market, accounting for approximately 69% of India's households, giving open doors for the consumer durables industry. Around half of the rustic populace possesses a TV, 8% claims refrigerators and around 1% possesses washing machines. Additionally, increasing electrification of rural areas would augment the demand.

Urbanization and greater brand awareness:

The Indian urban populace is anticipated to increase from 31% in 2011 to 41% of the aggregate populace by 2030. Urban customers have begun to see consumer durables as lifestyle products and are interested in pay expanded costs for branded products.

Expansion into new fragments:

Organizations are growing their product portfolio to incorporate products like high-definition TVs

(HDTVs), tablets and smart phones and so forth., interest for which are rising with purchaser's salary, easy availability of credit and wide utilization of online sales expanded affordability of products. Advancement in technology and higher rivalry are driving price reduction across various consumer durable product segments such as computers, mobile phones, refrigerators and TVs.

Focus on energy-efficient and environment-friendly products:

Leading companies have introduced star-rated, energy-efficient ACs and refrigerators. Companies also plan to increase the use of environment-friendly components and reduce e-waste by promoting product recycling.

Rise in disposable income:

The interest for consumer electronics has been ascending with the expansion in disposable income combined with more purchasers falling under the double income families. The developing Indian middle class is an attraction for organizations who are out there to woo them. During 2013-19, per capital income in India is expected to grow at a CAGR of roughly 6.6% to around US\$2,200 in 2019 from US\$1,500 in 2013. Expanding pattern of working women population will drive interest for home appliances, for example, washing machines.

Accessibility of financing plans:

Availability of credit and the structure of the loan decide the affordability of the product. Sale of a specific product is determined by the cost of credit as much as the flexibility of the scheme.

THREAT OF INDIAN CONSUMER DURABLES SECTOR

Limited scale and quality from domestic suppliers:

The vast majority of the providers of raw material and components in India don't have the scale to meet the generous demand in the industry, making them less cost competitive when contrasted with imports. Additionally, quality of inputs is not as competitive to Chinese or other SE Asian partners. This has driven different global majors to scale down operations in the nation.

Expanding rivalry from Chinese and SE Asian makers:

Indian makers confront solid rivalry from Chinese and other SE Asian partners which have an enormous supply base and installed capacities. Additionally, China government provides numerous subsidies for manufacturing unit's development.

Infrastructure bottlenecks:

India's spend on infrastructure was just 7.2% of its GDP in 2012. The fundamental infrastructure for any industry involves good roads, power, water, telecommunications, components, and logistics. In India, these facilities are not up to the mark even in established industrial estates. The lack of proper roads and sales infrastructure brings about distribution challenges for consumer durables companies catering to markets in smaller semi-urban cities, rural areas and remote villages. There is port congestion for both exports and imports because of unavailability of containers and long documentation process.

Rupee appreciation:

Raw material cost constitutes more than 75 percent of expenditure incurred by consumer durable manufacturers in India. The rapid appreciation of rupee vis-à-vis the US dollar is expected to ease raw materials costs for Indian manufacturers and benefit those addressing the domestic market.

Suggestions

- The ecological issues in India are growing very fast. Therefore it is essential to implement green marketing in business practices. Green marketing makes drastic change in the business and saves the world from pollution. Organizations ought to make awareness among the buyers and society about the advantages of green marketing. Green marketing also acts as a platform to draw in new clients. It is the responsibility of marketer to understand the challenges that exist while adopting green marketing and develop appropriate strategies to overcome those challenges.
- In India customer durables industry makes a significant contribution towards the green promoting and there is a vast potential exists for eco-friendly products, provided the company adopts new innovative technologies that have less harmful impact on the environment.

- Some agencies through the consortium of government, industry and non-government associations ought to be created to receive stricter check system over the environmental claims of the electronic organizations with the goal that they do not go away from regulations. This would help in instilling the trust and purchase intention among the Indian clients. The recyclability, recycling arrangements and reuse options ought to be upheld by the local authorities to make the attempt a win. . Then it will be easy for the people who face problems in carrying the products to the recycling centers. Such scrap sellers and local vendors should be paid well to motivate their participation in the recycling efforts.
- Organizations ought to work towards educating the clients about the criticality of the developing environmental issues, and motivating the customers to increase green purchases through educating them about the role they can play in sustaining the environment. Environmental awareness will make ready to increased green purchases in India. . One such strategy can be of rewarding and developing a recognition mechanism for those who are availing the product righteously in an environment friendly manner throughout the life cycle of the product. This will help in motivating the customers to keep intact with the companies in sustaining and improving the environment. It may include the exchange offers, cash coupons, certificates and similar other systems.
- Rules should be framed for obligatory and uniform reporting of environmental performances. The governments and environment agencies over the globe ought to detail uniform rules and regulations characterizing the parameters on which the organizations should be assessed. This will make the reporting technique mandatory, comparable and easy to implement.
- Money related and infrastructural assistance from the Industrial associations and government agencies ought to be given to Indian electronic firms to offer compel to advancements which in turn will fulfil the motives of environmental protection and improvement in the electronics industry.
- Governmental, Non-Government Organizations and middlemen support to the national electronic organizations will help them to improve their ecological activities and adoption of the green concept in its true sense.
- More specialized rating agencies for electronic organizations and other such measures ought to be taken at both national and global level to increase the morale of the organizations towards adoption of green concept.
- Infrastructure development: Lack of sufficient physical framework, for example, as roads, ports, airports, electricity etc.,are adversely affecting thecompetitiveness and productivity of the domestic home appliances industry in India. Continuous power supply is a vital condition for operation manufacturing units as power changes can prompt major losses to the manufacturing processes. Besides, the request of home apparatuses, for example, Air Conditioners, Refrigerators, Washing Machines, Microwave Ovens and Vacuum Cleaners are driven by the zap of homes and continuous supply of power in the as of now jolted zones. Indigenous assembling in the whole esteem chain of ESDM is required for financial advancement. Appealing monetary motivating forces over the esteem chain of the ESDM part through an adjusted exceptional impetus bundle conspire (M-SIPS) gave by government to dispose of the incapacity costs in assembling by virtue of foundation holes identifying with power, transportation and so on is a stage in right bearing. Motivating forces given to setting up of 200 Electronic assembling bunches (EMC's) with world class coordinations and simple to work together offices ought to offer assistance. The advantages of National assembling arrangement and National venture and assembling zones (NIMZ) are accessible to EMCs.
- Raw Material, Components & Machinery: Weak supply chain network and lack of vendor support likewise influences the quality, efficiency and competitiveness of the sector. There should be hassle free import of raw material and components by streamlining the import policy and through the simplification of procedures.
- Skill Development and Training of Manpower: with regards to accomplishing the "scale" and 'speed', the following solutions could be the way ahead in providing a conducive environment for India to meet its skill development goals:

- Targeting skill development at all levels of the 'skill pyramid'
- Implementing Vocational Education in schools
- Creating a large talent pool through Modular Employable Skills

To altogether improve the accessibility of skilled manpower in the ESDM area, a special focus for augmenting post-graduation is required. Encouragement should be given for setting up of skill oriented courses and training programs along with hands on laboratories enabling graduates from other disciplines to mitigate to EDSM.

