



Dr D Y PATIL SCHOOL OF MANAGEMENT
Dr D Y PATIL SCHOOL OF MCA
D Y Patil Knowledge City, Charholi Bk.
via Lohegaon, Pune – 412105

"INCUBATION" – III

**"Contemporary Corporate
Strategies: Global Perspectives"**

on
27th and 28th February 2018

In Association with
**Ajeenkya D Y Patil University and
Savitribai Phule Pune University**

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Editorial:

The editors and editorial board have great pleasure to place before the readers, the proceeding of “INCUBATION” – III “**Contemporary Corporate Strategies: Global Perspectives**” organized by **Dr D Y Patil School of Management and Dr D Y Patil School of MCA**; D Y Patil Knowledge City, Charholi Bk. via Lohegaon, Pune, Maharashtra, India in association with **Savitribai Phule Pune University, Pune** and **Ajeenkya D Y Patil University, Pune**.

The research contributions by the participants have enriched the proceeding of the conference book with the knowledge resources. The timely publication of conference book has been possible due to the collective efforts of our editors, editorial board and the technical staff. The Conference has diversified areas covered under its maximum option for the research scholars. We thank all the authors for their contribution and hope for continued contribution and academic interaction in the future from everyone.

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Editorial Board:

Prof. (Dr.) E. B. Khedkar

Prof. (Dr.) Omprakash Haldar and Team

Message from Padmashree Dr D Y Patil



'Shri Sathya Sai Baba'

Learning and Teaching are the two aspects of the same process that the teacher, Learner, Contents and the instructional materials to bring permanent changes in human behaviour is defined Education, which moulds an Individual, Society and Nation for development.

Educating an individual can bring the essence of his life and reduce the complexity of human relations and can improves his thinking power and skills.

My best wishes for the success of the International Conference, 'INCUBATION -III' and congratulate the entire team for their hard work, cooperation, coordination and confidence for making this mega event a grand success.

His Excellency Hon. Padmashree Dr D Y Patil

Former Governor of Bihar, West Bengal and Tripura State, India
&
Founder, D Y Patil Group

Message from President of Ajeenkya D Y Patil University



'Om Sai Ram'

The mind is always required to nurture in various stream whose sources may not sometimes be known. But it is needed the platform in different ways as research on Social Sciences, Training by Experts, Design by course Designers, thought from the thinkers, like Tylor, Philip Kotler, and Gilbert, etc., who are gratefully acknowledge for their contribution in research.

Education basically aims at preservation and transfer of intellectual culture of the respective communities to their coming generation. The traditional educational methods could not keep pace with the changes in the people's individual needs and aspirations and the developmental needs of the society. Hence required research and Incubation for innovation and invention for supporting to the global corporate societies also.

*Here is the platform the International Conference, **'INCUBATION-III' on "Contemporary Corporate Strategies: Global Perspectives"**, is organised for the academicians, Corporate professionals, Thinkers, Researchers, Scholar and Students for brainstorming on various strategies for different problems in business in innovative way for better outcomes.*

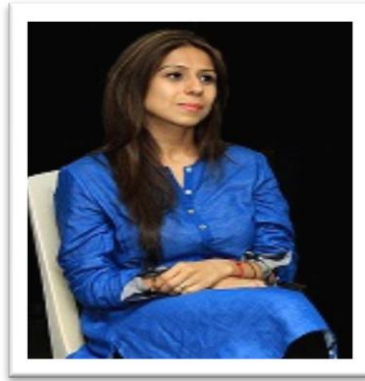
*I Congratulate the entire team of Dr D Y Patil School of Management and Dr D Y Patil School of MCA for organising **'INCUBATION -III' in association with Savitribai Phule Pune University, Pune and Ajeenkya D Y Patil University, Pune** and all the delegates who presented their research papers and participated actively by sharing their knowledge and making this event a big success.*

Dr Ajeenkya D Y Patil

President,

Ajeenkya D Y Patil University, Lohegaon, Pune, Maharashtra, India

Message from Chairperson D Y Patil Group



*The International Conference, ‘INCUBATION-III’ on “Contemporary corporate strategies: Global Perspectives” on 27th and 28th February, 2018, organized by Dr D Y Patil School of Management and that Dr D Y Patil School of MCA **in association with Savitribai Phule Pune University, Pune, Maharashtra, India and Ajeenkya D Y Patil University, Pune, Maharashtra, India.***

Corporate strategies makers in global are looking forward dynamically for efficient and cost effective ways of management and implementing properly. Academicians and researchers are taking initiative to resolve the problems for corporate sector and global issues in this platform.

I appreciate the efforts by the organizers of this conference and congratulate the authors of research papers for participating and indulging inter active sessions. We look many such interactions with esteemed foreign delegates, reviewers, judges, authors and all participants. D Y Patil Group always encourages and supports such international level conferences.

I wish the entire team of Dr D Y Patil School of Management and that Dr D Y Patil School of MCA a grand success for the international conference.

Mrs. Pooja Patil

Chairperson,

D Y Patil Group,

D Y Patil Knowledge City, Lohegaon, Pune, Maharashtra, India

Message from Hon. Vice-Chancellor Ajeenkya D Y Patil University



It gives me immense pleasure to express a few words in this auspicious occasion of international conference, ‘INCUBATION-III’ on “Contemporary corporate strategies: Global Perspectives” on 27th and 28th February, 2018 at D Y Patil Knowledge City, Lohegaon, Pune, India in association with Savitribai Phule Pune University, Pune, Maharashtra, India and Ajeenkya D Y Patil University, Pune, Maharashtra, India.

This Conference is provided a major platform to students, faculties, academicians, corporate professionals, researchers and scholars to present their research in open source on global strategies and to exhibit their knowledge to the business society and exchange of new ideas amongst them. The present delegates in this platform have a crucial role to play for spreading knowledge of new and best business strategies and their feasibility; and channeling them for implementation can happen through such events where a fruitful discussion amongst researchers and practitioners can lead to innovative ideas.

International conference is very much desired and must convene at regular interval. I appreciate you are conducting and maintaining this event regular interval.

I am happy to congratulate Prof. (Dr.) Omprakash Haldar, Convener of the conference and his entire team of the institutes for organizing international conference. I convey my best wishes to the editors and publishers of the conference proceedings. I wish the international conference a grand success.

Prof. (Dr.) E. B. Khedkar

Vice-Chancellor

Ajeenkya D Y Patil University,

Pune, Maharashtra, India.

From the Desk of Director



Education is the complete and permanent change in behaviour of the individuals which realises in management schools by the highest quality of the faculty, resources, better infrastructure with the focus on academic excellence and better opportunities, it will fulfil the need of knowledge for the students.

Dr D Y Patil School of Management and Dr D Y Patil School of MCA are the most prestigious and reputed and fastest growing Institutes in Pune and preferred by many students nationally. This is going on achieving new milestones and reaching new horizons year after year.

*International Conference, ‘**INCUBATION -III**’ on “**Contemporary Corporate Strategies: Global Perspectives**”. Is organised to provide a platform for Academicians, Researchers, Corporate Professional, Scholar and students for brainstorming and come out with effective solutions for different problems to solve with different global strategies.*

*I congratulate the efforts taken by Prof. (Dr.) Omprakash Haldar, Conference convener and all teaching and nonteaching staff in organising ‘**INCUBATION-III**’ and best wishes to them for future endeavour.*

Prof. (Dr.) E. B. Khedkar

Director,

Dr D Y Patil School of Management and Dr D Y Patil School of MCA,

Lohegaon, Pune, Maharashtra, India

Message from the Conference Convener & Editorial Team



It gives us immense pleasure that Dr D Y Patil School of Management and that Dr D Y Patil School of MCA are organizing international conference, 'INCUBATION-III' on "Contemporary corporate strategies: Global Perspectives" on 27th and 28th February, 2018 in association with Savitribai Phule Pune University, Pune, Maharashtra, India and Ajeenkya D Y Patil University, Pune, Maharashtra, India.

The ultimate aim of conference is to tap the great talent available which can deliberate and come out with dynamic ideas for incubating things and views through their research. This research can be a valuable contribution to the ongoing practices adopting various Strategies.

After a rigorous review process research papers were selected for publishing in the form of a proceedings having ISBN 978-93-87665-56-9. All the papers in this proceeding are represented in various adopted strategies to solve the problems in innovative and creative way.

According to the authors self-declaration authors are fully responsible for any plagiarism case against their paper. Editors, Dr D Y Patil School of Management and Dr D Y Patil School of MCA and their associates will not responsible at all for the same.

We are grateful to authors of research papers for their response and for sharing their knowledge in this event in General Management, Marketing, HRM, Finance, IB and IT. We appreciate the Success Publication Pvt. Ltd. and its production division who worked hard to ensure that the book is made available in time to the delegates in the inaugural ceremony and also appreciate to all the members of the organizing team.

We would like to thank all the members of editorial team, reviewers and entire team which have helped in making this proceeding as possible. We hope that the research featured here sets up many new milestones.

Prof. (Dr.) Omprakash Haldar
Professor and HOD, DYPSOM,
Editor and Conference Convener

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01. A STUDY OF CHALLENGES AND OPPORTUNITIES IN QUICK SERVICE RESTAURANTS AT NAINITAL DISTRICT, UK, INDIA

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Abstract

Quick Service Restaurant sector is one of the world's fastest growing sectors in service industry. The study is the modest attempt to find out recent trends and its challenges to QSR (quick service restaurant) industry of hospitality industry. The QSR industry is one of the most volatile industries that has seen expansion in the current past and continues to develop rapidly. This can be attributed to the changing demographics, urbanisation and growth of organised retail and increase in disposable income. Presently, QSR's restaurant or food services are not limited to physical stores alone. Now, there are number of online portals in this category to offer top quality customer service. Many of these companies also have mobile apps through which consumers can order food or check restaurants and food options online.

In addition, the expansion of exceptional health amenities, innovative tourism products, in the country and the entry of global players in the QSR industry is expected to drive enlargement in the Indian Travel, Tourism, and Hospitality and QSR industry. Even though, there are many challenges poise to the QSR industry. Nainital is capable of drawing the world attention majorly as favourite tourist destination. We have not explored the potential within the QSR industry as far as FDI and employment opportunities at Nainital. This is the industry which would engage millions of people skilled or un- skilled and urban-rural society. India and Nainital is yet to achieve its fullest into the QSR industry.

Keywords - Challenges, Opportunities, Qsr, Hospitality

Introduction:

The Quick service restaurants are most sorts of restaurants and shape a significant part of the Indian Food Service Industry. The QSRs have both fast food cuisines and minimal table services to take into account the necessities of different youths and

working experts. These outlet and eateries are the faster deliveries of food items which are most required factor for the working human capital of a developing nation like India. QSRs target individuals in the age section of 14-35 years, as this is the age section intrigued by tasting new cuisines and having junk food almost every day. The QSR is an exceptionally noteworthy segment of the Indian Fast food services yet is nascent and has a great deal of degree for development in India. In India, an expensive number of global QSRs have built up their outlets with franchise rights of different companies. Indian QSRs are likewise coming up and growing yet outside brands keep up their predominance. McDonalds was the principal QSR in India took after by different others like KFC and Dominos.

The market encounters different development drivers and is in this way anticipated that would ascend later on also. Expanded urbanization, modernization and commercialization don't leave time with the working experts and consequently they depend on fast food for their dinners. In addition, the advanced ladies of India are likewise bustling working in different enterprises which diminishes the time they get for planning home cooked food. This influences the entire family to depend significantly more on fast foods. The accessibility of cheap workforce makes India a great ground for the advancement of QSR Industry.

Objectives of Study

1. To study the current trends in QSR industry in Nainital district.
2. To study challenges and issues in QSR industry in Nainital district.
3. To study opportunities and future challenges of QSR industry in Nainital district.
4. To study the scope of QSR industry in Nainital district.

Literature Review

The food service sector today has been known as a very large industry in the entire world (**Kundampulland Suhartanto, 2000**). The use of hotel facilities like night clubs, room services, restaurants, bar, banqueting have become a basic component of lifestyle for many guests. It is now largely accepted among scholars and researchers that guest satisfaction and guest loyalty are one of the most fundamental factors deciding the conclusive appropriateness of the hotel industry (**Acharya, Sengupta & Mishra 2011**). The most important challenges facing food and beverage sectors today is ever growing competition with in the food joints. But it does benefiting to the customers providing a range of choices, increasing value for money and enhancing the level of services offered which helps us to differentiate one hotel products and services from else. (**Acharya et al., 2011; Kundampully &Suhartanto, 2000**) As a consequence, quality of food and beverage service for the price paid has become the key to the hotel's ability to provide good service to guests and differentiate itself from its other hotels by enhancing guest satisfaction as well as guest loyalty. Many scholars discuss the necessity of the food and beverage department in the hotel industry development to achieve guests' satisfaction. (**Ghani et al., 2011; Guzzo, 2010; Kundampully & Suhartanto, 2000; Tidewell & Fredline, 2004**)

The current study aims to assist the food and beverage service managers and employees by addressing a review of literature to find out the various antecedents of guest loyalty and help them implement the necessary strategies to ensure an increased level of brand loyalty from the existing. This study suggests a Theoretical Framework for the relationship between guest satisfaction and guest loyalty in food and beverage service department in the hotel industry in Jordan. Guest satisfaction plays the main role in the hotel industry especially in food and beverage service.

Quick service restaurants in India: India has shown tremendous growth in last few decades and is still growing. A number of QSR well established the brands across the country, however the road side eateries and street food is promising at fast speed in the country. India is one of the major producer as well as consumer of fast food. The preferences changing food pattern of India's population is likely to not only boost the consumption volume but in absolute terms to US dollar 230 by 2015.

We must thanks to the booming young population and change of appetite with in youngsters.

The following data obtain from CAGR about the growth story of QSR.

1. The Indian food processing industry represents 32 per cent of the nation's aggregate food market, one of the biggest businesses in India and is positioned fifth regarding production, consumption, trade and expected development.
2. It contributes around 8.80 and 8.39 per cent of Gross Value Added (GVA) in Manufacturing and Agriculture respectively, 13 per cent of India's exports and six per cent of total industrial investment.
3. The Indian gourmet food market is as of now valued at US\$ 1.3 billion and is developing at a Compound Annual Growth Rate (CAGR) of 20 per cent. India's organic food market is required to increase by three times by 2020.
4. The online food ordering business in India is in its beginning stage, however seeing exponential development. With online food delivery players like Food Panda, Zomato, Tiny Owl and Swiggy building scale through organizations, the organised food business has a tremendous potential and a promising future.
5. The food service industry provides direct employment at 5 million workers. In addition, 10 million street vendors are in India.
6. QSR Industry also makes significant contribution in terms of tax revenue to the Government.
7. A huge number of QSR, which are uncertain which way their annual turnover will swing, may desire to collect 12% GST ,not wanting to rub the taxman the wrong way on a prospect date.

According to Restaurant Association of India, the QSR industry is mounting at the rate of 5-6% per annum with revenues amounting to \$8.6 million. But among all the booming cities there is a different story when we move towards the rural and hill stations like Nainital, Missouri, Almora etc. The mass relocation of people from the Uttarakhand hills to the plains is a serious subject, the people in these hilly areas are vacating their homes and settling down in the plains in search of service, schooling and better wellbeing. The QSR in these areas does not present at all. Nevertheless some

basic improvement in transportation / infrastructure and serious promotions of these destinations can work wonders for the QSR industry.

Quick Service Restaurants at Nainital district:

Nainital is a district of Uttarakhand state, India. The headquarters is at Nainital. Nainital District is located in Kumaon Regions, and is bounded on the north by the Almora District and on the south by the Udham Singh Nagar District. Haldwani is the largest town in the district. This study is undertaken with the objective of identifying the trends, challenges and opportunities in QSR industry. Since India is growing in the field of service sector, we need to highlight the challenges face by this QSR industry. The aim is to highlight the significant and affirmative points within the top MNC's and Indian brands in QSR industry. It is also an attempt to understand the impact of GST tax on the QSR industry.

It is rated as an eminent tourist destination of North India, Nainital is seldom well-liked for the stateliness of its British legacy. A small amount of people know that Nainital was the summer capital of the United Province during the British Raj. It became a vivacious summer retreat for British soldiers who migrated to the hills to escape the excessive heat in their base city, Lucknow.

In fact, the modern town of Nainital was founded by an English sugar trader, P. Baron who felt affection for bottomless valleys, sharp slopes, breath-taking sites and natural climate. During one of his travels, he was told by a local about a beautiful lake on the other side of the hill. He saw the Naini Lake and mesmerized by its ultimate beauty and strong-willed to establish a town there.

It is the English schools which paved pathways to tourism growth. The cosy fire place, elegant French windows, the vintage furnishings, skull mounts and the sprawling veranda will take you back in time. It was just amid the twentieth century that Nainital began changing from an English preserve to an Indian retreat when officials arrived and settled here. The tranquillity of this otherwise hushed town drowns in the turmoil of the mall road but the attraction has endured through time. It is the place to taste a multi-layered slice of local life and while you're at it slip into the Bun Tikki and Masala Sandwich at N.K Stores.

Research Methodology:

The study used open ended interviews through questionnaire to search for information about challenges faced by foods service providers and entrepreneurs in Nainital district, Uttarakhand. The set of Questionnaire is used in this study because the population is small and specialized. The survey was conducted to all domestic and international QSR food outlets around Nainital City.

Challenges faced by QSR in Nainital district:

- 1. Retaining and recruitment of an employee-** The environmental and seasonal nature of QSR in Nainital district the stakeholders barely select a high-priced talent since the QSR industry is kind of seasonal mode in Nainital a study done at dissimilar places in Nainital shows that the tourist in the city is high during the summer season from the month of March to October. In these months the QSR

business is also soaring but during the winters it gets dull which compels the stakeholders to give the all the payment including salaries of workforce to be given from their reserves. The natural catastrophe in recent past has also added more inconvenience for them since it makes business unsure so hiring a good staff is always measured as pricey.

- 2. Poor transportation-** Transportation facility is still a major issue in Uttarakhand. The state has maximum hillsides and difficult roadways. There are just two airplane terminals in Uttarakhand state and the day by day flights which work from them are low which influences the traveller to take the street to transport yet the awkward voyage debilitates them to design a next visit to state.
- 3. Changing patterns and hospitality training-** This is very natural phenomena observed about ever changing customer taste and preferences in food service industry worldwide. India is also witnesses, globalization, and information technology and through media Indians are exposed to new trends in food and beverage services. QSR in Uttarakhand is still following the same old school of hospitality where the industry in other parts specially the metro cities are fast catching the international trends. The most of the people who are employed in food and beverage industry in Uttarakhand comes from very poor background and they do not have spending power to enrol themselves to the best of hospitality institutes. Hence the work force in Uttarakhand is not adequately skilled and educated to meet the changing needs of people.
- 4. Huge competition-** The ever growing competition among various players is constantly viewed as great in food and beverage industry. Since joblessness has driven many to take food industry as their calling yet due to numerous issues the foot fall of tourist has descended at many spots and the ill managed standards has likewise disheartened the localities, now the huge competition among themselves is compelling them to battle for survival. The life cycle for the majority of the business is short now days
- 5. Promotion issues-** Many eateries even in huge urban areas of Uttarakhand don't try to formalize the brand standards including mission statements, logo, designs and so forth are not taken seriously. They don't have any promotion plans for themselves. Many who do have brand name, logo and so on they don't have any website of their own which could be favourable for them. Nowadays best business houses are utilizing online networking for their promotion which isn't extremely predominant in Uttarakhand. A large portion of them don't keep any client database which could likewise be extremely helpful.
- 6. Menu engineering-**The menu knowledge is one of the challenge that every restaurant owner face. The new international players like Pizza and burger chains do have a variety of change and a thoughtful process of menu engineering. This trend leave no choices available for the most local foodie people in the city due to which they don't go out every day to spend money on same stuff, the restaurants should also include other cuisines to their menus using the best locally available ingredients to offer variety and taste to the customers. The local cuisine must

change their food menu items time to time so that it should be promoted to pull local citizens to the restaurants.

7. **Funds:** The traditional local food eateries face to maintain their balance sheet intact due to growing challenges and uncertainty into their business. It is the tough task for smaller standalone QSR. There are loads of sudden and hidden costs which crop up just once you begin a business for which a large portion of them are not prepared and it ends shutting down.
8. **Hygiene and sanitation-** This is the most critical problem observed in many outlets, lack of basic grooming and food safety, cleanliness in the food industry in Uttarakhand. The newspapers very often publish the shocking stories of individuals falling sick because of food poisoning and contamination. The government and the business partners ensure that the workers are not just instructed about the significance of sanitation and cleanliness but also the norms must be maintained and the laws related to the cleanliness are enforced.
9. **Inflation-**The ever increasing food grain prices have hit the food and beverage industry in Uttarakhand. In the most recent couple of years the costs of the items are expanding reliably which in turn has trembled the food business in Uttarakhand as the vast majority of them are not ready to retain the costs they are compelled to keep the food costs high.
10. **Government taxes:-** India's quick service restaurant (QSR) business was floundering after body blows from demonetization, the ban on liquor sales on highways and the introduction of the goods and services tax (GST). Hundreds of QSR and cafe outlets shut between 2013 and 2016 through the reckless expansion of 2015. Now, they have bounced back, galvanized by the unexpected challenges. Recent GST tax structure majorly pampered the standard food service outlets.

Government need to low down the food service taxes for QSR. This segment faces the business problems due to heavy tax levied on the food service. The tax structure need to mellow down further so that it will be boost for the QSR.

Conclusion:

The Indian QSR industry are witnessing large growth rate. It is also one that is highly competitive and price sensitive. The research also showed that consumers are more discerning and seek value for money and even they are health conscious and sensitive to price. The current trends also influence how consumer act and purchase, therefore food service operators need to develop product as per need of these consumer trends. The focus should be on providing credible, healthy and authentic food. Nainital still has do a lot for the development of food service industry. All public and private players need to play major role in the development of the good food service facilities. The local and central government need to give more emphasis on the infrastructure and safety of the tourist and the customers at large. Many of the local standalone food service outlet are yet to understand to match up the modern food service systems. This is the modest attempt to approach the QSR segment of the food service industry where large number of people consumes food and refreshments. This issue need to be address on a higher

level and more study required on these challenges of QSR for the benefit of the tourism industry and local employment.

The research scholar, tried to highlight the challenges faced by food service providers of Nainital district, Uttarakhand. There is large scope to work on this topic further in future to address many issues and problems of the QSR sector.

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5. <http://www.norusis.com>



02. A STUDY ON EMPLOYEES ENGAGEMENT ANALYSIS @ LUMAX AUTO TECHNOLOGIES LTD.

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Abstract

“EMPLOYEE ENGAGEMENT “plays a very important role in any organization. As employees are satisfied with their work culture, with the policies of the management, with the organizations goal & with everything related to the job then organization will run smoothly & achieve its goal with minimum efforts. Employee satisfaction which none company, none institution can avoid, whether it is IT, manufacturing, financial institution or bank all should keep employees satisfied, so researcher found it is very important topic according to this organization, by studying this topic researcher will put help to the organization in rising the satisfaction level of organization which will automatically help in achieving the organizational goal. Managing very high attrition rates and retaining talented employee’s pool are the key buzz words for modern days HR Managers. In recent past, all over the world and specifically in Asia the attrition rates have gone up extremely high. In this paper “Employees Engagement Analysis” @ Lumax Auto Technologies Ltd. we have tried to analysis about various employee engagement techniques implemented by Lumax Auto Technologies Ltd. India by giving them more challenging assignments, positive work culture, internal & external growth opportunities etc. which has resulted into decrease in their attrition rates well below their previous years figures till date.

Keywords: organization, employee engagement, employee satisfaction, attrition rate.

Introduction-

Managing very high attrition rates and retaining talented employees pool are the key buzz words for modern days HR Managers. In recent past, all over the world and specifically in Asia the attrition rates have gone up extremely high.

Main factors which can be attributed to this higher attrition rates can be listed as below, Less emotional attachment with organization, Rat race for success, extremely fast growing job opportunities due to expanding markets, changed lifestyle of employees resulting into higher expenditure, ever rising cost of living, Very high work pressures Imbalance between work & life, never ending Quest for quick financial success & power @ any cost, Strong competition between rival companies, and increased expectations from employees related to job satisfaction.

In this paper “Employees Engagement Analysis” @ Lumax Auto Technologies Ltd. we have tried to analysis about various employee engagement techniques implemented by Lumax Auto Technologies Ltd. India by giving them more challenging assignments, positive work culture, internal & external growth opportunities etc. which has resulted into decrease in their attrition rates well below their previous year’s figures till date.

The analysis is done for the various employees' engagement areas implemented by organization over the span of previous two years, with the help of a design questionnaire which was finalized with the help of company HR team. A lot of informal discussions have also been done with employees & company HR team as well.

This paper tried to analyse various areas influencing employee engagement & how they have been addressed by Lumax Auto Technologies Ltd. After the analysis, few suggestions have been given to the organization, which have been observed during this period.

Objectives of the study

1. To study importance of employee engagement in Lumax Auto Technologies Ltd.
2. To analyse various areas influencing employee engagement.
3. To identify avenues for improvement in enhancing employee engagement Process.

Significance of the study

- As explained above, managing attrition rates in today's dynamic market condition driven by talent is the biggest challenge for the organization.
- The study would help the organization in scientifically analysing the data of attrition for the critical managerial employees. This would also help the organization to evaluate the effectiveness of various measures taken by them for curbing the attrition rates.
- The various reasons found for attrition & their trend can give the management guidance for future actions for employee's retention & engagement.

Limitations of the study-

1. Research work is done on employee engagement only
2. There is very few literature available for reference

Research Methodology-

Scope of the Study

1. The research scope includes data collection & analysis related to only managerial employees
2. The data related to permanent workers is not considered for analysis since, the rate of attrition is very less (almost 0%) in them.
3. The applicable factors for employee engagement would differ significantly for Managerial employees & workers.

Hypothesis Developed

H1: The attrition rate in the organization can be controlled or brought down to less than market attrition by increasing employee engagement.

H2: Since the employees are engagement emotionally with the organization due to various employee welfare activities done by the organization, the chances that an

engaged employee leaving the organization are very less, resulting into reduced attrition rates.

Population

The population for the study was considered as only the managerial employees which were 160 in numbers working in various departments of Lumax Auto Technologies Ltd. Bhosari, Pune.

Sr. No	Questions	Yes	No	Not Applicable	Can Not Tell	Total
1	Do you know what is expected from you at work?	31	6	1	2	40
2	Do you have enough resources with you to do your job?	25	10	2	3	40
3	Do you have the opportunity to do your best everyday?	20	12	3	5	40
4	Do you feel any difficulty of travelling distance from your home to your workplace?	28	10	2	0	40
5	Are you happy with your pay package?	29	8	0	3	40
6	In last seven days have your work been appreciated by your boss?	22	14	2	2	40
7	At work, does your opinion count?	22	13	3	2	40
8	Are you happy with the training you have received in last one year?	30	6	2	2	40
9	Does your supervisor care about you as a person at work?	19	16	3	2	40
10	In last few years have you got enough opportunity to learn & grow in organization?	25	10	3	2	40
11	In last six months anyone spoke to you about your progress?	35	1	2	2	40

12	Does the mission of org. make you feel that your job is important?	33	5	0	2	40
13	Do you feel that you are a part of a team at work?	18	15	3	4	40
14	Are you getting the constructive feedback on time from your superiors?	18	16	4	2	40

Data Analysis & Interpretation

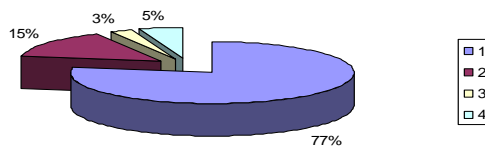
The data from questionnaire filled by various samples was combined together and tabulated as below.

Question No.1: Do you know what is expected from you at work?

Summary of Answers received

Sr. No.	Description	Qty. in Nos.	%
1	Yes	31	77
2	No	6	15
3	Not Applicable	1	3
4	Can Not Tell	2	5

Graph No 1



From the data received in reply to questionnaire above regarding the job clarity to the employee, it clearly shows that the Managerial employees are fully aware of their duties & job descriptions.

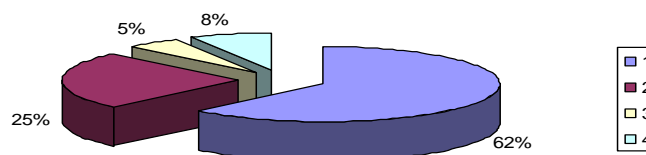
During the visit & personal interview to various departments, it was observed that each department has the clear job descriptions & work instructions on various processes performed by the department.

Question No.2: Do you have enough resources with you to do your job?

Summary of Answer received

Sr. No.	Description	Qty. in Nos.	%
1	Yes	25	62
2	No	10	25
3	Not Applicable	2	5
4	Can Not Tell	3	8

Graph No2



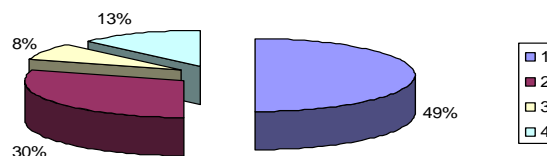
While analyzing the reasons for past years from Year 2015 till 2017, it is evident that the resources constraint was a considerable reason for attrition rate. However, the HR department has taken appropriate action on the same & in this year no attrition has been due to resource constrain. However, considering the fact that about 5% of the employees still feel that resource constraint still exists, it is an important area of urgent consideration for the management.

Question No.3: At work do you have the opportunity to your best everyday?

Summary of Answers received

Sr. No.	Description	Qty. in Nos.	%
1	Yes	20	50
2	No	12	30
3	Not Applicable	3	8
4	Can Not Tell	5	12

Graph No.3



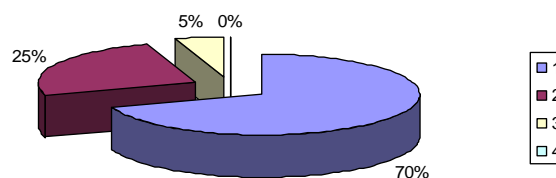
The work environment was found to be healthy during the visits & interview. However, from the data produced above it clearly shows that there is a need for improvement in the same so that the employees who wish to give their best can use their full potential.

Question No.4: Do you feel any difficulty of traveling distance from your home to your workplace?

Summary of Answers received

Sr. No.	Description	Qty. in Nos.	%
1	Yes	28	70
2	No	10	25
3	Not Applicable	2	5
4	Can Not Tell	0	0

Graph No 4



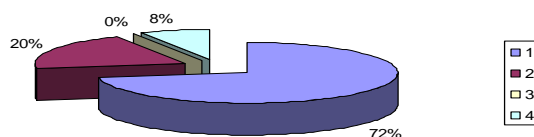
From the above details it is clear that this is one of the major reasons for increased attrition rate, as the factory place is occurred 15 km. from Pune city. It takes considerable time for the managerial employees, to travel from Pune city to factory & back home. However, this issue has been addressed by the management by chancing the factory timings to non-peak hours & providing entertainment facilities like TVs & LCD players in buses to make the travel more enjoyable controlled by management’s decision as per described above.

Question No.5: Are you happy with your Pay package?

Summary of Answer received

Sr. No.	Description	Qty. in Nos.	%
1	Yes	29	72
2	No	8	20
3	Not Applicable	0	0
4	Can Not Tell	3	8

Graph No.5



From the details above, attrition rate was higher in year 2015 for the reason of satisfaction of employees about the pay package which has decreased in year 2016 due to corrective actions taken by management after the market survey & proactive market corrections.

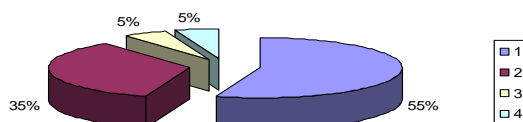
However, this can be still an area of improvement as the present employees of about 20% are not satisfied with pay package.

Question No.6: In last 7 days have your been appreciated by your boss?

Summary of Answers received

Sr. No.	Description	Qty. in Nos.	%
1	Yes	22	55
2	No	14	35
3	Not Applicable	2	5
4	Can Not Tell	2	5

Graph No.6



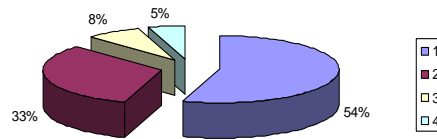
Considering the given data, only 55% of the present managerial employees are regularly appreciated by their respective bosses during their day to day work. During the interview with the managerial employees, it is found that this particular area needs to be addressed further so that the employees engagement can be improved further.

Question No.7: At work, does your opinion count?

Summary of Answers received

Sr. No.	Description	Qty. in Nos.	%
1	Yes	22	54
2	No	13	33
3	Not Applicable	3	8
4	Can Not Tell	2	5

Graph No.7

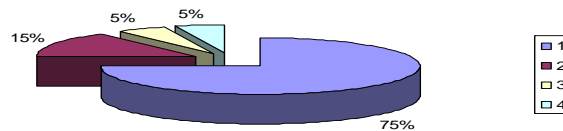


Question No.8: Are you happy with the training you have received in last 1 year?

Summary of Answers received

Sr. No.	Description	Qty. in Nos.	%
1	Yes	30	75
2	No	6	15
3	Not Applicable	2	5
4	Can Not Tell	2	5

Graph No.8



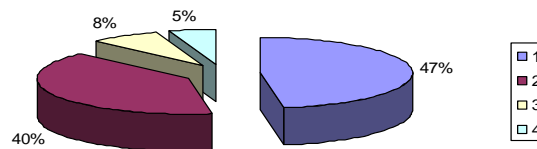
Training is a most important process of organization as it is related to employee’s self development as well as efficiency and production. According to above details it seem that 75% employee are satisfied with the training given in last one year.

Question No.9: Does your supervisor care about you as a person at work?

Summary of Answers received

Sr. No.	Description	Qty. in Nos.	%
1	Yes	19	47
2	No	16	40
3	Not Applicable	3	8
4	Can Not Tell	2	5

Graph No.9



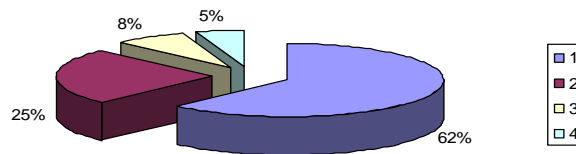
The graph indicates that almost half of the employees are of the opinion that their bosses behave with them like human being at work. However, quite a few of the employees considers otherwise. There is a big scope of improvement in this area.

Question No.10: In last few years have you got enough opportunity to learn & grow in organization?

Summary of Answers received

Sr. No.	Description	Qty. in Nos.	%
1	Yes	25	62
2	No	10	25
3	Not Applicable	3	8
4	Can Not Tell	2	5

Graph No. 10



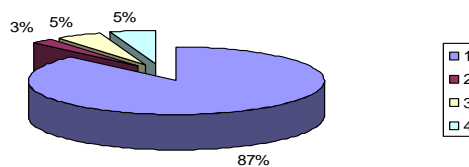
The organization has got the culture of giving internal growth opportunities to all employees in case the need for filling up vacancies for new positions arises. The employees are generally recruited at graduate trainee level & are given further exposure in all possible areas before they take over responsible managerial positions.

Question No.11: In last six months anyone spoke to you about your progress?

Summary of Answers received

Sr. No.	Description	Qty. in Nos.	%
1	Yes	35	87
2	No	1	3
3	Not Applicable	2	5
4	Can Not Tell	2	5

Graph No.11



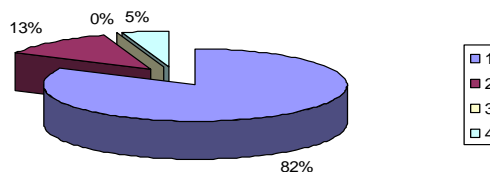
The organization has got a very strong culture for appraisal system. The performance of every employee is evaluated by his superior, twice in a year structured manner against fixed pre-set goals called as Key result areas (KRA) which are measurable targets for individual person. These KRA are set in the beginning of the year between sub-ordinate & the assistant & are reviewed after six months as well as after one year.

Question No.12: Does the mission of organization make you feel that your job is important?

Summary of Answers received

Sr. No.	Description	Qty. in Nos.	%
1	Yes	33	82
2	No	5	13
3	Not Applicable	0	0
4	Can Not Tell	2	5

Graph No.12



The mission statement of the organization states that “We want to be a preferred single source of complete mass transfer solutions to the customers, adding value to their products.”

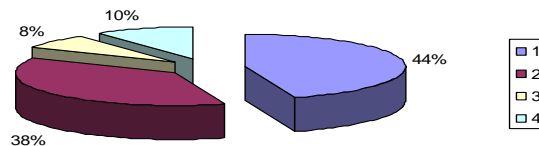
This statement itself explains that role of every individual is ultimately linked with the relationships organization has built with the customer. Every individual should do his best in what so ever he does in his routine job.

Question No.13: Do you feel that you are a part of a team at work?

Summary of Answers received

Sr. No.	Description	Qty. in Nos.	%
1	Yes	18	44
2	No	15	38
3	Not Applicable	3	10
4	Can Not Tell	4	8

Graph No.13



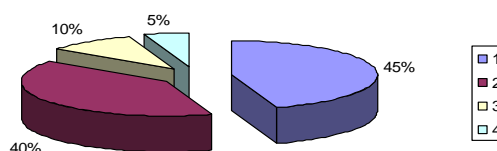
Above graph indicates that 44% of employees have the ownership about the work. They feel that they are a part of team so that their interest about the work increases the efficiency. But still 38% of total employees are not feeling satisfied about this constraints so it is the matter of improvement.

Question No.14: Are you getting the constructive feedback on time from your superiors?

Summary of Answers received

Sr. No.	Description	Qty. in Nos.	%
1	Yes	18	45
2	No	16	40
3	Not Applicable	4	10
4	Can Not Tell	2	5

Graph No.14



Above graph represents, that the 45% of total employees are appreciated by the superior. Feedback is a most important factor to improve the relation between superior and employee. It acts an important role in employee engagement.

Conclusions -

During visits to Lumax Auto Technologies Ltd. & my personal interviews with various managerial employees following are my findings on this project.

1. The employee's attrition rate has reduced from 2015 gradually after various measures taken by the management.
2. The employees are engaged in their through various initiatives taken by company about employees engagement such as personal care of the employees by the superiors, mentorship, leadership development etc.
3. The areas related to employees' salaries & perks, job satisfaction, timely personal appraisals & feedback systems are very well in place & are meticulously followed by the management as well as all HODs.
4. The employees have the chance to do the development work every day & are able to give their best into what they are doing all time. This keeps the employees emotionally attached with the organization & the employees are so much attached with the organization that most of the employees would like their bosses to join their company as well.
5. The distance between the factory & Pune city is about 55Km & it takes considerable time for the employees to travel to & from their home to workplace. The company has taken quite a few steps to make this travel comfortable for their employees. However, this is one of the major areas for improvement for management. The travel can be made more enjoyable for employees & the travel time can be adjusted by some time to minimize the time lost during travel.
6. There has been a growth in the employees' attrition rate for the personal reasons. The same needs to be analyzed further to find out the exact reasons.
7. The teamwork between the employees can be increased by making cross functional teams for various specific tasks. The teamwork can also be improved by arranging team building exercise & workshops for managerial employees.
8. The training coverage needs to be further improved between various employees, which would further enhance their skills in specific areas.
9. The appreciation by the immediate superior for specific small tasks seems not to be adequate. The same should be improved further with various instantaneous appreciation schemes.

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03. VIEWER'S PERCEPTION ABOUT ETHICS IN TELEVISION ADVERTISING WITH REFERENCE TO YOUNG ADULTS (18-25)

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Abstract

Television being the most prominent and powerful means of communicating the promotional message, due efforts are taken by marketers to communicate the message effectively. However many leading organizations do not take efforts to understand the consumer psychic and view point of the receiver.

An effort has been made by the researcher to understand on how an ad is received and perceived in terms of ethics by a specific age group i.e. young adults. This research paper is written with an aim to study the Viewers perception about ethics in television advertising with reference to food and beverage sector in Pune region. Select areas of Pune district i.e Kalyani nagar, Viman nagar, Lohegoan, vishrantwadi areas were chosen for the study.

Keywords: Integrated marketing communications, ethics, viewer's perception, advertising expenditure, hammering effect.

Introduction

Purpose of this paper: to study viewer's perception about ethics in television advertising. Advertising is a paid, mediated form of communication from an identifiable source, designed to persuade the receiver to take some action, now or in future. (Shimp, 2012) Advertising expenditure in India is expected to grow 10% to reach Rs. 61204 crore in 2017 over 2016 according to a forecast by WPP – owned media agency GroupM in its report this year next year (TYNY) (livemint, 2017)

Advertisement is important. Imagine a television or a newspaper or a radio channel without an advertisement. A systematic effort to create a hammering effect on the consumer mind is the agenda of the combined effort made by integrated marketing communications. Advertising is everywhere. Most of the times, effective ads are made by taking into consideration the target audience and their education levels.