- R&D and Technology Up gradation: Indian producers are not able to compete with worldwide majors because of the abnormal state of innovative skill and R&D content required for indigenous manufacturing. Technology transfer, R&D and IPR creation should be incentivized by government through friendly tax regime. A vibrant and sustainable ecosystem of R&D, design and engineering and innovation is required to enhance manufacturing capabilities of electronic raw materials, components, sub-assemblies as well as products.
- Productivity Enhancement for Raising Profit Margins: To handle the elements blocking the profitability and competitiveness of the segment, various strategic initiatives should be taken up by Industry Associations, producers and Government. . In order to become competitive in the domestic as well as world market, consumer appliance manufacturing units need to formulate strategies based on market intelligence, product development, R&D, demand forecasting and competitive pricing. Productivity estimations based on Labour and Total Factor Productivity Growth rates have been found quite low in the light electrical sector particularly home appliances segments, there is a need for substantial up-gradation of skill levels and technological knowhow (R&D activities) in this sector for further value addition at the domestic level.
- Contract manufacturing: Labor policies in India are not good to manufacture when contrasted with other contending nations, for example, China. In this manner, there is prerequisite of flexible labour policies to empower workersto restructure labour force in response to the market demand.

- Increase the local demand base so that companies look to increase manufacturing, as currently, the companies have adequate facilities to service the demand for next 5-6 years.
- The Government needs to reduce interest rates and taxes to increase disposable income in the hands of buyers, which is probably going to prompt a take-up of discretionary spend on consumer durables.
- Introduction of 0% financing plan: Allowing organizations to offer such plans cannot just drive the sales of consumer durables even in a weak economy, additionally enable customers hoping to purchase on easy monthly instalments without paying any interest on the loan amount. Just about 30% of overall sales happen through financing plans, since they help in influencing sales.

All the previously mentioned strategies and some other thoughtful actions can fortify and widen the ecological viewpoints of electronic firms in India to a great extent.

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CSR Initiatives by Indian Banks: Issues and Challenges

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Abstract

Introduction - Corporate Social Responsibility (CSR) as a concept has captured the attention of the majority of management scholars, with studies focussed on Corporate Citizenship, Ethics and Social Responsibility. Concern for society and philanthropy had been a tradition in Indian culture and firms have been doing these activities as social duty or charity. With the regulatory framework in place, it is mandatory for the firms including banks have to engage in CSR activities. Though the banks have been engaged in CSR activities with focus on various areas, there are certain issues, problems and challenges faced by the banks. The present study intends to bring out these issue, problems and challenges faced by Indian banks with respect to CSR.

Research Methodology - The present study follows an exploratory research design, with in-depth interview as information collection tool. In-depth interviews of the senior managers / directors of the banks were conducted to elicit their response on issues related to CSR activities and challenges they might face in the process. A list containing several open-ended questions was created to act as a guide to conduct these in-depth interviews. The respondents were selected using a non-probability snow-ball sampling technique. About 8 responses could be collected from senior managers / directors on board for this study.

Major Findings - The major issue related to CSR activities of the banks is that there no connect between the banks and the community. Moreover, there is a lack of awareness about CSR activities among the local community. Another issue is the lack of focus in undertaking CSR activities, which is largely due to their failure to carry out a review and impact study. Some of the major challenges are related to lack of interest, involvement and knowledge of the employees. The non-availability of NGOs that can assess the community needs and can suggest the activities is another major challenge that the banks face in implementing CSR initiatives.

Managerial Implications - The outcome of study could be considered by banks as inputs in making their CSR initiative more focused and community oriented.

Key Words: *Corporate Social Responsibility, Banking Sector, Issues, Challenges*

Introduction

The concept and practice of corporate social responsibility (CSR) is gaining a wide-spread attention of the corporations as well as the academic world today - more so when there is an increasing awareness and understanding that the corporations must give back to the society. Corporate Social Responsibility (CSR) is the means through which the corporate organizations have executed their philanthropic visions for social welfare. Thus, CSR goes beyond the regulatory compliance that the firms have to fulfil as their legal obligation. CSR is doing much more than just legal compliance. It has to do with the activities that firms need to undertake for overall well-being of the society. Moreover, in the wake of the growing concerns for environmental performance, sustainable development, and optimum use of natural resources have made the CSR activities of the firms extremely relevant in today's context. In fact, some forward looking firms have started integrating CSR activities in their business model and started pursuing as a long-term strategy of the firm.

The term CSR is understood by business has an obligation towards society that extends beyond its narrow obligation towards its shareholders. It is mandatory for companies to behave in ethical and responsible manner towards the various interest groups of the society. Companies have started incorporating CSR projects and programs along with reporting in annual reports. CSR importance have increased in Indian corporates has they have realized that along with ultimate goal of profit making it should concentrate on the trust building and develop societal relationship. The CSR perspective focuses on responsibility of the business towards all stakeholders like shareholders, employees, creditors, suppliers, government and community. The organization has become transparent in accounting and other activities due to pressure from the various interest group of the society. Corporations have become more responsible by focusing on activities that benefit the community, like considering the environment, sponsoring students for higher education, product quality, safety, etc.

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The key drivers for CSR are progressive self-interest, social investment, transparency, trust and increased public expectations of business. The philosophy is, basically to give back to the society, what it (business) has taken from it, in the course of its quest for creation of wealth.

CSR is not a new concept in India. However what is new is the shift in focus from making profits to meeting societal challenges. CSR measure the impact of a company's actions on society. It is interesting to know when in post-independence period (early 1950's) Indian industry was being set up by the great business visionaries and entrepreneurs, tangible reflections of embedded ethical values were traced in India which may very well be counted as early initiatives of corporate to be responsible towards society. Jamsetji Tata (1839-1904) who was more than merely an entrepreneur who helped India took her place in the league of industrialised nations. It will be relevant to read one of the quotes from Late J. Tata; *"Be sure to lay wide streets planted with shady trees, every other of a quick-growing variety, be sure that there is plenty of space for lawns and gardens, and reserve large areas for football, hockey and parks. Earmark areas for Hindu temples, Mohammedan mosques and Christian churches."* *"We do not claim to be more unselfish, more generous or more philanthropic than other people. But we think we started on sound and straightforward business principles, considering the interests of the shareholders our own, and the health and welfare of the employees, the sure foundation of our success."*

Literature Review

The concept of CSR has evolved over a period of time. Concern for society and philanthropy had been a tradition in Indian culture and one can trace the roots of corporate philanthropy in the late 1800s. During the period 1910 to 1950, industrialists helped the independence struggle. Subsequently, the firms realized the importance of CSR activities and hence started some initiatives during 1950 to 1990. The focus was more to do with combating environmental pollution and environmental performance. Many firms adopted ethical standards of doing business and started practicing ethos in doing business.

Various researchers held different views on the concept of CSR. According to Bowen (1953), "CSR refers to the obligations of businessmen to pursue those policies to make those decisions or to follow those lines

of relations which are desirable in terms of the objectives and values of our society." According to Van and Marrewijk (2003) CSR refers to "companies' activities demonstrating the inclusion of social and environmental concerns in business operations, and in interaction with stakeholders, also according to the ambition level of corporate sustainability". According to Infosys founder, Narayan Murthy, "social responsibility is to create maximum shareholders value working under the circumstances, where it is fair to all its stakeholders, workers, consumers, the community, government and the environment." According to the World Business Council for Sustainable Development - "CSR is business commitment to contribute to sustainable economic development, working with employees, their families, the local community, and society at large to improve their quality of life. Under this point of view, the CSR rests on the fundamental pillars of both the economic growth and the quality of life as an engine for sustainable development".

The term corporate social performance was first coined by Sethi (1975), expanded by Carroll (1979), and then refined by Wartick and Cochran (1985). In Sethi's 1975 three-level model, the concept of corporate social performance was discussed, and distinctions made between various corporate behaviours. Sethi's three tiers were 'social obligation (a response to legal and market constraints); social responsibility (Congruent with societal norms); and social responsiveness (adaptive, anticipatory and preventive) (Cochran, 2007).

Friedman (2006) held the view that firms must do business in an ethical manner and must focus on profitability by staying within the regulatory and legal framework. According to Friedman (2006) "There is one and only one social responsibility of business- to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud". Thus, utilizing resources in an efficient way was discharging societal obligations according to him. Robbins and Coulter (2007), however, held a completely opposite view saying that the management's social responsibility would go beyond making profits and would include protecting and improving social welfare of its stakeholders and the environment, where the firm carried out its operations. Carroll (2008) argued that corporations were not independent entities responsible only to stockholders, but

were also responsible to the society that allowed their formation through various laws and regulations and supported them through purchasing their products and services.



Figure-1: CSR Model by Carroll (1991)

CSR in India - Legal Framework

CSR issue on the table was first put up by the Government of India by the issuance of Corporate Social Responsibility Voluntary Guidelines in 2009 by the Ministry of Corporate Affairs (MCA, 2009). It is in this Voluntary Guidelines of 2009 that the core elements of a CSR policy was spelt out that included care for all stakeholders, ethical functioning, respect for worker's rights and welfare, respect for human rights, respect for the environment and activities to promote social and inclusive development. Previously the importance of CSR was discussed in the context of corporate governance reforms, such as in the Report of the Task Force on Corporate Excellence by the Ministry of Corporate Affairs (MCA, 2000). The Guidelines of 2009 were followed in 2011 by the National Voluntary Guidelines of Social, Environmental & Economic Responsibilities of Business, also issued by the MCA (MCA, 2011). As in the case of the 2009 Guidelines, the 2011 Guidelines were voluntary in scope wherein corporate were urged to adopt all the nine principles.

The transition from a voluntary CSR regime to a regulated regime came when the Securities Exchange Board of India (SEBI) required the top listed 100 companies, as part of Clause 55 of the Listing Agreement, to mandatorily disclose their CSR activities in the Business Responsibility Reports (BR Reports) accompanying the Annual Reports. The most ambitious attempt at mandated CSR activities for companies came with the enactment of Section 135 of the Companies Act 2013 (MCA, 2013). Section 135 made CSR spending as well as reporting mandatory for the very first time in India and brought the CSR activities of Indian corporates

under the purview of corporate law.

Specifically, the provisions under Section 135 requires companies with net worth of rupees five hundred crore or more, or turnover of rupees one thousand crore or more or a net profit of rupees five crore or more (i) to appoint a CSR Committee of at least 3 directors (one independent director), and (ii) under the guidance of the CSR Committee, spend in every financial year, at least two per cent of the average net profits of the company made during the three immediately preceding financial years, in pursuance of its Corporate Social Responsibility Policy. In defining the boundaries of CSR, the act broadly specifies in Annexure VII of the Act, the scope of social responsibility in terms of a list of activities that the corporate can potentially undertake. The Rules framed under Section 135 of the Act, came into force from April 1, 2014.

2.2 CSR activities by Firms - Some Issues and Challenges

A study conducted on CSR activities of corporate revealed that the key challenge facing business was the need for more reliable indicators of progress in the field of CSR, along with the dissemination of CSR strategies (Nadaf and Nadaf, 2014). The study also revealed that there was a lack of understanding, inadequately trained personnel, non availability of authentic data and specific information on the kinds of CSR activities, coverage, policy etc.

Mann (2014) identified several issues and challenges pertaining to the implementation of CSR. They are: lack of awareness of people in CSR activities, lack of local capacities, lack of transparency in disclosure by small companies, shortage of suitable NGOs, absence of clear CSR guidelines, etc.

CSR activities by Banks in India and Abroad

This section provides a review of the theoretical literature on CSR activities in banking sector in India and in other countries. Wise and Ali (2009) in their study on corporate governance and corporate social responsibility in commercial bank of Bangladesh, through analysis of the annual reports of these banks, found that the corporate social responsibility disclosures by the banks focus on initiatives undertaken to support two critical sectors within Bangladesh's economy: agriculture and the SME sector. Ventura and Vieira (2007) made a study to understand the dynamics of institutionalizing corporate social responsibility in the field of Banking Organizations in Brazil and found that from being an isolated marginal action, CSR in the past ten years is now a structured action in banking organizations. Hussein and Abdelmohsen (2013) made an attempt to study the level of on-line CSR disclosure of companies listed in the stock market of Gulf Cooperation Council countries and investigated the impact of a number of company characteristics to explain the variation in the disclosure level by developing a disclosure index. The results suggested that there is considerable variation in the disclosure of each group of CSR i.e., environmental, employee, community and social involvement and product.

The banking industry has made significant transformation in the last few years and plays an important role in a nation's economy (Beck et al., 1999) and proactively engages in CSR activities (Marin et al., 2009; Truscott et al., 2009). The reputation of financial institutions relies on their socially responsible programs (Poolthong and Mandhachitara, 2009). Banks are considering the CSR activities into their strategic decision to improve their public image. Banks and other financial institutions have started promoting environment friendly and socially responsible lending and investment practices.

The Reserve Bank of India (RBI) circulated a notice on December 20, 2007 for all the scheduled commercial banks, with title "Corporate Social Responsibility, Sustainable Development and Non-Financial Reporting-Role of Banks". RBI (2011) on

stressing the need for CSR pointed out that the banks were vital for sustainable development and should pay special attention towards integration of social and environmental concerns in their business operations to achieve sustainable development. RBI also pointed out to start non-financial reporting (NFR) by the banks which would cover the work done by the banks towards the social, economic and environmental betterment of society. The CSR in Indian Banking Sector is aimed towards addressing the financial inclusion, providing financial services to the unbanked or untapped areas of the country, the socio-economic development of the country by focusing on the activities like, poverty eradication, health and medical care, rural area development, self-employment training and financial literacy trainings, infrastructure development, education, and environmental protection etc.

Sharma (2011) made an attempt to analyse CSR practices and CSR reporting in India with special reference to banking sector and concluded that banking sector in India is showing interest in integrating sustainability into their business models but its CSR reporting practices are far away from satisfaction. Narwal (2007) made a study to highlight the CSR initiatives taken by the Indian Banking Industry. The findings suggest that banks have an objective view-point about CSR activities. They are concentrating mainly on education, balanced growth (different strata of society), health, environmental marketing and customer satisfaction as their core CSR activities. Eliza S. And Mukta M. (2013) made a study to analyze CSR activities carried out by Indian commercial banks based on the secondary data taken from annual reports of the banks and concluded that though the Indian banks are making efforts in the CSR areas but still there is a requirement of more emphasis on CSR. There are some banks which are not even meeting the regulatory requirements. A study conducted by Aparna and Subhash (2014) on Corporate Social Responsibility Disclosure by SENSEX Companies in India focusing on CSR disclosure in annual reports and concluded that CSR disclosures are low and maximum disclosure are made in category of environment and community Involvement.