Objective of the paper

To study the viewers perception about ethics in television advertising-

This analysis will provide a base for the marketers to develop ethical ads. This topic will contribute to how ads are received and perceived by young adults. Viewer: is defined as a person who watches something, especially television. Perception: is defined as a belief or opinion, often held by many people and based on how things seem (dictionary). Ethics: moral principles that govern a person's behavior or the conducting of an activity. It has been highlighted by the Advertising Standards council of India for various organizations to follow the guidelines which include the following:

1. Honest representation of the product

- 2. Non offensive to public
- 3. Against harmful products / situations
- 4. Fair in competition

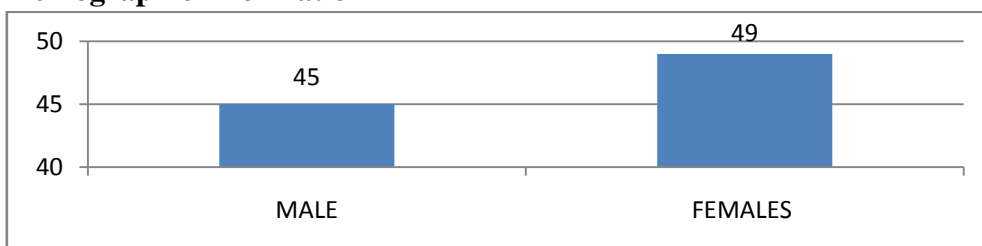
A guideline for food and beverage sector

- 1. Food and beverage sector: Advertising can have a positive influence by encouraging a healthy, well balanced diet, sound eating habits and appropriate physical activity. Caution and care therefore should be observed in advertising of Foods & Beverages especially ones containing relatively high Fat, Sugar and Salt (www.ascionline.org)
- 2. So far, research has been contributed in the areas of viewer’s perception and television advertising. It is strongly felt that there is a need to study on how viewers perceive ethics in television advertising. This research paper aims to cover the four major areas mentioned in the above paragraph in the study.
- 3. Youth covered in this study is from the age group of 18-25 years. Youth form nearly 45% to 50% of India population. As growth in the youth population has been significant, it is important to understand on how youth processes the information that is made available to them while watching television. On an average the viewership is very high in the peak slots of morning and evening hours.
- 4. The channels chosen for the study are STAR PLUS, ZEE TV and SONY entertainment as these are the most popular ones in India. (<http://www.quora.com>)
- 5. A total of 120 respondents were chosen for the study within the age group of 18-25 years. 94 responses were recorded for the study. 88 responses were recorded for question no- 4 – on channel preference. The rest of questions have 93/94 responses recorded.
- 6. Random Sampling method was used for this study.

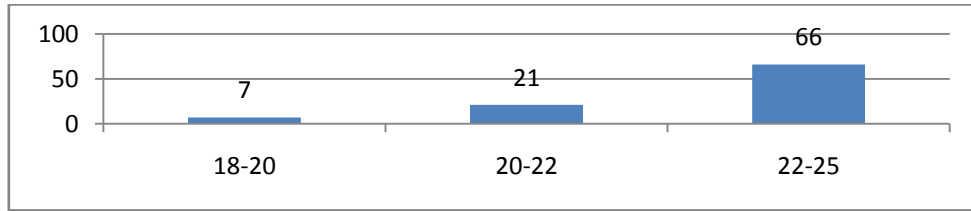
Limitations of the study

- 1. Only select areas have been chosen for the study.
- 2. Education level has not been considered in the study.
- 3. Top three food companies have been considered for this study - Nestle, Britannia and GlaxoSmithKline
- 4. Nestle, Britannia and GlaxoSmithKline are the top food brands in India. (<http://business.mapsofindia.com>)
- 5. Top three beverage brands have been considered for this study namely Coca Cola, Pepsi and Sprite
- 6. Coca Cola, Pepsi and sprite are the top soft drink brands in India. (<http://business.mapsofindia.com>)

Q. 1 Demographic information



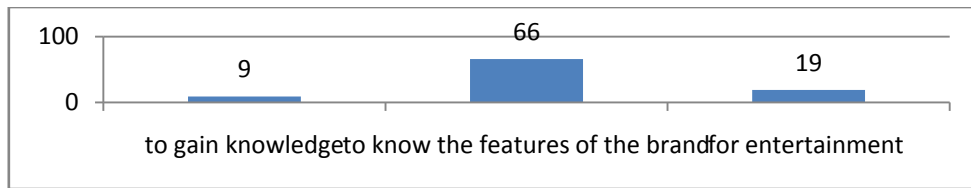
Q.2 AGE



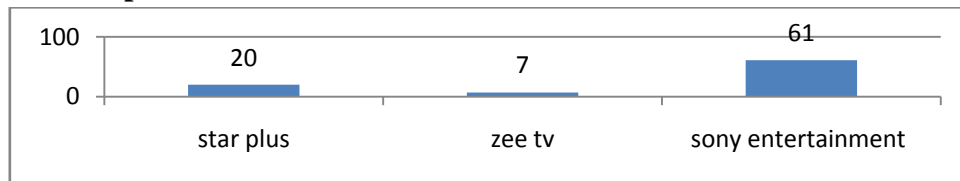
Q.3

Reasons to Watch AN AD

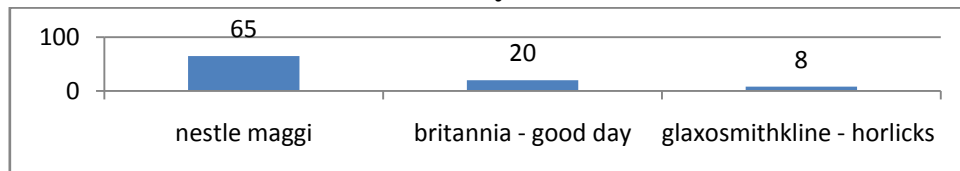
to gain knowledge	9
to know the features of the brand	66
for entertainment	19



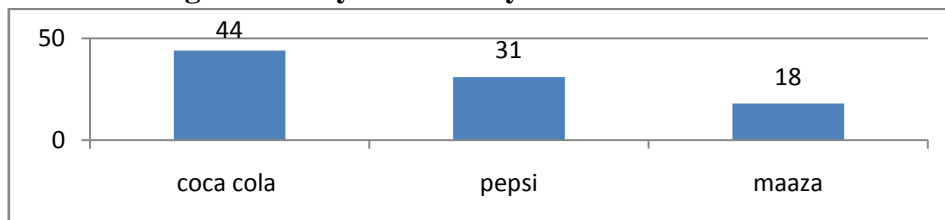
Q.4. Channel preference



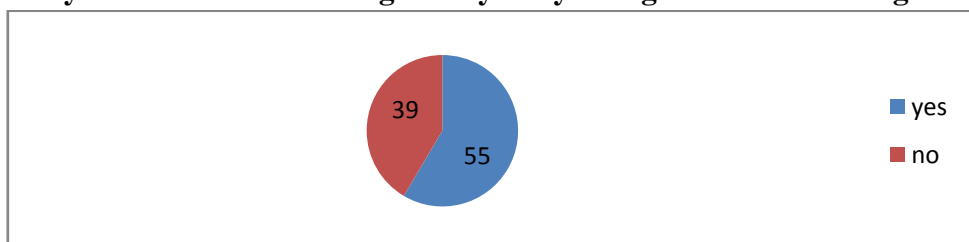
Q.5 Food brand advertisements seen very often.



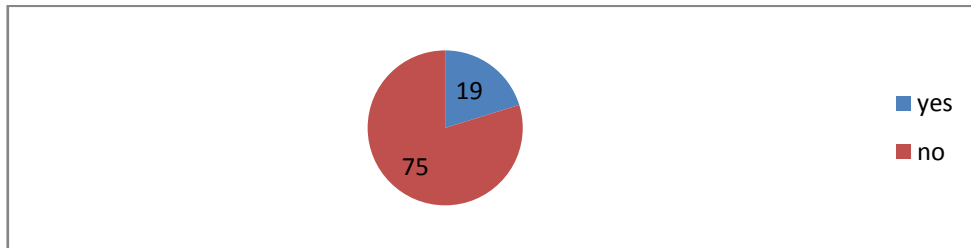
Q.6. Which beverage ad have you seen very often?



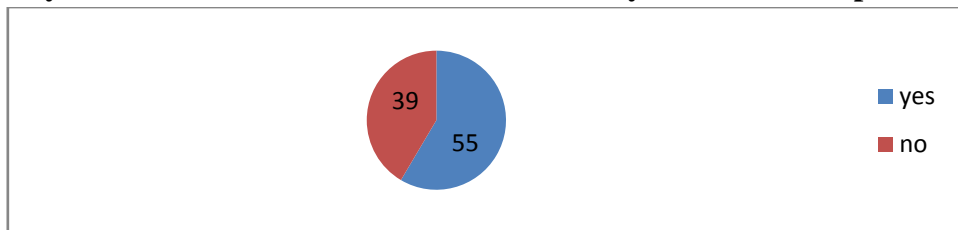
Q.7. Are you aware about the regulatory body that governs advertising in India?



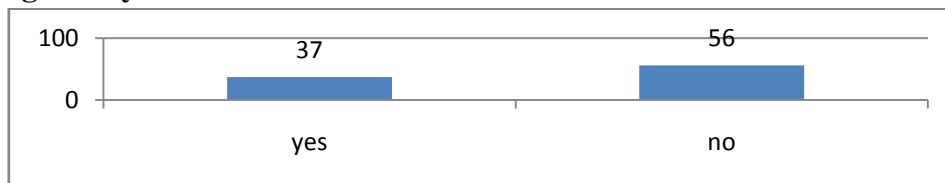
Q.8 Do you think that the ads that are aired for above food and beverage products are honest representations of the product?



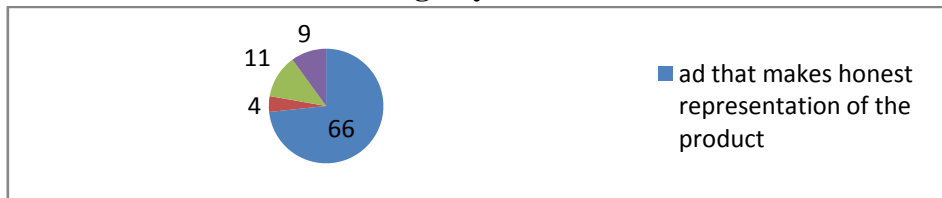
Q.9. Do you think that brands included in this study are fair in competition?



Q.10. Organizations included in this study have followed all the laws given by regulatory bodies from time to time



Q.11. What is an ethical ad according to you?



Findings:

1. 70% of the age group watches ad's with an intention to know the features of the brand.
2. 69% of the respondents prefer watching SONY entertainment more than STAR PLUS & ZEE TV.
3. Nestle – Maggi – is the food brand seen and noted by 69% of the respondents.
4. 47% of the respondents recollect watching coca cola ad's very often.
5. 58% respondents are aware about regulatory body that governs advertising in India.
6. 79% respondents agreed to the fact that ads that are aired are not honest representation of the product.
7. 58% respondents answered that brands included in this study were fair in competition.

8. 60% respondents said that organizations that have been covered under this study have not followed the laws given by regulatory bodies from time to time.
9. 73% respondents said that ad that makes an honest representation of the product would be an ethical ad according to them.

Conclusion

Age group of 18-25 has been covered for this study. It is noted that this age group critically evaluates the information that is been aired to them through ads. There is further scope for the regulatory bodies to govern the food and beverage sector ads as product advertised are directly used for consumption by the end users.

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04. INFORMATION SECURITY OF PUBLIC DATA: ITS IMPLICATIONS AND LIMITATIONS

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Abstract:

Is my privacy compromised in this spontaneous digital world? This question pop-ups in our head whenever we are asked to share our personal information like contact number, e-mail ID, bank account number, etc. with any agency/person or for any online activity. With comfort comes the attributes of security which is biggest point of concerns especially, in case of population of say, India as a whole. This scale is bigger and risks are even bigger.

In the context of data security in India across various platforms, there is an urgent need to focus on IT Cyber Security Programme, Expenditure on Establishment of Infrastructure, R&D labs, User Awareness Initiatives, Resolving Online Threats in Real time and Constantly Upgrading the Hard-rock virus-proof Security layers for any future virus threats and an law relating to same which would abide elements of the Security ecosystem, legally to protect the privacy of an individual/organisation as a whole.

This paper elaborates the current status quo of the Citizen information with Government on various platforms, throwing some light on data vulnerability on Social networking sites like Facebook, Securing Various Government initiatives under Digital India like Aadhar, Identity Theft, and data loss and mitigates the same. It further explains pros and cons of the data encryption and decryption methods, and a little insight of what lies ahead in the future and how that could be used to our advantage.

Keywords: Digital Theft, Cyber Security, Data Privacy, Information.

Introduction:

The digital world that we live in today is that where every civilian has a bright prospect to transform the lives in many ways that were hard to envision just a couple of years ago. It is the outcome of several innovations and technology advances. Today, every nation wants to be fully digitalized that will empower society in a better manner. In the world of information security, terms privacy and security are often used on behalf of each other. Although, it is technically not the same, they are hugely interdependent and form 2 faces of the coin named “information security”.

To illustrate this thought, let us consider a service provider which hosts large amounts of its consumer’s personally identifiable information, such as financial transaction records and other personal information which is ought to be kept in private and in reasonable safety. Suppose, an external malicious agent can hack into the service provider’s servers and able to gain access to all these user data records. He can then use it for gaining unfair financial benefit or even cause harm to the users and the service provider. Private user information which had to be secured is now an asset of the

hacker. Hence, data security is the door keeper of the fortress of data privacy. If the service provider's data security is breached, the private information which is stored in the server is vulnerable to data theft and loss of privacy.

Objectives of the study:

1. To study the data pertaining to citizen information such as collected in various Government departments such as UIDAI- Aadhaar, Income Tax Authority, Passport Seva, etc. and suggesting ways to safeguard this highly sensitive data pool.
2. To keep inform all citizens of India, about the platforms such as facebook, Instagram and various Government sites where the data is floating and is openly accessible and the ways in which it can be misused which may account to huge financial losses or identity thefts, etc. and how these situations could be curbed in time.

Data security is required to safeguard data privacy. Data privacy is necessary to ensure data security. Any discussion related to information related to information security is incomplete without mention of its 3 pillars – **Confidentiality, Integrity and Availability**. These three are popularly termed as “**The CIA Triad**” of Information Security.

1. **Confidentiality** deals with proactive prevention of intentional and unintentional unauthorized disclosure of data which is supposed to be private with restricted access. Data encapsulation, encryption, network authentication etc. are some of the practical examples of confidentiality principle being applied in real world scenarios.
2. **Integrity** by principle is an assurance that the information which is sent by sender is the same when compared to the message received by the receiver. Effectively, it is a guarantee that the data which travels through the communication channels is not modified during its journey and it reaches the destination without altercations using man in middle attacks.
3. Any application, to be successfully accepted by the user community needs to be reliable and stable. The application needs to be accessible so that the authorized users can access the services over the internet when necessary and connection lines be open at all time. This tenet of cloud services is known as **Availability**.

Unless you are a hermit in the remote Himalayas, you are likely to be troubled 24x7 by thoughts of digital thefts — from personal information to financial data to biometric details.

Identity theft is one of today's fastest growing crimes. It is the unauthorized use and exploitation of another individual's identity-corroborating information (e.g. name, home address, phone number, bank account numbers, etc.).Such information allows criminal activities such as fraudulently obtaining new identity credentials, credit cards or loans; opening new bank accounts in the stolen name; and taking over existing accounts.

One concern with soft data is that, even after data is stolen, the data still exists on the hard drive making it extremely difficult to proactively detect a data theft. Therefore, in some cases, the data theft is detected several months or years after the actual breach.

“Yahoo (2016) announced that about 500 million of its user records were compromised. About 360 million records from My Space (2016) were hacked by hackers”.

In the recent days, weeks and months, the overdrive by the government and India Inc. to link tax returns, bank accounts, mobile SIMs, mutual funds and more to the 12-digit Aadhaar has raised the billion-dollar query:

Is Digital India 2016, 3.2 million credit card and debit card details were stolen by Chinese hackers?

In April 2016, the Food and Civil Supplies Department of Chandigarh was reported to have published Aadhaar numbers of their public distribution system beneficiaries. Later in July, the Jharkhand Directorate of Social Security reported similar leak.

The Big FIVE:

These are the five big Core platforms with citizen information:

- 1. Goods and Services Tax Network (GSTN):** It has the complete financial transactions of 20mn registered users with it.
- 2. Income Tax Authority:** It has PAN, Bank Account and I-T details 60mn tax payers.
- 3. Passport Seva Portal:** Passport Portal has issued 250mn passports. Each complete personal information is with it.
- 4. AADHAAR:** UIDAI, the authority of Aadhaar has 1.19bn unique IDs in its database.
- 5. E- Governance:** There were 700mn online service requests received alone in 2017, like issuing caste certificates and licences.

Central & state government have multiple other platforms that include user details like pension records, property ownership, birth certificates.

A 2017 study by PwC and Assocham revealed attacks on Indian websites increased five times in the past four years. It noted Digital India spends miniscule amount on security. American whistle blower Edward Snowden, from his asylum in Russia, and an Australian security expert Troy Hunt has raised questions on database security in India. To reassure 1.19 billion Aadhaar users that their details cannot be accessed over platforms like WhatsApp, the Unique Identification Authority of India (UIDAI) gave an option to create a 16-digit virtual ID to mask the real Aadhaar.

Data Pools & Risks:

There are other, equally critical data pools across Digital India platforms, with sensitive personal information about bank transactions, taxes filed, passport details, property ownership, birth certificates, and photographs and so on. These reside in systems of Passport Seva, GSTN, e-governance portals, income tax e-filing, UIDAI and others. Data across systems and agencies is increasing every minute.

A few lakh people apply for Aadhaar every month or go to its centres to update or correct information, including address, date of birth, name.

The government is the biggest player in digital India, with several petabytes (one petabyte is 1,000 terabytes or approximately 10 years of TV content) of data residing with various agencies. And there are multiple user agencies accessing that data to complete their tasks.

These include banks, telecommunication companies, insurance companies, credit card issuers, mobile wallets, ecommerce companies, hospitals, security and gas agencies. Linking Aadhaar with everything is a risk if done without adequate checks and balances. Who is the actor, who owns the information, how and why do multiple agencies have access to databases? There are good uses and bad uses of data. The trouble is we don't know the bad users.

Risky yet Unavoidable:

Reverting to older, time-consuming practices like paper transactions, money order transfers, queuing up in banks or writing cheques is not the answer. Reliance Jio's user base ran into millions within weeks thanks to Aadhaar ID verification. Passports are now issued in two weeks with Aadhar from six months earlier. Tax returns are filed in real time, thanks to e-filing. Digital India will continue to expand — less than 10% transactions are digital at present. Yet Digital India needs to build trust and greater security. The problem with government databases is that these are live, accessed by multiple users within the government and outside. That multiplies the security challenge. "Every opportunity comes with a cost." People share more voluntarily on Facebook and other social media platforms.

For Aadhaar to be breached, the hacker needs biometrics as well, a near impossibility as they are securely encrypted and never shared with anyone. Biometrics-based Aadhaar has helped remove fake beneficiaries and ghost accounts. However, despite an unbreakable 2048 bit encryption of most government databases, 100% security may never be possible. Given unlimited resources and motivation, anything can be hacked.' Security is a journey. 100% security is a myth'. There is more financial fraud in the US than in India (the US is also far more digital than India), yet they have not given up on Digital America. JP Morgan Chase, Visa, PayPal have all seen major cyber breaches in the past. The ratio of risk of financial fraud in the US to India is 8:1. Fraud in India has been under check due to Reserve Bank of India's insistence on the tighter, two-factor authentication and because the number of people using digital services frequently is still low. More than 50% e-shoppers still insist on cash delivery option.



Table 1: Government policy guidelines for Information security

I. Human factor

UIDAI gave an option to users to mask their numbers by creating virtual identity. But, users have to be reasonably tech-savvy to use this. That may not be true of

those at the bottom of the pyramid who get direct benefit transfer under various government schemes. There could be a disgruntled employee who decides to misuse privileges.

There is a need to keep pace with the speed at which technology changes — from a two-year upgrade cycle to 60 days or even less days for some software. “Technology has increased in complexity. You don’t depend on one technology partner but an ecosystem of partners who supply different software. Your dependence on others is a security risk as well.

Often users store personal information on their smartphones. They download free apps like **WhatsApp or True Caller**. These apps want to make your life easier, but at the cost of sharing your address book. An app could seek permission in its long list of conditions — which nobody cares to read — to copy every word you key in, compromising security. Facebook and Instagram have user’s name and birth dates, besides frequent updates.

Amazon, Flipkart and other ecommerce companies know addresses, mobile numbers and credit card numbers. Over the next few years, if users are able to do banking via links, say, on Facebook, it will multiply risks. The biggest challenge is that your data is not just with your bank (or UIDAI or GSTN, etc). There’s an entire ecosystem of players and not all of them run their shops with the same level of rigour and controls that banks do. Users need to be aware of what they do in hotspots as well.

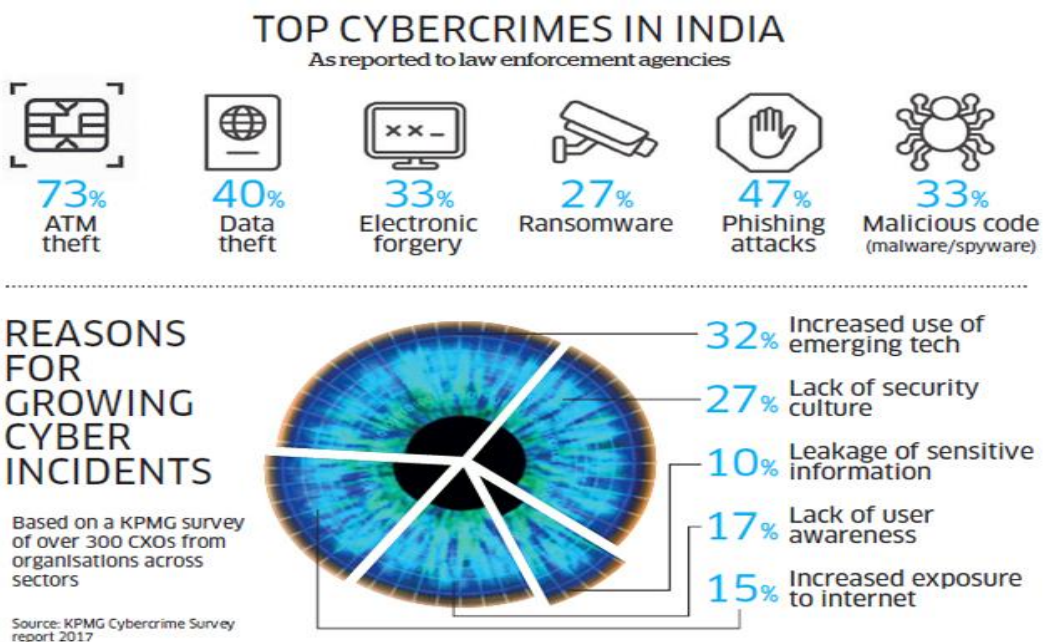


Table 2: Top cyber-crimes in India

II. Not Enough Security Spend

In India, public sector banks spend 1-3% of their IT budgets on cyber security and it’s slightly higher in private banks vis-a-vis the US where, generally, spending 10-15% of the IT budget on digital security is a common trend among financial institutions. The US government spent \$19 billion in 2017 to secure IT as assets.

In India, the Ministry of Electronics and IT mandated all government departments in September 2017 to spend 10% of their technology budgets on security. This was after attacks like Wanna Cry. The 2017 Global Cyber security Index by the UN ranked India 23rd among 165 countries in commitment to cyber security. India scored better in security than in ease of doing business, but is not entirely risk-free.

Exciting Future – Moving From Digital to Quantum Era (Y2Q): Mitigating Threats.

Get Ready for Quantum Era

In the security world, it's a never-ending cat-and-mouse game, with hackers trying to breach networks. The greatest threat to Digital India could arise from hackers residing anywhere in the world — state-sponsored or otherwise. About 20 years back, 40-bit encryption was considered high-tech. Today it can be breached in minutes and companies have moved to 128-bit and 256-bit encryption. Databases like Aadhaar are secured with 2048-bit encryption. It could take thousands of man hours or several years to break. However, what appears impregnable today could succumb to quantum computing (QC) in just a few years.

Today's encryption methods could be brought down with QC in minutes. It could become mainstream in 8-10 years. In today's computing world, information is stored in binary — 0 and 1. QC increases the ability of computers to store information in multiple bits or states. This allows them to perform incredibly complex calculations at speeds unimaginable today. Governments and companies will have to migrate to quantum era — much like how they adjusted to Y2K — and is being called Y2Q (Years to Quantum).

Even in pre-QC era, the need for quantum-safe encryption is real. QC can help in enhancing response to attacks and detection capability. While QC is a few years away, companies are evaluating block chain which strengthens security as data resides in multiple places.

100% security is a mythical target because of the variety of attack methods, number of known and unknown hardware and software vulnerabilities, limitations in detection and response technologies, etc. The tried-and-tested principle is to apply cyber security capabilities in layers and follow best practices for cyber security technologies, processes and organisation. Perhaps move to block chain next and be QC ready soon enough.

Wanted Security Geeks:

At a time when there's a hue and cry over technology jobs drying up, the software security market is staring at a crisis. There aren't enough geeks to protect digital assets. Digital India needs top professionals who can build hack-proof systems and are block chain-and quantum-computing era ready and ensure 24x7 protections against threats. We talk of IT jobs going, Security is one area where there's zero oversupply.

According to technology lobby NASSCOM, India is grappling to bridge the gap between demand for cyber security professionals and the talent pool available, with a shortfall of hundreds of thousands of skilled professionals in this domain.

NASSCOM and Data Security Council of India (DSCI) are planning to create a pool of half a million security professionals in line with the country's National Cyber security

policy. Lack of security professionals is a global problem as well — an area that Indian engineers can explore. Even the US is expected to have half-a-million or more unfilled cyber security jobs by 2021. Every IT worker needs to be involved in protecting and defending apps, data, devices, infrastructure and people. Cyber security, a complex domain with constant flux and rapid changes, wants skilled professionals having expertise in mathematics, statistics, data science and computation in order to keep up with the latest challenges in the form of attacks, crimes and frauds.

According to NASSCOM, domains like identity and access management, security operations, internet of things (IoT) security, big data and cyber forensics are areas of immense opportunities for professionals in IT. Joining the Digital India army of security geeks could be the next hot spot for engineers.

Suggestions:

Do's and Don'ts to protect your data:

1. Activate SMS alerts for all financial transactions.
2. Avoid common passwords across platforms (like same password for bank accounts and Facebook).
3. Use strong passwords and avoid writing down passwords.
4. Be careful about what personal information you share over the phone.
5. When downloading free apps (or even paid ones), be aware that they access address books and other information on your smartphones. Check if you really need them.
6. Avoid using sensitive transactions like mobile banking using Public Wi- fi.
7. Use new tools like Aadhar Virtual ID to mask real number.
8. Be careful what you print/copy on public printers (even office printers/copiers). They come with Hard disks that store whatever you have printed/photocopied.

Conclusion:

It is concluded that despite inevitable threats, if a predefined set of information security protocols are properly followed upon as those given in suggestions above, we may have a fair chance of keeping the data secure and less vulnerable to be exposed. Moreover, it is highly dependable upon personal user as human factor and his awareness has a bigger role to play. We may, as an individual try and help educate people for digital literacy and follow guidelines properly as given by Government of India from time to time.

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05. THE STUDY OF IMPORTANCE OF TRADITIONAL AND NEW TRAINING METHODS

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Abstract

Training and Development is an important function not only of Human Resource management but also an organization. It aims to improve employees' skills by nurturing them to learn new techniques of doing work, increasing their efficiency and hence, results in increasing productivity of an organization.

There are different tools and techniques for training wherein importance to new methods of learning have been increased like e-learning, m-learning which are more effective than traditional class room trainings. Combination of traditional and new learning methods can also play vital role than opting any single method for training.

Keywords: - Training, e-learning, m-learning, class room training

Introduction

Training and development is a function of HRM concerned with organizational activity aimed at improving the performance of employees in an organization. It has been known by several names, including "human resource development", and "learning and development.

Training and Development is a subsystem of an organization. It ensures that randomness is reduced and learning or behavioral change takes place in structured format.

Need for Training

1. Globalization
2. Need of leadership.
3. Increased value placed on intangible assets & human capital.
4. Focus on business strategies
5. Customer's services & quality
6. New technology.
7. High performances model at work system.
8. Economic fluctuations
9. Attracting & retaining talent.

Process

1. Determining training needs
2. Establish specific objectives
3. Select methods
4. Implement training program
5. Evaluate training program

Role

1. Increase efficiency
2. Increase morale of employees
3. Reduce supervision
4. Increase organization growth potential

Training Methods

1) On the Job Training

- a) Class Room Training (CRT)
- b) On the job (OJT)
- c) Role Plays
- d) Mentoring
- e) Coaching
- f) Job Rotation & Internships

2) Off the Job Training

- a) Virtual Class Room Training (VCRT)
- b) E – learning modules
- c) M – learning
- d) Webinar
- e) Simulations & virtual reality

Objectives

- a) Understanding Traditional and New training methods
- b) Advantages and disadvantages Traditional and New training methods
- c) To propose a training model
- d) Comparison of learning styles

Research Methodology

Conceptual research

It is based on ideas, theories.

Data collection method

Secondary data: Journal, books, bulletins and websites

On The Job Training

1) Class Room Training (CRT)

Class Room Training (CRT) is a traditional but effective way of training but nowadays focus on new methods of learning rapidly increasing, training experts agree that it will never completely replace classroom training. At present, most of companies continue to use classroom training alongside an increasing amount of technology-based training, such as e-learning, m-learning and computer-based training.

Advantages to classroom training include that:

- Safe, quiet, clean environment, away from the noise and pressures of the work area.

- Training groups can be large or small.
- The classroom environment provides the important “human touch,” which is often missing in technology-based training.
- Group interaction enhances learning. Employees learn from one another as well as from the trainer.

Disadvantages to classroom training:

- Pull employees off the job, which cuts into work time and production schedules.
- Lack of hands-on experience.

2) **On The Job Training (OJT)**

Off-the-job training occurs when employees are taken away from their place of work to be trained. Common methods of **off-the-job training** include: Day release (employee takes time **off** work to attend a local college or **training** centre)

Employee training at the place of work while he or she is doing the actual job. Usually a professional trainer (or sometimes an experienced employee) serves as the course instructor using hands-on training often supported by formal classroom training.

Advantages

- Generally most cost-effective
- Employees are actually productive
- Opportunity to learn whilst doing
- Training alongside real colleagues

Disadvantage

- Quality depends on ability of trainer and time available
- Bad habits might be passed on
- Learning environment may not be conducive
- Potential disruption to production

3) **Role Plays**

Role playing is creating a situation wherein the employees act out the situation under the guidance of the trainer.

Advantages

- High level of involvement
- Improves the confidence level
- Helps to develop communication skills
- Gives opportunity to showcase the creativity
- Develops ability to observe and analyze

Disadvantages

- Requires expert guidance & leadership
- Strongly depends on the imaginations
- Not comfortable to everyone
- May not be taken seriously
- Evaluation of individuals is challenging

Major New Training Methods

1) E-Learning

E learning is a tool wherein trainer can train the participants from the distance and assessments can be done through pre, post in check the understanding during the training.

Advantages of eLearning

- Requires expert guidance & leadership
- Strongly depends on the imaginations
- Not comfortable to everyone
- May not be taken seriously
- Evaluation of individuals is challenging

Disadvantages of eLearning

- Requires expert guidance & leadership
- Strongly depends on the imaginations
- Not comfortable to everyone
- May not be taken seriously
- Evaluation of individuals is challenging

2) M-Learning

Mobile learning (M-learning) refers to learning with the help of mobile devices, laptops or other similar portable technologies. It involves going through content and social interactions including multiple contexts.

Benefits of Mobile Learning

- Accessibility
- Personalized learning experience
- Frequency of learning is very high
- No location constraints
- Frequency of updation is very high

Disadvantages

- Compatibility with all mobile devices and operating systems
- High cost
- Limited storage
- Technical specifications of mobile

3) Webinar

Webinar is nothing but the online seminar. Participants from anyt part of the word can be part of this kind of seminar. Questions and answers can be answered in written or oral formats.

Advantages

- On line seminar ; easy & convenient to both presenter and learner
- Special equipment are not required
- Less Cost
- An unlimited people can attend
- Can be recorded and use later for other's learning

Disadvantages

- Internet speed must be adequate
- No communication is possible through body language if no video feed is available.

4) Simulation, Virtual Reality and Animation

Creating illusion for the training helps the participants to learn in actual time with the help of animation in 2D & 3D forms, by 3D glasses, gamifications etc.

Simulation is the representation of certain features of the behavior of a physical or abstract system by the behavior of another system.

Advantages

- Undertake high-risk activities or procedural tasks within a safe environment without dangerous implications.
- Learning thru’ errors and consequences
- Learners address hands-on and thinking skills, including knowledge-in-action, procedures, decision-making, and effective communication

Disadvantages

- Special equipment is required which is costly
- Simulators can be very expensive and require constant updates and maintenance
- Not every situation can be included

Findings



Above model is proposed by the researcher which is perfect blend of the different training methods

Conclusion

Various methods of traditional and new training methods play vital role in imparting training to participants. Blending of traditional and new approaches for training add value to training objectives and fulfills the organizational goals

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06. A STUDY OF CONSUMER BUYING BEHAVIOR TOWARDS AYURVEDIC MEDICINES/ PRODUCTS IN GWALIOR

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Abstract

The main purpose of the study was to examine the consumer buying behavior towards ayurvedic Medicine/Products in Gwalior Region. This study discusses about other parameters like benefits/attributes consumer associates with herbal products, knowledge, favored, source of information, habit and approach related to Ayurvedic products. Consumer of ayurvedic medicine for cure of ordinary ailments like regular cold, allergy, cough, joint pain, constipation, hair fall but most of consumers do not use Ayurvedic medicines without Doctor's recommendation. Consumers do not use Ayurvedic medicines/products along with homeopathic, allopathic medicine for treating common diseases. Consumers bought the Ayurvedic health/food Rejuvenating or supplements Ayurvedic medicines/products for fitness anticipation or to match their health. Data from the randomly selected 100 respondents has been collected from the Gwalior Region. The respondents present first choice for the more price, quality, availability and effectiveness of the Ayurvedic products/medicines.

Keywords: Consumer Buying Behavior, Ayurvedic Medicines/Products

Conceptual Framework

The 21th century has marked the beginning of an era; the physical condition of a nation is a indication of the health of the citizens. The health of a people is a complex variety of health signs, of which the chief are maternal Mortality rate, infant mortality rate and life expectancy. The Health of India wraps behind that of many nations both developing and developed, something which the Government has been trying to develop for the Last 64 years. In current past, a rise has been experimental in India towards stress and healthy free life. Clearly our country wants to switch more resources to health than the quantity countries ahead of us do. Yet, there is the difficulty that resources are restricted and many other developmental works are all fighting for them.

The country is trapped in a combine: The poor health of the people demands more possessions, yet lack of resources means that no more can be allotted to health.

In this condition, the Ayurveda which is preservation and endorsement of positive health and treats the diseases through medicine, yoga, dietary restrictions and regulated life way certainly play a significant role in providing affordable, accessible and inclusive healthcare services to millions of people. Ayurveda is the word for an inclusive health care scheme that began in ancient India.

Ayurveda suggests for an Omni existence of basic building blocks of life in the world signifying that beginning of fusion is subject to the accessibility of most favorable conditions. This justifies the life procedure to start only a few billion years ago in spite of accessibility of the basic resources since eternity. Primitive earth was planned to be described by Rajas, Sattva and (Triguna) Tamas symbolizing the mental properties common to the primitive earth. Sattva, the primary of Triguna, symbolizes the power required for formation, Rajas, the next of Triguna symbolizes the element movements and Tamas lastly symbolizes inert substance having a capacity to exchange into original forms under the steady influence of Rajas and Sattva.

Ayurveda has been known by the World Health Organization (WHO) as a entire system of unusual medicine. A medicinal herb as prospective resource of therapeutics aids has achieved a major role in health structure all over the world for both animals and humans not only in the diseased situation but also as possible material for maintaining right health.

Consumer Buying Behavior

Consumer buying behavior is the study of how organizations, individuals and groups. Select; dispose of goods, buy, ideas, services, or experiences to convince their wants and needs. Consumer buying behavior may be cleared as the physical activity and decision method persons engage in when acquiring, evaluating, using or disposing of services and goods. Several features of this announcement require elaboration and emphasis so that their sense can be more fully valued. A consumer buying behavior is unbiased by social, cultural, psychological and personal factors. Most of these issues are beyond the hands of marketers and unmanageable but they have to be considered while soothing to recognize the simple behavior of the consumer. Consumers are the study "of the procedures involved when persons or groups choice, use, purchase, or dispose of products, ideas, services, or experiences to assure desires and needs" (Solomon 1995, 7).

Ayurvedic Medicine/Product

Ayurvedic medicine/product is a method of Hindu conventional medicine, is resident to the Indian subcontinent, and is a variety of optional medicine. The oldest recognized Ayurvedic texts are the Charaka Samhita and the Suśrutha Samhita. These traditional Sanskrit texts are among the foundational and officially compiled facilities of Ayurveda.

Ayurvedic medicine is a method of healing that begins in ancient India. In Sanskrit, Ayur means living or life, Andveda means awareness,so Ayurveda has been cleared as the "science of longevity" or the "knowledge of living." Ayurvedic product utilizes detoxification, diet, and refinement techniques, herbals and yoga, mineral remedies,

breathing exercises as holistic healing techniques. Ayurvedic doctors seek to determine the root of a bacteria before it gets so superior that more radical cures are compulsory.

Literature Review

Joshi (2008) practical that the observation of people in traditional medicine was emphasized and optimistic that wants to revitalize the method along the line of common traditions and support the procedure of herbal medicines (**Joshi K., 2008**). **Chakraborty and Sen (2015)** Ayurveda in addition to other accustomed herbal medicines are competent of addressing some current unmet therapeutic necessities and can provide the foundation for upward prospective.

The research consummates by **Sawant, (2013)** exposed that consumers of the rural area favored ayurvedic products. They relate it to native cure and both female and male have a like consumer opinion of ayurvedic products. The deficiency of side effect is the most significant reason that influence women in the buy of skin care medicines or products (**Khan & Khan, 2013**). As per **Arya et.al, (2012)** consumer confirms an optimistic approach towards ayurvedic products and drugs and utilize without doctor's prescription. People indulge Ayurveda not as a treatment but as a routine (**Arya, Kumar, & Kumar, 2012**).

Over the past numerous decades, maintain for traditional medicine has significantly increased worldwide. The WHO general strategy for methodologies on evaluation and research of traditional medicine or products (2000) offer a tactic for assessing the safety and the efficiency of traditional product or medicine. In the **Alma Ata** primary healthiness care delivery declaration of 1978, which named for "fitness for all by the year 2000," the World Health Organization recognized the significance of traditional remedy in providing primary health care and buoyant countries to extend official policies on usual or traditional medicine (**Saleh 1993: 21–22**). Wharton marketing lecturer **Lisa Bolton (2007)**, New York institution of higher education doctoral scholar Peking and Wenbo Wang University marketing lecturer **Hean Tat Keh (2007)** seemed at how people's perceptions of a specified medicine, their perceptions of their sickness and other reason influence medical decision making. "The rural marketplace similar it tough" according to the (2000) *The Economic Times*, the power of rural markets for Indian industries.

Economic express, June 19, 2000 has obtainable the strategy about FMCG, HLL majors, Marico Companies, Colgate Palmolive encompass process had intended for rural market. The researchers also deliberate the choice of medication, be it conventional Chinese medicine.

One of such study of consumers buying behavior has been consummate by **Acebron et al (2000)**. The motivation of the study was to scrutinize the contact of preceding practice on buying behavior of predominantly mussels, fresh foods. The authors in their studies used structural equation outward appearance in order to distinguish the association between the previous understanding and habit on the consumers buying decision. Their answering substantiate that previous understanding and personal habits one of the regulars have in a straight line impact on the consumers' buying decision in the container of buying fresh mussels. They also established that the figure of the

products have a key impact on the buying decision of the consumer and advance optional that the product figure should constantly be improved in order to promote the consumers towards buying.

As The American Marketing union Consumer Buying Behavior is “The dynamic interfacing of cognition and influence, performance, and the situation by which human beings carry out the reinstate phases of their lives” , **2nd ed. 1995, Peter D. Bennett**, ed. Dictionary of Marketing provisions.

Research Methodology

The methodology which is used for carry out the research is follows as:

Research Design

The research is related to the purpose of this study which is to examine the consumer buying behavior towards Ayurvedic medicines/products in Gwalior region; a structured questionnaire was used as the main instrument for carrying out the research. This research study is consisted on two main variables that are consumer buying behavior and ayurvedic medicines/products in Gwalior region; these variables play the role of Independent and dependent variables. Thus, these two variables will be in direct relations of each other’s. The relations discussed on the basis of data collection.

Sampling Design

Sample Method: The sampling method selected is simple random sampling which type of probability sampling.

Sample Size: The data is collected using a random sampling of 100 peoples in Gwalior region.

Target Population: All the people within Gwalior region who used Ayurvedic Products.

Sampling Element: Individual respondent was the sampling element.

Sampling: Random sampling technique was used in the study.

Data Collection Methods

Data was collected on the basis of Self-designed questionnaires on a scale of likert, where 1 indicate strongly disagree, 2 indicate disagree, 3 indicate neutral, 4 indicate agree and 5 indicate strongly agree.