Several studies have been conducted on CSR activities carried out by banks. A study attempted to analyze the existing CSR practices of five nationalized banks (Allahabad Bank, Andhra Bank, Bank of Baroda, State Bank of India, and Uco Bank), found that these banks were directly engaged in CSR activities mostly in

the area of Rural Development, Education, Community Welfare, Women and Children (Moharana, 2013) .

Another study conducted on CSR activities by Indian banking sector revealed that only a few banks reported their activities on triple bottom line principles (Dhingra and Mittal, 2014). The study further found that among the reporting banks, some banks were making false gestures in respect of their efforts for socio-environmental concerns. Most of the Banks used CSR practices as a marketing tool and many were only making token efforts towards CSR in tangential ways such as donations to charitable trusts, NGOs, sponsorship of events, etc.

Research Methodology

The present study is an attempt to explore the issues, problems and challenges faced by banks in implementing CSR initiatives. Hence, the study follows an exploratory research design. Based on the review of literature, several general issues and challenges faced by the firms in various sectors have been identified. Therefore, the research attempted to identify the issues and challenges faced by the banks. Hence, the main objective is to identify the issues and challenges faced by Indian banks with respect to implementation of CSR initiative.

The existing literature did not provide a complete list of issues and challenges that banks may face in implementing CSR initiative. Hence, it is decided to carry out a qualitative research study, where responses have been elicited using in-depth interviewing technique. About 8 interviews of senior managers / directors of the banks were conducted, out of which three interviews were face-to-face and two interviews were conducted over telephone. The guiding questions for conducting interviews were largely open-ended and less structured to elicit the response of the respondents.

Findings and Discussions

The interaction with the respondents revealed several issues, problems and challenges related to CSR initiatives of the banks.

It also came to the surface that there is lack of communication between the banks and the community at the grassroots. During the in-depth interview with the experts in the field it was also revealed that after allocating the funds to different programmes there is no evaluation and review process with respect to the implementation

of the activities. A lack of understanding and inadequately trained personnel is another major issue that this sector is facing which further add to the reach and effectiveness of CSR programmes. Further it emerged that there is a lack of interest of the local community in participating and contributing to CSR activities. This finding goes in confirmation with the earlier research (Maan, 2014). This is mainly attributable to the fact that there exists little or no knowledge about CSR within the local communities.

It is found that the major problem faced by the banks is lack of initiatives and support from employees and lack of knowledge. The employee's involvement in CSR initiatives of the bank is very minimal and if the employees are involved they consider it as a burden and addition to their work. Lack of professionalism is another problem faced by this sector as the bank are allocating funds as per the law mentioned in Clause 135 of the Companies Act, 2013.

While discussion with one of the experts it also emerged that there is lack of transparency on the part of the local implementing agencies as they do not make adequate efforts to disclose information on their programs, impact assessment and utilization of funds. This fact was highlighted when the expert opined that when their bank is funding to a health organization under their CSR initiatives the health organization instead of using that fund for the health and care of the community people are using the fund to extend charity to other institutions. Such act restricts banks to go in for collaboration with different agencies and NGO's. This finding goes in confirmation with the earlier research,(Aparna and Subhash, 2014)

During the interview with the experts it came to the surface that there is non-availability of well organized NGO's that can assess and identify the needs of the community and work along with banks to ensure successful implementation of CSR activities. It also revealed that there is no common platform that gives an idea as to what kind of activities are undertaken by banks in CSR initiatives often resulting in duplication of CSR activities. This limits bank's abilities to undertake impact assessment of their initiatives from time to time.

Conclusion

CSR Banks have been carrying out CSR activities quite judiciously in various areas such as charity, scholarships, education, healthcare and community development. However, it has been observed that banks

have not been able to establish a close connectivity with the community. Moreover, they do not carry out systematic impact assessment of the CSR activities, which keeps them deprived of setting the right focus of their CSR activities.

The banks therefore, should increase dialogue with the community that helps to make business appear more trustworthy. Many banks think that CSR is a peripheral issue for their business and customer satisfaction is more important, thus overlooking the long-term strategic implications of the CSR activities.

Banks at local level can set a collaborative relationship with local NGOs for undertaking CSR initiatives and to address the some major local community issues. In order to make CSR initiatives more focused, Banks need to involve their stakeholders and incorporate CSR as an integral part of their long-term strategy.

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Stay Interview as an Intervention for Employee Engagement to Ensure Long Innings of Key Marketing Personnel

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Abstract

Introduction: In the current competitive era where majority of organizations are dealing with knowledge workers, retention of expert employees is the need of an hour as there is intensive talent war across all sectors. The alarming attrition especially in marketing department has been a challenge for majority of the organizations. Organizations are keen to know those factors that can keep an employee engaged and committed creating a win-win situation. Competent marketing employees are definitely a key factor in an organization to achieve its objectives. Due to stiff competition, due to penetration of MNCs in an Indian market, organisations are compelled to have adequate, skilled and motivated manpower. For long time companies with the hindsight approach, have been focusing on knowing why employees leave the organization rather to stress on knowing about what keeps an employee to stay with them. So considerably, the approach of "Stay interviews" helps the organization in gathering these hard facts and provides them to stay proactive with issues of employee turnover and retention.

Design/methodology/approach: To understand the practice of stay interview, initially face to face interaction with all the employees was conducted to understand the satisfiers and dissatisfiers for the employees. Stay interview was conducted for 50 employees of marketing department with stratified random sampling. Phase two was all about designing and administering questionnaire.

Findings: The results of the research revealed that stay interview being an intervention helped us to identify the facilitating and hindering factors in the organization

Keywords: *Stay Interview, Employee Engagement, Retention, Role clarity, Feedback*

Introduction

It is important to understand the organizational environment so that employers can develop a long-term retention strategy. Employers should be aware of reasons why employees join, why they stay and why they leave an organization. This join, stay, leave model is akin to a three-legged stool, meaning that without data on all three, organizations will be unsuccessful in implementing a proper retention strategy. (Allen, 2008).

For any organization, its marketing department is the revenue generator, hence it cannot afford to let go the key marketing personnel from its organization. According to Allen (2008), it is equally important to understand why employees stay with an organization as it is equally as important to understanding why employees choose to leave. Recent studies have suggested that as employees participate in their professional and community life, they develop a web of connections and relationships. These relationships prompt employees to become more embedded in their jobs and by leaving a job; this would sever or rearrange these social networks. The more embedded employees are in an organization, the more they are likely to stay. Moreover if the employees experience a perfect match between themselves at their

job, the lesser chance they will search elsewhere. To determine why employees stay with the organization the employers should conduct stay interviews with top performers. A stay survey can help to take the pulse of an organization's current work environment and its impact on their high performing employees. Employers that are concerned with over-using stay interviews can attain the same result by favoring an ongoing dialogue with employees and asking them critical questions pertaining to why they stay and what are their goals.

A. Concept of stay interview

A "stay interview" is a periodic one-on-one structured retention interview between a manager and a highly valued employee that identifies and then reinforces the factors that drive an employee to stay. It also identifies and minimizes any "triggers" that might cause them to consider quitting.

According to Encourage Top Performers to Stick Around (2015), stay Interviews are designed to get specific information by asking the right questions of the high performing employees. These interviews tend to highlight the individual's challenges and offer an opportunity to make the necessary changes at the company so that these employees stay for the long-term.

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In this competitive world, as the talent wars continue, stay interviews can be a valuable way to engage and retain employees.

A regular Stay Interview program demonstrates to the employees how much they are valued because the organization is careful to ask and listen to why they are still with the organization. A detailed Stay Interview plan will give the valuable insight into the goldmine of information available which can be used to reduce turnover of the high performing employees and help them stay motivated, stay engaged, and stay productive.

Companies everywhere know first-hand that productive employees mean higher profits, stock value and create customer brand loyalty. By reaching out to the high producers and asking for regular feedback on individual motivators one can continue this trend and build upon it with the information received. Stay Interviews allow companies to engage and support their employees as individuals-creating a ripple effect of benefits to the entire workforce and beyond. Engaging ONE affects ALL and stay Interviews provide the details to how to make that happen.

B. Why Stay Interview of Marketing Managers?

In order to help marketing managers, feel more engaged within work organisations and more satisfied with their jobs, employers have started to administer stay interviews within organization, with the end goal being to retain organisational members. Stay interviews have become a proactive solution to the retention problem and have been seen as a better alternative to the exit interview.

Retention in any organisation is not only important from financial standpoint, but it also effects the reputation of the organisation and its brand image which can attract future stakeholders and maintaining the stability in the organisation. According to Heathfield (2016), in a stay interview, you ask current employees why they continue to work for your organization, whereas at the exit interview, it's too late to identify and solve the problems or help your exiting employee accomplish the goals he or she is leaving to obtain. Hence, the stay interview is preferable to an exit interview

The results of a stay interview highlights the areas of improvement for the organization and how to retain the remaining valued employees. The stay interview is an opportunity to build trust with employees and a

chance to assess the degree of employee satisfaction and engagement that exists in a department or company.

Stay interviews are preferable to employee satisfaction surveys because they provide a two-way conversation and a chance to ask questions, and follow-up on ideas. They also deal with immediate employee happiness or concerns, not with how the employee felt last month. The process of stay interview with best performing employees has to be carefully conducted by the organization. If organization has a culture that encourages open communication and employee involvement, they are an effective tool for identifying the areas that need improvement. If organization lacks trust and open communication, they may be a waste of time, or worst, it may get bad answers that mislead into making ineffective changes.

Literature Review

Finnegan (2012) stated that there are two things that every organisation wishes to preserve are time and money. The author found that losing employees is very costly and untimely for organisations, reflecting that organisations face many costs directly related to turnover, including exit interviews time and administrative requirements, payout of unused vacation time, and the cost of temporary workers or overtime for co-workers asked to fill in. Replacement costs include advertising, processing of candidates, interviewing and selection. Finally training cost both formal and informal adds to the overall burden.

Grunig et al.(1992) advocated that effective communication is a key component in any organisation. In terms of stay interviews, effective communication would reflect an organisation where communication is both up-down and bottom-up. However, for communication and feedback to be used constructively, it should not be viewed as one directional. Two- way symmetrical communication, as essential component to excellence in any organisation, is described as engaging communication between two people where there is some sort of negotiation going on that presents a "win-win" situation. One goal of feedback is to manage conflict and reach a mutual understanding between managers and employees, or administrators, students. Both parties discuss a given situation and try to negotiate solutions between the organisation and the key players.

Magner et al. (1996) argues that employees feel comfortable to stay longer, in positions where they are involved in some level of the decision-making process. According to Watson and Noble (2005), mutually beneficial relationships relates to a two way communication process in which the organizations act in the interests of both itself and the parties with which it interacts. Maertz and Campion (1998) noted relatively less turnover research has focused specifically on how an employee decides to remain with an organization and what determines this attachment retention processes should be studied along with quitting processes. Steel, Griffeth and Hom (2002) added the fact is often overlooked, but the reasons people stay are not always the same as the reasons people leave. With the stay interview, the ideal direction of dissent would be upward. Dissent is the expression of disagreement about the organizations policies and practices (Kassing et al., 2012). Despite the vast literature on employee turnover, which is aimed at identifying factors that cause employees to quit (Griffeth, Hom, & Gaertner, 2000), much less is known about the factors that compel employees to stay.

Research Objectives

- To study the factors that make employees stay in the company.

- To identify the job satisfiers and dissatisfies with respect to work environment, performance appraisal, relationship with training support from Organization.
- To examine the impact of stay interview on employee engagement at organization.

A. **Data Collection Method:** Primary data through questionnaire

B. **Sample Size:** 50 employees of marketing department

C. **Sampling Technique:** Stratified random sampling

Discussion

The research was conducted in organizations where stay interview is a practice. The sample size was 50 marketing managers across diverse organizations. Their responses during stay interview were recorded and analyzed.

H₀₁: According to marketing managers their relationship with superiors is not good.

TABLE I: Relationship With Superior - One Sample Test

	Test Value = 3				
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference
How is your relationship with your superiors	3.293	49	.002	.500	.19 .81

Table No. 1 signifies the relationship with superior. In this table, significance value is 0.002 which is less than 5%. So it proves that null hypothesis is rejected. Thus according to marketing managers their relationship with superiors is very good.

H₀₂: According to marketing managers the approachability and service orientation of HR department is not good.

TABLE II : Approachability and Service Orientation of HR - One Sample Test

	Test Value = 3					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
How is the approachability and service orientation of HR	4.823	49	.000	.520	.30	.74

Table No. 2 signifies the approachability and service orientation of HR. In this table, significance value is 0.000 which is less than 5%. So it proves that null hypothesis is rejected. Thus according to marketing

managers the approachability and service orientation of HR department is very good.

H₀₃: According to marketing managers feedback process is not good.

TABLE III: Feedback Process - One Sample Test

	Test Value = 3					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
How is the approachability and service orientation of HR	4.823	49	.000	.520	.30	.74

Table No. 3 signifies the feedback process. In this table, significance value is 0.000 which is less than 5%. So it proves that null hypothesis is rejected. Thus

according to marketing managers feedback process is very good.

H₀₄: According to marketing managers they do not have role clarity.

TABLE IV: Role Clarity - Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
Do you have role clarity	Group 1	Yes	46	.92	.50	.000
	Group 2	No	4	.08		
	Total		50	1.00		

Table No. 4 shows the existence of role clarity in the minds of employees. In this table, significance value is 0.000 which is less than 5%. So it proves that null

hypothesis is rejected. Thus, employees do have role clarity.

H₀₅: According to marketing managers they do not believe they have a platform to learn and grow.