Objectives Of The Study

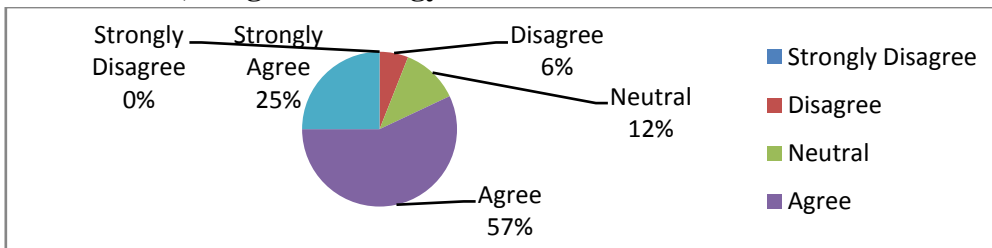
- To study the consumer awareness of Ayurvedic products/medicines.
- To determine the reason why people are using Ayurvedic products/medicines.
- To study about the factor influencing the consumer buying behavior to use the Ayurvedic products/medicines.
- To study the level of consumer satisfaction towards Ayurvedic products/medicines.
- To understand the buying behavior of the consumer towards Ayurvedic Product/medicines.
- To know the consumption pattern of Ayurvedic products/medicines in society.

Scope of the Study

The current study will be useful in identifying the consumer buying attitude of the dissimilar strata people in the Indian society especially in Gwalior region towards Ayurveda medicines/products. The study will also be helpful in analyzing the customer attitude towards the different reasons identified after the focus group conversations for the future studies by the academicians and researchers. It will also assist in studying the effect of Ayurveda products purchase of the study specifically among the segment under consideration.

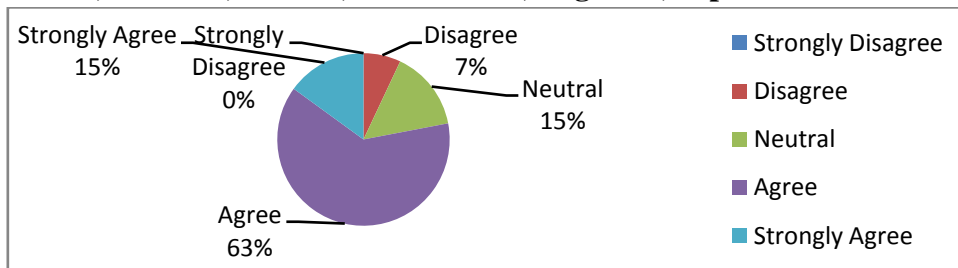
Data Analysis

Q.1 Consumer uses Ayurvedic medicine only for treatment of common diseases like common cold, cough and allergy.



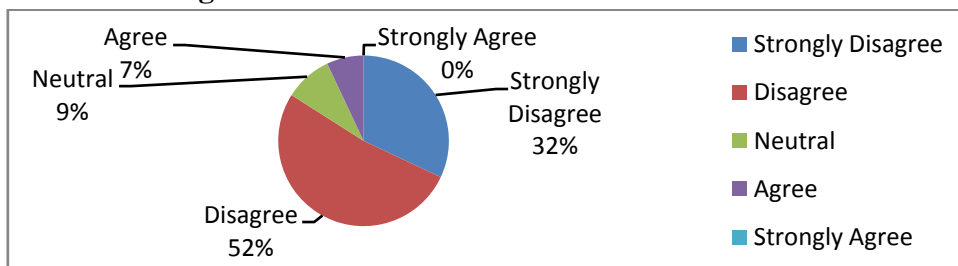
This chart shows that 0% respondents are strongly disagree with this statement, 6 % respondents are disagreeing with this statement, 12% respondents are neutral, 57 % respondents are agree and 25% respondents are strongly agree with this statement.

Q.2 Consumer prefers Ayurvedic medicine only for treatment of major diseases like diabetes, arthritis, asthma, tuberculosis, migraine, depression.



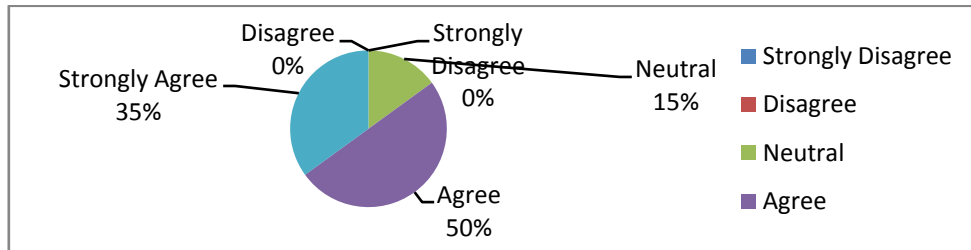
This chart shows that 0% respondents are strongly disagree with this statement, 7% respondents are disagree with this statement, 15% respondents are neutral, 63 % respondents are agree and 15% respondents are strongly agree with this statement.

Q.3 Consumers consume Ayurvedic medicine along with allopathic, homeopathic medicine for treating common disease.



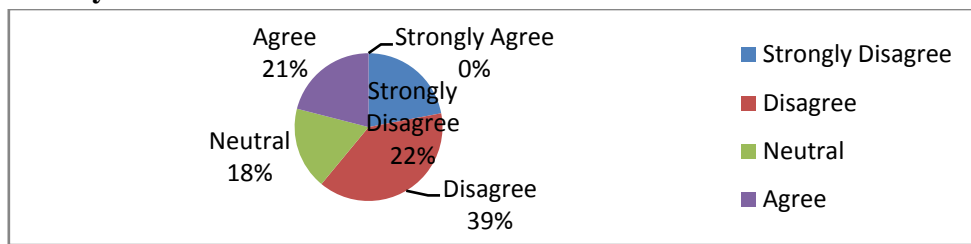
This chart shows that 32% respondents are strongly disagree with this statement, 52 % respondents are disagreeing with this statement, 9% respondents are neutral, 7 % respondents are agree and 0% respondents are strongly agree with this statement.

Q.4 Consumer consumes some Ayurvedic health/food supplements or Rejuvenating Ayurvedic medicines.



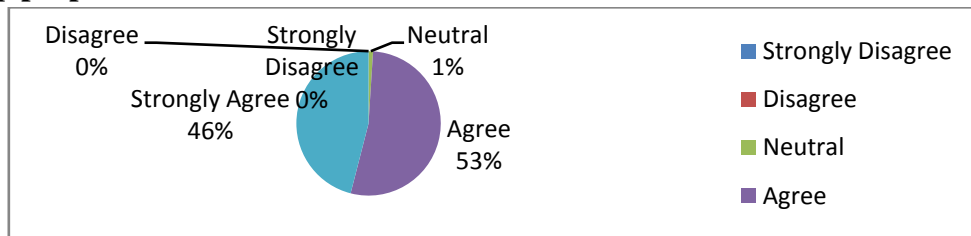
This chart shows that 0% respondents are strongly disagree with this statement, 0 % respondents are disagree with this statement, 15% respondents are neutral, 50% respondents are agree and 35% respondents are strongly agree with this statement.

Q.5 Consumer buys the Ayurvedic products through the TV advertisement, banners only



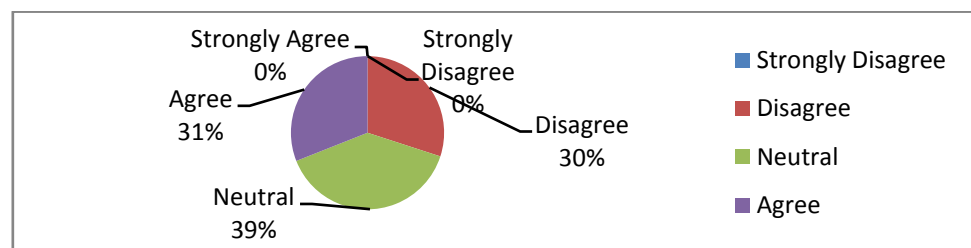
This chart shows that 22% respondents are strongly disagree with this statement, 39 % respondents are disagreeing with this statement, 18% respondents are neutral, 21 % respondents are agree and 0% respondents are strongly agree with this statement.

Q.6 The consumption of Ayurvedic/Medicine product is beneficial for all Age group people.



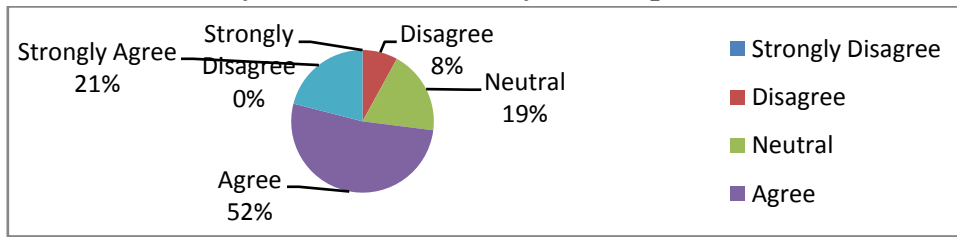
This chart shows that 0% respondents are strongly disagree with this statement, 0 % respondents are disagree with this statement, 1% respondents are neutral, 53 % respondents are agree and 46% respondents are strongly agree with this statement.

Q.7 Consumption of Ayurvedic Medicine/product does not lead many side effects on health



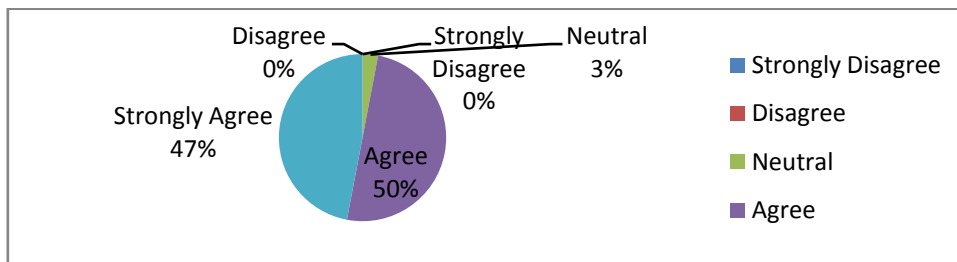
This chart shows that 0% respondents are strongly disagree with this statement, 30 % respondents are disagree with this statement, 39% respondents are neutral, 31 % respondents are agree and 0% respondents are strongly agree with this statement.

Q.8 Each level of society can consume the Ayurvedic products



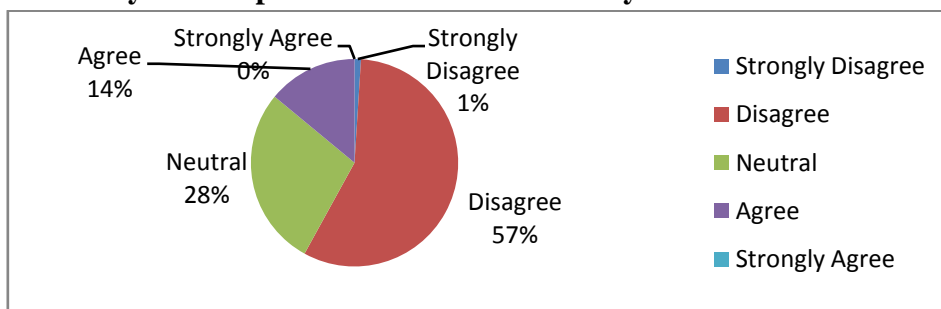
This chart shows that 0% respondents are strongly disagree with this statement, 8 % respondents are disagreeing with this statement, 19% respondents are neutral, 52 % respondents are agree and 21% respondents are strongly agree with this statement.

Q.9 Consumption of Ayurvedic medicines is more effective than Allopathic medicines



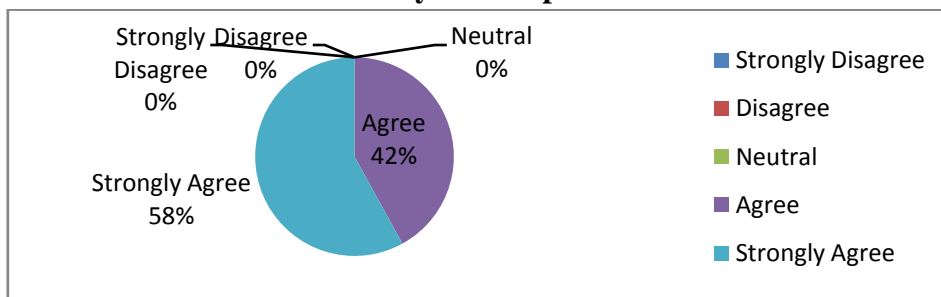
This chart shows that 0% respondents are strongly disagree with this statement, 0 % respondents are disagree with this statement, 3% respondents are neutral, 50 % respondents are agree and 47% respondents are strongly agree with this statement.

Q.10 Price of Ayurvedic products are not affected by demand of the consumer.



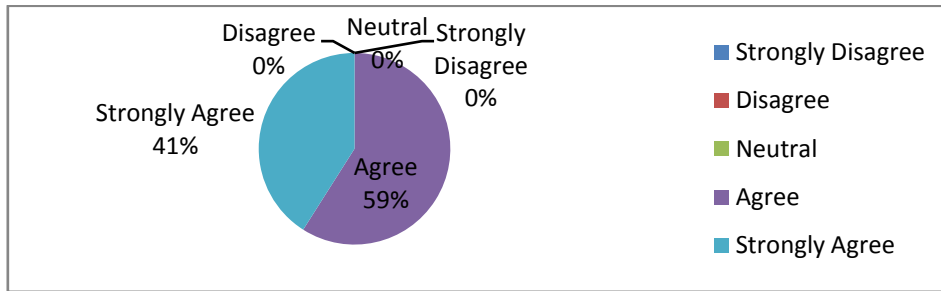
This chart shows that 1% respondents are strongly disagree with this statement, 57 % respondents are disagree with this statement, 28% respondents are neutral, 14 % respondents are agree and 0% respondents are strongly agree with this statement.

Q.11 Consumers have trust on the Ayurvedic products/medicines.



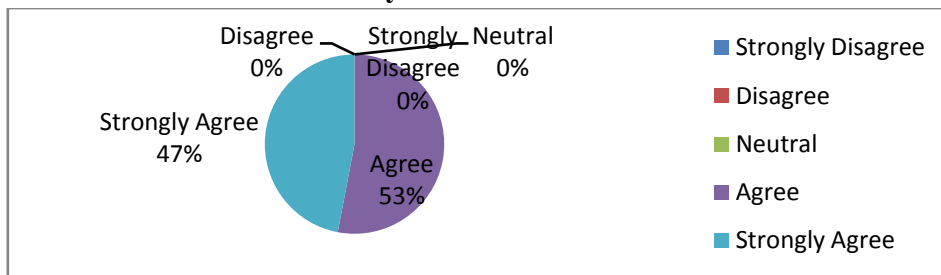
This chart shows that 0% respondents are strongly disagree with this statement, 0 % respondents are disagree with this statement, 0% respondents are neutral, 42 % respondents are agree and 58% respondents are strongly agree with this statement.

Q.12 Consumer consumes the Ayurvedic products/medicines for the no side effects safety reason.



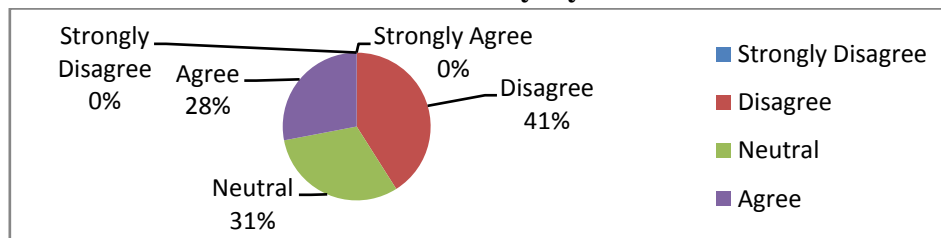
This chart shows that 0% respondents are strongly disagree with this statement, 0 % respondents are disagree with this statement, 0% respondents are neutral, 59 % respondents are agree and 41% respondents are strongly agree with this statement.

Q.13 Consumer prefers the Ayurvedic medicine/products because Ayurvedic is one of the world’s oldest medical systems.



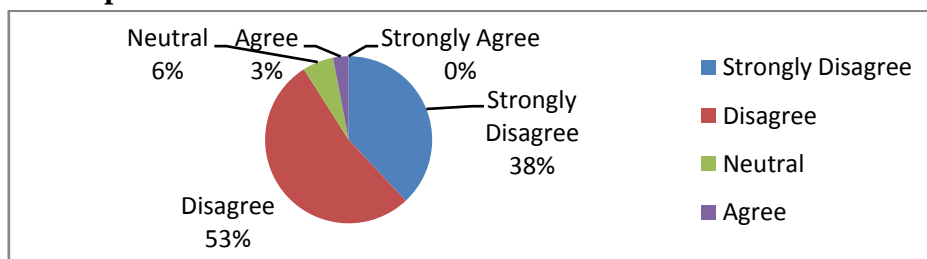
This chart shows that 0% respondents are strongly disagree with this statement, 0 % respondents are disagree with this statement, 0% respondents are neutral, 53 % respondents are agree and 47% respondents are strongly agree with this statement.

Q.14 Consumer uses the online service to buy Ayurvedic medicines



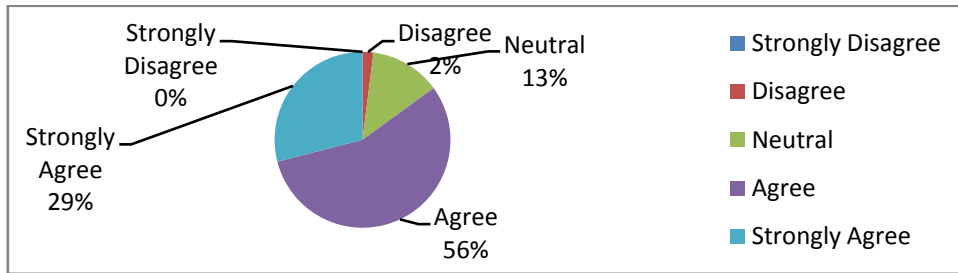
This chart shows that 0% respondents are strongly disagree with this statement, 41 % respondents are disagree with this statement, 31% respondents are neutral, 28% respondents are agree and 0% respondents are strongly agree with this statement.

Q.15 Consumers have enough information/knowledge to buy Ayurvedic medicines without description.



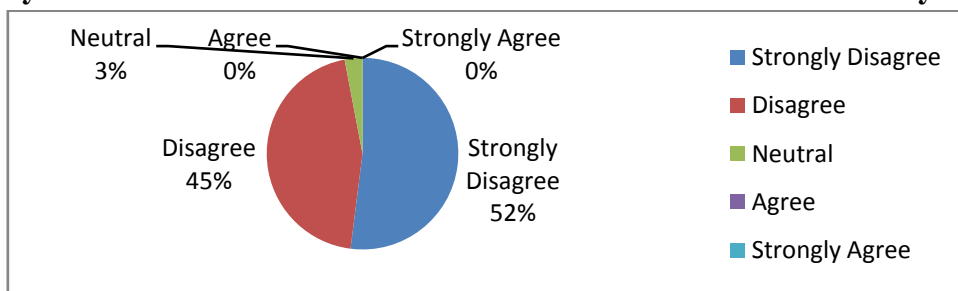
This chart shows that 38% respondents are strongly disagree with this statement, 53 % respondents are disagree with this statement, 6% respondents are neutral, 3% respondents are agree and 0% respondents are strongly agree with this statement.

Q.16 Advertisements of Ayurvedic Products/medicines have more impact on consumer buying behavior



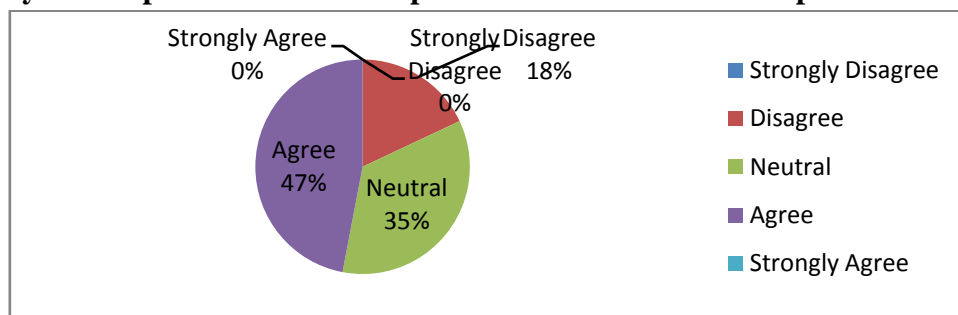
This chart shows that 0% respondents are strongly disagree with this statement, 2 % respondents are disagree with this statement, 13% respondents are neutral,56 % respondents are agree and 29% respondents are strongly agree with this statement.

Q.17 Ayurvedic Medicines have some side effect on consumer health/body



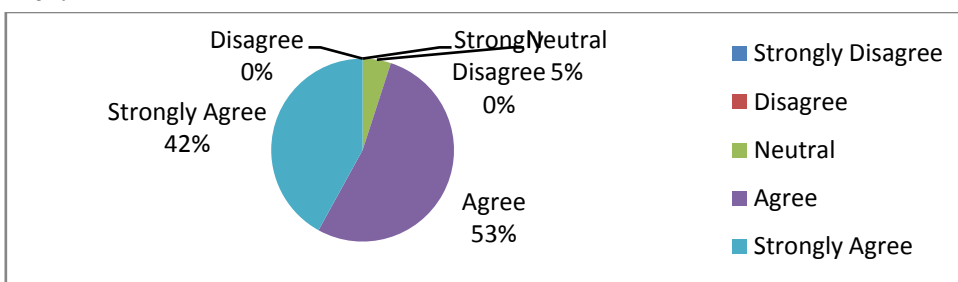
This chart shows that 52% respondents are strongly disagree with this statement, 45 % respondents are disagree with this statement, 3% respondents are neutral, 0 % respondents are agree and 0% respondents are strongly agree with this statement.

Q.18 Ayurveda products are less expensive than other cosmetic products



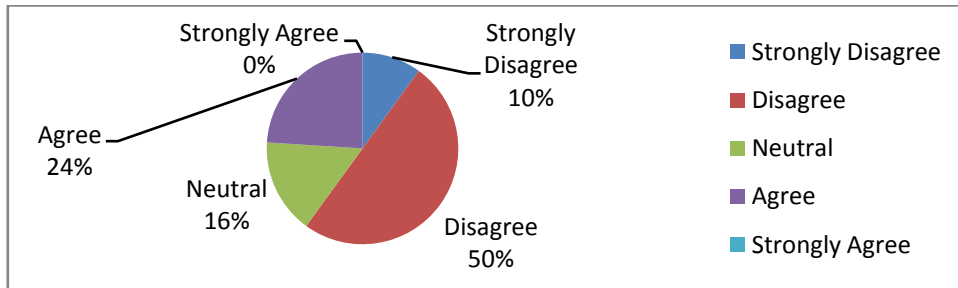
This chart shows that 0% respondents are strongly disagree with this statement, 18 % respondents are disagree with this statement, 35% respondents are neutral, 47 % respondents are agree and 0% respondents are strongly agree with this statement.

Q.19 Ayurveda products provide a number of products for a particular disease to consumer.



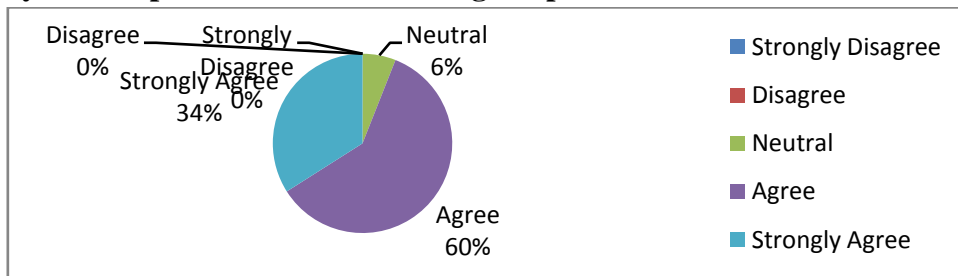
This chart shows that 0% respondents are strongly disagree with this statement, 0 % respondents are disagree with this statement, 5% respondents are neutral, 53 % respondents are agree and 42% respondents are strongly agree with this statement.

Q.20 Ayurvedic products do not consist herbal cosmetic products



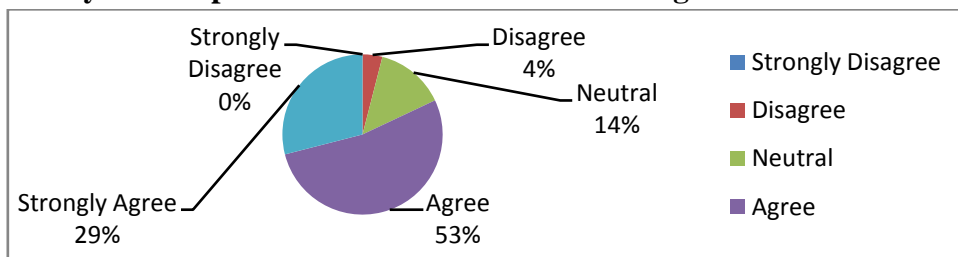
This chart shows that 10% respondents are strongly disagree with this statement, 50 % respondents are disagree with this statement, 16% respondents are neutral, 24 % respondents are agree and 0% respondents are strongly agree with this statement.

Q.21 Ayurvedic products are dominating the pharmaceutical market



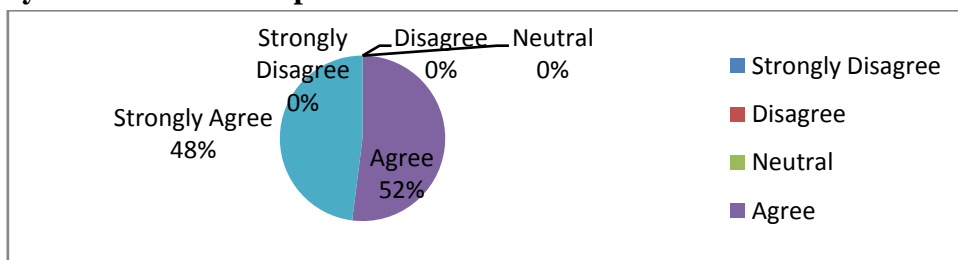
This chart shows that 0% respondents are strongly disagree with this statement, 0 % respondents are disagree with this statement, 6% respondents are neutral, 60 % respondents are agree and 34% respondents are strongly agree with this statement.

Q.22 The Ayurvedic products contain 100% natural ingredients



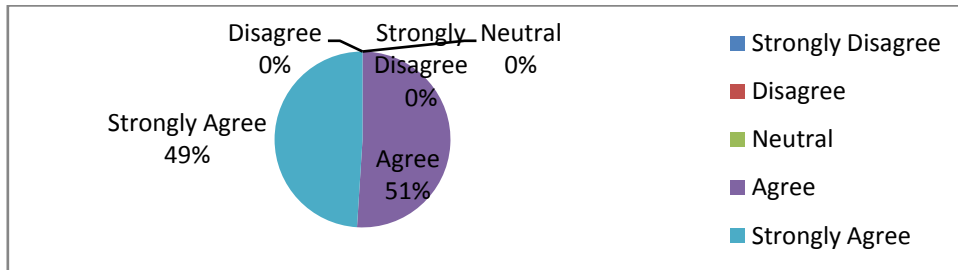
This chart shows that 0% respondents are strongly disagree with this statement, 4% respondents are disagree with this statement, 14% respondents are neutral, 53 % respondents are agree and 29% respondents are strongly agree with this statement.

Q.23 Ayurvedic medicines/products do not harm the human health



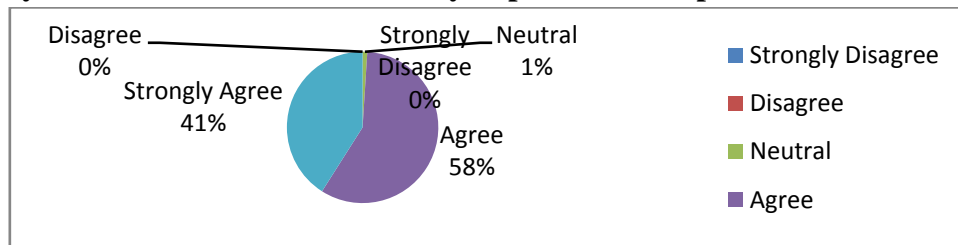
This chart shows that 0% respondents are strongly disagree with this statement, 0% respondents are disagree with this statement, 0% respondents are neutral, 52% respondents are agree and 48% respondents are strongly agree with this statement.

Q.24 Ayurvedic believe in healthy living in body, mind and spirit



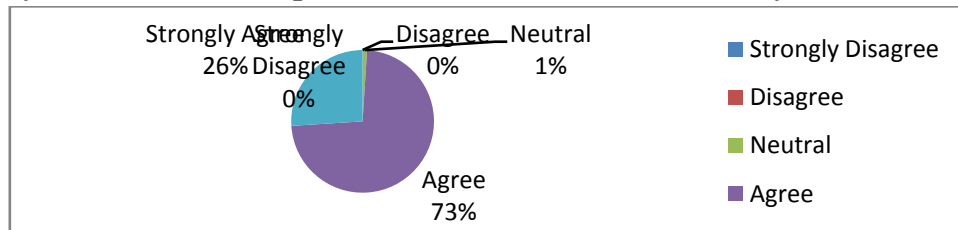
This chart shows that 0% respondents are strongly disagree with this statement, 0% respondents are disagree with this statement, 0% respondents are neutral, 51% respondents are agree and 49% respondents are strongly agree with this statement.

Q.25 Ayurvedic medicine uses a variety of products and practices



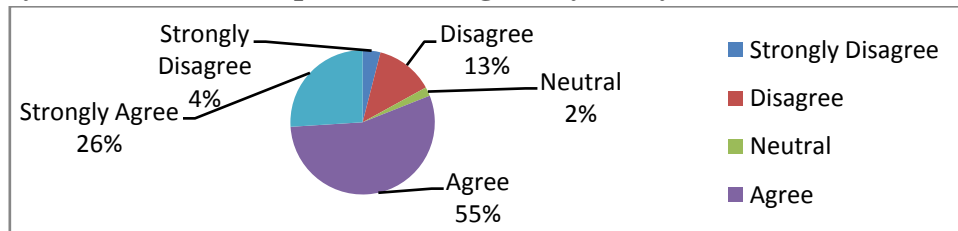
This chart shows that 0% respondents are strongly disagree with this statement, 0% respondents are disagree with this statement, 1% respondents are neutral, 58% respondents are agree and 41% respondents are strongly agree with this statement.

Q.26 Ayurvedic medicines provide 100% assurance to cure any diseases



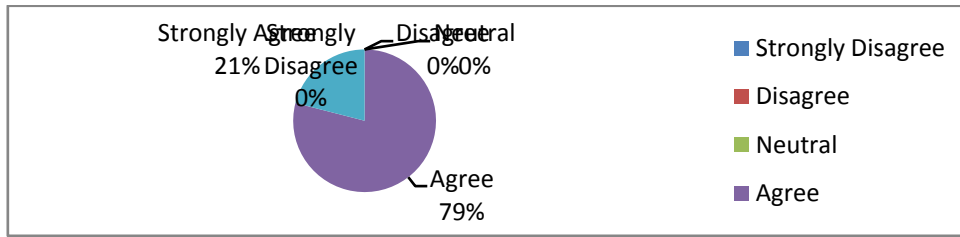
This chart shows that 0% respondents are strongly disagree with this statement, 0% respondents are disagree with this statement, 1% respondents are neutral, 73% respondents are agree and 26% respondents are strongly agree with this statement.

Q.27 Ayurvedic medicines/products can get only on Ayurvedic medical stores



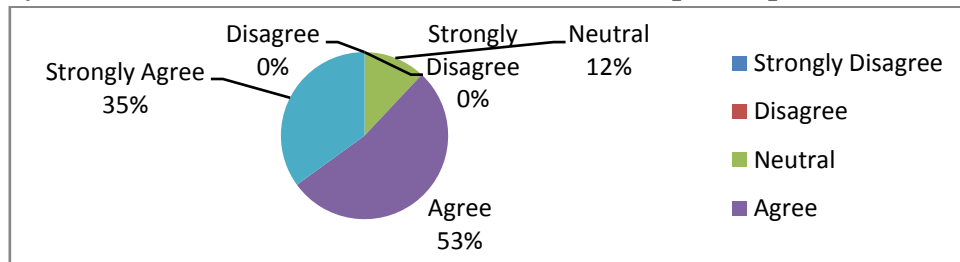
This chart shows that 4% respondents are strongly disagree with this statement, 13% respondents are disagree with this statement, 2% respondents are neutral, 55% respondents are agree and 26% respondents are strongly agree with this statement.

Q.28 The brand image of Ayurvedic medicines have also is positively related to consumer



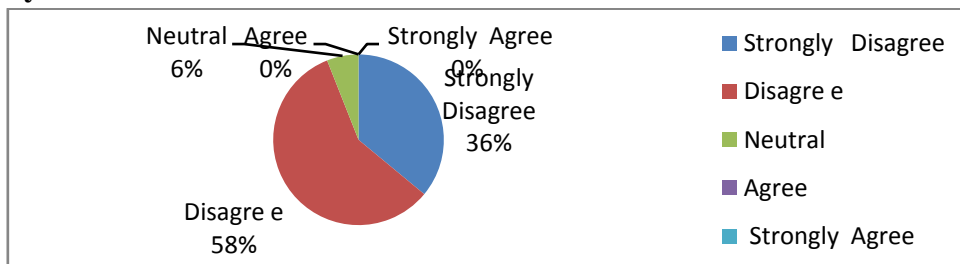
This chart shows that 0% respondents are strongly disagree with this statement, 0% respondents are disagree with this statement, 0% respondents are neutral, 79% respondents are agree and 21% respondents are strongly agree with this statement.

Q.29 Ayurvedic medicines cannot take without doctor prescription



This chart shows that 0% respondents are strongly disagree with this statement, 0% respondents are disagree with this statement, 12% respondents are neutral, 53% respondents are agree and 35% respondents are strongly agree with this statement.

Q.30 Ayurvedic medicines are not bitter to eat



This chart shows that 36% respondents are strongly disagree with this statement, 58% respondents are disagree with this statement, 6% respondents are neutral, 0% respondents are agree and 0% respondents are strongly agree with this statement.

Limitations

1. Gwalior region is very small to do this research.
2. Research was limited to Gwalior region because it is not a big city.
3. Sample size is very small which may not represent the entire division of Gwalior.
4. Generally, the respondent was busy in their work and was not interested in responding.
5. Most respondents were hesitant to provide exact information as in why they preferred particular products/medicines.
6. The research was conducted in current prevailing conditions.
7. Dimension of customer perception towards on buying products/medicines is complex subjects, which uses non-objectives method, which is not reliable.

8. The study was carried out only in Gwalior city so does not reflect approaches of consumer alive in the rural area and other states.
9. The partiality cannot be excluded since the selected respondents were those who were in a particular region and using at least one of the Ayurvedic products/medicines

Conclusion

This research represents the study of consumer buying behavior towards Ayurvedic medicines/products have been carried out at Gwalior region of Madhya Pradesh, India. There is no deficiency in the insisting for Ayurvedic medicines/products at marketplace. The consumer concerns towards physical condition risk and dangerous effect of chemical products forcing them to change over to natural products. Once an analysis of response received it has been fulfilled that the people of Gwalior region are more concerned in the Ayurvedic products as compared to the product/medicine suggested by physicians. Chemicals are not used in the medicine, it is made of natural ingredients and chemicals do not affect the consumer health. They treat it in a way to avoid the reoccurrence of the diseases. It intends at giving a long term treat for the any disease. A use of these medicines not only cures the diseases, but also improves overall physical condition by improving reducing stress, metabolism. Hence, scientific information of the Ayurvedic products/medicines has to be transmitted out in a logical way to compete the pharmaceuticals market and provide consumer satisfaction and make sure to buy Ayurvedic products. The result of this research, consumer buying the Ayurveda for the safety reasons and trusts the product/medicine of Ayurveda because the Ayurveda system is one of the oldest systems in the world.

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07. PERCEPTION OF WOMEN INVESTORS TOWARDS INVESTING IN THE EQUITY MARKET

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Abstract

India is poised for quick development economically. Women who are almost 50% of the population have to be a part of the decision making for any economy to be fully developed. In spite of impressive development performance in other indicators like education, health, career etc. it is often found that women have still not taken many steps for financial independence they still rely on the traditional low risk low return investments. This study aims to understand women's perception to investment in equity markets and the factors influencing thereof.

Stock Broking is a leading sector on which researchers have focused attention the study revolves around the financial habits relating to a very complex industry. India's economy is highly developing. The development is taken place due to the growth in the financial system. This financial system provides the background to various investors regarding varied options to invest. Thus, development of the economy depends on how these investors invest for the wellbeing in long run.

Keywords- Women Perception, Equity Market, Investment, Mutul Funds, Risk

Introduction

As financial markets become more sophisticated and complex, investors need a financial intermediary who provides the required knowledge and professional expertise on successful investing. Mutual Funds represent perhaps the most appropriate investment opportunity for investors. For most people, money is a delicate matter and when it comes to investing they are worried. Simply because there are many investment options out there, each out promising the other. An important Variable facing many investors is whether to invest in Banks, National Savings, Post office, Non-banking finance companies, fixed deposits, Shares etc. or to invest distinctively in Mutual Funds.

Even though Pune is a developed region, an Educational and Industrial hub this study will determine the researcher how much knowledge women of Pune have towards share market which will ultimately help the company Considering brokerage firms or some other broking firm to tap the untapped market. The importance of this study will be

mostly helpful to considering brokerage firm primarily because they are planning to attract female and open their depository accounts with Brokerage firms.

Research Problem

For every research topic there should be some rationale to conduct research or to carryout research activities. The subject of study has to be dedicated towards the solution of problems that have been present in that particular field of study. A general statement of the purpose has to be drawn as per the present scenario which would eventually lead to the objectives of the study along with its scope and limitations. A similar attempt has been made by the researcher in this study.

This Research is Women Perception towards Equity Market Provides information about Indian Stock Market and women Perception towards it. This research is carried out in “Considering Brokerage Firms”, a part of “Brokerage Firms Group”. Various steps have been taken by Security Exchange Board in India to promote Equity Market in India. The study presents the actual picture of women awareness about Equity Market in Pune. It is essential for women, be it working women or homemakers to keep themselves and their family financially secure.

In the olden days, women generally had a habit of saving money in containers in their kitchen, but today that is not going to get our savings anywhere when confronted with ever-growing inflation. It is wise to choose to invest and wiser to choose the best investment. A good investment gives us better returns than merely saving in a bank deposit or in our piggy bank.

Objectives of the Study

1. To understand women perception towards Equity Market.
2. To understand women awareness towards Equity and Mutual Fund
3. To determine women view of risks involved in investments.

Literature Review

Amit Mudgill (9th June 2016) If you had invested in a bank fixed deposit (FD) or Kisan Vikas Patra (KVP) three years ago, you would not have been even halfway through towards your goal of doubling that investment over eight to nine years. But had you invested the same money in the top 100 stocks, it would have already doubled by now. Here's how: On June 10, 2013, it would have cost you Rs 80,541 to buy one unit each of the Nifty100 stocks. Today, that amount would have become Rs 1.63 lakh, growing.

S.K. Pandey The present study is an attempt to establish the relationship between deals and moods on the compulsive buying behaviour. A total of 172 subjects responded to the structured Variable questionnaire conducted mainly through online methods. Established scales of moods, compulsive buying, etc. were validated before use in measuring these constructs. Contrary to the established Western literature, young Indian consumers were not found to be affected by moods either directly or indirectly. There was neither any main nor interaction effect of moods on compulsive buying. However, deals had a significant main effect, meaning more deals lead to more compulsive buying. This finding is in line with even national brands offering seasonal

and festival sales. The effect of demographic variables including gender was also non-significant. This again is a departure from the existing literature which states females to be more compulsive buyers when compared with their male counterparts. Managerial implication in targeting student population is to promote deals without differentiating customers further on demographic profiles.

Arun Lawrence, Zajo Joseph (2013) They analyzed the general investor perception towards equity trading and factors leading equity investment, when the investor gets more and more accurate information on the right time, then they can enjoy the taste of success from the equity trading. Paper also find friends and media play a key role in affecting the investors equity trading decisions, attractive benefit was also the key factor; however personal interest was also responsible for same.

George Thomas , Joma Joseph, Prasath S. Pai (2013) have pointed out that an important feature of the development of stock market in India during the last decade has been the growing participation of Institutional Investors, both foreign Institutional investors and the Indian mutual funds combined together. Today India has one of the most modern securities market among all the countries in the world. This paper examines the role of these investors in Indian equity markets and finds that the market movement can be explained using the direction of the funds flow from these investors.

S.M. Tariq Zafar, D.S. Chaubey, S.M. Khalid (July 2012) analyzed the impact of dividend on shareholders wealth of eleven selected Indian banks listed and actively traded in National Stock Exchange (NSE) during the period 2006 to 2010. The study found that market price does not depend on the dividend policy alone but many factors play a vital role in price determination. They also found that dividend pay-outs have strategic influence on shareholders wealth and there is significant impact of dividend policy on the shareholders wealth in banking companies in India.

Prof. Mohd Akbar Ali Khan, Mr. A. Kotishwar (2011) analyzed the behaviour and expectations of those dealing in equity markets and found such factors which they think are responsible for price fluctuations. The study also discovered that many people in equity markets are dealing through multiple demat accounts which not only exaggerates the investor base, but provides a false picture of Indian capital markets. It was also found out in the study that most people preferred to trade in National Stock Exchange (NSE) as compared to Bombay Stock Exchange (BSE). The most stated reason for it was said to be availability of futures and options on NSE and lesser volatility of the NSE index Nifty as compared to BSE's Sensex. It was also clear from their study that most of the people currently investing in stock markets are quite comfortable investing in it. This is a clear indication of investors' confidence in Indian capital markets and a positive sign for India's growth.