TABLE V : Platform To Learn And Grow - Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
Has your work provided you the platform to learn and grow	Group 1	Yes	42	.84	.50	.000
	Group 2	No	8	.16		
	Total		50	1.00		

Table No. 5 shows the existence of platform of learning and growing. In this table, significance value is 0.000 which is less than 5%. So it proves that null

hypothesis is rejected. Thus, organization has provided them the platform to learn and grow.

H₀₆: According to marketing managers they do not receive feedback from your superiors.

TABLE VI : Feedback From Superiors - Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
Do you receive feedback from your superiors	Group 1	Yes	43	.86	.50	.000
	Group 2	No	7	.14		
	Total		50	1.00		

Table No. 6 shows the existence of feedback system in the organization. In this table, significance value is 0.000 which is less than 5%. So it proves that null

hypothesis is rejected. Thus, they do receive feedback from superiors.

H₀₇: According to marketing managers they do not think there is culture of praise and caring.

TABLE VII : Culture of Praise and Caring - Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
Do you think there is culture of praise and caring in	Group 1	Yes	26	.52	.50	.888
	Group 2	No	24	.48		
	Total		50	1.00		

Table No. 7 shows the existence of culture of praise and caring. In this table, significance value is 0.888 which is more than 5%. So it proves that null hypothesis

is accepted. Thus, they do not think there is presence of culture of praise and caring.

H_{0_8} : According to marketing managers they are not satisfied with the training provided.

TABLE VIII : Satisfaction of Training Given - Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
Are you satisfied with the training provided	Group 1	No	8	.16	.50	.000
	Group 2	Yes	42	.84		
	Total		50	1.00		

Table No. 8 shows the satisfaction of training given. In this table, significance value is 0.000 which is less than 5%. So it proves that null hypothesis is rejected.

Thus, they are satisfied with the training provided.

H_{0_9} : According to marketing managers they are not happy and engaged at work.

TABLE IX: Happiness and Engagement At Work - Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
Can you say you are happy and engaged at work	Group 1	Yes	38	.76	.50	.000
	Group 2	No	12	.24		
	Total		50	1.00		

Table No. 9 shows the existence of happiness and engagement at work. In this table, significance value is 0.000 which is less than 5%. So it proves that null hypothesis is rejected. Thus, they are happy and engaged at work.

$H_{0_{10}}$: According to marketing managers their family and personal interests are not getting affected because of working hours.

TABLE X : Impact of Working Hours on Personal Interests - Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
Are your family and personal interests getting affected because	Group 1	Yes	11	.22	.50	.000
	Group 2	No	39	.78		
	Total		50	1.00		

Table No. 10 shows the impact of working hours on personal interests. In this table, significance value is 0.000 which is less than 5%. So it proves that null hypothesis is rejected. Thus, their family and personal interests are getting affected because of working hours.

discussion with your key employees (who may be at risk of leaving) you increase your retention and minimize your risk of turnover. It is a bad practice to hear the best employee only at the time exit interview, instead organizations should make efforts to have an attitude to hold conversation on a continual basis. It is equally good in listening to them and simultaneously assuring them that the organization shall work to resolve the issues within a time frame, shows that they are being cared, valued and belonged. Commendably, Stay interviews are the necessary part of retention strategy, as they not only offer an opportunity to engage the work force, but also facilitate a wider scope of optimizing the cost per hire and other recruitment metrics. (Vignesh & Babu, 2014).

Conclusion

According to Garner (2016), there is a need of an effective process with the right questions, the most effective probes and the development of effective stay plans in order to make stay interviews successful. However, there also has to be a strong foundation of trust between a manager and their team member, so that the right combination of asking, probing, and developing 'stay' plans can take the employee's trust level to a higher place. Also, whilst you may not have the time to meet regularly with every employee, by having a regular 'stay'

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Risk Minimization through ISEF Algorithm and Snake model in Dental Care Services

A J Solanki*

Abstract

In order to minimize the risk of patient, the raw data have been obtained directly from x-ray acquisition device that may yield a comparatively poor image quality representation. In case of medical images human involvement and perception is of prime importance that may result into wrong judgement increasing chances of financial, physical and functional risk. It is a difficult task to interpret fine features in various contrast situations [5]. Dentists interpret the dental x-rays using their knowledge, perception and experience. So there is a chance of error in deciding the right medical treatment. Nowadays digital dental radiographs, in which enhancement is done automatically, are available but the system are very costly. Algorithm presented in the present study will give alternate solution to this problem. It includes X-ray imaging & its processing for identifying the exact location & depth of damage in affected tooth. The study attempt to relate image segmentation using ISEF algorithm and active contour model to detect and diagnose the dental caries in case of decayed with an objective to minimize the risk of patient.

Keywords: Lesion, Enamel, RCT, caries, dentine, pulp, ISEF, dental radiograph, dentistry, Canny edge detection algorithm, Snake model

Introduction

The process of extracting features, collecting & analysing the useful image information for clinical diagnostics of teeth is the prime need of today's medical science [1]. In this domain of dental image processing, most of the research done is beneficial for forensic science experts for the purpose of human identification. Moving a step ahead in this domain of dentistry the diagnosis of dental diseases from digital dental x-rays is being beneficial and helpful for both doctor as well as patient. Bardia Yousefi et al. in 2012 improved the visibility of digital dental x-ray for teeth, bone and canals using Laplacian transform along with morphological operation. Wavelet transforms and Bayesian classifier is used to classify teeth and canals from resultant image [2]. ^atefan Oprea et al. in 2008 performed dental caries classification based on the edge detection. The dental x-ray image is segmented into individual tooth and then it is converted into binary image of the tooth. The edge detection gives the outline of the dental cavity. The number of carries affected pixels is determined. The carries is classified as pulpal if black caries region is adjacent to the white border enclosing the tooth. If there exists two or more number of black regions and the width of the black region is less than 2 mm then it is Enamel carry [3].

Prof. G.A. Kulkarni et al. in 2011 proposed two degree differential gray scale method for dental image recognition. The two degree differential method isolated the un-matched part of the two images and gave a satisfied

similar rate when the matching location was found. If the matching location was not found, this method enhanced the difference and reduced the similar rate [1]. EyadHaj Said et al. in 2008 performed gray scale stretching transformation for enhancement. Morphological filtering like top-hat and bottom-hat filters were used for segmentation. 2-D modified wavelet kernels were used to detect boundaries of individual tooth [4].

Dental caries is a major oral health problem in most industrialised countries. The early manifestation of the caries process is a small patch in enamel at the tooth surface. The destruction spreads into the sensitive part of the tooth beneath the enamel called dentine. The weakened enamel then collapses to form a cavity and the tooth is progressively destroyed. Infection of the dental pulp will take place if dental caries are not treated at proper time. Classification of dental diseases is decided on the basis of certain criteria, such as based on either the caries lesion is within the enamel, dentine or caries lesion touches the pulp. Dental caries is visible in the x-rays. Image processing techniques will help check the x-rays and detect the depth to which the caries lesion is present and then classify the type of caries present in the dental x-rays. Dental treatment is also dependent on this classification. If caries is developed up to the enamel, it is classified as enamel caries and if caries extended up to the dentine then it is classified as dentinal caries. In above two cases, filling is the best solution. And if caries extended up to the pulp then it is known as pulpal caries, RCT (Root Canal Treatment) is the required treatment.