Saurabh Singh (2009) Public perception at Indian Capital Markets Investment decisions made by the investors' is not solely dependent upon price movement and stability of the markets. The study has resulted in listing, factors as age, sex, education, family, and the past performance of a company's securities as variables or attributes, having significant influence and impact on the investor's investment decision making process. The present study identifies, understands and explains how human emotions influence the investors' decision making process. The element of emotions silently

contributes towards increasing the probability of mistake on the part of investors itself and consequently resulting in false or biased expectations with regards to future returns to be gained from present investment, leading to mispricing of securities in the market.

Ronay and Kim (2006) have pointed out that there is no difference in risk attitude between individuals of different gender, but between the groups, males indicate a stronger inclination to risk tolerance. Gender difference was found at an individual level, but in groups, males expressed a stronger pro-risk position than females.

Mr. Gnana Desigan C., Miss S. Kalaiselvi, Miss L. Anusuya (April 2006) studied 'Women Investors Perception towards Investment'. Saving is a habit specially embodied to women. Even in the past, when women mainly depended on their spouse's income, they used to save to meet emergencies as well as for future activities. In those days, women did not have any awareness about various investment outlets. But as time passed, the scenario has totally changed. Now, the present women, who are equally employed, through their education have knowledge about various aspects of investment and as a result they invest in various investment avenues such as shares, debentures, mutual funds and bank deposits. Research also analyzed women investors' investment. Pattern, influencing factors, risk preference levels, problems in various investment avenues and other investment related issues. There are certain problems in investment but still they can be rectified thereby inducing more and more women investors to invest in the various investment outlets.

Research Methodology

Research Methodology is used to collect information and data for the purpose of making business decisions. The methodology may include publication Research, Interviews, Surveys and other research technical variable and could include both present and historical information. A researcher should work towards a goal, whether immediate or futuristic, else the research loses its significance in the field of management.

Research Design

Researcher has done Exploratory Research which allows the researcher to gain a better understanding of the concept and provides direction in order to initiate a more structured research. The information is collected primarily by going on residence and some work places interacting with women. Information is also collected from various sites mentioned in the bibliography. Quantitative research aims to measure the quantity or amount and compares it with past records and tries to project for future period. Quantitative research involves the use of structured Variable questions, where the response options are Pre-determined and number of respondents is involved.

Sampling Method

The Sample design used is Statistical in which the data collected can be analyzed in statistical format. The data collection technique is Simple Random Sampling without Replacement and the number of respondent are 100 women.

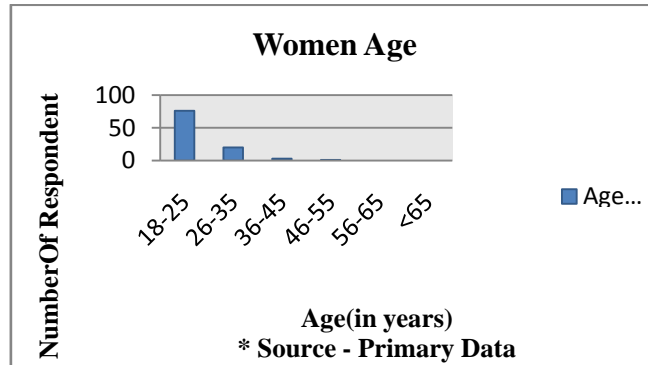
Tools and Techniques Variable of Analysis

The analysis of the data obtained has been carried out with the help of different statistical tools such as statistical tables, percentiles of various numerical values according to their related data. The data so collected is tabulated. The analysis of data is

done with the help of suitable statistical techniques. Graphical presentation of data is made in the study wherever it is needed. Graphs are in the form of bar graph.

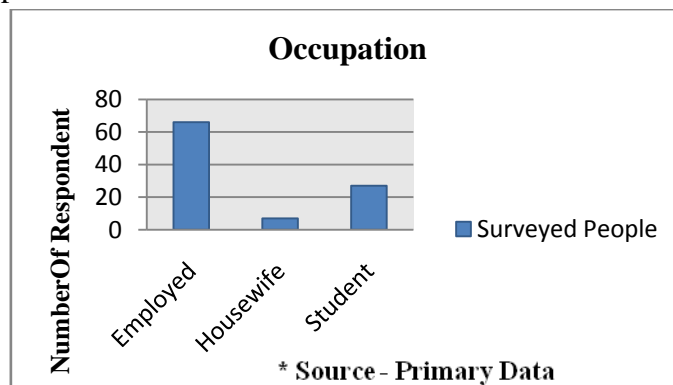
Data Analysis and Interpretation

Variable -1 Age Group



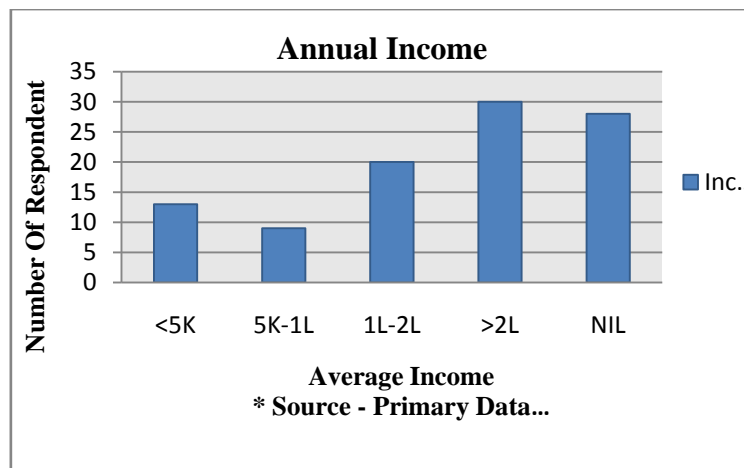
Interpretation- Out of a sample size of 100 women, 76% women fall under the age group of 18-25 years, 20% women fall under the age group of 26-35 years, 3% fall under the age group of 36-45 years and 1% fall under the age group of 46-55 years.

Variable .2 Occupations



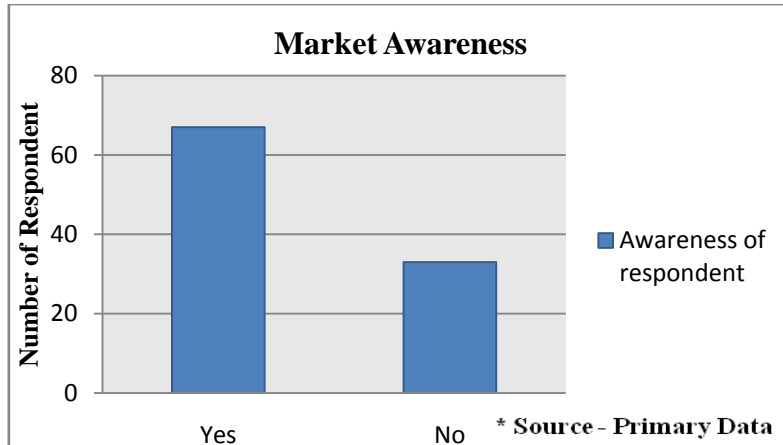
Interpretation- Out of sample size of 100 women, 66% women are employed, 7% women are housewives and 27% women are students.

Variable .3- Income



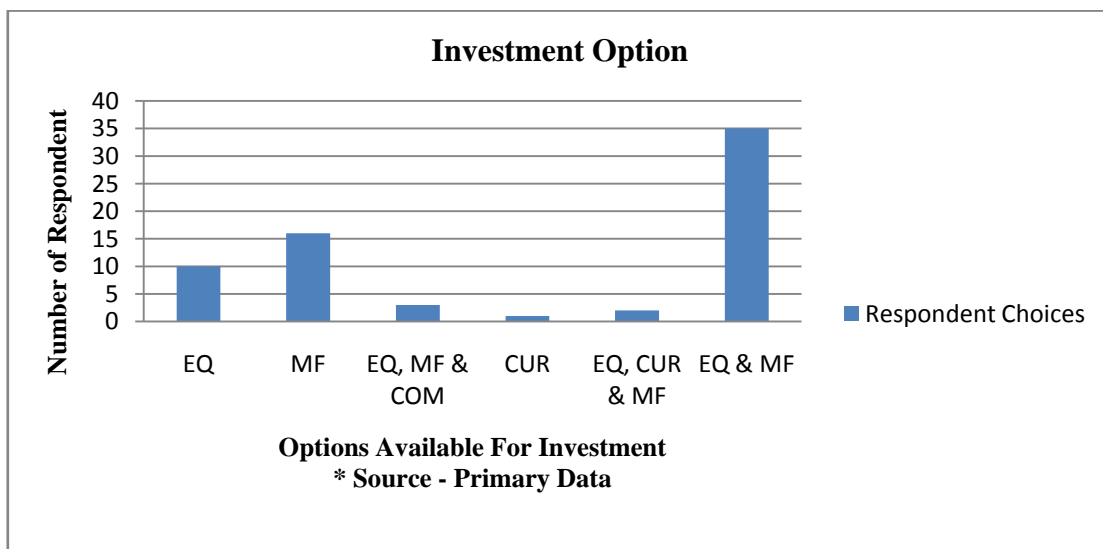
Interpretation- Out of sample size of 100 women, 30% women fall under the income group of more than Rs.200000, 28% women fall under the group of No income, 20% women fall under income group of Rs.100000- Rs.200000, 13% fall under income group of less than Rs.50000 and 9% of women fall under the group of Rs.50000-Rs.100000.

Variable: 4 Aware about share market investments and operations



Interpretation- The above graph shows us that 67% of women have basic awareness about share market investments and operations, Equity, Mutual Funds, Derivatives, Bonds and Commodity while the other 33% women don't have much knowledge about share market.

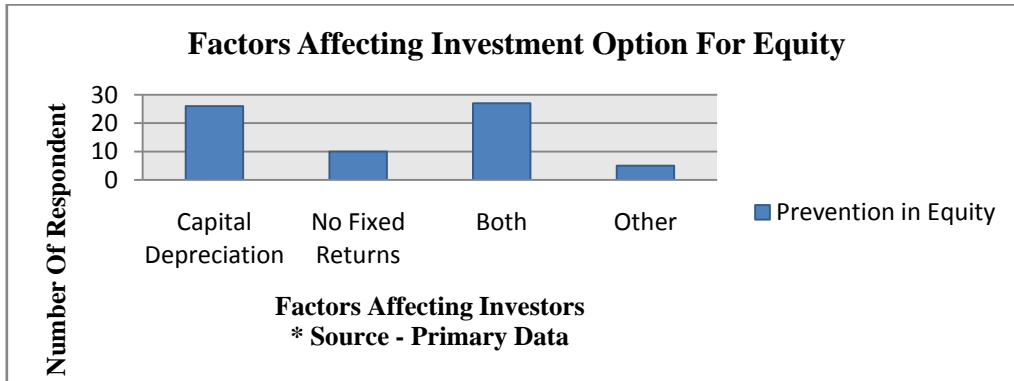
Variable .5 Wish to invest



*where EQ-Equity, MF-Mutual Fund, COM-Commodity, CUR-Currency

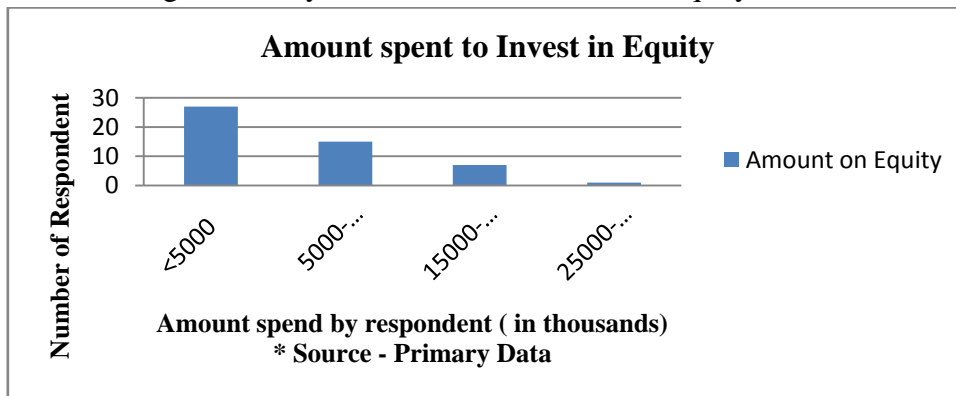
Interpretation- All the above options are best for investment. So almost all respondent have chosen more than one option so Researcher have analyzed them separately and found that most preferred option for investment is to invest in both Equity and Mutual Funds as 52.24% of women have chosen it, after that second most preferred option is Mutual fund (23.88%), followed by Equity (14.93%), then women prefer Equity, Mutual Fund and Commodity together for investment. Lastly Currency alone is preferred.

Variable .6 preventing you to further invest in Equity



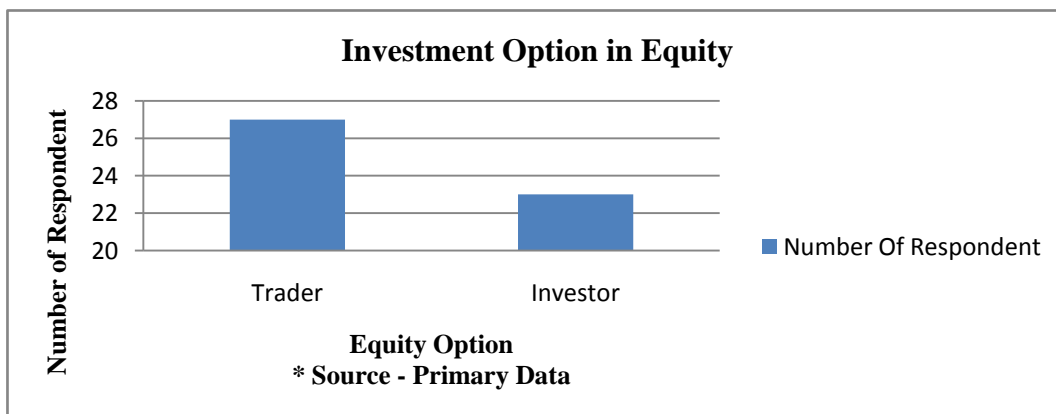
Interpretation- 40.3% women think that both capital depreciation and no fixed returns are the factors that prevent investors to further invest in equity, while 38.8% say that it is only because of capital depreciation women not prefer to invest in equity, 14.9% women say that in equity there is no certainty of returns and 6% are saying that they are not aware of equities nor to company’s information. But still 50 women are investing or ready to invest in equities knowing that it is riskier.

Variable .7- Average amount you invest/wish to invest in Equity Market



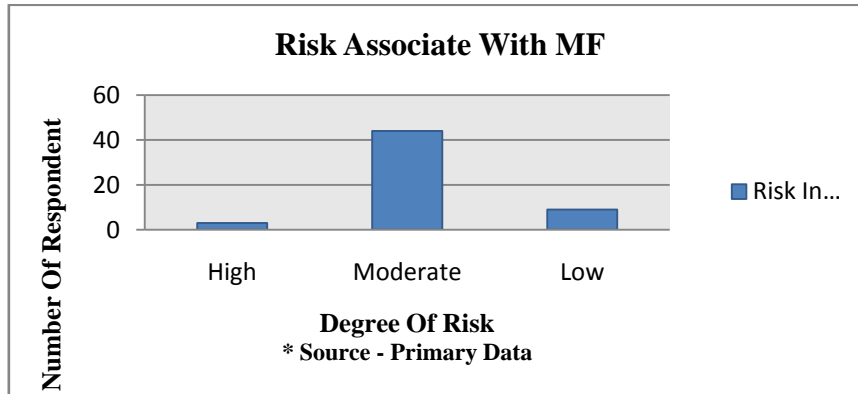
Interpretation- The above graph tells us that 54% out of Research sample, women are preferring to invest money in Equity is less than Rs.5000 this is because equities are more riskier option and no fixed return is there, 30% women i.e. 15 are preferring Rs5000-Rs.15000, 14% women i.e. 7 are preferring Rs.15000-Rs.25000 and only 2% women is preferring to investRs.25000-Rs.35000.

Variable .8 how you prefer for investing in Equity



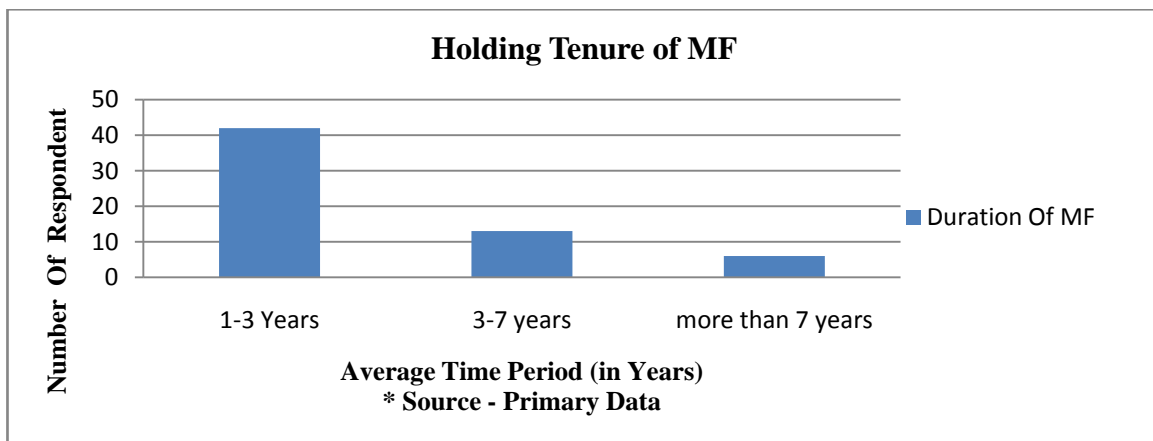
Interpretation- The above graph shows us that 54% women want to invest in Equity as a Trader for short time period as equity market has more volatility while 46% want to invest as an Investor for longer time period as to get tax benefit and good amount of return.

Variable .9 rate risk associated with mutual funds



Interpretation- Out of sample size of 100 women,56 women want to invest in mutual funds out of which 78.57% women are associating the risk factor in mutual funds is moderate, another 5.36% women associate mutual funds with high risk appetite and remaining 16.07% women are associating mutual funds with low risk.

Variable .10 holds tenure of Mutual Fund Investments



Interpretation- As 56 women want to make investments in Mutual funds, 66.08% women want to hold mutual fund for shorter time period this may be because they just want to monitor their investment and take decision after wards, while 23.21% want to invest in Mutual Funds for moderate period i.e. 3-7 years this may be because they want to give more time to their investment and earn benefit, while 10.71% women want to invest for longer period in mutual funds.

Findings

1. After doing in research study on women awareness towards equity market Researcher found that there is a large scope for investment to be done in both Equity and Mutual funds as maximum women want to invest in both. Maximum number of investors is of the age group 18-25 years.

2. There are still some women in today who are not aware of Equity Market maximum out of them are students and who are also ready to get awareness.
3. Through this Researchers come to know that women not want to prefer to invest in commodity market.
4. Maximum numbers of women who have awareness of Equity market are employed.
5. Maximum women preferred to be a trader and want to trade in shares for shorter time period that's why they are investing less than Rs.5000. in Equity.
6. Through this Research it is clear that there is a need to increase literacy among women regarding Equity market.
7. In Mutual funds women prefer balanced plan more this is because they want to take moderate risk and to earn regular income.

Recommendations

1. Through Research study it is clear that if brokerage firms want to tap the untapped space of females who are willing to earn, create wealth, shop their own or get financial freedom. The following recommendations will help them to tap the space
2. Through the study it is clear that their target audience is Housewives and female students, so their target area will be residential flats, women clubs, women gym and job places.
3. Doing more Advertisement and Promotion on a smaller scale by way of doing events in club houses, societies in the form of fun games like Business, Ludo, Darts, Treasure Hunt. These games should be little bit modified as per the share market and participants should be ladies while their helpers should be their spouse or family member.
4. Proper Awareness should be done before 15 days from any events in the form of banners and posters and to attract their target audience they should promote their activities for that they should provide discounted coupons of reputed beauty parlor and should also engage the cash reward with fun activities.
5. For colleges or Institutes Brokerage firms should conduct Financial Planning and Interactive Sessions with students. Moreover free educative books should be given to them; proper awareness related to equity market should be given.
6. Brokerage firms should also keep the brokerage charges low in comparison to their competitors and provide excellent service in terms of Advisory and Research services to attract women.
7. As Internet is highly preferred source among women they should advertise more on shopping sites, paid campaign on social media.
8. For Promotional activities word of mouth activity done by the existing employees is best suited and commission should be given for opening accounts.
9. Brokerage firms should provide more focus to commodity market and proper awareness should be given to women on it and Brokerage firms should also tell the benefit of gold purchase on commodity in comparison to physical gold.
10. They should give first 5 transactions free of cost.

Limitations of the Study

1. The research is confined to Pune city only and does not necessarily show a pattern applicable to country.
2. The study depicts the present scenario in Pune and hence the result may not be applicable to another period of time.
3. The study is limited to 100 respondent of Pune.
4. The survey was based on simple random, non replaced samples.

Conclusion

1. It is concluded from the study that the investors are monitoring their investments on equity and mutual funds.
2. The women investors are investing their amount for short period of time i.e. upto the 3 years only.
3. Maximum numbers of women who have awareness of Equity market are employed, but there is a need to increase literacy among women regarding Equity market.
4. Women Investors are prefer balanced plan in Mutual fund because they want to take moderate risk and to earn regular income

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08. A STUDY ON TREND ANALYSIS OF COMMODITY- GOLD

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Abstract

Gold is the oldest precious metal and it has been valued as a global currency, a commodity, an investment and also symbol of beauty. Gold gets passed down generations and has proved to be a good investment over decades. The present study is based upon the price analysis of Gold in future and option market for the past ten years to predict future trend. Trend analysis is used as a tool to analyze, also to identify the investor's attraction towards the Gold market could be seen from the price changes observation. Also the future and option traded on the global front. As the Gold market is subject to changes from time to time, a great care and research needs to be under taken before investing. Thus, the study highlights the viability and profit in investing in Gold. It also provides highlights to the changing Gold market situation in India as well as globally.

Keywords : Future contract, Gold, Investment, Trend analysis.

Introduction

Gold has a history of more than 7000 years in India, which can be find in religious book of Hindu, where it is considered as a metal of immense value. But looking at the history of world, gold is found at the Egypt at 2000 B.C., which is the first metal used by the human's value for ornament and rituals.

Gold has long been considered one of the most precious metals, and it value has been used as the standard for many currencies (known as the gold standard) in history.

Gold has been used as a symbol of purity, value, royalty, and particularly roles that combine these properties. As a tangible investment gold is held as part of a portfolio by the countries as a reserve because over the long period gold has an extensive history of maintaining its value. It has in gained ground in relation to currencies owing to inflation.

Literature Review

Ratner and Klein(2008) -In their study examined the value of holding gold to US investors from 1975 – 2005 and concluded that there is some material benefit to investing in gold over the long term.

Jalpa thakkar and vatsalia Manjunathan - In their article "An Empirical study on Gold Investment Range Among Professionals" published in international journal of research and management pointed out that different avenues of gold investment available in the market and also tried to find out the awareness and attitude towards the alternative methods of gold investment among the selected investors in the pune region.

Mohdsaleem and; Matloobullahkhan(2013)-In their article "The overview of gold ETFs and its various positive features" Published in the International Journal of

Marketing, Financial services and Management Research they tries to explain comparative study of Gold ETFs v/s Physical gold and it also give focus on Gold ETFs as a strong and attractive investment option for the investor. Gold ETFs gives extra leverage to its users in terms of the profit.

Rakhi Arora and Rajni Sofat (2008) -Says risk and return are the two inseparable parts of an investment strategy. They have direct relationship between them: higher the risks, higher are the returns and vice versa. The very basic consideration of an investor while investing the money should be how to maximize the returns and what are the risks involved in investing in a particular instrument.

Objectives of the Study

- To know about the Gold and how its price gets affected with the day to day events occurring in the world.
- To find out how the events happening in the world affects the trading market in Gold.
- To study how the Forex market operates over all, the best time to trade in and also the best commodity to trade in

Scope of the study

The study would be helpful in knowing the different options available in Gold market and would also provide the price trends of last ten years. The study also highlights that there is a high growth in this market.

Research Methodology

Research Design

The type of Research Design used for the study is Exploratory Research Design as it has been done for the better understanding of study mention in the title of the Project.

Data Collection

The data collected for the study of this Project is of secondary in nature. The price of gold for ten years, monthly wise has been collected through many websites.

Data Analysis and Interpretation

Date	Price
April 07	680.50
May 07	661.00
June 07	648.10
July 07	666.90
Aug 07	673.00
Sept 07	742.80
Oct 07	792.00
Nov 07	782.20
Dec 07	834.90
Jan 08	922.70
Feb 08	972.10
Mar 08	916.20

Data of 2007-08

Interpretation:

- The above chart shows the price changes of year 2007-08, as the graph shows a slight fluctuation downwards from April to June but the basic reason as gold is not traded alone in the futures, it is also traded with different currency of the world, & the above data depends upon gold traded with US Dollar.
- In the month of July & August, there is slight increase in market. From the month of August there is sharp hike in prices of gold prices on average of monthly basis from \$670 to \$790.
- There is slight decrease in price in month of November, after this month there is sharp increase in from December to February.

Data of 2008-09

Date	Price
April 08	862.80
May 08	887.30
June 08	926.20
July 08	913.90
Aug 08	829.30
Sept 08	874.20
Oct 08	716.80
Nov 08	816.20
Dec 08	883.60
Jan 09	927.30
Feb 09	941.50
Mar 09	922.60

Interpretation :

- As the above chart shows the price changes of 2008-09, as we all know 2008 was the year of recession of the US & global economy, the prices still showed an increase, but after the month of June to July a slight decrease in the prices.
- For the month of August there is a price hike and then there is tremendous decrease in the month of September.
- From the month of October there is a sharp increase in the prices ranging from \$716 to \$922

Data of 2009-10

Date	Price
April 09	890.70
May 09	978.80
June 09	927.10
July 09	953.70
Aug 09	951.70
Sept 09	1,008.00
Oct 09	1,039.70
Nov 09	1,181.10
Dec 09	1,095.20
Jan 10	1,083.00
Feb 10	1,118.30
Mar 10	1,113.30

Interpretation :

- As the above chart shows the price change of the year 2009-10, as it shows that there is sharp increase in the price \$890 to \$978 within a month time.
- Then the market comes down from May, then there is less fluctuation in the prices in June & July month.
- Prices start to rise from August and continue to increase till October end at price of \$1181.
- From November onwards there is a price fall and then market tries to stabilize the prices.

Data of 2010-11

Date	Price
April 10	1,180.10
May 10	1,212.20
June 10	1,245.50
July 10	1,181.70
Aug 10	1,248.30
Sept 10	1,307.80
Oct 10	1,357.10
Nov 10	1,385.00
Dec 10	1,421.10
Jan 11	1,333.80
Feb 11	1,409.30
Mar 11	1,438.90

Interpretation:

- As the above shows the prices changes for the year 2010-11, there is quite good growth in the price this year, the prices started with a high \$1181.
- There was a short downfall of price in the month of June; this was a short fall of the price increase in last 2 month.
- After the month of July there is a tremendous price hike till the month of November \$1181.70 to \$1421.10.

Data of 2011-12

Date	Price
April 11	1,556.00
May 11	1,535.90
June 11	1,502.30
July 11	1,628.30
Aug 11	1,828.50
Sept 11	1,620.40
Oct 11	1,724.20
Nov 11	1,745.50
Dec 11	1,565.80
Jan 12	1,737.80
Feb 12	1,709.90
Mar 12	1,669.30

Interpretation:

- As the above chart shows the price changes for the year 2011-12, as the chart shows a slight downfall in the price for 2 month April & May.
- This year after the downfall the prices of gold touched the highest prices in the analysis of \$1828.50 which is all time highest, it rose almost \$300 in 2 months.
- Then is downfall of price in month of August, then from the month of September there is growth in the price.
- This month of November the price again fall this time its breaks the last resistance created by last fall in August.
- In the month of December there the price touches the support level of October & then gradually price start to fall.

Data of 2012-13

Date	Price
April 12	1,663.40
May 12	1,562.60
June 12	1,603.50
July 12	1,610.50
Aug 12	1,684.60
Sept 12	1,771.10
Oct 12	1,717.50
Nov 12	1,710.90
Dec 12	1,674.80
Jan 13	1,660.60
Feb 13	1,577.70
Mar 13	1,594.80

Interpretation:

- As the above chart shows the price changes for the year 2012-13, as we see that there is clear fall in price of approx. \$100 in start of financial year.
- Then price start to grow from the month of May till September month and market tried to break the resistance level at the pace it was leading too.
- After September the price tend to fall and kept on falling till the month of February but the fall this time was slow. There is just change in price by \$200 in last 5 month.

Data of 2013-14

Date	Price
April 13	1,472.20
May 13	1,392.60
June 13	1,223.80
July 13	1,312.40
Aug 13	1,396.10
Sept 13	1,326.50
Oct 13	1,323.60
Nov 13	1,250.60
Dec 13	1,201.90
Jan 14	1,240.10
Feb 14	1,321.40
Mar 14	1,283.40

Interpretation:

- As the above chart show the price changes for 2013-14, as we can clearly see that the price fall from the start of financial year from \$1472 to \$1223 a sharp decrease in price.
- From the month of June for next 2 month there is again a sharp increase in the price and it touch the point of \$1400 (\$1396.10)
- After August there is a fall in price gradually for next 4 months but market does not breaks the support level of \$1200.
- From the month of December there is short rise in price till \$1300.and price again fall in March to \$1283.

Date	Price
April 14	1,295.60
May 14	1,245.60
June 14	1,321.80
July 14	1,281.30
Aug 14	1,285.80
Sept 14	1,210.50
Oct 14	1,171.10
Nov 14	1,175.20
Dec 14	1,183.90
Jan 15	1,278.50
Feb 15	1,212.60
Mar 15	1,183.10

Data of 2014-15

Interpretation:

- As the above chart shows the price change for the 2014-15, as the above graph clearly a downfall in the price in first month of April, then there is short rise in the price in month of May then there is a less change in price for next 2 months.
- After the month of August, the price breaks the support level of \$1200 and comes down to \$1183.
- In the month of December there is sharp increase in the price till \$1278 but again there is market break down & prices fall below 1200 till the end of the financial year.

Data of 2015-16

Date	Price
April 15	1,182.40
May 15	1,189.40
June 15	1,171.50
July 15	1,094.90
Aug 15	1,131.60
Sept 15	1,115.50
Oct 15	1,141.50
Nov 15	1,065.80
Dec 15	1,060.30
Jan 16	1,116.40
Feb 16	1,233.90
Mar 16	1,234.20

Interpretation:

- As the above chart shows the prices changes for the year 2015-16, there is less change in the price for 2 months
- Then the price breaks down the second support level of \$1100 come down to \$1094.
- Then the market tries to cope up till the month of October.
- Market breaks again support level of \$1100 till \$1060 till October
- Market grows back till to \$1233.90 till the month of February.

Data of 2016-17

Date	Price
April 16	1,289.20
May 16	1,214.80
June 16	1,318.40
July 16	1,349.00
Aug 16	1,306.90
Sept 16	1,313.30
Oct 16	1,271.50
Nov 16	1,170.80
Dec 16	1,150.00
Jan 17	1,214.50
Feb 17	1,260.20
Mar 17	1,254.50

Interpretation:

- As the above chart show the price changes for the year 2016-17, in the start of financial year there is fall in price giving it a support level for \$1200
- Then there is hike in the price till \$1300 from June to September month.
- Then from the month of October there is fall in till December, the price breaks the support level of \$1200 (\$1150).
- Till this march the price came up to \$1254.50.

Findings

- Form the above study; it was found that Gold experience wide fluctuations over time.
- The investor can get return in both ways, while buying the investment as well as while selling the investment.
- In 2007 - 08, there is slight decrease in price in month of November, after this month there is sharp increase in from December to February. Since, 2008 was the year of recession of the US & global economy, the prices still showed an increase, but after the month of June to July a slight decrease in the prices.
- There are various factors that resulted in decrease in prices of gold during recession.
- Also, Political instability has also been one of the reasons for wide fluctuations in prices during past years.

Conclusion

The study concludes that Commodity Market is a volatile market and the risk is high as well as return and changes it trend with any events in the world. Gold prices fluctuate with the world's happenings all over, a disciplined trader has to do a thorough analysis of those events and accordingly should take any trade whether short or long term. The study of trend of price for commodity gold over 10 years has given a good understanding of the relationship between the world's events and the price of gold.

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**09. DIGITAL COMMUNICATION AND ITS IMPACT ON E-
GOVERNANCE STRATEGIES TO PUBLIC SERVICES
APPROACH GLOBALLY**

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Abstracts

The technological advancements of 21st century drastically changed the way of life, work, communication and interaction with private entities and government as well. Social and technological trends are increasing pressure on government to provide better services to public and share data and information to float innovation in government communication process. Introduction of new way of communication to publish information worldwide web (www) completely transformed the trend to communication in public and private sector as use of smart devices and internet connectivity are accelerate the success rate to meet customer requirements on priority level. Digital communication provides innovative platform to easy approach, communication, Information, Transaction and administration process of government offices. And the increased use of internet has a great influence on government sector. As a part of government communication strategies many countries aims to plans digitization of their internal communication, citizen communication and communication with business sector. The effect of this e-governance is on policy design and decision making directly. The integration of Information communication Technology (ICT) presents great opportunities, benefits and challenges to governments across the Globe. The challenges or obstacles faced by government such as insufficient human resource or technology infrastructure, digitization of historical documents, daily operational issues, diverse data formats, lack of regulatory framework, low digital literacy, effects of new technology, adoption of social media and other communication channels, lack of willingness to use new technology and finance to digital projects affects the digital communication strategies in government sector. This paper summarises key findings on present status of use of Digital Communication in government system. It also addresses the use of innovative technology for the development of collaborative and interactive Digital communication. The aim of this paper is analyse the impact of digital communication between public sector and citizens in various countries globally and help government officials, public managers, government consultants, NGOs and citizens.

Keywords: *Digital Communication, Government approach to digital communications, Innovation in e-governance, e-commerce.*

Introduction:

Digital Communication is an innovative and unavoidable way of communication through various digital channels to reach the target audience. It is the key of effective

communication with minimum cost. It is the best way to send right message to right person at right time. It's two way communications to interact with people at large base. In this world, World Wide Web's internet age online presence is must to specify existence of any organisation, online presence is compulsory. So it applies to government as well to help them to grow to next level. Government sector have challenge to deals with large base audience. Private sector is using various digital communication channels to be in touch with their customers and getting maximum benefit out of it. Same time people are expecting entire information about government schemes, services, facilities, feedback and query solving online. So to solve these problems and to meet the expectation of youngsters, techno-savvy civilian's use of digital communication in government sector is the effective way to reach audience and to aim for new success in Digital World. Governments are facing increasing demand and expectation from citizens about range and quality of public services. And the same time government has to set their political objective to achieve greater trust in government responsiveness, transparency and greater engagement services. Governments must have capacity to provide those services as the demand for these services is on rise as the capacity in some particular areas is on decline in some particular areas like rural areas.

Modern technique of communication provides the promise of knowledge based economy and rapid national economic growth. This era of globalization brings hope to use new technologies to overcome many complexities in 21st century. The mission of government is to design and implement strategic, evidence based innovative policies to strengthen public governance, respond effectively, deal with economic and social challenges and deliver government's commitments to citizens. Digital communication offers for more collaborative and participative relationships with all stakeholders to shape political priorities, designing public services, effective delivery of services and highlighting changes to public sector boundaries. This new technological approach needed to shift government centric approach to citizen centric approach. The challenge is not only to introduce digitization in government but it should be more transformative to integrate use of digital communication in public sector. Digital communication will play key role in transforming public sector at large, to increase productivity, service quality and delivery in public welfare areas. Digital technology oriented communication is also assistive to labour saving solution in public sector.

New digital technology emphasizes on speed mobility in the way we live, work and interacts with each other. They are providing unprecedented opportunities for government to enable them to transform their complex bureaucracies to become more agile, citizen centric and innovative. Many countries have launched their digital campaigns/strategies in last five years but definition of digital vary for being an umbrella term for a set of technologies and their applications to a new way of public service delivery to the concept of digital society. Like never before all governments are experimenting with innovative, technology enabled services and delivery models which are starting to transform the way of communication.

The term '**digital**' is often a source of some confusion. The 'digital' is considered as a broader term for corporate values and practices made opportunities

available by internet. While technology is simply an enabler- social media, mobile, analytics, big data, cloud, how it is procured- ‘digital’ is not just technology.

“Digital means applying the culture, practices, processes and technologies of the internet era to respond to people’s raised expectations.” -Tom Loosmer, Former GDS-er.

Digital Governance:

We see the digital governance is the maximum use of electronic channels of communication and engagement activities to improve public satisfaction in service delivery enhance economic competitiveness, increase new level of engagements, trust and productivity of public services. A digital governance encompasses to a scope of digitization from core digitization of public services to digital infrastructure, governance process of front and back office transformation to deliver new way of communication.

The Indian government’s initiative ‘Digital India’ is growing affordability and usage of smartphones and internet penetration in rural India. Rapid growth of digitization strengthened the digital infrastructure.

Review of Literature of Digital Communication and e-governance:

Access and governance are the two fundamental pillars of national digital communication policy that aims to provide access to open, inclusive, secure and trustworthy internet. Many countries face the challenge to implement digital communication. Access to internet in many developing countries is limited because of basic infrastructure problems. National digital governance policies and bodies address technical, economic, political and social issues, privacy policy, human rights, and access to information, protocols, interconnections, internet names and numbers. Different countries created different innovative initiatives to deal with access and governance challenges. To be effective, national digital policy must include specific and relevant targets and that should be measurable, realistic and achievable. The national digital plan for Colombia is a key for access and use of internet across the country. Rawanda developed National Information and Communication infrastructure plan Vision-2020 that ensures access for all Citizens. The plan refreshed, updated and revised every five years. To tackle digital infrastructure problems many countries take support from Public Private Partnership (PPP) and encouraged private investments to make access universal and affordable. The secret of success of Colombia and Rawanda in the implementation of digital communication infrastructure is PPP. Another key factor of success in many countries is geographical consideration like urban and rural. Apart from the access and coverage of internet, it’s important to assure the quality, speed and reliability.

E-governance is a valuable ICT (Information Communication Technology) tool to reach a wider population through various online service deliveries and options including mobile devices. The benefit of the new technology is the maximization of rapid and effective information transfer to communities and individuals. Despite of the benefits it already offers “e-governance initiatives should look for ways of enhancing

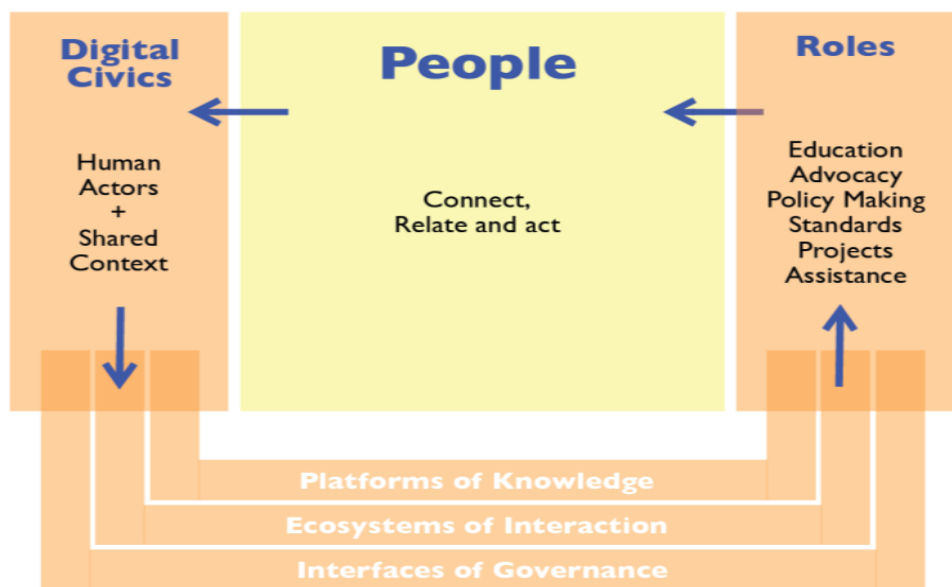
people’s participation in policy decision-making and other governance processes” (Raúl Zambrano, 2013).

Half of the population of world is under the age of 30’s and live in cities, global penetration of mobile is increased, one third of society use internet, but one fifth still below poverty line. The world is urban, mobile, increasing digital but still unequal. Making youth as a working partner can help to increase productive citizens. After all youth is major human resource and key economic growth factors. Daniella Ben-Attar and Tim Campbell□ have identified a framework for youth and ICT-enabled governance. Their research shows how mobile platforms, the most important ICT tools that affect youth, can enhance their engagement in local government affairs and foster inclusiveness and responsiveness. Through crowd sourcing, geo-referencing, and communication networks, youth are leading the way in political participation. Digital government has concentrated on e-portals and access by citizens to government services, such as licenses, permits, and records. These early developments were characterized by the generic term ‘e-government’, which concentrated on increasing the efficiency of government operations and services by using internet.

Digital Civics:

Civics involves the study of citizenship, educating the citizens about rights, duties and role, ethics, legal code, justice, governance process, balance of power. Digital communication transforms civic activities and allows people to dialogue, make decision, policy making and monitoring compliance. There are plenty of opportunities to citizens with the help of digital communication.

Goals of digital Civics are openness and transparency, interaction system, comprehensive participation, solidarity as a mission and use ICT as a media. There are three components of digital civics, Knowledge platform, Ecosystem of interaction and interface for governance (shown in fig.1).

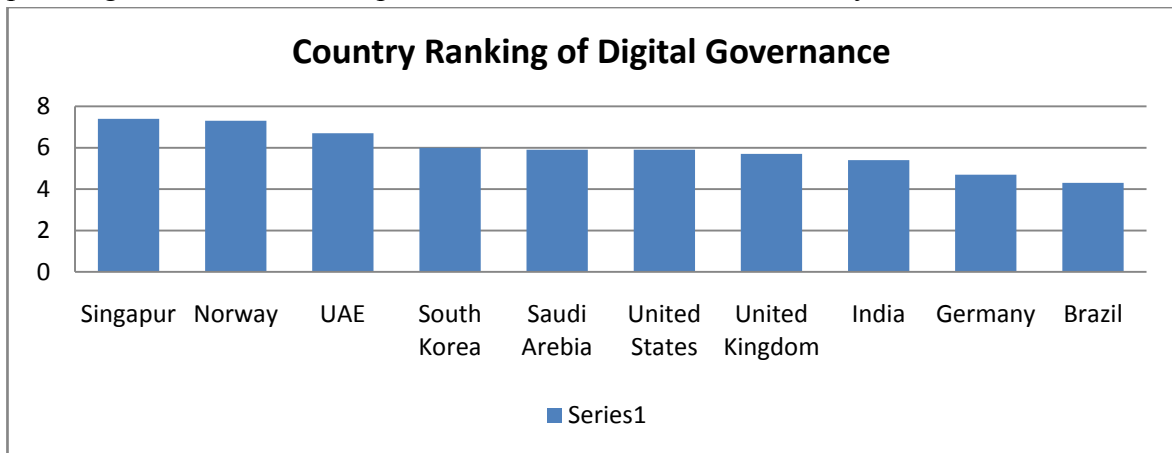


(Fig.1 Digital Civics. Photo curtesy FUPOL)

According to United Nations e-government survey 2016 India is grouped in middle E-Government Development Index (EDGE) (.25 to .50). E Government ranking of India is 107 by UN.

Accenture research on Digital governance reveals that most governments in 10 reference countries noted their digital agenda. Through the combination of strategic vision and citizen centric implementation vision these countries are continuing to get digital advantage. Singapore and Norway are leading in three pronged strategic path (fig. 2). Countries in cutter categories scored low based on Citizen Satisfaction services. Despite the challenges these countries are implementing strong implementation digital solutions for social progress.

However the developing countries like India and Brazil in the builder’s category planning to meet citizen’s expectations and trust in service delivery.



(Fig.2 Digital Governance of Countries. Data source by Accenture survey)

Governments Digital Principle for Citizens:

1. To understand better the priorities of citizens and communities.
2. To plan for long term not for few years only.
3. To provide services in cost effective way.
4. E-participation and coproduction of services.
5. Design a clear digital strategy.
6. Delivering better public services by optimizing available financial resources.

Digital Strategy in UK:

On the eve of the Barcelona Smart Cities Expo where 600+ municipal authorities from across the world will gather to showcase the latest trends in the use of digital technologies and discuss the common challenges facing them in the future, it is timely to consider how UK local government is responding and planning for the digital revolution. Connectivity, Digital Skill, Digital capability, Digital Sector Business, Wider economy, Safe & Secure cyber space, Digital Government and Data are the fundamentals of UK’s Digital strategy.

As Cabinet member for Finance, Technology & Growth at the London Borough of Camden and Chair of new ICT Shared Services Board with Islington and Haringey, over the past few years I’ve been considering how digital transformation can be better

progressed across local government interviewing leaders of councils, cabinet members and councillors, chief information officers, chief executives and senior officers.

British government is increasing spending and moving to integrate healthcare and social care brings future spending into scope by bringing a new set of digital economy challenges and opportunities. Across England and Wales 375 local authorities and over 18500 elected Councillors undertake digital work by setting down a vision, principles, and programs to make expression of leadership through permissive approach towards technology and Innovation. British government is continuously working on transforming public local services by setting and continuously changing/upgrading digital strategies. Some authorities have incorporated digital thinking as a core business plan to develop their approach. British governments approach and vision of strategies are *Improving Online Transaction, Digital Inclusion and Better public connectivity through broadband and Wi-Fi focus on SMART CITIES*. UK is planning to build world class digital infrastructure.

British government invested public funding of £1.7 billion to deliver broadband across the country and 95% of UK premises now can access superfast broadband and additional fund arranged to extend these services with 600000 more premises to be benefited by 2020. Government committed that everyone can access fast, reliable broadband and introduced a new broadband Universal Services Obligation (USO) by 2020. USO gives right to request affordable high speed broadband connection to every individual, business and public premise at reasonable cost. The Legislation enable the Digital Economy Bill is currently before parliament. Government also invested £5 billion to improve mobile coverage and report (Ofcom) shows that 99% of UK premises have indoor voice coverage and 96% have 4G data coverage. The reports shows that geographical coverage of 4G data increased from 48% to 72% in 2017 and set to increase further. As per the National Infrastructure Commission report connectivity is essential to talk, text and data must be available wherever we live, work and travel. All four mobile network operators must reach at least 90% landmass coverage by the end of 2017. UK train network is providing Wi-Fi across the UK train routes and forecast 90% passengers journey with broadband connectivity. Governments future planning of full fibre and 5G connectivity by delivering ultrafast speed and it will play crucial role in future development. Being a world leading digital economy UK government ensure that digital skill of society and workforce.

Digital Library: Digital libraries tackle the barriers by providing networks to accessible locations, free Wi-Fi, Computers and other technology. Half of the UK residents have library card and 35.8% people staying in the remote area visits libraries and trained staff support and volunteers support people.

Digital Skills: England was the first country in the world to introduced mandatory computer teaching in school curriculum. Training provided to teachers for professional and updated knowledge in computing. Apart from formal education there are number of innovative programs for young people to develop their digital skills, like 5000 code clubs, Raspberry Pi Foundation and BBC make digital program in partnership with 25 organisations. Pi Foundation and NCS build skills for work life, take new challenges and make new friends.

Lifelong Learning: Rapid change in technology need to upgrade skills across working lives. Therefore it's essential for people to develop their digital skill even after they have finished formal education. Free digital skills training made available for adults.

Digital skills for digital jobs: To maintain position as leading global digital economy UK develop a range of digital skill specialists for specific digital jobs. UK introduced new innovative Digital degree Apprenticeship program from National College of Digital Skills opened in 2016 and funded by UK government.

Cyber security skills: To understand the cyber security issues and to identify needed action UK government developed Cyber Security Skill Strategy with the help of academia and industry.

Business oriented digital skill Programs:

Many industries working on digital skill challenges some of them are; **Microsoft** launched program to train 30000 government servants on digital skills and cloud skill initiative to train 500000 people by 2020. **Google** offers five hours free digital skill training to anyone in UK. **Amazon Web Services (AWS)** started free training and job placement program in UK for young adults. **Lloyds bank's** 23000 digital champions is working on digital charities to provide digital skill training to people of UK. HP runs Digital school Award program for schools. **Accenture's** Skills to Succeed Academy provides online learning solutions for youngsters to help them to build confidence and employability in partnership with Department of Work and Pensions, National Careers Services. Career Wales & Development Scotland and 100000 people trained across the UK. **Cisco** networking academy provides IT skills and building material supports for learning institutions and individuals. **Apple's** everyone can Code is a new approach to coding that lets everyone learn, write and teach coding. Apple teacher program is free professional learning program for teaching and learning.

UK is providing better services from schools to hospitals to police services, following are the sets where UK government investing in new technology and new way of working:

Health Care, Tax, Education, Transport, Digital Signalling, Smart Ticketing, Rail Data, Energy, Policing, Justice, Prisons, Welfare, Diplomacy, Culture and Digitisation of the planning system.

Digital Strategy in Republic of Brazil:

Brazil developed a multi stake holder governance model to engage different sectors like civil society, government, academia and industries. It's concrete example of effective multi stake holder governance for any country. Government created non regulatory governance body Brazil Internet Steering Committee (CGI.br) and is responsible for most internet related issues. Brazil network Information Centre was created to implement CGI's decisions and projects it involves certain rights and obligations. CGI represents the members from Government, Corporates, Civilians and academia. All stakeholder representatives present their views conclude the issues and then work to achieve mutual understanding of problems.

Brazil government is developing various plans for transformation of digital economy. Data privacy bill is going to be passed in 2018 and it will have impact on cross border data flows. According to Accenture survey Brazil is one of the top ten economies in the world. Technological invention impacts the productivity and GDP. The Ministry of Science, Technology, Innovation and Communications (MCTIC) announced Strategy for Digital Transformation and set the guidelines for the digitalization of the Brazilian economy and society in the coming years and aims to create a favourable environment for finance, industries, agriculture, commerce, and transportation and logistics services, through the advancement of digitalization in productive processes. For effective implementation initiated network infrastructure and internet access, research, development, and innovation, reliability, professional education, training and the international dimension. Brazilian Development Bank, MCTIC and consortium companies developing National Internet of Things (IoT) plan. This focuses on analysis of international practices, creating benchmark initiatives in technology in Brazil.

Brazil Government is helping people and economy by adopting following digital strategies:

1. Openness, transparency and inclusiveness in government operations
2. Engagement and participation in a multifactor context in policy making and service delivery
3. Leadership and political commitment
4. Protecting privacy and ensuring security
5. Creation of a data driven culture and rapid digitization of society
6. Effective organizational and governance frameworks to coordinate
7. Strengthen international cooperation with other governments
8. Development of clear business cases
9. Reinforced institutional capacities
10. Procurement of digital technologies
11. Legal and regulatory framework

Practices of Digital Communication in India:

In India e-governance steadily evolved from computerization of government offices and records to focus on citizen centric services and transparency. In 2006, the Department of Electronics and Information Technology, and the Department of Administrative Reforms and Public Grievances formulated the National e-Governance Plan (NeGP), providing a boost to the e-governance process in India. The NeGP aims to improve the delivery of government services to citizens and businesses with the following vision: UID is a great achievement of Indian government towards digitization. India recognized the potential of digitization and leveraged various services through digitization. Adhar is world's largest biometric base digital identity system, has provided opportunities to government and private sector to provide citizen centric services and platform for digital transactions. Adhar is the only unique identity card across India. In Indian earlier there was a lack of a valid identity among most of the population and created limitation for the beneficiaries to get access to basic

government benefits, such as education, pensions, rations, subsidies, health and scholarships.

Academic certificates, digital Adhar, driving licence, vehicle registration, LPG vouchers Government of India launched Digital India a flagship program to ensure the government services must be available electronically with improved IT infrastructure. The initiative includes connecting all villages by fibre optic high speed internet service and Pradhanmantri Gramin Digital Saksharta Mission.

Digital India is a dream project to transform India in to Digitally empowered society and the core areas are i) Development of Digital infrastructure ii) Delivery of Govt. services Digitally iii) Digital Literacy.

New services provided by government under this initiative are DigiLocker, e-education, e-health, e-sign, e-sampark, digital attendance, go-cashless and national scholarship program.

Objective of Study

This study has been conducted to analyse and collect information about innovation in technology supported communication strategy of government. Study also focuses on the impact of digital communication strategies on various countries. This paper also reviewed digital programs in selected countries globally and discussed about solutions and challenges faced by all governments across the Globe. This study will add more ingredients and crisp to implement and make optimum use of digital technology in government sector. The study will be helpful to analyse trends in digital technology governance and it could be easy for government to identify and adopt new trends.

Research paper also focuses on use of information and access of data to citizens through digital communication of government. Citizens must aware about digital services and be digital literate to get optimum use of government services and citizen welfare schemes. Researcher used an experience with various entities on digital technology, ICT and digital learning and studies comprehensive in-depth research of more than 10 countries e-governance.

Study experience of digital governance performance and citizen satisfaction level and response. Aggregate findings from citizen satisfaction level and service experience with supporting insights. Study to provide insights on crispy planning and implementation inputs based on priority.

Research Methodology

Data is more important in any research work. For this paper researcher collected secondary data. The present paper is purely based on secondary data source. The secondary data for the paper was collected from different online research papers, reference books and journals.

Analysis and Main Findings

The speed of technology change is very fast and future communication must be about science and not art. Digital technology in today's communication system is playing very important role. Corporate sector is shifting from traditional communication to

digital communication. Same time government has to cope with this communication system as expectation of citizens about prompt communication and easy access to government services increased. It has been observed that need of digital communication has become must for all organisations including government and private sector.

Leadership from the highest levels of public, private and civic institutions will be vital for these new approaches to take root and have a positive impact. Clarity on how to balance complex and competing interests with transparency, trust and accountability will be essential for sustainable approaches to digital governance. In India, e-governance has steadily evolved from computerization of government departments and records to initiatives focusing on citizen centricity, service orientation and transparency. Government has taken initiative to provide technology infrastructure and high speed broadband services to all offices and planning to connect all villages with fiber optics. Apart from this digital training to employees and digital literacy mission have been started to aware citizens about services.

To access the information, digital communication in government should be core skill for all and must have firm planning, implementation and measurement system. Communication leaders, digital agencies and government departments should work together for better collaborative approach of services. One of the limitations of the service is broadband and technology infrastructure is not affordable in remote areas because of low purchasing power. Upgraded technology at every step has also increases the cost and compatibility issues in digital communication. The major finding is lack of digital literacy and willingness to use technology and finance to digital projects affects the digital communication strategies in government sector.

Suggestions:

1. Using digital communication platform organizer ensures the right kind of information provided to right candidate in right periodicity to help them making right choice but the same time negative feedback damage overall strategy.
2. In this case technology enabled communication is very sensitive and available on fingertips to move it in a positive direction 24 hours monitoring is required.
3. PRO system of government must be very strong and responsive to in-cash benefits of digital communication in all departments.
4. Once you adopt digital communication platforms then consistency is must.
5. Only experts can make it more successful so that dependency on professional staff or professional agency is mandatory at least in present scenario.
6. Development of basic technology infrastructure in offices as well as in rural area and cost effectiveness of services must be taken on priority by government to make optimum use of digital communication.
7. Enhancing trust in digital system through data privacy and security of information system is must.

Conclusion:

The goal of any organisation is improving quality of communication and feedback system and government sector is not optional and digital communication is a path for success.

Digital communication assists transformation to fill the communication gap among citizens and various government departments and helps to improve overall administration.

Research indicates that regular use digital communication platform increases awareness, trust, accuracy and easy connectivity with government offices.

Public administration is a cornerstone of governments work and is essential for improving citizen's lives. As illustrated in this paper the economic, social and environmental challenges, e-government has continued to play an important role throughout the world for delivery of quality public services that meet citizen needs and goals by transforming how the public sector works.

Countries must decide the level and extent of their e- government initiatives and priorities based on their specific national development needs regardless of the complexity and diversity in the world. For the effective planning and deployment of e-services, governments may focus on their ICT infrastructure development including improvement of the ICT literacy of citizens, to make use of the new technologies so as to realize the full benefits of online and mobile services. This should go hand in hand with capacity development of leadership in e-government and public servants as facilitators of online public services.

To further increase the scope and extend the use of online services, governments could provide even more citizen-centric and user-friendly services putting the needs of citizens at the core of planning and implementation of online services by engaging those (citizens) in consultative processes. Furthermore, countries may explore avenues to strengthen regional and global cooperation mechanisms with a view to facilitate national development goals, thus encouraging coherence and coordination among countries.

Nevertheless, in all regions there are outstanding stories which show countries overcoming obstacles and resource constraints to achieve improvements in leveraging e-government to achieve national development objectives.

The research also observes that effectiveness of digital communication is better in internal communication as well as outside communication (citizen services).

Digital communication platforms have changed the basic form of existence of communication system in government sector because of steep competition and forced to have digital presence is pre-requisite for every government.

For any government to reach the goal of success, digital communication is the path. We are not saying to completely avoid traditional communication, because offline reputation is the foundation for any online actions, especially for government. But, digital communication in the government sector has committed to giving something big that out-stand and engage the right audience.

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10. A STUDY ON IMPACT OF E-COMMERCE ON AND RURAL WOMEN ENTREPRENEURS

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Abstract

E-Commerce to a great extent has made life smooth without hassles and standing in long queues. E-Commerce is attracting customers and this is increasing day by day in 2Tier and 3Tier cities as well where there is limited access to various brands. Though E-Commerce has grown significantly in India but still it is unable to reach rural pockets. The real E-Commerce boom will come when there will be increased participation of rural customers. In India E-commerce has shown a remarkable growth since 2014. E-Commerce has made the lives of people easier. Electronic Commerce has been a boon in bringing potential buyers and sellers together at an electronic marketplace where they can do trade and business. This has made buying and selling of goods very simple as we can place orders and make payments using our plastic currency i.e. either by debit card or credit cards. There are various online shopping websites like flipkart.com, amazon.com, bookmyshow.com, bookadda.com etc where in we can easily buy products and avail facilities like buying movie tickets as well. E-Commerce has also helped in providing facilities of selling our goods online through websites like Olx.com, Cashify.in etc. Because of the advent of technology and awareness about how to use internet the urban population is getting benefitted of buying products and services, operating bank accounts, making various payments through online transactions. This research paper is a study on the impact of E-commerce on Rural Women Entrepreneurs. It also suggests ways by which Rural Women Entrepreneurs can connect globally and increase their business.

Key Words: Electronic Commerce, Rural Women Entrepreneurs.

Introduction:

What is E-Commerce?

E-Commerce or Electronic Commerce can be defined as any commercial transaction through internet or any type of business which can be done electronically using internet or we can say trading of goods or services by different corporations through internet electronically.

A large numbers of women entrepreneurs are selling products online though websites such as health care, home furnishing, jewellery, handicrafts, fashion apparel etc. The main reason for choosing online market place is minimum investment, ease of working from home, global reach.

E-Commerce has brought tremendous change in the Indian Economy. E-Commerce sector has also registered substantial growth since 2014. With the advent of E-Commerce the entire globe has become a market to do business and trade goods and services. Because with e-commerce a virtual market is created where potential buyers and seller can buy and sell their commodities and earn profits.

Objectives:

1. To study the impact of E-Commerce on Rural Women Entrepreneurs.
2. To study how Rural Women Entrepreneurs can effectively use E-Commerce to run their business efficiently and effectively.

Research Methodology:

This research study is based on Secondary sources. The secondary data from various sources are studied and the findings and conclusions are stated. Secondary Data are those which are collected by someone else for some other purpose which the researcher can use and take relevant knowledge from it. In the present research study, secondary data was collected through various books, journals, news papers and websites available.

Findings:

- E-Commerce has been introduced to rural women entrepreneurs, but because of lack of awareness and knowledge about technology, use of internet is acting as an obstruction to utilize E-Commerce and derive benefits from it.
- Rural Women Entrepreneurs need training on how to operate computers and use internet to sell their products online.
- Rural Women Entrepreneurs have knowledge about mobile phones and its applications but need more exposure on how to use internet and get benefits from E-Commerce.
- Utilization of E-Commerce facilities in Rural Areas will open plethora of opportunities for people residing in rural areas to get products and services which they are unable to avail and Rural Women Entrepreneurs can also sell their products online.
- While online shopping websites like Flipkart, Amazon, Snap deal etc are targeting the urban population, certain e-commerce start-up like iPay, StoreKing and Inthree are exclusively targeting the rural markets.
- Rural women entrepreneurs can use E-Commerce by creating their own websites and selling their products, i.e. jewellery, handicrafts, pottery etc. which are sold at a very high price in the urban areas.
- E-Commerce has also supported farmers of villages as now they can get knowledge about crops and pesticides through internet and sell their crops and grains at the prices they deserve which will save them from being exploited.
- E-Commerce has made women financially independent as they can now sell their products online and this is a boon for rural women entrepreneurs.
- E-Commerce has also helped in reaching the global markets and earn profits from foreign customers as well.

Conclusions:

Though E-Commerce is a boon for Rural Women Entrepreneurs, but rural women entrepreneurs are still facing problems while selling their product online. Hence efforts should be made to solve their problems like there must be work shop and training programmes on start up as most of women entrepreneur are facing problem because they don't know the process of starting the venture. Efforts should be made to continuously inspire, encourage, motivate and cooperate rural women entrepreneurs. Service providers like Amazon, Flipkart, and Snapdeal etc. must organize workshops to train rural women entrepreneurs. Rural Women Entrepreneurs must be educated on various aspects of E-Commerce with respect to processes like marketing process, delivery process, packaging method and other various managerial aspects. Thus there is huge scope of E-commerce which can benefit Rural Women Entrepreneurs to a great extent by helping them in acquiring their dream. Government and NGOs should come forward to help and encourage rural women entrepreneur.

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11. GOODS AND SERVICES TAX AND ITS IMPACT ON AUTOMOBILE INDUSTRY

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Abstract

In India, the concept of GST was observed or studied thoughtfully in 2004 by the Task Force on implementation of the Fiscal Responsibility and Budget Management Act, 2003, named Kelkar Committee. The Indian economy shall be able to have wider market of tax base, improve revenue collection through levying and collection of indirect tax and more practical approach of efficient resource allocation due to GST was convinced by Kelkar Committee. Elimination of multiple taxes will be beneficial to do ease business for the corporate. There is reduction in overall tax burden on goods and for consumers it is biggest advantage. The reason of this research paper is to explain the process of GST and its effects on Automobile sector. This study is Descriptive in nature based on the data collected from 100 managers across Bhosari and Chakan MIDC. The result shows very low impact of GST on Automobile sector like profitability but raw material became expensive.

Keywords: Automobile sector, Budget Management, Fiscal Responsibility, GST, Mechanism of GST.

Introduction

To neglect all indirect taxes Indian Government applied a standard tax called as Goods and Service tax (GST). The principal aim of GST is to eliminate torrent effect i.e. tax on tax and it will lead to bringing about cost competitiveness of the products and services both at the national and international market. GST is the blend of all integrated taxes. GST is a comprehensive model of levying and collection of indirect tax in India and it has replace taxes levied both by the Central and State Governments. Now in India GST is been levied and to be collected at every step of sale or purchase of goods and services based on method called as input tax credit. It is now reality that historic GST is in application in India. On 1st July 2017 Central Hall of Parliament launched function of new tax system at midnight. “GST, which embodies the principle of ‘one nation, one tax, and one market’ is aimed at unifying the country's \$2 trillion economy and 1.3 billion people into a common market. Under GST, goods and services fall under five tax categories: 0 per cent, 5 per cent, 12 per cent, 18 per cent and 28 per cent. For corporate, the elimination of multiple taxes will improve the ease of doing business. And for consumers, the biggest advantage would be in terms of a reduction in the overall tax burden on goods”. “The Lok Sabha has finally passed the Goods and Services Tax Bill and it is expected to have a significant impact on every industry and every consumer. Apart from filling the loopholes of the current system, it is also aimed at boosting the Indian economy. This will be done by simplifying and unifying the indirect taxes for all states throughout India.”

Literature Review

Nitin Kumar (2014) studied, “Goods and Service Tax- A Way Forward and concluded that implementation of GST in India help in removing economic distortion by current indirect tax system and expected to encourage unbiased tax structure which is indifferent to geographical locations.”

Aastha Sharma(2016) “GST will provide relief to producer and consumer by providing wide and comprehensive coverage of input tax credit set –off, service tax set-off and subsuming the several taxes.”

Raju Choudhary (2017) in article “provided an insight of how introduction of Goods and Service Tax will be a noteworthy step in the indirect tax structure of India. Amalgamation of centre and state tax into one tax will mitigate double taxation and pave way for common national market. He pointed out a few points which will taken effect post implementation of GST which are as FollowSSs: Increased FDI, Growth in overall revenue, increase in export and employment and various other positive impacts.”

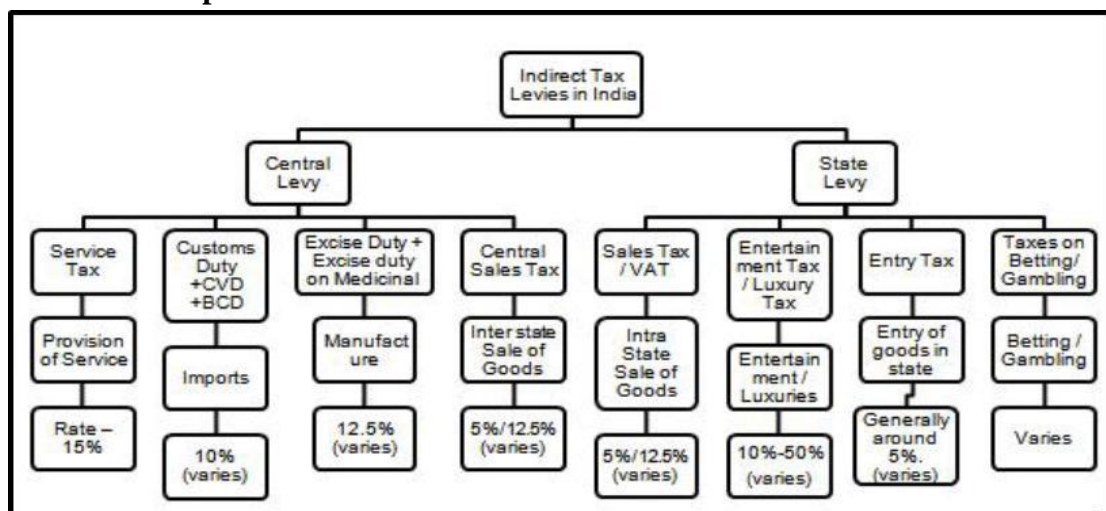
Objective

1. To study the mechanism and structure of GST.
2. To evaluate the scale of impact of GST on automobile industry.

Research Methodology

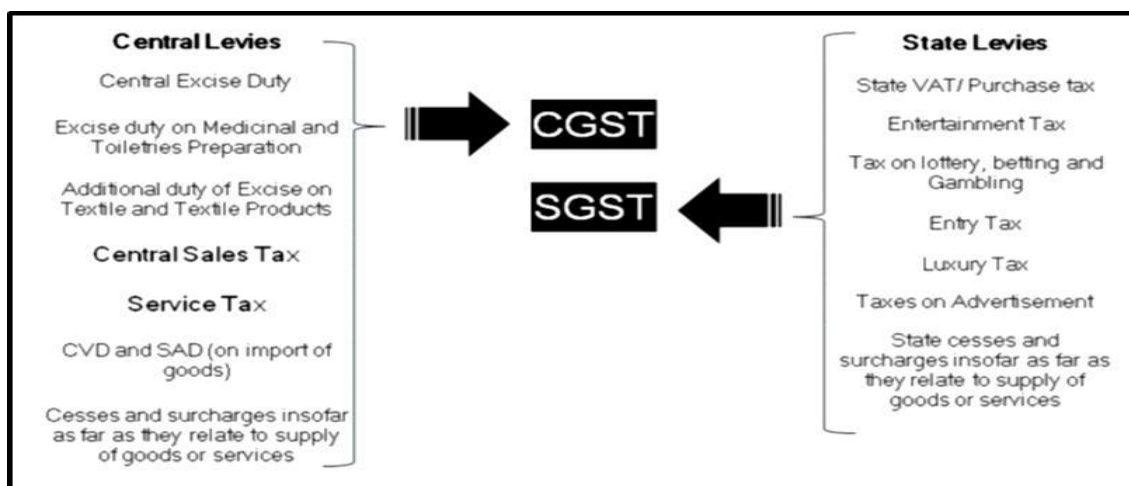
This paper is based on descriptive research design. The study is based on primary as well as secondary data which is collected from different automobile companies, books, government web-sites, websites, news-paper articles and research journals. In the study 100 managers from 20 automobile companies in Bhosari and Chakan MIDC were selected as sample by following convenient sampling method. The data were collected through structured schedule.

Before GST Implementation:



Above problem can be solved by implementing GST:

With the force of Law GST is implemented successfully



How is the GST different from past tax rate system?

	BEFORE GST	AFTER GST
Nature of Regime	A Combination of value added tax (VAT) which is a destination-based tax and origin-based taxes such as excise duties etc.	Tax incidence at the point of sale
Tax Base	Goods & Services are taxed separately, subject to some exemptions.	Comprehensive base of goods & services included.
Multiplicity of tax rates	Multiple tax rates	Single tax rate
Tax Cascading	Incomplete set off mechanism for tax paid in the supply chain (e.g. no set off available for VAT against service tax or excise duty)	Complete set-off should be available in the entire chain of production and distribution to eliminate tax cascading effect.

Benefits of GST :

i) To Traders:

- Reduction in multiple taxes
- More efficient neutralization of taxes especially for exports
- Development of common national market
- Decreased rates and exemptions
- Distinction between Goods & Services no longer required

ii) To Consumers:

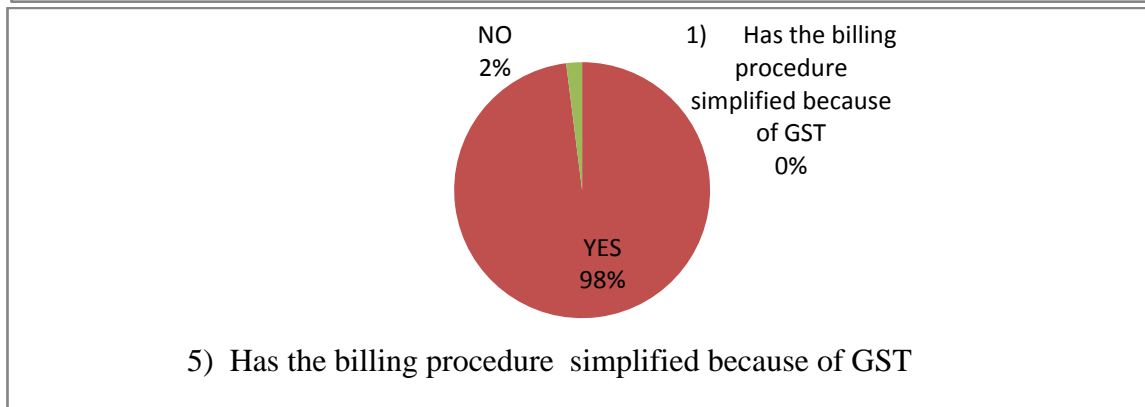
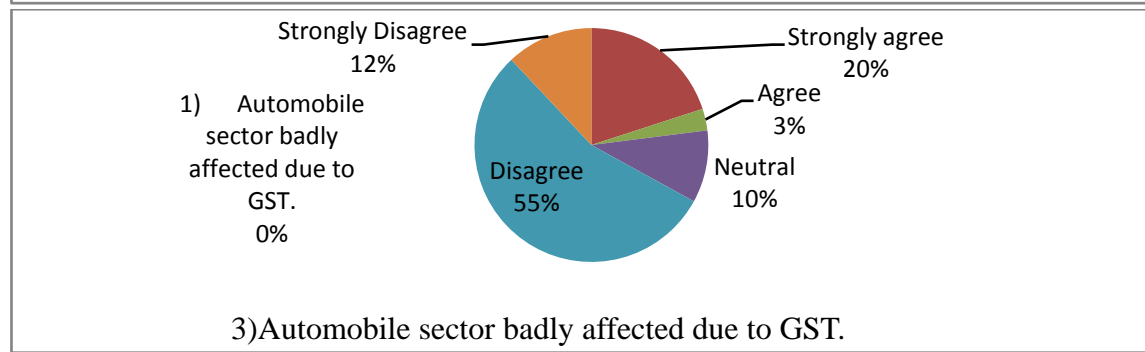
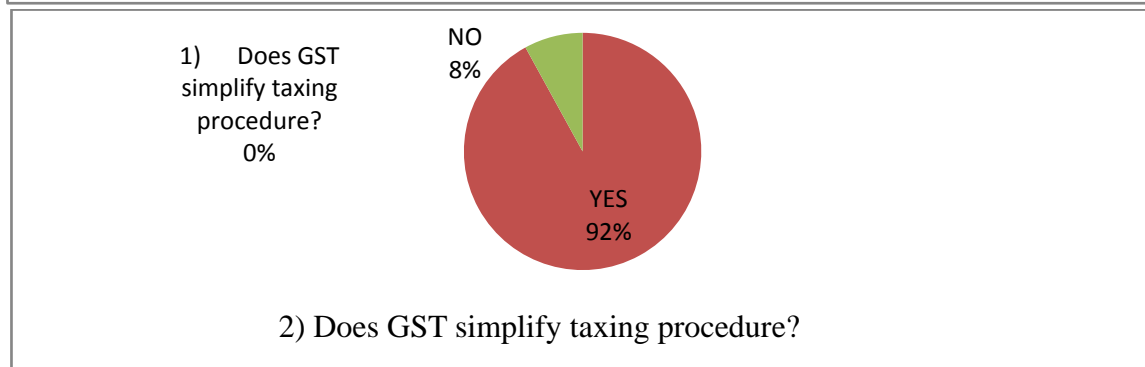
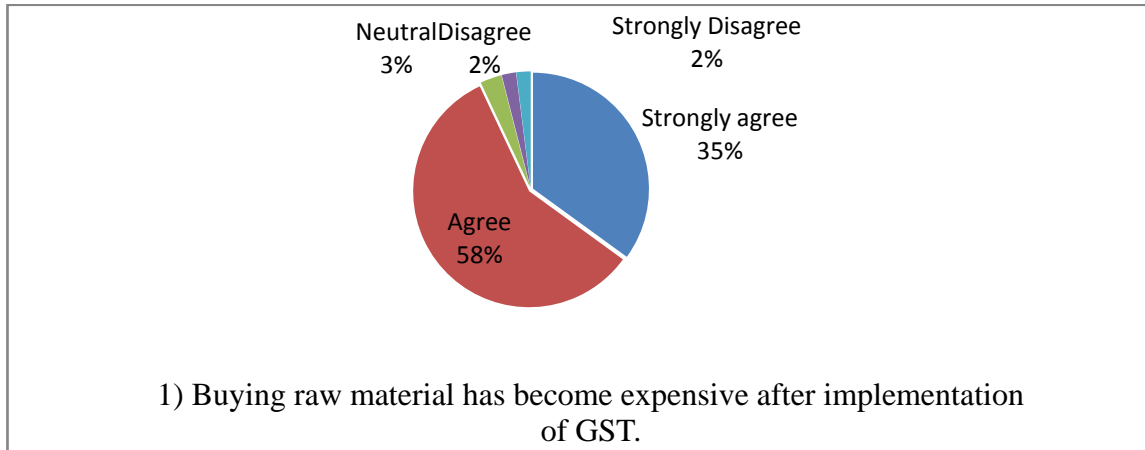
- Ease in tax system
- Reduction in prices of goods & services due to elimination of cascading
- Uniform prices of goods and services throughout the country
- Transparency due GST in taxation system .

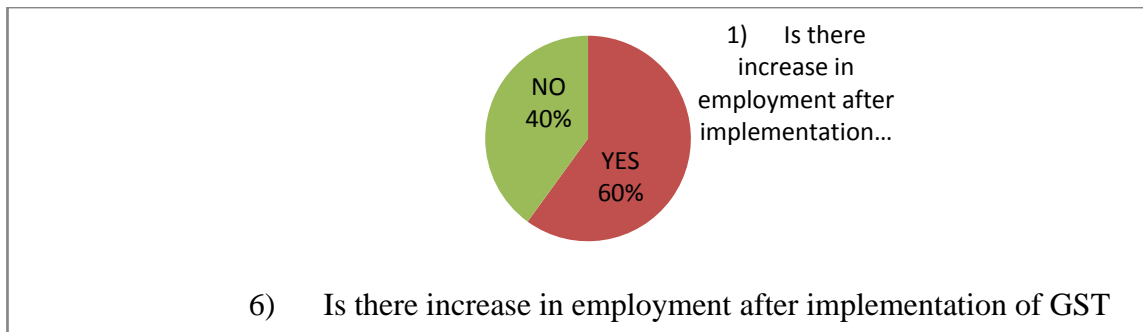
Results and discussion:

Automobiles: Indian automobile industry produces large no of car annually to fulfill the population of country. Under the previous tax system, like excise, VAT, sales tax,

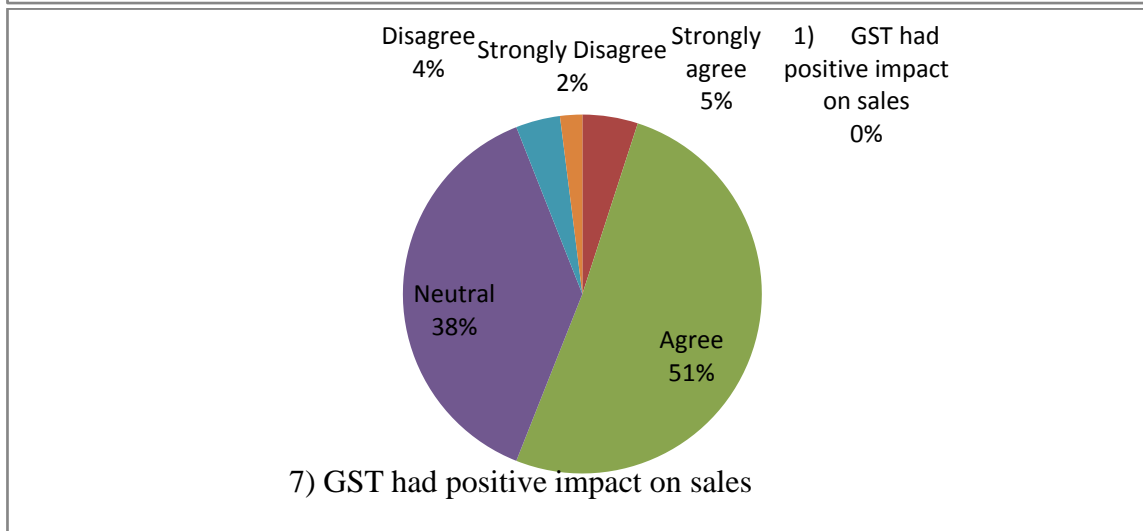
road tax, motor vehicle tax, registration duty which will be replaced by GST. Though there is still some confusion due to tax rates by different states to the manufacturers/dealers for manufacturing car/bus/bike, the future of the industry looks hopeful.

QUESTIONNAIRE:-





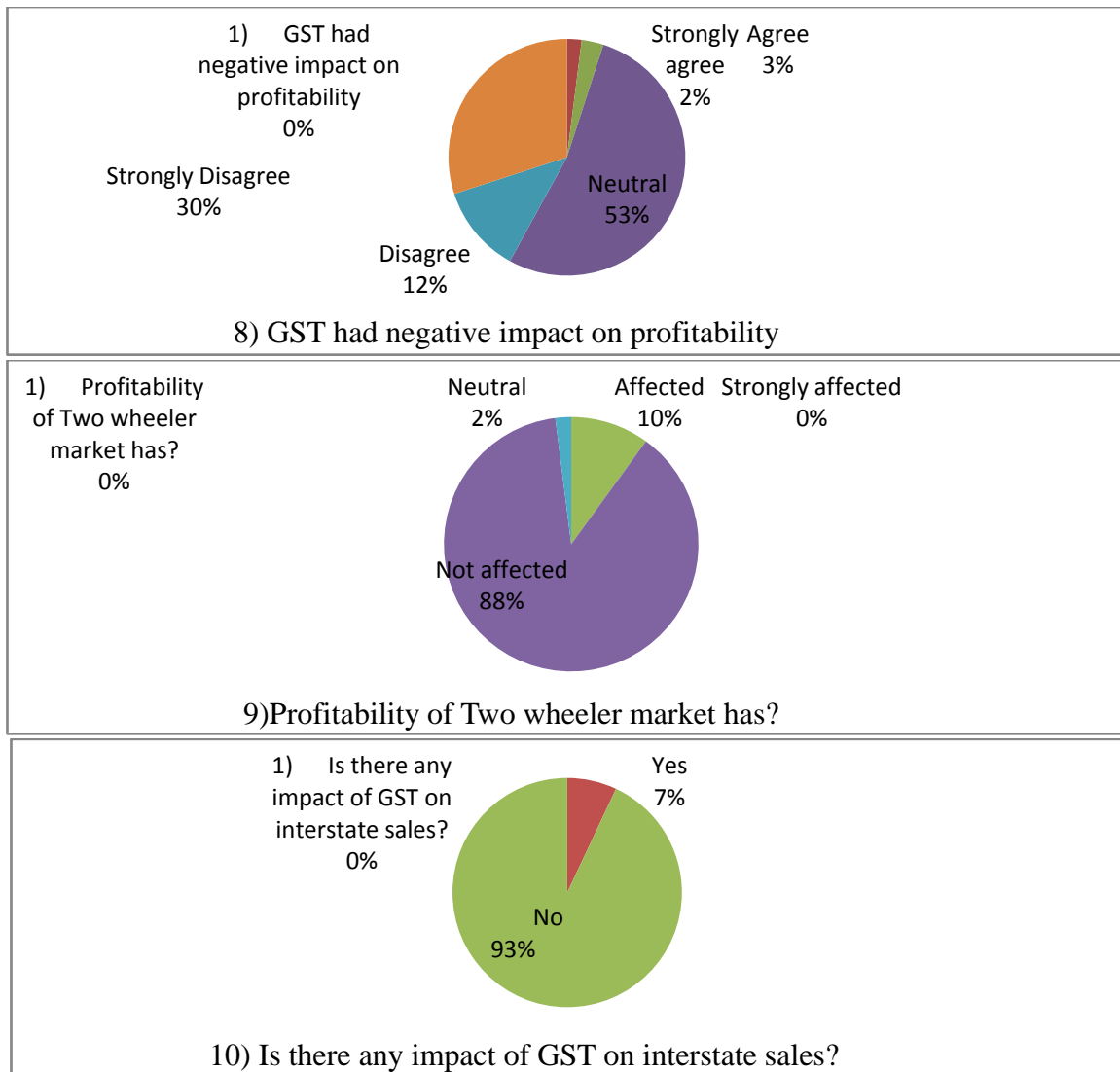
6) Is there increase in employment after implementation of GST



impact of GST on Sales

Descriptive Statistics

Mean	3.53
Standard Error	0.07
Median	4.00
Mode	4.00
Standard Deviation	0.74
Sample Variance	0.55
Kurtosis	1.54
Skewness	-0.78
Range	4.00
Minimum	1.00
Maximum	5.00
Sum	353.00
Count	100.00
Confidence Level(95.0%)	0.15



Conclusion:

According to the results from survey, it is observed that the GST rate on raw materials is responsible for increase in cost of raw materials but it has reduced complexities in financial transactions and billing process.