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In this paper, two optimal edge detection techniques have been applied, ISEF (Infinite Symmetric Exponential Filter) and active contour model. The paper has been divided in to six parts. Section 2 gives the detail explanation of ISEF edge detection technique. In section 3 discuss about active contour model. Section 4 gives the result of both the techniques.. Section 5 gives comparison between the result obtained from ISEF and active contour model and section 6 concludes the paper.

Risk associated with Dental Treatment

All health care services are intended to improve or maintain the health of those receiving them. [5] One of the most important measures of the effectiveness of such service is judgement of doctors to diagnose correctly and decide correct treatment to minimize the financial, functional and physical risk of patient.

In case of medical treatment especially in case of dental treatment human involvement and perception is of prime importance that may result into wrong judgement increasing chances of financial, physical and functional risk. It is a difficult task to interpret fine features in various contrast situations [6]. Dentists interpret the dental x-rays using their knowledge, perception and experience. So there is a chance of error in deciding the right medical treatment. Nowadays digital dental radiographs, in which enhancement is done automatically, are available that help to minimize the risk of patients. Wrong interpretation of dentist may result into unsatisfactory performance outcomes, monetary loss, unexpected costs, wasting of time, consequences of delays, personal injury and personal fear.

In dental care services some the credence attributes are hard to evaluate even after consumption of treatment. Patient is forced to believe or trust that certain task have been performed at the promised level of quality. Patient expect to know precisely that why do they go for particular treatment because they lack the necessary expertise themselves. [7].

II. EDGE DETECTION USING ISEF [10]

There are many edge detection techniques, available in the literature but Shen Castan algorithm is the optimal edge detector[10] . Edge detection of caries affected tooth is done by ISEF (Infinite Symmetric Exponential Filter).

TABLE I : ISEF Algorithm

Sr.No	Steps
1	Apply ISEF Filter in X direction
2	Apply ISEF Filter in Y direction
3	Apply Binary Laplacian Technique
4	Apply Non Maxima Suppression
5	Find the Gradient
6	Apply Hysteresis Thresholding

Shen Castan Infinite Symmetric Exponential Filter is an optimal edge detector. First the whole image will be filtered by the recursive ISEF filter in X and Y direction respectively which can be implemented by using following equations:

Recursion in x direction:

$$y_1[i, j] = \frac{(1-b)}{(1+b)} I[i, j] + b y_1[i, j-1], j = 1 \dots N, i = 1 \dots M \dots \dots (1)$$

$$y_2[i, j] = b \frac{(1-b)}{(1+b)} I[i, j] + b y_1[i, j+1], j = N \dots 1, i = 1 \dots M \dots \dots (2)$$

$$r[i, j] = y_1[i, j] + y_2[i, j+1] \dots \dots \dots (3)$$

Recursion in y direction:

b=thinning factor (0<b<1)

$$y_1[i, j] = \frac{(1-b)}{(1+b)} I[i, j] + b y_1[i-1, j], i = 1 \dots M, j = 1 \dots N \dots \dots (4)$$

$$y_2[i, j] = b \frac{(1-b)}{(1+b)} I[i, j] + b y_1[i+1, j], i = M \dots 1, j = 1 \dots N \dots \dots (5)$$

$$v[i, j] = y_1[i, j] + y_2[i+1, j] \dots \dots \dots (6)$$

Subtract the filtered image from the original image to obtain the Laplacian image. In the filtered image, there will be zero crossing in the second derivative at the location of an edge pixel because the first derivative of the image function should have an extreme at the position corresponding to the edge in image. Non maxima suppression is used for thinning purpose for false zero crossing. The gradient is either a maximum or a minimum at the edge pixel. If the second derivative changes sign from positive to negative, it is known as positive zero crossing and if it changes sign from negative to positive, it is known as negative zero crossing. Positive zero crossing will be permitted to have positive gradient and negative zero will be permitted to crossing to have negative gradient. All other zero crossing has been considered as false zero crossing. Thresholding is applied on gradient

image. One cutoff is used in simple thresholding but Shen-Castan suggests for Hysteresis thresholding in which two cut offs are used. Thresholding is applied on the output of an edge detector to decide significant edges. Noise will create spurious response to the single edge that will create a streaking problem. Streaking is defined by breaking up of the edge contour caused by the operator fluctuating above and below the threshold.

Hysteresis thresholding is used to eliminate streaking problem. Individual weak responses usually correspond to noise, but if these points are connected to any of the pixels with strong responses, they are more likely to be actual edge in the image. Such connected pixels are treated as edge pixels if their response is above a low threshold. The ISEF algorithm is given in table I.

III. AREA SELECTION USING SNAKE MODEL

The active contours replica (also called snakes) was first introduced by Kass, Witkin, and Terzopoulos (1987) for objective boundary identification. It is defined by an energy function, the energy functional, which is minimized is a weighted combination of internal & external forces. The internal forces serve to impose a piecewise smoothness constraint. External forces are responsible for putting the snake near desired local minimum. By minimizing the energy function, each snake contour point iteratively finds its new situation to move toward object boundaries. The model planned in Kass et al. (1988) performs a global investigation to minimize the energy function. Later, a number of techniques were proposed to decrease the computational complexity of snakes (Williams & Shah, 1992; Lam & Yan, 1994; Mirhosseini & Yan, 1997).

The contour is described in the (x, y) plane of an image as a parametric curve

$$(s) = (x(s), y(s)) \quad \text{----- (7)}$$

Contour is said to take an energy (E_{snake}) which is defined as the sum of the three energy terms.

$$E_{snake} = E_{internal} + E_{external} + E_{constraint} \quad \text{----- (8)}$$

The energy terms are described cleverly in a way such that the final location of the contour will have a minimum energy (E_{min}). Therefore our difficulty of obtaining objects decreases to an energy minimization difficulty.

Internal Energy (E_{int})

Internal energy depends on the intrinsic property of the curve and addition of elastic energy and bending energy.

Elastic Energy ($E_{elastic}$)

The curve is care for as an elastic rubber band possessing elastic potential energy. It dispirits extending by introducing tension

$$E_{elastic} = \frac{1}{2} \int_s \alpha(s) |v_s|^2 ds \quad \text{----- (9)}$$

where,

$$v_s = \frac{dv(s)}{ds} \quad \text{----- (10)}$$

Weight (s) permits us to control elastic energy beside diverse parts of the contour. used for many applications & responsible for shrinking of the contour.

Bending Energy ($E_{bending}$)

The snake is also considered to behave like a thin metal strip giving rise to bending energy. It is defined as sum of squared curvature of the contour.

Total internal energy of the snake can be defined as

$$E_{bending} = \frac{1}{2} \int_s \beta(s) |v_{ss}|^2 ds \quad \text{----- (11)}$$

$$E_{int} = E_{elastic} + E_{bending} = \int_s \frac{1}{2} (\alpha |v_s|^2 + \beta |v_{ss}|^2) ds \quad \text{----- (12)}$$

External energy of the contour (E_{ext})

It is obtained from the image. Define a function $E_{image}(x, y)$ so that it obtain on its smaller values at the features of interest, such as boundaries

$$E_{ext} = \int_s E_{image}(v(s)) ds \quad \text{----- (13)}$$

IV. RESULTS AND DISCUSSION

A. Results of Shen Castan's Algorithm:

Dental treatment is dependent on the caries development up to the enamel, dentine and pulp region.