In Indian economy GST is at nursing stage. After some time period we will come to know its actual effects on Indian economy. It is predicted that state and central Government will collect more revenue further. In long run it is fruitful for corporate, businessmen and service provider. GST brings transparency in generation of indirect taxes as well as it is helpful to Government and people of India.

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12. CULINARY TOURISM MANAGEMENT: A TOOL FOR REVENUE GENERATION

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Abstract

The concept of culinary tourism is taking shape and making its mark in the tourism Industry of Pune city. The venture is a part of experience industry where the memorable experiences are counted as a worth of the industry preservice. Food is an integral part of human's life and hence as long as life sustains the industry will always grow. Culinary tourism is considered as food experiences taken outside as well as inside the tourism boundaries. The city of Pune is growing in all aspects and hence the tourism is also growing which will create new opportunities for the locals to improve on their food experience and share those with others. This whole process will indeed create many avenues of creating revenue resources for the residents. This paper focuses upon the fact that culinary tourism is a very sustainable way of establishing new career opportunities in any region, which also give recognition to the traditional local cuisine. As observed in the paper Maharashtrian cuisine gets its popularity due to growth in culinary tourism of Pune region.

Keywords- Culinary tourism, Revenue generation, Food associated business

INTRODUCTION

Culinary tourism is a part of Experience Industry, which says it all that if the experience is good then the growth is directly associated with it. The fastest growth in tourism is the culinary sector. Farmers markets, taste tours, agri-entertainment, restaurants, farm shops, wineries, and boutique food retailers ... food tourism has become an important part of holiday and business travel as well as a purpose in itself. Food tourism helps in creating entrepreneurship as well as employment opportunities. Growth in Food tourism will also help open more job or employment opportunities to the citizens of Pune. when the employment opportunities are getting increased which directly gives a boost to the revenue generation in associated sectors .When the industry will grow the quantum of work will become big hence it will require more and more services to be provided to the tourists of Pune. Pune is one of the metro cities of India and it is also one of the fast growing smart city of India, Pune is also a culture hub of Maharashtra hence it welcomes number of inbound and out bound tourists every day. As the tourism of Pune increasing the requirement of food by the tourists will also increase which automatically give a chance to culinary tourism industry to flourish in

its own way and generate more resources of revenue through food Industry. The tourism of Pune region is growing every day. Food and tourism are two interdependent industries, every tourist visiting to Pune whether for leisure or business would eat his meals out during his stay. Many a times the stay of tourists is inclusive of breakfast and dinner, but they opt for lunch out. Most of the times the tourist would love to explore something new in their food that the regular meals of their daily routine. On the search of innovative and interesting meals they indirectly promote food tourism to fulfill the needs of students coming to study in Pune from other states every day new kiosks or cafes are blooming around the college campuses and the residential zones of hostels. These outlet either serve the local popular preparations or they serve the other regional popular preparations.in both the cases it is helping to promote food tourism as well as to create new employment opportunity. These student will refer their experienced to other national, regional and international students and then the requirement of the local food increases which increases the revenue generated through these mess, dining halls, cafes and etc. When the tourism of any region increases then the ancillary and supporting businesses would also grow like Transportation, Business of souvenir shops at the tourists shops, tourists guides. The Lodging and boarding industry and many more food tourism is all about new culinary experiences. The awareness about the food tourism will help to get more and more business to specialty restaurants also to the exhibition stalls and agro tourism as the locals would travel more and more to explore new delicacies of the regional cuisines. When these ancillary business will start getting more business through the growth of agro and culinary tourism the services will establish more and contribute to the economic growth of the city. The different television shows focusing on the different cuisines and the cultures also try to educate the viewer's more about cuisines of their interest and they would give an experience on authentic food of particular cuisine to its viewer without actually visiting the destinations because food tourism is experience industry these cookery shows are definitely playing a bigger role in the growth of the food tourism. This opens a new window of employment and a section in food industry for chefs to explore their talent if they are successful then this will generate enough revenue for the media as well as food industry and can be established as a another resource of revenue generation. The linkages between food and tourism also provide a platform for local economic development. The role of food in tourism has recently received increased attention within the Pune region.

This research addresses and unfolds the potential of Food Tourism in Pune. The Consumption of food in travel is unique because it occurs in a foreign environment. Most of the times it is proven that majority percentage of the total budget is spend on food during the travel. The 2004 Restaurant & Foodservice Market Research Handbook states that 50% of restaurants' revenue was generated by travelers. It shows that there is a symbiotic relationship between food and the tourism industry.

This study is limited to few food industry sectors and few associated businesses but that is an example which can be set to understand the positive and beneficial effects of growth of culinary tourism to the region and the financial growth of the city. Revenue generation is a basic motto of any business hence if it is not achieved then the

sustainability is very difficult, so it proves that if the culinary tourism is making its mark in the pune tourism industry then there is noticeable revenue generation through this business.

Significance of the study

Food consumption can be used in the development of a destination image. In addition culinary tourism is not only appealing to tourists, but also contributes to the social, economic and environmental development of a destination. The research highlights the importance of the connection between food and tourism which cannot be ignored.

The aim of culinary tourism is to tutor and encourage food and wine fanatics while giving the vacationer a chance to explore the local area and learn about local food fashions, when the demand is the supply is also relatively high this proves that the change in demand for the food selling avenues will have a significant impact on the business and revenue generation by them which in return proves that food industry is a major part of tourism industries economic growth

Scope of the study

There is a wide scope on the angles of Indian Tourism economic growth using culinary tourism as a tool the role of Culinary Tourism in local economic development and its potential for country branding. It also presents several innovative case studies in the Culinary Tourism sector and the experience industry. Close relationship between local agriculture and tourism, clearly enhancing the environment in two different ways: Increasing the level of both food venders and tour operators taking more efforts to reach out to as many as culinary tourists to increase the demand of culinary tourism in the region of Pune.

The scope of this study is associated only with the region of pune but its sustainability can be used to apply the results on other regions. The scope is limited to few popular food sectors although there is a requirement of more and more deep research.

Definition

Culinary tourism is any tourism experience in which one learns, appreciates, and consumes branded local culinary resources.

Literature Review

Jakša Kivela and John C. Crofts (2016): the research explores that gastronomy is becoming an important attribute in the development of niche travel and destinations. The study was undertaken in which a city of destination that offers unique and diverse gastronomy is arguably. The outcomes of the study had also provided the evidence suggesting that motivation to travel for gastronomy reasons is a valid construct. Also, reveals that gastronomy plays a major role in the way tourists experience the destination and indicate that some travelers would return to the same destination to savor its unique gastronomy.

Björk, Peter and Kauppinen-Räsänen, Hannele (2016): The study had aims to explore the factors affecting traveler's food behaviour with reference to the local food market. The local food singularity represents essential research issues from various perspectives. The study had revealed three types of food-related behaviour i.e. Experiencers are committed; they perceive food as essential to destination choices. And search for the food-related information before their trip which in-turn will value the

originality, newness, locality, authenticity and uniqueness in local food, which has an impact on travel satisfaction. Authentic Local food attracts travelers and it contributes to the tourist experience, indicating marketing potential for hospitality industries, tourism business and regional development.

Silkes Carol (2012) the study had explored the motivation of visitors towards farmers market and identify the potential of culinary tourist that contributes towards the economic sustainability of a local market. The study had identified that the push factors of fun and relaxation and family togetherness and the pull factors of food quality, shopping experience, and facility. It was found that pull factors of motivation play a vital role in attracting guests to a market. The research study had also exposed that quality food and a good shopping facility are the most significant factors for improving customer satisfaction. Moreover, these factors also had an impact on the cultivation of successful farmers' market operations and contribute to culinary tourism. This can play a critical role in sustaining the economic impact of their local community and also serve as a unique niche of culinary tourism.

Everett Sally (2012): The article had examined the conversion of food production sites into spaces of touristic experience. The traditional food manufacturers are opening their doors to visitors as the popularity of food tourism increases, negotiating a balance between the operation of their business and the drive towards developing new arenas of consumption for the manufacturers who create new spaces of consumptive leisure to accommodate touristic interests, the constructive agency of tourist expectations and insights into how producers alter patterns of traditional production to facilitate growing consumptive demands.

Horng, Jeou-Shyan, Liu Chih-Hsing, Chou Hsin-Yu and Tsai Chang-Yen (2012): Had explored the factors of brand equity and the role of destination knowledge for travel intentions in culinary tourism from the viewpoint of foreign tourists travelling to various destinations, which promotes four elements for brand equity i.e. loyalty, image, perceived quality and awareness for culinary travel intentions. The research had developed and empirically tested a model of the relationship, the results indicate that there is a straight and strong association between brand equity and travel intentions in culinary tourism. Moreover, the study had recognized the moderating role of destination awareness, which positively moderates the effect of brand loyalty and perceived quality on travel intentions.

Gary Paul Green & Michael L. Dougherty (2009): The study had examined culinary tourism through a case study the retail establishments relied heavily on local produce, largely due to a commitment to help local producers. Farmers frequently combined marketing fresh food to local retail establishments with sales to wholesalers. The most frequently cited concerns with producing for local establishments involved in culinary tourism were low prices and challenging logistics.

Stephen L. J. Smith, Honggen Xiao (2008): The centrality of local ingredients and culinary resources to the culinary tourism experience means that an understanding of the issues and structures associated with accessing those resources can contribute to a deeper understanding of culinary tourism as a product and its linkages to other sectors of the economy. Supply chain theory is introduced and its relevance to culinary tourism

discussed. A preliminary description of the supply chains for three culinary tourism products—farmers' markets, festivals, and restaurants—are identified on the basis of semi structured discussions with representatives from the three product sectors.

Mason Robb and O'Mahony Barry (2007): The basic purpose of the research was twofold i.e. to identify important factors in the development of food and wine trails within the context of culinary tourism and to propose methods by which trail businesses that can additionally build on the tourism potential of food and wine. The trail development factors identified are the trail as a tourist product, the relevance of alternative food networks, and the identity of the culinary tourist. The research suggests that a difficulty facing trail developers is the problem of incorporating a tourism product into what is essentially a cooperative marketing mechanism and the ways in which trail businesses can construct narratives in order to improve 'meaningful experiences' for contemporary culinary tourists

Objectives Of The Study

1. To enumerate the various career opportunities created due to food tourism and their revenue generation capabilities.
2. To understand the benefits of food tourism to the economic growth of Pune.
3. To analyze the factors influencing the financial and economic status of food tourism in Pune city.

Research Methodology

The various strategies adopted by the food tourists in the Pune region have been compiled by carrying out a rigorous survey across Pune Region. These strategies were floated in the form of questionnaires and the feedback was collected on the basis of this survey. This questionnaire was circulated amongst mixed samples from all work areas of the region. The sample types included managerial and other staff members which will cover almost all group of employees working in the service and corporate sectors. This survey was specifically carried out to evaluate the mind-set of the food tourist and the food venders to understand whether the concept of food tourism is also a better option to create various career and employment opportunity for the locals as well as the foodies of the region.

Type of Research: A descriptive research was used to study the various employment and career avenues opened and which can sustain if the food tourism of the region flourishes.

Methods of Data Collection

Primary data - was collected from the locals working in various service and corporate sectors around Pune city. Primary data was collected through survey in the following ways:

1. **Personal Interviews:** The answer was sought to a set of pre-conceived questions through personal interviews and the data was collected in a structured way.
2. **Questionnaires:** Considering the Reviews, and the additional inputs, one schedule was prepared it was a questionnaire designed for the inbound and out bound travelers of the Pune as well as foodies of the Pune residing in the region and exploring food of all corners

Secondary data – was collected from published / unpublished literature on the importance of Food Tourism and its impact in creating revenue resources for the food industry. latest references available from the journals, newspapers, research publications and magazines, past records and training reports of the food establishments, and other relevant sources like internet.

Questionnaire – Design and implementation: The questionnaire design was done with the aid of experts in statistical techniques and taking into account the measurement needs & objectives of the study. The questionnaire was administered to the sample population and sample size.

Sampling Techniques: For this study different employee from various star hotels in and around Pune city who are working at a Managerial level was taken into consideration. This involves a total of 100 samples from the respondents.

Data Analysis & Interpretation

The data collected was analyzed using basic and advanced analytical tools. This also includes the detailed analysis of the data which was conducted with the purpose of attaining the set objectives of the research. Mentioned below is the analysis which be presented graphically and in tabulated form for better interpretation. The Interpretation of the collected data was done by drawing inferences from the collected facts after the analysis of the study.

Food tourism is a major source of generating employment as well as revenue for the sector of tourism Industry. According to the survey which was conducted among the locals of Pune region and inbound, out bound tourists the employment and career opportunities offered by food tourism are many and sustainable. The respondents were from different age group and profession so that the feedback can be collected from all classes of people and possibly well-travelled people.

The below frequency table will illustrate the feedbacks which can sum to the results whether the employment and career opportunities generated by food tourism are sustainable and do they have a progressive future.

1. Identification of sectors which can generating maximum employment opportunities.

a. Food Joints

Particular	Frequency	Percentage
8 (Most Important)	69	27.17%
7	34	13.39%
6	27	10.63%
5	13	5.12%
4	17	6.69%
3	13	5.12%
2	21	8.27%
1 (Least Important)	60	23.62%

Importance of Food Joints in Employment Generation



Observations:

It was found that Food joints were rated as most important tool for generating employment under Culinary Tourism by 85 respondents but on the other hand it was rated as least important tool for generating employment under Culinary Tourism by 74 respondents but in all 50% respondents have rated Food joints as effective tool to generate employment.

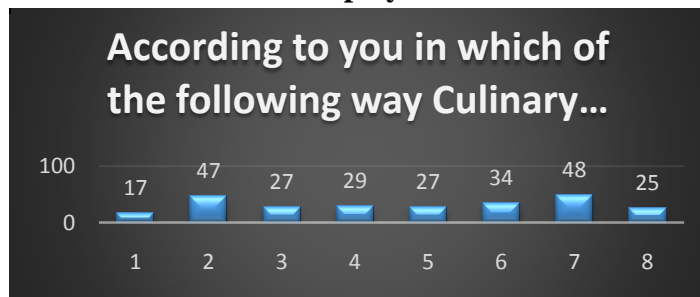
Interpretation:

The statistical interpretation will prove that more than 50% respondents find food joint as effective tool to generate employment which in many aspects promote Culinary Tourism.

a. Fairs and Festivals

Particular	Frequency	Percentage
8 (Most Important)	25	9.84%
7	48	18.90%
6	34	13.39%
5	27	10.63%
4	29	11.42%
3	27	10.63%
2	47	18.50%
1 (Least Important)	17	6.69%

Importance of Fairs & Festivals in Employment Generation



Observations:

It was found that fairs and festivals were rated as most important tool for generating employment under Culinary Tourism by 25 respondents but on the other hand it was rated as least important tool for generating employment under Culinary Tourism by 17

respondents but in all 42% respondents have rated Fairs and festivals as effective tool to generate employment.

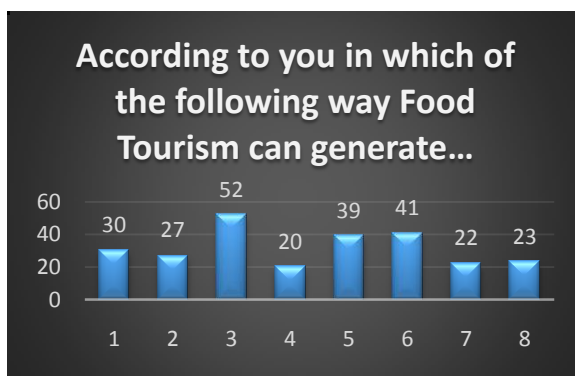
Interpretation:

The statistical interpretation will prove that more than 40% respondents find fairs and festivals as effective tool to generate employment and on the contrary more than 37% respondents find fairs and festival as least effective tool for generating employment which in many aspects promote Culinary Tourism. The fairs and festival always try and show case any of the regional food speciality to its visitors so it is considered as tool for promoting Culinary Tourism.

b. Television Shows

Particular	Frequency	Percentage
8 (Most Important)	23	9.06%
7	22	8.66%
6	41	16.14%
5	39	15.35%
4	20	7.87%
3	52	20.47%
2	27	10.63%
1 (Least Important)	30	11.81%

Importance of Television Shows in Employment Generation



Observations:

It was found that television shows were rated as most important tool for generating employment under Culinary Tourism by 23 respondents but on the other hand it was rated as least important tool for generating employment under Culinary Tourism by 30 respondents but in all 26% respondents have rated television as effective tool to generate employment

Interpretation:

The statistical interpretation will prove that more than 25 % respondents find television shows as effective tool to generate employment and on the contrary more than 42% respondents find Television shows as least effective tool for generating employment which in many aspects promote Culinary Tourism. The television shows which are

based on food and discovery of different cuisines on the channels like travel and living, discovery, fox life are basically an virtual tool to make the people knowledgeable about different cuisines its specialties only on one click without travelling physically but as it enlightens the foodies about new food and cuisines it is considered as a tool to promote Culinary Tourism and advertising marketing tool for promoting Culinary Tourism but looking at the statistical responses it may not be very effective tool to generate employment under the segment of Culinary Tourism.

c. Cookery Classes

Particular	Frequency	Percentage
8 (Most Important)	8	3.15%
7	21	8.27%
6	20	7.87%
5	44	17.32%
4	74	29.13%
3	29	11.42%
2	34	13.39%
1 (Least Important)	24	9.45%

Importance of Cookery Classes in Employment Generation



Observations:

It was found that cookery classes were rated as most important tool for generating employment under Culinary Tourism by 8 respondents but on the other hand it was rated as least important tool for generating employment under Culinary Tourism by 24 respondents but in all 19% respondents have rated television as effective tool to generate employment.

Interpretation:

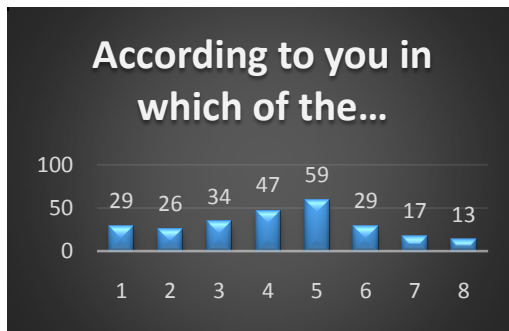
The statistical interpretation will prove that more than 19 % respondents find cookery classes as effective tool to generate employment and on the contrary more than 35% respondents find cookery classes as least effective tool for generating employment, which in many aspects promote Culinary Tourism. The cookery classes which are based on the need of enthusiastic people who are eager to learn more varieties of food under different cuisines to make the people knowledgeable about different cuisines its specialties these cookery classes by professionals are helpful without travelling physically but as it enlightens the foodies about new food and cuisines it is considered

as a tool to promote Culinary Tourism and advertising marketing tool for promoting Culinary Tourism but looking at the statistical responses it may not be very effective tool to generate employment under the segment of Culinary Tourism.

d. Food Walks

Particular	Frequency	Percentage
8 (Most Important)	13	5.12%
7	17	6.69%
6	29	11.42%
5	59	23.23%
4	47	18.50%
3	34	13.39%
2	26	10.24%
1 (Least Important)	29	11.42%

Importance of Food Walks in Employment Generation



Observations:

It was found that Food walks were rated as most important tool for generating employment under Culinary Tourism by 16 respondents but on the other hand it was rated as least important tool for generating employment under Culinary Tourism by 36 respondents but in all 23.3% respondents have rated food walks as effective tool to generate employment.

Interpretation:

The statistical interpretation will prove that more than 23.3% respondents find food walks as effective tool to generate employment and on the contrary more than 35% respondents find food walks as least effective tool for generating employment which in many aspects promote Culinary Tourism. The food walks is a concept where the travelers can explore various regional specialties during the local side signing or he can be guided by the food tour guide to various local specialty serving outlets which can be a shop, restaurant, canteen or a home cooking.

e. Agricultural Tourism

Particular	Frequency	Percentage
8 (Most Important)	20	7.87%
7	24	9.45%
6	52	20.47%
5	24	9.45%

4	28	11.02%
3	52	20.47%
2	27	10.63%
1 (Least Important)	27	10.63%

Importance of Agricultural Tourism in Employment Generation



Observations:

It was found that television shows were rated as most important tool for generating employment under Culinary Tourism by 25 respondents but on the other hand it was rated as least important tool for generating employment under Culinary Tourism by 33 respondents but in all 26% respondents have rated television as effective tool to generate employment.

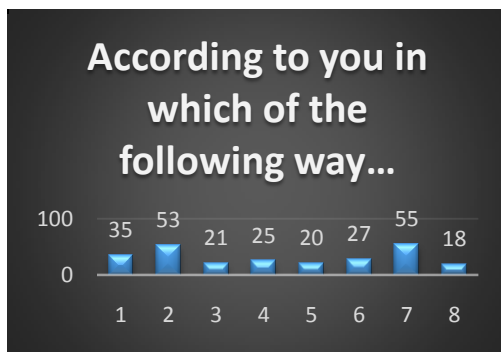
Interpretation:

The statistical interpretation will prove that more than 36% respondents find Agricultural tourism as effective tool to generate employment and on the contrary more than 41% respondents find Agricultural tourism as least effective tool for generating employment which in many aspects promote Culinary Tourism. The agro tourism and Culinary Tourism go hand in hand as both are interdependent on each other. The concept of Agricultural tourism is to make the travelers aware about the village life, and to allow them to explore the fresh robust cooking culture of the agro produces. Many at times it becomes a side business for the farmers to earn some additional income.

f. Visit to Farms for Rural Food

Particular	Frequency	Percentage
8 (Most Important)	18	7.09%
7	55	21.65%
6	27	10.63%
5	20	7.87%
4	25	9.84%
3	21	8.27%
2	53	20.87%
1 (Least Important)	35	13.78%

Importance of Visit to Farms in Employment Generation



Observations:

It was found that visit to farms were rated as most important tool for generating employment under Culinary Tourism by 18 respondents but on the other hand it was rated as least important tool for generating employment under Culinary Tourism by 35 respondents but in all 39 % respondents have rated television as effective tool to generate employment.

Interpretation:

The statistical interpretation will prove that more than 39% respondents find television shows as effective tool to generate employment and on the contrary more than 42% respondents find visit to farms as least effective tool for generating employment which in many aspects promote Culinary Tourism. Visit to farms is a part of agro tourism and more effective for cultural tourism but as discussed in the literature review chapter food is an inseparable part of cultural tourism.

g.Specialty Restaurant

Particular	frequency	Percentage
8 (Most Important)	96	30.71%
7	41	12.99%
6	29	9.45%
5	34	11.02%
4	17	5.51%
3	32	10.24%
2	23	7.48%
1 (Least Important)	39	12.60%

Importance of Specialty Restaurant in Employment Generation



Observations:

It was found that Specialty restaurants were rated as most important tool for generating employment under Culinary Tourism by 96 respondents but on the other hand it was

rated as least important tool for generating employment under Culinary Tourism by 39 respondents but in all 52 % respondents have rated specialty restaurants as effective tool to generate employment

Interpretation:

The statistical interpretation will prove that more than 52 % respondents find television shows as effective tool to generate employment and on the contrary more than 31% respondents find Specialty restaurants as least effective tool for generating employment which in many aspects promote Culinary Tourism. Specialty restaurants directly promote Culinary Tourism so they are the most effective tool to generate employment under Culinary Tourism and the same is the opinion of the respondents

2. Culinary Tourism contributes towards the financial growth of Tourism Industry

Particular	Frequency	Percentage
1 (Least contribution)	2	0.79%
2	6	1.97%
3	76	24.41%
4	131	42.13%
5 (highest contribution)	96	30.71%

Contribution of Culinary Tourism in Growth of Tourism Industry



Observation:

As discussed in the literature review Culinary Tourism is a part of Experience economy hence the financial growth of Culinary Tourism industry is very much related on the food experiences. Culinary Tourism defiantly contributes towards the financial growth of tourism industry. According to the responses received total 96 respondents feel that Culinary Tourism has highest contribution towards the financial growth of tourism industry and total 2 respondents feel that Culinary Tourism has least contribution towards the financial growth of tourism industry

Interpretation:

Total distribution of responses from least distribution to highest distribution was spread over the 1 to 5 numbers, where number 1 was representing least contribution and number 5 was representing highest contribution .After studying the total responses received the researcher has found out more than 72% respondents feel that Culinary Tourism has highest contribution towards the financial growth of tourism industry, on the contrary total 3% respondents feel that it has least contribution towards the financial

growth of tourism industry. Whereas more than 24% respondents feel neutral as they had rated number 3 which means they feel it does contribute towards the financial growth of tourism industry but it is neither highest nor least.

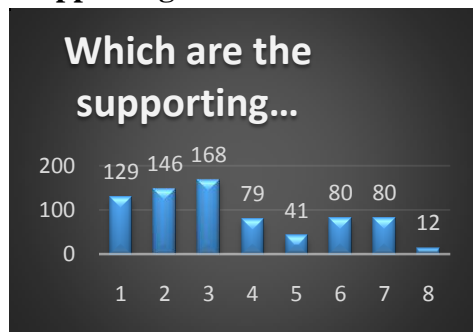
3. Supporting Businesses for Culinary Tourism

The below listed are most important supporting businesses for Culinary Tourism

- Event Management
- Catering
- Transportation
- Cultural and Art Appreciation
- Cloth, Jewelry, Souvenir Shops
- Guide and Tour operators
- All the above business

Particular	Frequency	Percentage
Event Management	158	50.79%
Catering	179	57.48%
Transportation	206	66.14%
Cultural and Art Appreciation	97	31.10%
Cloth, Jewelry, Souvenir Shop	50	16.14%
Guide and Tour Operators	98	31.50%
All of the Above	98	31.50%

Importance of Supporting Businesses for Culinary Tourism



Observations:

Around 66% which means 206 respondents feel that Transportation is the most effective supporting business for Culinary Tourism as an employment generating sector. Whereas 179 which is around 57.48% respondents support Catering as second most important business in the list of Supporting business for the Culinary Tourism. 98 respondents which is 31% feel that Catering, Transportation, Cultural and Art Appreciation, Cloth, Jewelry, Souvenir Shop, Guide and tour Operators are all important business

Interpretation:

Most of the listed Business are directly or Indirectly linked with the Culinary Tourism, but the researcher would like to identify which of these are most effective in generating employment as it is linked with Culinary Tourism so if Culinary Tourism will flourish in the region as a business then these businesses will also have a positive impact in generating more.

Observations and Findings

The first and foremost observation is that the concept of food tourism is well established in the region of Pune but still there is lot of scope for the tourists to be aware themselves about the concept to become food tourists. The awareness about food tourism is still lacking. Pune is also known as Oxford of the western India hence it welcomes lot of international as well as national students from all corners and food is one of their basic need for daily routine. While doing this directly and indirectly Pune opens lot of different opportunities in the food sector and service sector for employment and career. At the same time it will open lot of opportunities for the entrepreneurship growth of the food tourism industry. The observations are listed as follows

1. All sectors of service and corporate industry people, all age group people believe that, food tourism creates many opportunities for the employment and careers
2. As a result of food tourism different other business also get more opportunities of revenue generation, in effect the business grows and creates more job or employment for the locals.
3. Food Stalls, Mess, Restaurants, Specialty outlets, Kiosks, Stalls at exhibitions, Food tour operators, local food vendors and many more business are indirectly growing as the tourism of the region develops and increases. When they are growing they are contributing to the economic growth of their own business sector as well as the growth of Pune city
4. Many a times the occasional food business also gives noticeable revenue that the regular set ups like food stall of specialties during the fairs and jathras, food supply during wedding and festive seasons etc.
5. Researcher also observed that there is lot of scope for the food in the Agro tourism and it can get lot of revenue to the rural areas around the Pune and it will get popularity to the local Maharashtrian cuisine as well
6. It was observed that few things do influence the sustainability of food tourism of the Pune region. These include:
 - Popularity of Local food
 - Good revenue Margins of the supporting business
 - Festive Specialties served or sold by the vendors at all possible places will increase the business and the revenue directly
 - To explore new varieties lot of tourists make conscious efforts provided they get enough avenues to explore
 - To break the monotony of daily Routine many locals and foodies explore different food which helps in food tourism growth and revenue generation

Findings

According to the graphical representation shown in the above graphs about the talent retention management for hotel industry, below mentioned were some of the interpretations that were drawn from the analysis:

1. Majority of the respondents were agreeing upon the provision of a better exposure to the tourists and more advertisement will help the food tourism to grow in the region of Pune
2. The provision of Food, at various tourists destinations with lot of more and more varieties will improve the status of the Maharashtrian cuisines popularity
3. The food venders to undertake more aggressive marketing strategies to increase their food business which indirectly will bring lot of revenue to the industry the tourism Industry should conduct several in-house activities for the tourists to offered them every time new experience
4. Hotels should offer new varieties to their food tourists to explore new, new cuisine of the regions will bring curiosity in the tourists' mind which will make them visit again and again and helps in repetitive business, this will help in sustaining the industry.
5. The key findings of the research says that the sustainability of the food tourism industry and the popularity of local food will bring more tourists to the region which indeed will get more revenues and the growth will open lot of many more employment opportunities
6. Many side and supporting business to the tourism industry are growing because the food tourism industry is growing

Recommendations and Suggestions

1. The local food venders to take special efforts for the promotion of Maharashtrian food.
2. The vender should sponsor the major festivals and events in the region either by sponsoring the meals or by giving hampers of their specialties for the visitors.
3. The local food venders should start small food tour around the city in alliance with the tour operators.
4. The food venders to offer special discount for the regular tour operators as a motivation to get more and more tourists to their places.
5. Sustenance is a key piece of all societies, the linkages amongst Food and tourism likewise give a stage to nearby monetary improvement, which can be reinforced by the utilization of sustenance encounters for marking and advertising goals.

Conclusion

- The research also proves one major factor of increasing employment opportunities and career as well as entrepreneur opportunities due to increase in the culinary tourism of the region.
- The hospitality industry of the city of Pune will welcome many tourists who explore local cuisine and culture in all possible ways during their stay .this will lead an increase in demand of food supplied by restaurants, shops, kiosks, food walks, specialty restaurants, etc.
- When there will be more demand for the food supply the employment will be more as the industry is a labor extensive industry. This gives a birth to new business avenues of fairs, festivals, event management, packaged food, more convenience products which can be carried away etc.

- The research also supports the cause that the growing culinary tourism of the region will help to sustain the overall economic growth of the tourism industry of the Pune region and when the economy develops it brings many good changes to the total growth of the city and life style of people
- Pune have recognized their potentials concerning Culinary Tourism and have put concrete efforts to promoting their images as culinary Tourism destinations.
- However, the road to success requires joint contribution of business owners, marketers, policy makers, etc.

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13. INNOVATIVE AND EMERGING BUSINESS REVENUE MODELS IN E-COMMERCE INDUSTRY

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Abstract

The advent of e-commerce in India has changed and revolutionized the approach towards developing and running a business not only for best customer satisfaction but customer delighters at large scale. With innovation becoming the new added strength, young entrepreneurs are coming up with out of box thinking and clutter-breaking ideas to create newer integrations and verticals. This has given rise to new value creation and better shopping experiences to the customers. These emerging experiences are being embraced by retailers to reach the customers and increase traffic to web store in newer ways. An Omni-channel business model has been developed wherein integration of the web, offline and mobile platforms is developed. For an e-commerce, Brick-and- Click and retail business Brick-and- Mortar Model, the Omni-channel model has turned out to be the best and profitable format in this emerging and innovative market. This paper is focus on the innovation in the field of Business Revenue Models in E-Commerce industry.

Key words: E-commerce, Brick and Mortar, Brick and Click, Omni-Channel

Introduction:

E-commerce site owners and marketplace owners who constantly exercise looking for how much revenue they will be able to raise practically. Well, there aren't any simple and easy answers to such questions. Revenue generation depends on a multiple of factors such as organic and paid traffic, advertising and its new formats, sponsorships. In their quest to gain insights need to focus on various revenue models, ecommerce site owners and online shopping cart owners come up with innovation, fancy terms and titles in this concern. So, what exactly a revenue model is? To put it in simple words, a revenue model is an integral part of a business model. It concentrates on how a business can generate revenue from its products and services.

This study focuses on firms that used the Internet exclusively for a new development into Business to consumer marketing (B2C) in brick-and-mortar, either exclusively (pure play) or firms that used the Internet as part of the expansion of their B2C in e-commerce in brick and click.

Definitions:

E-Commerce: E-commerce is the use of electronic communications and digital information processing technology in business transactions to create, transform, and redefine relationships for value creation between or among organizations, and between organizations and individuals.^[4]

Bricks and Mortar: Bricks-and- Mortar approach holds that merchants sold their goods at Physical stores. ^[7]

Bricks and Click: Bricks-and-Clicks approach holds that merchants who sold their goods both at Physical stores as well as over the Internet. ^[7]

Omni-Channel: it refers to the development and use of a seamless approach to the consumer experience through all available shopping channels for any kind of buying.

Review of literature:

Dr. Howard S. Rasheed (2004), Pure Plays Versus Brick and Clicks: Performance Implications of Internet-based Electronic Commerce Marketing Strategy and Channel Structure.

Dr. Patrili Chatterjee, Suman basuroy (2000), From Bricks-and-Mortar to Clicks-and-mortar: Hoe traditional Retailer can leverage online market opportunities through internet mall.

Sumanjeet, (2011), Emerging Economic Models in the Age of Internet and E-Commerce, this paper studies the economic implications of e-commerce on different segments of an economy.

Youlong Zhuang, Albert L. Lederer (2008), Pure Play vs. Bricks-and-Clicks: A Study of Their Benefits and Practices

Practicing Business Model:

To established and survive for long term and sustain marketing operations in the competitive market, companies are taking benefits of multiple revenue models including:

• **Advertising Revenue Model:**

It uses PPC Play per Click or CPC Cost per Click, Depending on the number of times a particular text ad has been clicked; one can make money by demanding the same from the owner of the ads. Text ads are delivered on search engines by a network of third-party sites. Following are few new innovations in the field of advertising model

Examples: Text Ads on Google, Facebook, Recruitment Ads on LinkedIn, Email Ads on Google, Yahoo, Video Ads on YouTube, Search Ads on Google, Firefox Display Ads on Google, Yahoo

• **Subscription Revenue Model:** This is the eldest and conventional model. The most common example is newspapers subscription, channel. Subscription to magazines and gym membership, Subscription of YouTube, also come under this category.

• **Affiliate Revenue Model:** Affiliate revenue model is based on both CPA and CPC. CPA signifies Cost per Acquisition. This model is generally used for generating paid traffic to website.

Innovative & Emerging Business Models:

E-Commerce market in India has dramatically started to become more crowded and too much complex with large no of players fighting for generating fair share of customers' mind and wallet. As the competition in the e-commerce has increased and heats up it

becomes cut-throat, the companies are using multiple and newly invented business models in order to get customer attention including:

- Inventory model e.g. Shopper Stop, Croma, Olx, Quiker
- Social networks e.g. TripAdvisor
- Aggregator Model e.g. Ola Cabs, Zomato, Sweegy , uber
- E-Marketplace e.g. Flipkart, Snapdeal
- Transaction broker e.g. IRCTC
- Click and Collect service e.g. Amazon

Indian e-commerce industry market is furcated and expected to grow to hit 76 billion dollar by 2021 from \$13.6 billion in 2014, according to e-Tailing India. This opportunity gives rise to new business model changes, newer increasing innovation and formats in promotion, pricing and distribution channels will be seen going forward.

High concentration on commission:

There has been consistent rises in new startups that aims and primarily focus on commissioning to earn and increase revenue. Example, Freecharge's, primary revenue source is commissions from telecom operators which ranges from 2% to 5% simultaneously provide the rise of number of customers by the way of organic and paid traffic generation, IRCTC, which calculated for almost 40% of India's customers online travel, makes 60% of its profit earning from commissions or brokering on ticket sale.

Such innovative business models, the e-commerce provider offers the uniform online platform and identity to the product and service providers to gain better visibility and reach in the market. At the same time, they provide the marketing research information, market intelligence and appropriate data to better understanding and targeting for their products and services as compared to competition. This helps in developing the good relationship with merchants and also to increase and expand their user base. For example, Foodpanda, Zomato, Sweegy, Trivago have integrated hotels and restaurants under one roof to develop their online presence in the market.

Increasing Flash and Rapid Sale Tactics: Flash sales are limited time offers of physical goods that is mailed to an address and offered in limited supply or for a short period of time E-commerce sites such as Flipkart, Snapdeal, Amazon, where the stocks are generally cleared in few minutes, Example: Flipkart provide a red-carpet platform for the Chinese smart phone-maker Xiaomi.

Incredible success of Aggregator Revenue Model:

An integrated transport app service provider Uber and Ola Cabs in India, they develop and implement aggregator model, it has already written its success story. This revenue model is based on small amount of transaction fees or commission for enabling or executing the transaction. The backend and support system of these marketplaces involves a complex integration which creates sharing economy, but the success of these model and ventures depends on the simplified, user-friendly experience they can provide to buyers, sellers, and even the employees. Hence, simplicity is the core to these types of integrated ventures. Example, Ola Cabs, Trivago, Make My Trip. This is influencing the growth and development of vertical specific integration of e-commerce in India, with startups such as Trivago, Sweegy, Zomato, Foodpanda, 99acers.com,

RedBus, MazicBricks, Goibibo, Cleatrip, and Housing. Com etc building on the customer loyalty and lifetime value by offering a compelling, outstanding buying experience so that the customer moves from brick and mortar stores to online platforms.

Omni-channel retailing Model: Click and Collect model

It is a relatively new concept that refers to the development of a new approach to the consumer experience through all available shopping channels, such as brick-and-mortar stores, smart phones, tablet computers, personal computers, direct mail, television, radio, catalog etc. but with e-tailor influencing the traditional retailing and shopping, every retailer is striving for an online (Pure Web) and offline presence (Brick-and Mortar) either through omni-channel or through marketplace e-tailors (Brick-and Click). Retailers that enable and make it possible to achieve more touch points and focus on delivering a smooth, information-rich integrated experience will benefit from higher share of wallet, brand equity scores and ultimately more sales. Successful case such as Macy's click -and- collect has not only sensibly proven that omni-channel strategies can increase cost and spending per customer, but also improve customer satisfaction and experience levels if implemented properly. Similar option of click-and-collect is extended by Amazon in India by providing physical locations to enable customers to pick up the products at time convenient to them.

Conclusion:

E- commerce is making impact on multiple industries & business models. We can clearly see a significant transformation in sectors like, healthcare, education, travelling, hospitality, restaurants, retailing, fashion, real estate, furniture etc.

With help of E-commerce the emerging entrepreneurs has developed a new wave of innovation in different sectors, where provision of information, transparency, choice and access would help revolutionize the way this sector has worked.

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14. AN ENQUIRY INTO THE NEED AND POTENTIAL OF CORPORATE SOCIAL RESPONSIBILITY INITIATIVES IN NORTH EASTERN STATES OF INDIA

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Abstract

The Companies Act, 2013 has shepherded a new paradigm in Indian business environment. Earlier, In India, CSR used to the prerogative of a company's own choice and willingness. The act has paved a way for mandatory CSR initiatives of the companies. It would be prudent to find out the different CSR initiatives initiated in India with special reference to the states of North East Indian . This paper endeavours to enquire the need and potential of Corporate Social Responsibility initiatives in North Eastern States of India. This paper is divided into eight sections. Introduction, Objectives, methodology, The guidance for CSR initiatives in India, Understanding the issues of North Eastern States of India, CSR initiatives in states of North East India, Initiatives for building awareness and assessment of CSR activities in North eastern states, CSR Initiatives of selected industries in North Eastern States of India. The present enquiry is a descriptive analysis. This paper is based on secondary data. The data has been collated from the different government publications, websites, annual report of CII, publication of National Bureau of Crimes and etc.

Keywords: *Corporate Social Responsibility, North Eastern States, the Companies Act 2013, Demographic dividend.*

Introduction:

The notion of Corporate Social Responsibility (from now onwards CSR) has no single universally recognised definition. As a part of the evolutionary process in 2011, The European Commission has defined CSR as the responsibility of enterprises for their impact on society¹.

In India, CSR has traditionally been an integral part of business activities. Businessmen and firms were engaged in an array of philanthropic social activities. The Companies Act, 2013 has shepherded a new paradigm in Indian business environment. Earlier, In India, CSR is used to the prerogative of a company's own choice and willingness. The act has paved a way for mandatory CSR initiatives of the companies.

CSR initiatives are deemed to ensure policy of business accountability across a wide range of stakeholders. CSR activities besides improving customer relationship and Human resource management are likely to contribute to a more sustainable economy. The CSR activities can bring about vast changes in the socio-economic conditions, besides building a better environment for the development of the countries, basically the developing countries like India.

¹ http://ec.europa.eu/growth/industry/corporate-social-responsibility_en

It would be prudent to find out the different CSR initiatives initiated in India with special attention to the North Eastern states of Indian Union. This paper endeavours to enquire the need and potential of Corporate Social Responsibility initiatives in North Eastern States of India.

It has been observed that, the states of North east have been trailed behind in the process of development for various reasons. These states have lagged behind in the path of industrialization and economic growth. An exploration of the CSR initiatives in North East would provide a better picture of the national endeavour towards Corporate Social Responsibility in these states.

This paper is divided into eight sections. Introduction, Objectives, methodology, The guidance for CSR initiatives in India, Understanding the issues of North Eastern States of India, CSR initiatives in India with special reference to North Eastern States of India, Initiatives for building awareness and assessment of CSR activities in North eastern states, CSR Initiatives of selected industries functioning in states of North East India.

Objectives:

- 1) To study the existing CSR activities in eight north eastern states of India.
- 2) To understand the problems, need and requirements of eight north eastern states of India.
- 3) To explore the potential of CSR initiatives of select organizations intended for the eight north eastern states of India

Methodology:

The present study is basically a descriptive analysis. This study is based on secondary data. The data has been collated from the different government publications, websites, annual report of CII, publication of National Bureau of Crimes and etc.

The guidance for CSR initiatives in India:

The Companies Act of 2013 has brought in several novel provisions which have changed the arena of corporate environment in India. Among the other provisions, the provision of Corporate Social Responsibility (CSR) is noteworthy. The notion of CSR is based on the principles of give and take. Companies acquire resources in the form of raw materials, human resources etc from the society. The companies return back to the society by performing the CSR activities. Following this Ministry of Corporate Affairs had notified Section 135 and Schedule VII of the Companies Act .

According to the Section 135 of the Companies Act there is a threshold limit for applicability of the CSR to a Company i.e. (a) net worth of the company to be Rs 500 crore or more; (b) turnover of the company to be Rs 1000 crore or more; (c) net profit of the company to be Rs 5 crore or more. Moreover, the provisions relating to CSR will not only applicable to Indian companies, but also to branch and the project offices of a foreign company in India.

Each company that fulfills the criteria is compelled to spend at least 2(two) % of its average net profit for the immediately preceding three financial years on CSR.

Additionally, the company that has qualified needs to constitute a committee of the Board of Directors consisting of three or more directors. The CSR Committee shall formulate and recommend to the Board, a policy that delineates all activities to be undertaken as a part of CSR Policy. The committee would also recommend the amount of expenditure to be incurred on the activities referred and monitor the CSR activities and policy of the company. The Board has to take into account the recommendations made by the CSR Committee and approve the CSR Policy of the company.

The activities and initiatives that a company can undertake in order to accomplish its Corporate Social Responsibility obligations include eradication of extreme hunger and poverty, promotion of education, promotion gender equality and empowerment of women, reduction of child mortality and improvement of maternal health, combating diseases, ensuring environmental sustainability, employment enhancing vocational skills, social business projects, contribution to the Prime Minister's National Relief Fund or any other fund set up by the Central Government or the State Governments for socio-economic development and relief and funds for the welfare of the Scheduled Castes, the Scheduled Tribes, other backward classes, minorities and women .

According to the New Companies Act, the companies must prefer local areas and the areas where the company operates for the CSR activities. The Companies can also prefer to associate with two or more companies for fulfilling the CSR activities provided that they are able to report individually.

The company will have to make the annual report of CSR activities .In the report the company has to mention the average net profit for the three financial years and the prescribed CSR expenditure. However, if a particular company fails to spend the minimum required expenditure on CSR activities, the company has to cite the causes in the Board Report for noncompliance in order to avoid penalties.

Understanding the issues of North Eastern States of India:

In this part, various issues and problems of the North Eastern states are delineated. The North East India is comprised of eight states viz., Assam, Arunachal Pradesh, Meghalaya, Manipur, Mizoram, Nagaland and Tripura. The region Total area of the region is about 262,230 square Kms. Northeast India constitute about 8 percent of the total India's size According to 2011 Census, the total population of the region is around 45,587,982, which represents 3.1 percent of the total Indian population The population density is 148/km².The North eastern region is strategically important as it has international borders with countries namely China, Bangladesh, Bhutan, and Myanmar. North East Indian states are bestowed with forest and have a perfect blend of whole range of plantation crops, spices, vegetables, fruits, flowers and herbs. These states are grouped under the MDONER ministry of the Government of India which includes the state of Sikkim. In this paper, the study is carried out for the all the eight states including Sikkim.

	AP	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Sikkim	Tripura
Geographical Area Sq. Km (2011)	83,743	78,438	22,327	22,429	21,081	16,579	7,096	10,486
Total population(2011)	1,382,611	31,169,272	2,721,756	2,964,007	1,091,014	1,980,602	607,688	3,671,032
Density (2011)	17	398	115	132	52	119	86	350
Sex Ratio (2011)	938	958	992	989	976	931	890	960
Villages (2011)	5,589	26,395	2,588	6,839	830	1,428	875	452
Literacy rate (2011)	65.38	72.19	79.21	74.43	91.33	79.55	81.42	87.22
State Domestic Product at Current Prices (2013-14)	1,349,103	16,265,224	1,248,423	2,104,460	836,292	1,774,932	1,237,669	2,385,470
State Per Capita Income at Current Prices (2013-14)	84,869	46,354	36,937	58,522	63,413	77,529	176,491	60,963
Govt .hospitals (2012-13)	384	1,020	225	40	22	53	33	39
Villages Electrified (2012-13)	2,917	24,156	1,997	4,988	661	896	450	797
Per capita Electricity (2009-10) Consumption	582.08	222.86	242.3	654.08	461.69	264.81	880.11	221.8
Total Cropped Area (2010-11)	276	4,100	233	336	487	123	144	309
Total Road Length (Kms)(2011)	21,555	241,789	19,133	11,984	9,810	34,146	4,630	33,772
Route Length of Railway(Kms)	1	2,459	1	0	2	13	0	151
Doordarshan Kendras Nos.	1	4	1	2	1	1	1	1
All India Radio Stations (including Relay and Local radio stations on 26.02.2014)	20	14	7	6	6	6	7	8
Source: http://necouncil.gov.in/writereaddata/mainlinkFile/BasicStatistic2015.pdf ;AP:Arunachal Pradesh								

Table 1, portrays the various parameters of North Eastern States viz., Sex Ratio , Number of Villages , Literacy rate , State Domestic Product at Current Prices (2013-14), State Per Capita Income at Current Prices (2013-14), Number of Govt .hospitals , Number of villages electrified, Per capita Electricity Consumption, Total Cropped Area, Total Road Length (Kms),Route Length of Railway(Kms), Doordarshan Kendras Nos. , Radio Stations. The various parameters indicate the backwardness of the states of this region.

	Persons	Male	Female
Arunachal Pradesh	42.5	49.1	35.4
Assam	38.4	53.6	22.5
Manipur	45.1	51.6	38.6
Meghalaya	40.0	47.2	32.7
Mizoram	44.4	52.4	36.2
Nagaland	49.2	53.4	44.7
Sikkim	50.5	60.2	39.6
Tripura	40.0	55.8	23.6

Source:<http://necouncil.gov.in/sites/default/files/uploadfiles/BasicStatistic2015-min.pdf>
 Work Participation Rate can be understood as the number of workers per 100 population. The workforce participation requires a lot of improvement in most of the states. Even though it is important to note that the workforce participation of female in many states is encouraging.

Age Group							
	15-19	20-29	30-39	40-49	50-59	Above 60	Total
Arunachal Pradesh	5.7	30	3.1	0.2	0	0	39
Assam	398.4	674.7	355.1	80.8	6	1.2	1,516.20
Manipur	157.8	257.6	200.7	60.8	5.9	1.8	684.6
Meghalaya	157.8	257.6	200.7	60.8	5.9	1.8	684.6
Mizoram	4.8	30.3	5.4	0	0	0	40.5
Nagaland	16.2	34.9	8.6	2	0	0	61.7
Sikkim							
Tripura	167.4	207.8	101.3	21.9	4.2	0.9	503.5
Total	763.1	1,249.30	679.1	166.6	16.2	3.9	2,878.20

Source:
<http://necouncil.gov.in/sites/default/files/uploadfiles/BasicStatistic2015-min.pdf>

The problem of Unemployment is of serious concern in this part of India. The number of unemployed youths is alarming in all the states of North east India. The demographic dividend that India is expected to enjoy must be taken care by providing meaningful employment opportunities to workforce of the age group 15-39 as shown (Table 3).

Table 4:HDI index (latest available)

States	Health Index 2008	Income Index 2007-08	Education Index 2007-08	HDI1999 -2000	HDI 2007-08
Assam	0.407	0.288	0.636	0.336	0.444
NE (excluding Assam)	0.663	0.386	0.67	0.473	0.573

Source:<https://data.gov.in/resources/human-development-index-and-its-components-states-1999-00-and-2007-08>

The available HDI index of the North Eastern States(eight) of India is not very impressive. The Human development index of Assam is of serious concern.

Table 5:Human Trafficking Cases (IPC) - 2016

	State/UT Cases Reported	Percentage Share of State (2016)	Rank Based on Cases Reported	Mid-Year Projected Population (In Lakhs)+	Rate of Cognizable Crimes (IPC)++	Rank Based on Rate
Arunachal Pradesh	2	0.02	26	13.2	0.2	16
Assam	91	1.12	10	325.8	0.3	11
Manipur	3	0.04	25	26	0.1	25
Meghalaya	7	0.09	23	27.8	0.3	14
Mizoram	2	0.02	27	10.7	0.2	18
Nagaland				23.9		
Sikkim	1	0.01	28	6.5	0.2	20
Tripura				38.4		

Corporate Social Responsibility initiatives in India with special reference to North Eastern States of India:

Indian Inc. has played a commendable role in disbursing social responsibility. In this section, it has been endeavoured to study the Corporate Social Responsibility initiatives in India with special reference to North Eastern States of India with the help of Annual CSR Tracker 2016 report published by Confederation of Indian Industries (CII).

Annual CSR Tracker 2016 is a report on CSR disclosures of companies listed on BSE and had the legislative obligation to comply with Section 135 of Companies Act 2013. This is based on disclosures of 1,270 companies.

In year 2016, the 1,270 companies have collectively spent Rs 8,185 crore.

	PSEs	Non-PSEs
Arunachal Pradesh	7	4
Assam	15	28
Manipur	7	5
Meghalaya	3	7
Mizoram	5	2
Nagaland	2	6
Sikkim	3	10
Tripura	4	3

Source: Annual CSR Tracker 2016, CII

According to the report, 111 companies had invested in Northeast India in financial year 2016. Out of the 8 states, Assam had received maximum of CSR spending. Besides, Assam enjoys the maximum number of companies engaged in CSR activities in Assam.

States	2016
Arunachal Pradesh	1.08 %
Assam	4.44 %
Manipur	1.18 %
Meghalaya	0.99 %
Mizoram	0.69 %
Nagaland	0.79 %
Sikkim	1.28 %
Tripura	0.69 %
Maharashtra (highest)	36.98 %
Indian Average	9.86 %

Source: Annual CSR Tracker 2016, CII

According to the report 2016, around 11 percent of the companies had spent in the states of North-East states of India. The national average is of 9.86 per cent. Maharashtra receives the maximum CSR expenditure.

There is immense scope for the Indian Inc. to spend as CSR in the states of North East India in order to bring these states at par with rest of the states of India.

7. Initiatives for building awareness and assessment of CSR activities in North eastern states:

1. The CSR Cell at Omeo Kumar Das Institute of Social Change and Development, Guwahati, Assam, plays a vital role in making available professional support in CSR related matters concerned to Northeast region of India.

2. The Indian Institute of Entrepreneurship (IIE) in Guwahati, Assam involves corporate and PSUs to provide training for skill development, developing entrepreneurship, support livelihood clusters, promoting rural entrepreneurs .
3. The Centre for Development and Peace Studies, located in Guwahati evaluates CSR activities and conducts research, workshops and related to such activities.
4. The National Commission for Protection of Child Rights had convened a meeting to find out ways to enhance spending on welfare of children in the region. It had conducted a meeting of corporate and NGOs to develop a synergy in improving the conditions of welfare of children.

CSR Initiatives of selected industries in North Eastern States of India:

I. CSR of Numaligarh Refinery (NRL)-

From October 2000, Numaligarh Refinery started its commercial production. The corporate philosophy and organizational culture of NRL includes socio-economic welfare of the region .NRL devotes a lot of attention on Community Development programmes. It not only concentrates in neighbouring areas, but participates in the developing activities in different parts in the state .

The Community Development programme of NRL includes medical camps in which free medical attention is provided. It helps educational institutions, contributes for road development, agricultural activities entrepreneurship development The company has gender budgeting cell that guarantees that the benefits of the schemes undertaken are directed towards women. Out of the budgeted amount devoted for community development, NRL has committed 60 percent of the fund for the people living around a radius of 10 kms and the balance 40 percent for rest of Assam.

II.CSR Programs of Oil India Limited in North East-

Oil India Limited plays a vital role in providing good quality life to community, provide energy solutions to the people of the region.

1. Under Indian Oil Education Scholarship Scheme, scholarships are given to poor and deserving candidates to pursue even engineering, medical and MBA courses. It provides special attention to the needs of reserved classes and female students
2. Industrial Training Centre, Digboi provides industrial trade courses in various technical disciplines.
3. IndianOil's Assam Oil Division Hospital, Digboi provides yeomen service in the field of medicine to the people of the region. People of Assam and Arunachal Pradesh are benefitted.
4. Assam Oil School of Nursing conducts professional training and courses offering diploma in the field of nursing and midwifery. The cost is provided by OIL.
5. IndianOil Multi-Skill Development Institute (IMSDI), Digboi conducts regularly training on skills, vocational and competencies linked to industries.

III. Corporate Social Responsibility in ONGC-

ONGC has long history of its contribution to CSR and nation building. Corporate Social Responsibility undertaken by ONGC has played a praiseworthy job in the progress of several underdeveloped regions of the country. The CSR initiatives of

ONGC are manifold, such as: Vocational courses, Entrepreneurship development schemes, Health Care, protection of Environment, conservation of ecology, promotion, heritage sites protection, and etc. Further it participates for development of children, women empowerment encourage sportsmen.

IV. Assam Branch of Indian Tea Association (ABITA) Indian Tea Association set up in 1881, is the oldest Association of tea producers in the country. The Assam Branch of ITA contributes for a number of projects related to agriculture at different locations to provide help and support to local farmers to go into multi cropping and yield improvement.

V. CSR practices by north eastern electric power corporation limited

NEEPCO is a public sector hydropower unit and was set up on the 2nd April 1976 under the Ministry of Power. CSR activities of NEEPCO are explicitly visible in their annual reports. Among the CSR initiatives, NEEPCO is mainly engaged in the area of education, health, sports, infrastructure development and other community needs. NEEPCO has well equipped hospitals/dispensaries at its various project sites which have qualified medical and Para-medical personnel. These hospitals/dispensaries provide free treatment to the people of the neighbouring villages. NEEPCO has donated ambulances to the general people. With an objective capacity building, the NEEPCO has adopted few ITIs like ITI Halflong, ITI Dirang and ITI Yupia. The corporation is also sponsoring 4 numbers Vivekananda Vidyalaya (VKV) viz., VKV Urmangso, VKV Bokuloni, VKV Doyang and VKV Yazali.

VI. CSR practices by national hydroelectric power corporation limited NHPC Ltd undertakes CSR initiatives in different areas. in all its aspects through conventional and non-conventional sources in India and abroad. Initially, on incorporation, NHPC took over the execution of Salal Stage-I, Bairasiul and Loktak Hydro-electric Projects from Central Hydroelectric Project Construction and Control Board.

Education and Vocational Training: NHPC provided Scholarship to meritorious student, SC/ST girl student. They have also provided bicycles to girl students and Supported many schools and ITIs by providing funds for the procurement of books, furniture, equipment, tools, portable water, erecting buildings, Training to students, trainee & instructor. They also conducted literacy awareness programme, entrepreneurship development programme etc.

1. Health Care: In this area of activities, NHPC has conducted many health camps, distributed medicines, ambulances, developed health centres and many others.
2. Social & Physical Structure: NHPC is also developing and erecting physical structures for the society like community hall, Roads, Ring Wells, Water tanks, Rest rooms etc.

Community Development and Livelihood: In this area of activities, NHPC are conducting various livelihood trainings for the youth, contributing the cements to administrations, land development and protection works, etc.

VII.CSR of NEDFi

North Eastern Development Finance Corporation Ltd (NEDFi) has been relentlessly working to target its CSR activities to touch more lives and bring more smiles to people.

Conclusion:

This present study finds that there has been an inspiring participation of the organizations in undertaking CSR activities in order to ameliorate the situations existing in North East. As discussed in an earlier section the North East region has many issues. They are: geographical isolation, Slow growth in north east, low level of per capita income, low level of capital formation, dependence on agriculture, widespread unemployment, deficiency of technology and skills, improper utilization of resources, inadequate infrastructure, natural calamities like floods, backward transportation and communication, poor credit facilities. The CSR initiatives are basically targeted towards education, health and skill development and employment generation. There are numerous avenues which are still awaiting the contributions from the corporate world. The CSR initiatives should be extended to all the backward areas of all the eight states of the North Eastern Region. The CSR initiatives of the different prominent organizations will help in solving the problems associated with the region.

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15. AN OVERVIEW OF RISE OF AUTO INDUSTRY IN INDIA

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Abstract

Auto industry in India is one of the largest in the world with yearly production of about 23.96 million vehicles during year 2015–16. However, this production witnessed a growth of 2.57% over previous year 2014-15. The auto industry accounted over 7% in the domestic gross domestic product (GDP) of the country. Because of significant growth in middle class and young population, the two wheelers segment leads the auto market with more than 80% market share. Review of literature is based on five research studies comprises of both domestic and foreign studies. The present research is an exploratory study mainly based on secondary data which reviews the growth of auto production trends in India. Present research studies the gross turnover of auto manufacturers in India. Study also highlights the rise in sales volume of auto products in India. Study also brings to light trends in exports of auto products from India across the world. Finally, research points out the present domestic market share of auto industry. The period of study covered is of past six years i.e. from 2011-12 to 2014-15.

Key Words: Auto Industry, Trend, Growth, Rise, India

Introduction

Auto industry in India is one of the largest in the world with yearly production of about 23.96 million vehicles during year 2015–16. However, this production witnessed a growth of 2.57% over previous year 2014-15. The auto industry accounted over 7% in the domestic gross domestic product (GDP) of the country. Because of significant growth in middle class and young population, the two wheelers segment leads the auto market with more than 80% market share. On other hand, rise interest of corporates in tapping rural and semi-urban markets has further helped towards acceleration of auto industry in India. This uncovered rural market has tremendous scope for development.

Since years, India has been well-known and regular exporter of auto across world. These exports are expected to mount in coming future as well. India's auto exports rose around 15% in year 2014-15. The Government of India has announced numerous schemes and initiatives for promoting this auto exports all over the world. It is anticipated that by the year 2020, Indian auto manufacturers comprising of two-wheelers and four-wheelers shall become global leaders. Considering the rising demand of auto industry, numerous auto manufacturing firms had started investing largely in different segments of auto industry during past few years. According to DIPP, auto industry had attracted heavy foreign investments particularly after year 1999-2000. Accordingly, the Government of India took number of initiatives to encourage foreign investment in auto sector by permitting FDI upto 100% in auto sector.

Government of India aims to make auto industry as the chief driver of 'Make in India' initiative with an expectation that passenger vehicles to rise three times by the year 2026 with Auto Mission Plan 2016-26. The mission aims to fasten the pace and sustain growth of auto sector in country. Further Government aims to encourage eco-friendly cars in India including CNG based vehicles, hybrid vehicles and electrical vehicles. The National Electric Mobility Mission 2020 has been initiated for encouraging progressive introduction of reliable, affordable and efficient electric and hybrid vehicles in India.

Review of Literature

Singh Kavita (2001) carried out study in order to analyze and investigate impact of work values on work cultures in the country. Research aimed at identifying and investigating impact of individual work values on the work cultures of organizations in Automobile industry. Research was based on primary data comprising 282 respondents employed in five automobile firms. These respondents were selected on the basis of non-probability method of sampling. Respondents included managers, executives and supervisors from different important departments of automobile firm such as personnel, engineering, production, marketing and maintenance departments. Research highlighted the impact of work values of an individual on different aspects of work culture in automobile industry. Both instrumental values and task values had considerable influence on selected aspects of work culture. Over and over again, negative influence of instrumental and task values are less easy to put into words. Work culture explained common orientations of business surroundings which may widen over and above formal contract between a firm and its employees. It is questionably depend on logical notion rather than purely task related. Research concluded that it is quite expected that lesser perception of work culture from people having high value towards task consideration. Study recommended that task oriented personnel had generally had less perception about work culture. Finally, those organizational aspects / elements that could be controlled by business firm made direct contribution to work culture. Thus, such factors must be given suitable concern.

Sumarto and Subroto Andi (2011) in their study made attempt to develop a research model for providing and investigating inclusive understanding of contribution of organizational culture and leadership on overall productivity and efficiency. Study tried to examine relationship between organizational culture and leadership. Study further tried to analyze gaps existing in past researches on organizational culture and organizational performances. Research was carried out on 165 auto firms involved in manufacturing auto components located in Indonesia who were all members of GIAMM. Study found that leadership had strong impact and influence in enhancing efficiency of entire organization as well as determining organizational culture. Study pointed out that effective leadership brings positive results on firm performance and output. Study suggests implementation of leadership theory for improving business performance. Research signified leaders play essential role in inducing personnel in any business firm to achieve pre-defined objectives in successful manner. Research found no relation between organizational culture and productivity. Research concluded that

large number of auto firm in Indonesia did not had cultural programs, special attributes, socialization program, incentive and promotion criteria which are further connected to cultural values.

Swarnalatha C. and Sureshkrishna G. (2012) in their research tried to determine level of job satisfaction by establishing management practices among employees of automotive industries. These management practices include assigning more powers to staff members, team-work, financial payments & rewards and management leadership. Study aimed to analyze the management practices for determining employee job satisfaction among staff members of automotive industries in India. Primary data was collected from 234 employees of first line of administration selected from various automotive firms across country. Research found that majority of respondents admitted medium level of job satisfaction. Study highlighted significant relationship between employee empowerment and team-work with the job satisfaction of employees. Also there exists significant relation between employee compensation and management leadership with the job satisfaction of employees. Study proposed that job satisfaction of staff may be enhanced by executing and administrating suitable management practices. Research suggested future studies can be carried out consisting on various salient factors and investigate highly complex relationship between staff job satisfaction and other factors in automotive sector in the country.

Premalatha U. M. (2014) in her research aimed to review history of auto industries in India through recognizing different aspects motivating the growth and rise of auto products in India. Research highlighted business opportunities as well as challenges in growth of domestic auto segment. Research focused on factors like cost competitiveness, customer orientation and lead time. Such aspects play key role in growth and survival of SMEs in auto industry. Study found that auto industry in India has bright future ahead. Auto firms had entered into mergers and amalgamations for enhancing technological advancement, expansion and growth potential. Study highlighted risk involved and challenges existing in encouraging small and medium enterprises in auto industry. Study discussed that Government has implemented geographical concentration of firms engaged in identical line of business activities. Study pointed out that quality consciousness has increased in auto industry in all level of managerial hierarchy. The small and medium scale firms had high growth opportunities considering the growth of global developments. Study concluded that future of auto industry is very prosperous. Finally, the study highlighted that Indian auto industry has remarkable potential to flourish at a CAGR of 13% in coming future which is reasonably high.

Vaz Laveena (2017) in her research tried to review the present scenario of auto industry in India. The automotive segment is rising with a shocking rate in India. Infact, automotive industry is considered as engine of growth of Indian economy. Research focused on discussing different issues / challenges observed in auto supply chain and logistics. Study also highlighted the role and significance of small and medium enterprises in an emerging country like India. Study was based mainly on secondary data and methodology used was descriptive in nature. Study discussed the need for enhancing the Research and Development activities in auto segment in India. Study

highlighted that business culture and system in India is quite different from that functioning in many other developed nations. Research found that one of key challenges noted in growth of Indian auto industry is organizational structure and allocation of work between different levels of management. Study brought to light huge potential and prospects for growth of auto segment in India in near future. Study suggested that Indian auto industry must transform and update its technology and management thinking without impacting its brand image in world market. Study suggested that SMEs should focus on customer orientation and cost competitiveness to explore further. Finally, research signified the need for Indian small auto firms to work in context with world competition and global standard norms.

Objectives of Study

1. To review the trend of auto production in India
2. To analyze the trend of domestic sales of auto products in India
3. To study the present market share of auto industry in India

Research Methodology

Present research is an exploratory study mainly based on secondary data. Study tries to overview the rise and growth of auto industry in India over a period of past six years (i.e. from 2011-12 to 2014-15).

- i) **Scope of Research:** Present research is mainly based on secondary data which reviews the growth of auto production trends in India. Present research studies the gross turnover of auto manufacturers in India. Study also highlights the rise in sales volume of auto products in India. Study also brings to light trends in exports of auto products from India across the world. Finally, research points out the present domestic market share of auto industry. The period of study covered is of past six years i.e. from 2011-12 to 2014-15.
- ii) **Type of Data:** Secondary data has been collected and used for the present study.
- iii) **Sources of Data:** Secondary data was collected from internet, reference books, publications, articles, etc related to auto industry and its growth in India.
- iv) **Data Analysis:** Simple analytical tools like percentage and proportion are used in present study. Data collected from different sources is properly edited, summarized and presented through tables and charts wherever required.

Data Analysis and Discussions

Table 1: Table showing Automobile Production Trends in India (in numbers)

Category	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Passenger Vehicles	31,46,069	32,31,058	30,87,973	32,21,419	34,65,045	37,91,540
Commercial Vehicles	9,29,136	8,32,649	6,99,035	6,98,298	7,86,692	8,10,286

Three Wheelers	8,79,289	8,39,748	8,30,108	9,49,019	9,34,104	7,83,149
Two Wheelers	1,54,27,532	1,57,44,156	1,68,83,049	1,84,89,311	1,88,30,227	1,99,29,485
Total	2,03,82,026	2,06,47,611	2,15,00,165	2,33,58,047	2,40,16,068	2,53,14,460

Source: <http://www.siamindia.com>

Above table indicates trend of automobile production in India over a period of six years from 2011-12 to 2016-17. This automobile production is further classified into four segments comprising of passenger vehicles, commercial vehicles, three wheelers and two wheelers. It can be seen that number of automobiles are rising constantly over the period under study. This production increased nearly 1/4th of the period. The two wheelers segment clearly dominates with an accelerating growth from 2011-12 to 2016-17. This number of two wheelers has increased about 30% over six years. Followed by this, market is captured by passenger vehicles which have been grown by 20%. The production of commercial vehicles and three wheelers both has underwent significant fluctuation and variations over the period under study. Their production has been increased and decreased constantly at regular interval. This fluctuation clearly reflects market demand and requirements of such vehicles in India.

+Table 2: Table showing Gross Turnover of Auto Manufacturers in India

Year	2010-11	2011-12	2012-13	2013-14	2014-15
Amount (in INR)	2,694,818	3,114,408	3,380,350	3,312,720	3,593,449

Source: <http://www.siamindia.com>

Above table signifies gross turnover of auto manufacturers in India from 2010-11 to 2014-15. It can be seen that this turnover has increased considerably at an accelerated pace. This turnover has grown by more than 33% over period of five years under study. This further indicates promising growth and rising future of auto products and auto manufacturing units in an emerging economy like India.

Table 3: Table showing Automobile Domestic Sales Trends

Category	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Passenger Vehicles	26,29,839	26,65,015	25,03,509	26,01,236	27,89,208	30,46,727
Commercial Vehicles	8,09,499	7,93,211	6,32,851	6,14,948	6,85,704	7,14,232
Three Wheelers	5,13,281	5,38,290	4,80,085	5,32,626	5,38,208	5,11,658

Two Wheelers	1,34,09,150	1,37,97,185	1,48,06,778	1,59,75,561	1,64,55,851	1,75,89,511
Total	1,73,61,769	1,77,93,701	1,84,23,223	1,97,24,371	2,04,68,971	2,18,62,128

Source: <http://www.siamindia.com>

The above table displays trend of domestic sales of automobile products in India from 2011-12 to 2016-17. It can be seen that number of automobiles sold in the country has grown tremendously and has been increasing at rising pace. Over the period, these domestic sales have increased more than 25% which is highly commendable. Again, the two-wheeler segment dominates this sales volume. The sale of two wheelers has rose continuously over the period and has grown more than 30% which is significantly high. Followed by this, the sale of passenger vehicles has increased by 15% which is lesser that that of two wheelers. On the contrary, sale of commercial vehicles and three wheelers has fluctuated reasonably over the period. It can be inferred that these sales volumes of commercial vehicles and three wheelers correspond to the manufacturing of these vehicles in India.

Table 4: Table showing Automobile Exports Trends

Category	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Passenger Vehicles	5,08,783	5,59,414	5,96,142	6,21,341	6,53,053	7,58,830
Commercial Vehicles	92,258	80,027	77,050	86,939	1,03,124	1,08,271
Three Wheelers	3,61,753	3,03,088	3,53,392	4,07,600	4,04,441	2,71,894
Two Wheelers	19,75,111	19,56,378	20,84,000	24,57,466	24,82,876	23,39,273
Grand Total	29,37,905	28,98,907	31,10,584	35,73,346	36,43,494	34,78,268

Source: <http://www.siamindia.com>

Above table displays exports of auto products from India to different countries all over the world. These exports have been covered from 2011-12 to 2016-17. It can be seen that these exports has underwent significant variations and flux over the period. With every rise followed by fall, these exports have been fluctuated considerably. However, it must be noted that these variations are not high. Major share of exports has been covered by two wheelers whose exports rose massively from 2011-12 to 2012-13. These exports further continued to rise reasonably over the period, except a marginal fall in year 2016-17.

On other hand, exports of passenger vehicles have increased regularly but at a slow pace. Exports of three wheelers have fluctuated significantly over the period under study. Finally, share of exports of commercial vehicles in total exports of auto products is quite low but increased over the period.

Table 5: Table showing Domestic Market Share for 2015-16

Category	Percentage
Passenger Vehicles	14%
Commercial Vehicles	3%
Three Wheelers	3%
Two Wheelers	80%
Total	100%

Source: <http://www.siamindia.com>

Above table highlights market share of automobile industry in India as of year 2015-16. It can be seen that two-wheeler segment undoubtedly dominates automobile market in India with a massive share of about 80%. With relatively lower share of 14%, passenger vehicles hold second position which is of course reasonably less than two wheelers. Finally, the commercial vehicles and three wheelers share negligible market share of merely 3% each. This indicates automobile industry in the country is ruled and led by two wheelers segment.

Findings

- Production of automobiles is rising constantly over the period and has increased nearly about 25%. Two wheelers segment enjoyed dominated share and its production has rose with an accelerating pace.
- Production of commercial vehicles and three wheelers both has underwent significant fluctuation and variations.
- Gross turnover of auto manufacturers in India has increased considerably at an accelerated pace. This turnover has grown by more than 33% over period of five years.
- Growth in gross turnover further indicated promising growth and rising future of auto products and auto manufacturing units in an emerging economy like India.
- Number of automobiles sold in the country has grown tremendously (more than 25%) and has been increasing at rising pace.
- Sale of two wheelers has rose continuously over the period and has grown more than 30% and that of passenger vehicles has increased by 15%.
- Sales volume of commercial vehicles and three wheelers correspond to the manufacturing of these vehicles in India.
- Exports of auto products from India have underwent significant variations and flux over the period. However, these fluctuations were not significant.
- Proportion of exports of commercial vehicles in total exports of auto products is quite low but increased over the period.

- Two wheeler segment undoubtedly dominates automobile market in India with a massive share of about 80%. Passenger vehicles holds relatively lower share of 14%.
- Share of commercial vehicles and three wheelers have negligible market share of merely 3% each indicating that automobile industry in the country is ruled and led by two wheelers segment.

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16. CONFIGURATIONAL SIGNIFICANCE OF MULTI-STATE COMPONENTS IN A MULTI-STATE PARALLEL-SERIES SYSTEM

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Abstract

Reliability engineers are constantly making efforts to improve system reliability by different means. Mostly their efforts revolve round the binary systems, where each component as well as the entire system works perfectly or it is in a complete failure state. But components as well as systems can perform under some partially working states before they reach to the state of complete failure. Such systems are no longer binary, and termed as multi-state systems with multi-state components. Thus, the presence of multi-state functioning levels in components as well as systems necessitates the need of developing theories which can help improve system performance of such systems. Here a multi-state configurational importance measure has been developed and that has been used to assess the impact of the position of individual components in the system configuration on the improvement of system reliability. The application of the derived result has been illustrated through a numerical example with respect to a homogeneous multi-state coherent system.

Keywords: coherent system, homogeneous system, multi-state structural importance, multi-state system reliability.

Introduction

Improving system reliability is of great importance to the reliability engineers. A poor performance of a system can raise safety concerns in many systems. In business, it can bring down user satisfaction, and in turn, that affects the business as a whole. Performance of a system can be improved in different ways, e.g., by improving the reliability of system components, by implementing better maintenance, by replacing system components by more reliable ones, by increasing redundancy for critical components, or by some other means. All these methods involve additional costs. The cost is minimal if the system reliability enhancement can be done simply by rearranging its constituent components according to some component importance measure. Bhattacharya and Samaniego (2008), Roychowdhury and Bhattacharya (2009) discussed different ways to improve system reliability for binary-state coherent systems comprising of binary-state components having independent lives.

Now we consider an engineered system having multiple states in between the states of perfectly working or totally failed and develop a way to improve the multi-state system reliability. In a multi-state coherent system with multi-state components, the overall system reliability depends on a large number of combinations of levels of performance of the system components. The reliability improvements of different

components contribute to different amounts of improvement in the system reliability. Thus, the reliability improvement in a multi-state system with multi-state components is a complex problem, and relatively less work has been found in the literature. The theory of multi-state system with multi-state components was developed through the works of Barlow and Wu (1978), El-Newehi et al. (1978), Ross (1979), Griffith (1980), Natvig (1982), Ebrahimi (1984) and others.

To improve the reliability of multi-state series-parallel systems by replacing their components with more reliable ones has been discussed in Kwiatkowska-Sarnecka (2006). Ramirez-Marquez and Coit (2007) discussed a procedure to improve the reliability of a multi-state system with multi-state components through component criticality analysis. Wang and Li (2015) discussed the improvement in system performance using redundancy allocation in multi-state systems operating under failure interactions.

System configuration, which tells about the position of the components constituting the system, plays a very important role in developing a configurational importance measure for the components of a system. The present paper develops a configurational importance measure for multi-state components in a homogeneous multi-state coherent system and derives a procedure for improving reliability of a multi-state system with multi-state components making use of that measure. The paper is organized as follows: Section 1 introduces the work with a brief review of previous works. Section 2 presents a multi-state model. Section 3 discusses the configurational importance of multi-state components in a multi-state system. Section 4 presents a numerical example illustrating how the said measure can help improve reliability of a multi-state system. Section 5 concludes the paper with a brief discussion.

The Multi-State Model

Let us consider an n component coherent system, as modeled in Roychowdhury and Bhattacharya (2018), where each component has the following states: 1 (perfectly working), a (partially working), 0 (failed state), $0 < a < 1$. For $a = 0$, the system reduces to a binary-state component system. Here we decompose a multi-state system into k subsystems in such a way that a multi-state subsystem fails if all of its multi-state components fail, and the entire multi-state system fails if at least one of its multi-state subsystem fails.

The states and reliabilities of different multi-state components, multi-state subsystems and the multi-state system are presented below.

Multi-state component states and component reliability

The state variable x_i of component i takes the values x_{ij} as follows: $x_i = x_{i1} = 1$, if i^{th} component is in perfectly working state, $x_i = x_{i2} = a$, if i^{th} component is in partially working state, $x_i = x_{i3} = 0$, if i^{th} component is in failed state, $i = 1, 2, \dots, n$. Let p_{ij} be the probability that the i^{th} component is in j^{th} state, $i = 1, 2, \dots, n$, $j = 1, 2, 3$. For component i ,

$$p_i = p_{i1} = P(x_{ij} = x_{i1}) = P(x_{ij} = 1) = P(i^{\text{th}} \text{ component is perfectly working})$$

$r_i = p_{i2} = P(x_{ij} = x_{i2}) = P(x_{ij} = a) = P(i^{\text{th}} \text{ component is partially working})$
 $q_i = p_{i3} = P(x_{ij} = x_{i3}) = P(x_{ij} = 0) = P(i^{\text{th}} \text{ component is in failing state}), \text{ where } \sum_j p_{ij} = 1.$

The multi-state component reliability matrix is given by

$$\mathbf{p}^{n \times 3} = \begin{bmatrix} \mathbf{p}_1^{1 \times 3} \\ \mathbf{p}_2^{1 \times 3} \\ \mathbf{p}_3^{1 \times 3} \\ \dots \\ \mathbf{p}_n^{1 \times 3} \end{bmatrix} = \begin{bmatrix} p_1 & r_1 & q_1 \\ p_2 & r_2 & q_2 \\ p_3 & r_3 & q_3 \\ \dots & \dots & \dots \\ p_n & r_n & q_n \end{bmatrix},$$

where $\mathbf{p}_i = (p_{i1}, p_{i2}, p_{i3}) = (p_i, r_i, q_i)$, $i = 1, 2, \dots, n$ are the components, $j = 1, 2, 3$ are the states of component i .

A unified measure of multi-state component reliability for the i^{th} component is given by

$$E(x_i) = p_{i1} + ap_{i2}.$$

Hence, between any two multi-state components, which one is better (i.e., more reliable) can be decided using the following result:

Result 1. Component i is better than component i' if and only if

$$\frac{(p_{i1} - p_{i'1})}{(p_{i'2} - p_{i2})} > a.$$

Proof. The proof follows directly from the expression of expectation of the state variable.

Multi-state subsystem states and subsystem reliability

Here each of k subsystems M_1, M_2, \dots, M_k has three possible states, viz., perfectly working, partially working and failed state. The states of the h^{th} subsystem are as follows: $\xi_{h1} = \xi_{h1} = 1$, i.e., at least one $x_{ij} = x_{i1} = 1$, $\xi_{h1} = \xi_{h2} = a$, i.e., at least one $x_{ij} = x_{i2} = a$, and no $x_{ij} = 1$, $\xi_{h1} = \xi_{h3} = 0$, i.e., all $x_{ij} = x_{i3} = 0$, $i \in M_h$.

The multi-state subsystem reliability vector is given by the vector of probabilities of perfectly working, partially working and failing, which is as follows:

$$\left(1 - \prod_{i \in M_h} (1 - p_i), \prod_{i \in M_h} (1 - p_i) - \prod_{i \in M_h} q_i, \prod_{i \in M_h} q_i \right).$$

Combining the probabilities of each states we get an integrated measure of multi-state subsystem reliability as

$$R(M_h) = p_{M_h} = (1 - a) \times \left\{ 1 - \prod_{i \in M_h} (1 - p_i) \right\} + a \times \left\{ 1 - \prod_{i \in M_h} (1 - p_i - r_i) \right\}.$$

Multi-state system states and system reliability

Let $\phi(\mathbf{x}), \mathbf{x} = (x_1, x_2, \dots, x_n)$, be the structure function of the system which also takes the value 1, when the system is in perfectly working state, a , when the system is in partially working state, and 0, when the system is in failing state. The structure function $\phi(\mathbf{x}) =$

1, i.e., when all $\zeta_{hl} = 1, 1 \leq h \leq k, \phi(\mathbf{x}) = a$, i.e., at least one $\zeta_{hl} = a$, and no $\zeta_i = 0, 1 \leq h \leq k, \phi(\mathbf{x}) = 0$, i.e., at least one $\zeta_{hl} = 0, 1 \leq h \leq k$.