For this diagnosis following technique as briefed in Table-II can be suggested. The detail description of the same is explained below it.

TABLE II: SUGGESTED TECHNIQUE

Sr. No.	Steps
1	Acquire digital dental images.
2	Convert image in to gray scale image.
3	Apply morphological and filtering operations for image enhancement.
4	Extraction of caries affected tooth from image.
5	Edge detection using ISEF (Infinite Symmetric Exponential Filter).
6	Detection and decision based on caries extension inside the tooth

Dental x-ray images are RGB images, so to reduce the complexity level and time consumption, these images are converted into gray scale images.

Image enhancement is the required task for dental x-ray image as step 3 of table I suggests. In periapical view. three main classes of "objects"; teeth, gum, and air have been classified. An area with "bright" gray scales (except for the pulp tissue) consists tooth area while areas with "mid-range" gray scales consists gum area, and "dark" gray scales indicates air. For better segmentation,[13] it is desirable to convert poor quality dental x-rays in to considerable degree of contrast between the dominant gray scales used in capturing the different classes of objects.[7] Top-hat and bottom-hat filters are applied on the original image to achieve an enhanced and desired image for further processing [6],[9]. Step 4 of table II is caries affected tooth extraction. caries affected tooth from the dental X-rays have been extracted by image cropping operation, so that caries affected area can be visible more properly.

CONCLUSION

Two different techniques have been used for edge detection of caries affected tooth. Using Shen Castan Edge detection method, Edge of the caries affected tooth has been found but caries affected tooth have to be selected manually from periapical dental image. Whereas active contour model is a semi automatic approach in which one has to select initial points around the interested area and define iterations. It will find out caries affected area automatically. Both these techniques will reduce the risk of service users as the diagnose and treatment

decision will based on scientific method. Risk because of error in the judgment of doctors can be minimizing with the help of model based decision. Hence scientific model based decision will be helpful to reduce the chances of error and lead to more rational decision. Consequently it will minimize patient's risk also. Further study can be carried out to test the practical applicability of such model based decision in medical treatment. Judgment based on the experience of doctors is inevitable in deciding the treatment; it cannot not be completely replaced by such model based decision. However such model based decision help doctors to ensure the treatment and help to win the trust of patient. In case of health care services it is very essential to establish the credential of services. Sometime for patient it is hard to evaluate even after consumption of treatment that whether this treatment was required or not. Patient expect to know precisely that why do they go for particular treatment because they lack the necessary expertise themselves. It will be easy for patients also to understand reasons for treatment that reduced their perceived risk. Application of such model requires acceptance among doctors and their willingness to adopt such model. It will possible only when such model based application is simple and user-friendly.

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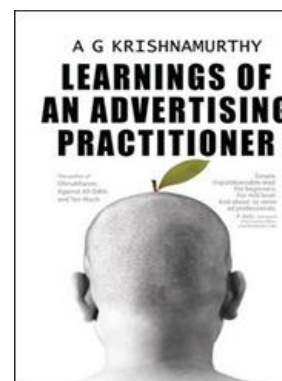
Book Review

Book Title: Learning of an Advertising Practitioner

Submitted to: The Editor

Synergy: A Journal of Management

Submitted by: Dr. Mitesh Jayswal
Assistant Professor,
G.H. Patel Post Graduate Institute of Business
Management, Sardar Patel University, VallabhVidyanagar.



[The book 'Learnings of an Advertising Practitioner' is written by A.G. Krishnamurthy. This book was published in the year 2010. This book has total 138 Pages. The publisher of this title is The McGraw-Hill Company.]

The book is for all those aspirants who are planning on a career in Indian advertising industry. It is also for all those who are interested in or involved with the field of Advertising. The book breaks the wrong myths about the industry and explains the prerequisites for success in this industry. The Author himself a role model in this case. He is most unlike the stereotypical ad man, yet he has founded and created one of India's most successful indigenous advertising agencies and a premier B-School for strategic marketing & communication skills, clearly proving that what it takes to be a successful ad person is mastering in strategy.

'It is insight into human nature that is the key to the communicator's skills', this opening quote by Bill Bernbach summarizes the essence of the book. For whereas the writer is concerned with what he puts into his writing, the communicator is concerned with what the reader gets out of it. He therefore becomes a student of how people read or listen. All the twenty chapters included in the book revolve around this insight. All the chapters are in form of conversations between a fictional guru and shishya detail his principles in a fascinating and informative style. It is a conversation between two fictional characters 'Vikram', the shishya and 'Vithal', the guru. It is a common practice in the industry when colleagues both past and present meet for a drink to help each other as they try to negotiate the tricky and often turbulent seas of the Indian ad world. Including case studies disguised as stories, it sends the message across without over detailing. This format keep up this book away from text-book style and keep it the corporate life learnings of the author.

The book opens with a chapter on the importance of common sense, which has its foundation in learning everything possibly can about the product or service offer, the quality, the price, who would be the customer, whose products or services customer's are buying instead of us at the moment and find also answers to questions such as: why the customers are buying competitor's products, what they find missing in our offer, and whether our product has an advantage that is relevant to the customer. Assuring that there is a whole world of commonsensical questions out there about the way product and customer are likely to interact, the author urges wannabe marketers to commit themselves to really knowing the product rather than be carried away by some vivid and colourful imagination or fancy distraction that can only lead one to overlook things staring us in the face.

Next comes the lesson, Think like your consumer does, delivering a sobering thought, that since most ad people are brought up in a world far removed from that of the consumer's everything they consider beautiful, smart and clever makes little sense and fails to interest the lady shopping for a good bargain in the supermarket. Krishnamurthy describes the contrast elaborately: 'The ad's creators holiday abroad, relish exotic cuisine, prefer esoteric cinema and read books by unheard of authors. But their consumer invariably doubles up a holiday with a trip home, small town or village and meets up with relatives, relishes an occasional meal at the nearby Udipi restaurant, prefers slapstick comedies or cliched romantic regional films to de-stress from the everyday tyranny of a middle-class existence and reads the weekly magazine. So, you see, they have little in common. The creators and the consumer', he concludes.

The author's prescriptions is simple, to do a little personal research, keep mind, eyes and ears open and observe life around, and pick up the local flavour to sell the brand. He is dismayed that only a handful makes such an effort, while most ad people create work to impress their peers and scoop a bagful of awards both in India and abroad. The real judges of advertisements are the man or the woman who reaches into his/her wallet and asks for your product. Giving the client a good advertising ROI (return on investment) is the responsibility of advertising professional. Krishnamurthy delivers, 'Advertising is accountable commercial creativity'. Acknowledging the common tussle between self-expression and the need to apply creative skills to sell a product, he reminds that 'a newspaper ad is not a canvas in a one-man exhibition'.

This book is an absolute goldmine for those who have had to figure out the hard way, how Indian Advertising works- either on their own or with under the mentorship of someone. The book makes them wish that someone had given them all these directions within the covers of a book on their first day in the not-so-glamorous world of advertising. These are simple, commonsensical points, not requiring too much explanation but their harmony makes the success formula for seasoned professionals and clients alike.