For different states of the system, perfectly working, partially working and failed, the state probability vector of a multi-state system is as follows:

$$\left(\prod_{h=1}^k \{1 - \prod_{i \in M_h} (1 - p_i)\}, \left\{ \prod_{h=1}^k (1 - \prod_{i \in M_h} q_i) \right\} - \left\{ \prod_{h=1}^k (1 - \prod_{i \in M_h} (1 - p_i)) \right\}, 1 - \prod_{h=1}^k (1 - \prod_{i \in M_h} q_i) \right)$$

Combining the above three state probabilities, we get a combined measure of multi-state system reliability, which is obtained as

$$R(\mathbf{p}) = E(\phi(\mathbf{x})) = (1 - a) \times \prod_{h=1}^k \{1 - \prod_{i \in M_h} (1 - p_i)\} + a \times \prod_{h=1}^k \{1 - \prod_{i \in M_h} (1 - p_i - r_i)\}.$$

3. Importance Measure of Multi-State Components

The role of each component in a system configuration is not same on system reliability. In binary systems, the configurational significance of a component is measured by component structural importance. There from the structure function of a system, the system reliability can be determined as

$$R(\mathbf{p}) = E(1 - \phi(\mathbf{x})) = 1 - p_i E(\phi(1_i, x)) - (1 - p_i) E(\phi(0_i, x)),$$

where $p_i = i^{\text{th}}$ component reliability, $\phi(1_i, x)$ denotes a state vector, indicating that the state of i^{th} component is 1, i.e., the i^{th} component is functioning properly, and $\phi(0_i, x)$ indicates that the state of i^{th} component is 0, i.e., the i^{th} component is not functioning properly, $i = 1, 2, \dots, n$.

A critical path vector for component i is a state vector $(1_i, x)$ such that $\phi(1_i, x) = 1$ and $\phi(0_i, x) = 0$, or equivalently,

$$\phi(1_i, x) - \phi(0_i, x) = 1.$$

Depending on the state of the i^{th} component there can be $2^{(n-1)}$ possible state vectors. Structural importance of a component i is the proportion of critical path vectors for component i out of $2^{(n-1)}$ possible state vectors. For i^{th} component, it is defined as

$$I_\phi(i) = \frac{\sum_{\{X, x_i=1\}} [\phi(1_i, x) - \phi(0_i, x)]}{2^{(n-1)}}.$$

Roychowdhury and Bhattacharya (2009) developed a procedure to improve system reliability by rearranging binary-state system components using component structural importance measure. Here we develop such a measure for a multi-state system with multi-state components and assess the impact of rearrangement on multi-state system reliability.

Multi-State Structural Importance

Let us define the multistate structural importance (MSI) of a component as the proportion of times the system works, partially or perfectly, out of all possible situations, based on the states of that particular component. Here we consider the proportion of cases where there is a difference in the state of the system when the

component under consideration is in working state (perfectly or partially) and when it is in a failed state, out of all possible cases.

Now let us consider the parallel-series system, as shown in Fig.1

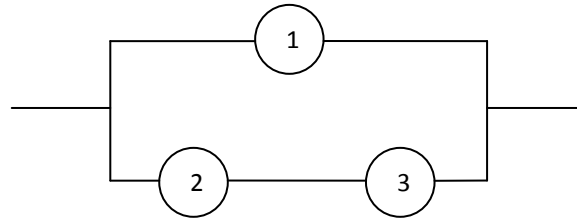


Fig.1 A parallel-series system

The subsystems of the above system are {1, 2} and {1, 3}. The multi-state reliability of the system is

$$R(p) = (1 - a) \times (p_1 + p_2 - p_1 p_2) \times (p_1 + p_3 - p_1 p_3) + a \times \{(p_1 + r_1) + (p_2 + r_2) - (p_1 + r_1) \times (p_2 + r_2)\} \times \{(p_1 + r_1) + (p_3 + r_3) - (p_1 + r_1) \times (p_3 + r_3)\}$$

The multi-state structural importances of different components of the parallel-series system described here are given below:

$$MSI(1) = \frac{1}{18} \times \sum_{(x_2, x_3)} [\{\phi(1, x_2, x_3) - \phi(0, x_2, x_3)\} + \{\phi(a, x_2, x_3) - \phi(0, x_2, x_3)\}]$$

$$MSI(2) = \frac{1}{18} \times \sum_{(x_1, x_3)} [\{\phi(x_1, 1, x_3) - \phi(x_1, 0, x_3)\} + \{\phi(x_1, a, x_3) - \phi(x_1, 0, x_3)\}]$$

$$MSI(3) = \frac{1}{18} \times \sum_{(x_1, x_2)} [\{\phi(x_1, x_2, 1) - \phi(x_1, x_2, 0)\} + \{\phi(x_1, x_2, a) - \phi(x_1, x_2, 0)\}].$$

Now we have the following result:

Result 2. The order of the multi-state structural importances of the multi-state components of the parallel-series system, described by Fig.1, is as follows:

$$MSI(1) > MSI(2) = MSI(3).$$

Proof. Let us determine the *MSIs* of different multi-state components of the parallel-series system.

Following is the calculation for obtaining *MSI* of component 1:

$\phi(1, x_2, x_3)$	$\phi(0, x_2, x_3)$	$\phi(a, x_2, x_3)$	$\phi(0, x_2, x_3)$
$\phi(1,1,1) = 1$	$\phi(0,1,1) = 1$	$\phi(a,1,1) = 1$	$\phi(0,1,1) = 1$
$\phi(1,1,a) = 1$	$\phi(0,1,a) = a$	$\phi(a,1,a) = a$	$\phi(0,1,a) = a$
$\phi(1,1,0) = 1$	$\phi(0,1,0) = 0$	$\phi(a,1,0) = a$	$\phi(0,1,0) = 0$
$\phi(1,a,1) = 1$	$\phi(0,a,1) = a$	$\phi(a,a,1) = a$	$\phi(0,a,1) = a$
$\phi(1,a,a) = 1$	$\phi(0,a,a) = a$	$\phi(a,a,a) = a$	$\phi(0,a,a) = a$
$\phi(1,a,0) = 1$	$\phi(0,a,0) = 0$	$\phi(a,a,0) = a$	$\phi(0,a,0) = 0$
$\phi(1,0,1) = 1$	$\phi(0,0,1) = 0$	$\phi(a,0,1) = a$	$\phi(0,0,1) = 0$
$\phi(1,0,a) = 1$	$\phi(0,0,a) = 0$	$\phi(a,0,a) = a$	$\phi(0,0,a) = 0$
$\phi(1,0,0) = 1$	$\phi(0,0,0) = 0$	$\phi(a,0,0) = a$	$\phi(0,0,0) = 0$

Hence, by definition,

$$MSI(1) = \frac{(8 - 3a) + 5a}{18} = \frac{(4 + a)}{9}.$$

The *MSI* of component 2 is determined as follows:

$\phi(x_1, 1, x_3)$	$\phi(x_1, 0, x_3)$	$\phi(x_1, a, x_3)$	$\phi(x_1, 0, x_3)$
$\phi(1, 1, 1) = 1$	$\phi(1, 0, 1) = 1$	$\phi(1, a, 1) = 1$	$\phi(1, 0, 1) = 1$
$\phi(1, 1, a) = 1$	$\phi(1, 0, a) = 1$	$\phi(1, a, a) = 1$	$\phi(1, 0, a) = 1$
$\phi(1, 1, 0) = 1$	$\phi(1, 0, 0) = 1$	$\phi(1, a, 0) = 1$	$\phi(1, 0, 0) = 1$
$\phi(a, 1, 1) = 1$	$\phi(a, 0, 1) = a$	$\phi(a, a, 1) = a$	$\phi(a, 0, 1) = a$
$\phi(a, 1, a) = a$	$\phi(a, 0, a) = a$	$\phi(a, a, a) = a$	$\phi(a, 0, a) = a$
$\phi(a, 1, 0) = a$	$\phi(a, 0, 0) = a$	$\phi(a, a, 0) = a$	$\phi(a, 0, 0) = a$
$\phi(0, 1, 1) = 1$	$\phi(0, 0, 1) = 0$	$\phi(0, a, 1) = a$	$\phi(0, 0, 1) = 0$
$\phi(0, 1, a) = a$	$\phi(0, 0, a) = 0$	$\phi(0, a, a) = a$	$\phi(0, 0, a) = 0$
$\phi(0, 1, 0) = 0$	$\phi(0, 0, 0) = 0$	$\phi(0, a, 0) = 0$	$\phi(0, 0, 0) = 0$

Hence $MSI(2) = \frac{2 + 2a}{18} = \frac{(1 + a)}{9}.$

The *MSI* of component 3 is obtained as follows:

$\phi(x_1, x_2, 1)$	$\phi(x_1, x_2, 0)$	$\phi(x_1, x_2, a)$	$\phi(x_1, x_2, 0)$
$\phi(1, 1, 1) = 1$	$\phi(1, 1, 0) = 1$	$\phi(1, 1, a) = 1$	$\phi(1, 1, 0) = 1$
$\phi(1, a, 1) = 1$	$\phi(1, a, 0) = 1$	$\phi(1, a, a) = 1$	$\phi(1, a, 0) = 1$
$\phi(1, 0, 1) = 1$	$\phi(1, 0, 0) = 1$	$\phi(1, 0, a) = 1$	$\phi(1, 0, 0) = 1$
$\phi(a, 1, 1) = 1$	$\phi(a, 1, 0) = a$	$\phi(a, 1, a) = a$	$\phi(a, 1, 0) = a$
$\phi(a, a, 1) = a$	$\phi(a, a, 0) = a$	$\phi(a, a, a) = a$	$\phi(a, a, 0) = a$
$\phi(a, 0, 1) = a$	$\phi(a, 0, 0) = a$	$\phi(a, 0, a) = a$	$\phi(a, 0, 0) = a$
$\phi(0, 1, 1) = 1$	$\phi(0, 1, 0) = 0$	$\phi(0, 1, a) = a$	$\phi(0, 1, 0) = 0$
$\phi(0, a, 1) = a$	$\phi(0, a, 0) = 0$	$\phi(0, a, a) = a$	$\phi(0, a, 0) = 0$
$\phi(0, 0, 1) = 0$	$\phi(0, 0, 0) = 0$	$\phi(0, 0, a) = 0$	$\phi(0, 0, 0) = 0$

Hence $MSI(3) = \frac{2+2a}{18} = \frac{(1+a)}{9}$.

Here $MSI(1) = \frac{(4+a)}{9}$, $MSI(2) = MSI(3) = \frac{(1+a)}{9}$.

Hence $MSI(1) > MSI(2) = MSI(3)$. ■

It can be shown that placing more reliable component to position having higher *MSI* in a multi-state system configuration results in a more reliable multi-state system, which is illustrated by the following numerical example.

Numerical Example

Let us consider a multi-state parallel-series system with the following component reliability vectors: $p_1 = (0.6, 0.2, 0.2)$, $p_2 = (0.7, 0.1, 0.2)$, $p_3 = (0.9, 0.05, 0.05)$ with multi-state system reliability 0.898 with $a = 0.5$. By Result 1, the component 3 is found to be the best, and component 2 is better than component 1.

The multi-state structural importances of the components are $MSI(1) = 0.5$, $MSI(2) = MSI(3) = 0.167$, according to the expressions derived in the proof of Result 2.

Now, let us first switch components 1 and 3. The following table shows the impact of switch on multi-state reliability:

<i>a</i>	<i>p</i> ₁	<i>r</i> ₁	<i>p</i> ₂	<i>r</i> ₂	<i>p</i> ₃	<i>r</i> ₃	<i>R(p)</i>	<i>Switch</i>	<i>Change in R(p)</i>
0.5	0.6	0.2	0.7	0.1	0.9	0.05	0.898		
0.5	0.9	0.05	0.7	0.1	0.6	0.2	0.956	first switch: 1 st and 3 rd	improved by 6.46%
0.5	0.9	0.05	0.6	0.2	0.7	0.1	0.956	second switch: 2 nd and 3 rd	no change
0.5	0.7	0.1	0.6	0.2	0.9	0.05	0.902	third switch: 1 st and 3 rd	reduced

Here switching components 1 and 3 improves the *R(p)* by 6.46%. The *R(p)* becomes 0.956 from 0.898 due to this switch. After the first switch, if we switch 2nd and 3rd components again, that does not have any effect on *R(p)*, as their *MSI*s are same. Thus only switching components 1 and 3 is beneficial here. No more switches can improve the *R(p)* further, for example, if we switch the positions of 1st and 3rd components after the previous switches, and get new $p_1 = (0.7, 0.1, 0.2)$, $p_2 = (0.6, 0.2, 0.2)$, $p_3 = (0.9, 0.05, 0.05)$, then *R(p)* will decrease to 0.902 from 0.956. Here we have seen that the system reliability becomes maximum when the most reliable component is placed in the position of the highest *MSI*.

Conclusion

The present paper solved a reliability improvement problem for a multi-state coherent system by rearranging its constituent multi-state components in the system configuration using a multi-state structural importance measure. Here, since each

component has more than two states, it is not that obvious always to determine which of any two system components is better than the other. A result has been proved, to resolve this issue. For a parallel-series system, it has been shown that between a pair of system components, if a lower performing component is placed in the position with higher multi-state structural importance and a higher performing component in a position with lower importance, then switching the positions of the two components in the system configuration will be beneficial in the sense of improving system reliability. This way after one or more switches it is possible to maximize the reliability of a multi-state system without any additional cost. A numerical example has been included to illustrate how this switch can improve system reliability and to what extent.

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17. KARL POPPER-PHILOSOPHY OF SCIENCE

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Abstract

This paper review Popper's epistemology stance with new perspective, it relooks what is strong theory, what is considered as science from popper's perspective, how hypothesis testing can have stronger verifiability, it describes what is strong theory from popper's perspective further its argue what are the possible logical fallacy one can commit in research, the main aim of this paper is how business research can draw from Karl popper's concept to make solid business theories.

Key Words: Philosophy of science, research methods, Logic, Business research

Introduction

Since the time of David Hume, philosophy has struggled with the problem of drawing inferences from a finite set of instances. Making generalizations is the work of inductive method. Science is concerned with 'truth', which means providing proven explanations of the way reality works based on the discovery of 'facts'. In other words, a scientist will regard her/his hypothesis proven by citing evidences that confirm it. The problem is that inferences or hypotheses may differ even though they base themselves on commonly observed facts (evidences). This is known as the problem of induction or the problem of the logic of verification.

To explain further, the individual may perceive and interpret the world according to the particular practical interest he or she may have. Ways of 'seeing' the world are not simply a result of the physical act of 'looking at' the world. The selective perception of the world also occurs in response to an individual's attempt to understand and explain the world. The 'facts' of perception are meaningful as facts only because they have been identified and understood in terms of an explanatory model of the world. For many people another feature that marks science off from other type of explanation is the methods it uses. Controlled laboratory experimentation is perhaps the one method most would associate with science, though for some sciences, such as astronomy, direct experimentation with the raw data- the stars- is clearly technically impossible. Few challenged the scientific status of astronomy because of its practical problem.

Logical Positivism:

Criterion of meaning:

Ayer(1946) explains that the principle of verifiability could also be used as a criterion to see whether or not an announcement is important. To be important, an announcement

should be either analytic (i.e. a tautology) or capable of being verified. According to Ayer, analytic statements are unit tautologies. A tautology could be a statement that's essentially true, true by definition, and true beneath any conditions. A tautology could be a repetition of which means of an announcement, victimization completely different words or symbols. Consistent with Ayer, the statements of logic and arithmetic are unit tautologies. Tautologies are unit true by definition, and so their validity doesn't rely upon empirical testing.

Synthetic statements, or empirical propositions, assert or deny one thing concerning the \$64000 world. The validity of artificial statements isn't established simply by the definition of the words or symbols they contain. Consistent with Ayer, if an announcement expresses an empirical proposition, then the validity of the proposition is established by its empirical verifiability.

Propositions are unit statements that have conditions beneath that they will be verified. By the verification principle, important statements have conditions beneath that their validity may be Affirmed or denied.

Statements that don't seem to be important cannot be expressed as propositions. Each verifiable proposition is important, though it's going to be either true or false. Each proposition asserts or denies one thing, and so is either true or false.

Verification

Confirmation or Verification is the philosophical theory proposed by the logical positivists of the Vienna circle. Logical positivists combine empiricism and rationalism i.e. the idea that observational evidence is essential for knowledge of the world with incorporating mathematical and logico-linguistic constructs. In simple terms this theory states that the propositions which cannot be empirically verified are meaningless.

'Verificationists' argue that one can use empirical evidence to provide a varying degree of positive support for the truth of scientific theories. For example, the larger the number of instances which are in accordance with the predictions that can be deduced from a theory or the more varied the circumstances in which these instances occur, the more strongly confirmed as to their relative degrees of empirical support. And many 'verificationists' have tried to formalize these relationships of evidential support for a theory, and to construct 'logic of verification'

Positivism	Critical rationalism
Rationalism	Falsifiability
Verification/Verifiability	Hypothetical deductive
Induction	

(Diagram for purpose of simplification)

Social scientists begin constructing a theory through the inductive method by observing aspects of social life, and then seeking to discover patterns that may point to more or less universal principles.

Verificationists start with observation in order to come to conclusion. In order to find out the relationship between wages and pieces of production at the end of the day by home based worker. We may simply arrange relevant information and data.

Then one can look for a pattern that best represented. Different patterns can be seen by different researchers between wages and piece of production. One can see that wage increases with the increase in the amount of piece produced. Whereas, one can see that wage not only depends on the basis of production but also on the time that has been spent on producing the no. of pieces.

What is science & Non-science?

This leads us to believe that scientific knowledge can never be “proven” knowledge. Recognizing the problem involved in scientific enquiry, Karl Popper holds the view that the scientist should not devote his attention to proving the correctness of his position but rather must try to specify the conditions under which she would be willing to give up or change her position.

At the heart of the verification versus falsification debate lays the problem, in Karl Popper’s own word, how “to distinguish between science and pseudo science” (Popper, 1963). According to him, though science is distinguished from pseudoscience by its empirical method, which is essentially inductive, the real problem relates to one of distinguishing between a genuinely empirical method and a non-empirical method or even a pseudo-empirical method. Popper gives example of astrology which collects stupendous amount of empirical evidence based on observation (on horoscopes and on biographies) but does not come up to scientific standards.

Theories such as those of Karl Marx, Freud and Alfred Adler can be credited for their great explanatory power. They appeared to be capable of explaining almost everything within their own field. However, irrespective of their meaningfulness or significance in terms of adding to our knowledge say in terms of human history or human behaviour, their theories also appeared to be incompatible with certain results of observation. Example can be given of Marxist theory of history which predicted coming revolution in advanced capitalist countries. The actual turn of history proved otherwise.

Verification & Falsification with respect to Inductive & Deductive controversy:

In the following pages I would try to explain the nature and substance of the debate that centers round the two logics of inquiry – verification and falsification. **Karl popper moved from verification to falsification- through Induction & Deduction controversy & Demarcation principle-i.e. what is science & what is non –science?**

Logic of Procedure

Logic of procedure, this is divided in two parts i.e. Deduction and Induction. This logic of procedure is also known as Methodology.

- a) Deduction is the generalized body of knowledge, it is the knowledge based on ideas and the ideas deduced from existing body of knowledge. This methodology is also known as hypothetico-deductive.
- b) Induction is the methodology in which hypothesis is developed in the field as one goes on in the field.

Methods/Techniques/Tools- issues of method concern the technique for collecting data- i.e. which specific techniques do one uses to get at evidence which will support the propositions.

All these four aspects of understanding are closely tied to one another. i.e. neither methodologies nor methods are constructed or chosen in isolation from ontological and epistemological positions.

So the way one gets the knowledge and the techniques one uses to collect evidence are directly related to ones image of reality and the way one think. There are **three main elements** in the traditional model of **science**. They are **theory, operationalization and observation**.

Theory – According to the traditional model of science, the scientists begins with an interest in some aspect of the real world.

Operationalization – It refers simply to the specification of the steps, procedures, or operations that one will go through in actually measuring and identifying the variables one wants to observe.

Observation – the final step in the traditional model of science involves actual observation, looking at the world and making measurement of what is seen. Sometimes this step involves conducting experiments, sometimes interviewing people. Sometimes the observations are structures around the testing of specific hypotheses; sometimes the inquiry is less structured observation in social science can take many forms other than simply looking at events with one's eyes.

Inductive controversy:

Using inductive technique, investigator lands up with a tentative conclusion concerning the pattern of the link between 2 variables. The conclusion is tentative as a result of the observations one has created cannot be taken as a check of the pattern- those observations are the supply of the pattern's one has created.

Induction begins from the actual observations from those empirical generalizations ar created. These generalizations are then from the idea for theory building. Therefore it is known as analytic induction is common in qualitative studies at intervals social science. This technique needs that each case examined during a piece of analysis substantiates a 'hypothesis'. The investigator formulates a general hypothesis from observation of initial cases; investigate future cases within the seek for a negative instance, and explicate the hypothesis to wear down those confusing cases that are encountered.

Falsification

According to Karl Popper (1963), the scientific standing of a theory is its falsifiability, or refutability, or testability. His formulation of falsification, to quote directly from "Conjectures and Refutations", is as follows:

1. it's simple to get confirmations, or verifications, for nearly each theory — if we glance for confirmations.
2. Confirmations ought to count providing they're the results of risky predictions; that's to mention, if, unenlightened by the speculation in question, we should always

have expected a happening that was incompatible with the speculation — a happening which might have refuted the speculation.

3. Each "good" theory could be a prohibition: it forbids bound things to happen. The additional a theory forbids, the higher it's.
4. A theory that isn't questionable by any conceivable event is non-scientific. Irrefutability isn't a virtue of a theory (as individuals usually think) however a vice.
5. Each real check of a theory is a trial to falsify it, or to refute it. Testability is falsifiability; however there are degrees of testability: some theories are additional testable, additional exposed to refutation, than others; they take, as it were, larger risks.
6. Confirming proof shouldn't count except once it's the results of a real check of the speculation; and this suggests that it are often given as a heavy however unsuccessful conceive to falsify the theory. (I currently speak in such cases of "corroborating proof.")
7. Some genuinely testable theories, once found to be false, are still upheld by their admirers — as an instance by introducing accidental some auxiliary assumption, or by reinterpreting the speculation accidental in such the simplest way that it escapes refutation. Such a procedure is often potential, however it rescues the speculation from refutation solely at the worth of destroying, or a minimum of lowering, its scientific standing.

Thus for Popper, there's no logic of confirmation, solely of falsification. Observations ought to be used alone to indicate that putative theories are false. If one deduce from a theory a prediction that seems to be incorrect. Deduction is that the use of logical rules to make a group of premises from that bound conclusions should follow. Deduction begins with 'theory', moves to hypothesis via prediction and observations. This approach to testing and theory is commonly stated because the hypothetical-deductive technique, and since it emphasizes hypothesis prediction, and testing, is typically command to be the strategy par excellence of science.

Unlike the verifications, the falsification is restricts the thought of valid argument to it of deductive argument and insists that the sole quite deductive relationship that may be established between theory and observation is that during which the falsity of a theory follows from the falsity of the predictions derived from it. Thus, in evaluating scientific theories by means that of observations, is one will solely use the latter to falsify, and to not ensure, the former. The falsifications position is commonly related to a additional general read of the method of theory formulation and analysis, the 'hypothetic-deductive method', significantly within the work of Karl Popper.

Popper argues that one doesn't 1st create observations, make a theory by induction from these, and so look for to verify the speculation by additional observations. Instead, the man of science begins by formulating a theory, or hypothesis, and return to check the hypothesis by creating probably finding observations. If the speculations falsified it should be abandoned, and another one developed to interchange it. This formulation of hypothesis is only a matter of conjecture: there's no 'logic of discovery' by that we will make theories from observations. Indeed, Popper

claims that it makes no sense merely to 'observe', while not regard to any hypothesis that is being tested. For while not such a theory, one doesn't grasp what to appear for. Thus the hypothetical- deductive technique provides AN account each of the manner during which the man of science is to make theories, and additionally of the manner these hypothesis ar to be evaluated by empirical proof. However it's vital to comprehend that there's no inconsistency in accretive just one a part of this account, while rejecting the opposite. Popper points out that the positivist dogma of meaning- is cherish the necessity that everyone the statements of empirical science should be capable of being totally set with reference to their truth and falsity; all the statements should be 'conclusively decidable'. This suggests that their type should be such to verify them and to falsify them should each be logically potential.

Thus Schlick says: a real statements should be capable of conclusive verification, and Waismann says: if there's no potential thanks to confirm whether or not a press release is true then that statement has no that means whatever in keeping with Popper there's no such factor as induction. in keeping with him inferences to theories, from singular statement that are 'verified by experience', is logically unacceptable.

Although Popper was primarily involved with the particular drawback of demarcation, he argued that his solutions may be extended to the broader philosophical issues of philosophy that 'should be known with the speculation of scientific method'. Popper later testified, {the drawback the matter} of the expansion of information was 'the central problem of epistemology', and this might best be studied 'by learning the expansion of scientific knowledge'. His specific goal was, 'to establish the principles, or to determine the norms, by that the man of science is target-hunting once he's engaged in analysis or in discovery.

Popper's philosophy aimed to dispense with induction, subjectivism and therefore the pursue certainty, whereas remaining empirical. The methodology was to be normative in this it sets a series of standards, not just for the appraisal of already developed theories, however additionally for the development of such theories. Central among these was the necessity that scientific statements be created in such the simplest way that they were confirmable. Falsifiability derives its method virtue from the logical principle of modus Tollens and provides the core of Popper's philosophy and methodology. Whereas it's not possible to verify universal statements on the idea of past singular statements, the deductive reasoning of modus Tollens permits universal statements to be refuted by the acceptance of a basic or singular statement. There's thus a necessary imbalance between verifiability and falsifiability. Popper's philosophy relies upon a distinction between 'analytic' statements, just like the rules of logic that ar true by definition and freelance of matters of truth, and 'synthetic' statements whose truths are grounded after all. Once a press release has been place into confirmable type, it will solely be rejected if its empirical or 'synthetic' claims are shown to be false.

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18. A CONCEPTUAL STUDY OF CLOUD COMPUTING: CLOUD TECHNOLOGY AWARENESS FOR IT PROFESSIONALS IN TERMS OF CAREER PERSPECTIVES

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Abstract

This study focuses on important concepts of Cloud Computing. There is dynamic changes in the field of information technology which are the building blocks for the IT infrastructure as well as supporting to the management of IT services in the Cloud environment. These Cloud environment is needed enhancement in the skills and capabilities. In terms example, the IT professionals having good skills with capability for work in the area of virtual storage and the server virtualization, but they are unable adjust their skill sets while working function of a private or public cloud. For the growth of business IT professionals must require adoption of their technical skills which are highest in demand with the flexibility. This paper focuses on parameters like what the cloud offers and how it applies to and impacts existing infrastructure, including such issues as cost, security, data control, and integrity.

Keywords: Cloud Expert, Cloud Technology, Information Technology, IT Profession, Private and Public Cloud

INTRODUCTION

There are so many opportunities for IT professionals in the field of cloud technology as cloud solution . For the custom application development and virtualization stream such as exchange server require technical knowledge level in depth which are key technical skill sets for successful career point of view for IT professional. And these skill sets become critical day by day. This skill set can be used to customization of cloud service providers. While utilization of time for developing and delivering application with services, Information Technology should focus on how to reduce these support and services which are very valuable to the business.

In general, IT professionals should prepare them self towards cloud environment also they will fit in this cloud scenario. The various career paths and options are available for IT professionals. As an case study the administrators need to selection of consultation which will give shape to their soft skills as well as they focus on serving business needs. They may also act as middleware between divisions and IT within an enterprise. Simultaneously, they may also select to their technical skill sets and specialize in building and configuring the structural arrangement itself.

UNDERSTANDING IT AS SERVICES

Its always better to know the Cloud as model for IT as services. Cloud services can be delivered in one of multiple formats. Often, an IT department will start with a private cloud environment and perhaps focus on deploying virtual servers. This is commonly referred to as infrastructure as a service and represents one of the flavors of IT as a service that is available within the world of cloud computing. Since this is only a single example of the possible cloud models, IT professionals must become familiar with a variety of cloud standards so that they can select appropriately based on the needs of the enterprise. It is common to divide cloud computing into three categories:

- **Infrastructure as a service (IaaS)**, which provides flexible ways to create, use and manage virtual machines (VMs).
- **Platform as a service (PaaS)**, focused on providing the higher-level capabilities—more than just VMs—required to support applications.
- **Software as a service (SaaS)**, the applications that provide business value for users.

- **Deployment Models**

The type of cloud that is selected determines the placement and usage model of the physical infrastructure that is being removed from the customer’s datacenter world. Essentially, the cloud computing deployment model describes where the software runs and includes the following options:

- A **private cloud** is a set of standardized computing resources that is dedicated to an organization, usually on-premises in the organization’s datacenter. It works with the current capital investment and delivers the new functions as a service.
- A **hosted private cloud** has a dedicated infrastructure hosted by a third party, inaccessible to other organizations.
- A **public cloud** consists of computing resources hosted externally but shared with other organizations and dynamically provisioned and billed on a utility basis — the customer will pay for what is used as they use it. Keeping these categories in mind, the next sections of the whitepaper discuss the service models and explore the roles and skills IT professionals and developers need to invest in for each of them.



Fig. 1.0 Cloud Role Evolution [Source: <https://medium.com/@Albihany/true-cloud-story-about-iaas-paas-saas-47cfea883271>]

New Technologies and Areas to Consider in Cloud Solution

New technologies or areas to consider include virtualization and datacenter management. Virtualization will involve the management of virtual machines and the self-service environment.

The important job areas include:

1. Provisioning and management
2. Monitoring and protecting
3. Service management
4. Virtualization
5. Automation
6. Security and compliance
7. Performance optimization

One of the major factors of providing self-service is misunderstanding what it involves. For example, some models may have finite resources, even when pooled together. Proper scheduling of resources is critical and scheduling techniques such as reservations and bookings become required. Another component within IaaS is datacenter management. In areas of management, such as workflow, and user interface, there will be administration and configuration tasks. That involves service management and process automation. All must be configured, and some must be customized because every organization's workflow is different.

Products

IT professionals can use their current infrastructure skills and product knowledge to build on for private cloud implementations, and then leverage that to be ahead of the game for public cloud implementations as well. For example, they may use Windows Server 2008 R2, Microsoft Hyper-V™ Server 2008 R2, and Microsoft System Center within a private cloud. From a management perspective, they will need to provide self-service systems while still managing the environment as a single service in an on-demand fashion. Additionally, net new systems provisioning and systems decommissioning must be made possible and available as a part of the service. By taking the products into an IaaS mode, it broadly elevates infrastructure to a service level. Service becomes the differentiator.



Fig. 2.0 Cloud Technology Product [http://accionlabs.com/solutions/cloud-computing-solutions/index.html]

The cloud developer will need to understand how applications are designed, developed, and deployed for a PaaS. The skills developers need to invest in to prepare for the cloud include the following:

- Identity management
- Windows Communication Foundation (WCF) and Rich Internet Application (RIA) services
- Connects
- Middleware
- Architecting Cloud Solutions

Technology developers should consider expanding their skill sets to include identity and access control, Windows Communication Foundation, and HTML5. With identity and access control, Windows Identity Foundation offers a foundation for handling security and enables developers to work easily with Azure access controls. Windows Communication Foundation opens communication by having code already out there that developers should be aware of. HTML5 provides richer websites without the need for third-party plug-ins.

Dealing with various cloud products that exist in the PaaS space means developers must think more about what application services may or may not be offered. In the past, everything was self-contained, built-in — and typically all on-premises. Now, developers must focus on new concepts, such as the access control between remaining on premise components and the offered cloud service and how they will communicate with each other.

Result and Discussion

As per result of the Cloud Computing Research and conceptual study about Cloud Technology, in the present scenario there are number of new career opportunities for IT professionals in the Cloud solutions. In many cases, existing core skill sets transfer directly to cloud technologies. In other instances, IT advantages need to develop new skill sets that meet the demand of emerging cloud job roles.

Conclusion

In this paper Cloud Computing and awareness of cloud technology in terms of IT professionals are studied. Cloud solutions have new security implications for consideration. Organizations in different industries have divergent requirements regarding privacy and data retention. This means that the solution selected by an organization or an enterprise must be carefully examined to ensure that the selected services allow the organization to remain in compliance. IT professionals should look forward to the cloud experience with both competence and confidence.

Companies that instill the knowledge and understanding their IT professionals and developers require in making the transition to cloud based skills will enable transition to the cloud both more successfully and more profitably. As is historically point of view, the world of IT is changing rapidly. Those who discover and master the

skills needed to bridge the gap between the current situation and the not yet will secure their future, and the future of their companies.

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19. AGGREGATORS: ARE THEY HELPING YOUR BUSINESS OR RUINING IT? A PERSPECTIVE ON ZOMATO.COM

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Abstract:

Start Ups or even corporates today have long been dependent on technical and digital giants for communicating their brand and ensuring that customers, consumers are made aware of the brand through these digital giants. What have they not realized is the fact that their lack of digital knowledge and their lack of basic understanding about technical know-how is not only costing them tons of revenue lost in marketing but also they are making these giants strong and so powerful that they can make or break their businesses. This paper will highlight the working of such technical giants and will provide a pathway to plug the marketing costs associated and eventually weed out or reduce the middlemen associated in the supply chain.

Introduction:

Hotels and Hotel Industry

The main purpose of hotels is to provide the people travelling with food, ambience and similar services and goods. Over a period of time, hotels have also taken on many other functions, such as business exchanges, places of public assembly and deliberation, decorative showcases, political headquarters, centers of sociability and permanent residences.

Hotels in the Early Republic

The first hotel in America was built in the cities of the Atlantic coast in the 1790s, when elite urban merchants began to replace taverns with elegant establishments of their own creation. They actually wanted to improve key elements of the national transportation infrastructure and increase the value of real estate adjoining that area. Unlike earlier accommodations, hotels were grand structures, easily identified as major public institutions due to their tremendous size and sophisticated academic styles. They were often designed by renowned architects and spoke volumes about their physical presence. Hotels being hotels had a distinctive internal arrangement with giant halls for the use of the public and featuring hundreds of bedchambers, which was the beginning of offering private space to all guests. Building on such a massive scale was humongous expensive, and hotels cost from seven to forty times as much as had been spent on even building the classiest taverns. The initial period of hotel building continued into the first decade of the nineteenth century before being brought to an end by the financial failure of many of the first projects and the economic disruptions which were a result of World war.

The Next Generation of Hotels

1820 was the year when the second period of hotel construction began, driven by the transportation revolution of America. Innovations in water transport and the subsequent development of ports and water bodies led to many avenues of revenue generation for the hotels. Businessmen began to venture into the hotel industry and constructed a new generation of world renowned structures that spoke volumes about the architecture and in the process expanded their businesses. Baltimore's City Hotel was the first of these hotels to appear in leading commercial centers along coastal trade routes. These hotels were followed by similar establishments built at geographically important areas along the Ohio and Mississippi rivers, more importantly along Cincinnati's Pearl Street House in 1831, Galt House in 1834 and the St. Charles in New Orleans. These and other so called second-generation hotels in America were much larger and more in number than the earlier ones and established the benchmark in hotel industry which will be repeated all across the town in the growing infrastructure of the nation. However in 1837 because of the great depression that followed, everything was brought to a screeching halt in the nation.

The third generation of hotels as successor in the hotel industry was triggered by the rapid growth of the American railroad system in the decades. Hotels continued to mushroom and grow in the East and also grew all along the advancing frontier of settlement. The horizontal growth in the west of hotel construction soon linked up with a counterpart that had its origin with Anglo settlement of the Pacific coast and which extended eastward. The growing infrastructure of American rail network and the ever increasing hotel network gave the necessary push to the economy of the United States. Hotelkeepers by this time had come to see their operations as constituting an integral part of the growing power of the nation. In the early 1840s, the hotel keepers had to embrace new theories and innovative methods of hotel management based on closer supervision and regimentation of employees and regularized contact among managers.

Hotel development did involve diversification of hotel according to their types. Most early hotels had been large urban luxury establishments, but newer variants were quick to emerge. Resort hotels, that were designed to accommodate the ever increasing demand of tourists, were built in scenic rural landscapes far from the cities where the hotel form had been born. Commercial hotels, which were simply furnished and less expensive than the luxury hotels, served the growing ranks of traveling salesmen and other commercial workers which were the outcome of the bustling economy. Railroad hotels were built at regular intervals along the roads to ensure the tourists had a comfortable time while travelling and need not travel to far off places in search of affordable accommodation. Residential hotels, which were solely built for the purpose of middle class society actually paved the way for apartments and buildings. A frontier hotel form, characterized by wooden construction was built in such places where the capital was not easily available and scarce. These and similar to these hotels are ensured that such construction was not available only for the elite few in the society but even affordable to certain professions which required frequent travels.

Hotels were a major attraction for the young and the old both. The kind of food delivered by these hotels ensured that such places were densely populated and always

attracted the young and the old from the demographic society. Merchants and other business owners continued to use hotel space for their work, commercial meets and social meets but the actual economic usage of hotels far exceeded the ones for which they were being used. Being spotted at the hotels was a major craze for the elite few of the society and this trend ensured that the hotels and the businesses complementing the hotel industry were always at the helm and this further insured the industry from suffering any damage that would otherwise arrive because of the economic downturn or by any other depression which would eat businesses elsewhere. This very logic was also applied by majority of the not for profit organizations, humanity organizations and social elite which continued to throng these infrastructures in search of a different experiences. These hotels were also a major part of the political system of the country and majority of these hotels were being used by the political parties over longer duration of time and even made these infrastructures as a hub of political activity. Indeed, such was the political importance of hotels that they were often subjected to attacks during domestic acts of violence. Because a hotel could afford to spend far more on amenities than a private family could, the interiors of the hotel ensured that these families were regular visitors of the hotel. There were certain travelers who were also imitated by the surroundings of the hotel and hence they continued to travel to such places to ensure that they also were a part of the rich biodiversity that nature had to offer. The use of hotels for promoting films and videos also brought in more number of visitors to that very hotel and these experiences were quite a few in number when the trend of showing hotels in movies had actually started.

Hotels were also used for quite some time for the bilateral ties between the nations and were quite frequently visited by international guests thus paving the way and setting a trend for political meets between the nations.

Paradigm Shift in Advertising:

Earlier the companies are used to advertise digitally. It was a horizontal platform like Yahoo.com, Rediff.com. The reason I say it is horizontal because, there were all the varied industries advertising on Yahoo. Then the shift happened from horizontal to vertical. Companies who are specializing in a said sector Ex: Zigtech for automobiles, moneycontrol, paisabazaar for finance etc. Here the businesses who were in that domain migrated from Yahoo to moneycontrol.

The third shift happened with the advent of companies like Just dial who though was a horizontal but had verticals in each of the categories. Here the business model shifted from having the company advertising on the platform, purchasing space on the platform and then the platform in turn would send the customers to them. The next shift in marketing took place when companies like GroupOn.com, coupondunia.com came into picture. Here the business model of these companies was to collect some money at the outset at the time of getting these companies on board and the rest was when the customer actually visited the business.

Now, in today's world businesses prefer that the customers first come to them and then the business pays to the aggregator, this is what companies like zomato.com, practo.com, shiksha.com all have studied and are working on this marketing technique.

Research Methodology:

Research methodology is the heart of any research and this particular research was carried out in Pune using the below research design:

- Research Type: Descriptive study
- Target Area: Pune
- Target Population: Restaurants in Pune
- Sampling Technique: Random Sampling
- Sample Size: 60 hotels.
- Sampling Unit: Hotel

Observation:

These companies, in this paper particularly talking about Zomato.com, when we interviewed 60 hoteliers in Pune, we got to know the following from all of them:

- These websites are doing a fair job in promoting their businesses.
- They charge once they get the customer to pay or after the consumer has consumed the service.
- They are promoting the businesses free of cost on their platform eventually.
- New customer acquisition cost has gone down considerably.
- Monitoring the marketing activity online is possible and very much measurable.
- It is possible to optimize your marketing activity on such platforms.
- Competitor mapping is easier and helps in building competitive advantage.
- Customization of offers as per the customer value.

The surprising observation was nobody of the 60 hotels asked was having the opinion that these aggregators were not doing a good job for their business or if in other words I have to say these aggregators had no negative impact on their customers.

Conclusion:

Though the companies are very happy with the services provided by Zomato.com, what the companies fail to understand is the power that these hotels are giving to these aggregators (zomato.com) by having the customer diverted through zomato.com. Also, what the business fail to understand is that many a times the customer wants to enter their hotel only because when a random survey was taken of individuals, 70% of the customers prefer to eat at the same restaurant and 30% try a different cuisine, so it's like Zomato.com is standing on the door of the hotel and any person who wishes to enter your hotel is given a discount by Zomato.com who in turn recovers the amount from you plus the profit of Zomato.com for getting the customer to the hotel.

Getting the customers' who know what they want to eat is much better than getting those customers' who are hungry. This is one loophole that Zomato.com has leveraged and has been since earning profits. The Hotels will soon realize this and will be creating their own platform to ensure that they do not end up shelling acquisition costs for customers' whom the hotels have already acquired. After reading the paper, I am sure the hotels have the answer to the question:

“Is this aggregator helping or ruining my business”

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20. A STUDY THE INFLUENCE OF CHILDREN ON PARENTS

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Abstract

The purpose of this paper is to study the factors that are allowing younger generation to influence their parents. The main components influencing parents would be their keenness and enthusiasm about the new lifestyle that are being followed by their young ones. The purpose of this research is to study whether the children influence their parents to adapt the changing lifestyle. What are those factors that play key role in influencing the parents? The study also tent to highlight whether changes adapted by parents are satisfactory or not.

Keywords: Young generation, Parents, Lifestyle, Influencing factors

Introduction:

In this past couple of decade India has gone through a tremendous change when it comes to the lifestyle. One of all the changes that have occurred in past couple of decades, lifestyle was the most adaptive or was mostly adopted by the youth of our nation. There is a continuous change or improvement in the life style of our younger generation and in some or the other way it is influencing the elder generation or we can say it's influencing their parents.

The current lifestyle is changing so rapidly that in order to cope up with the change parents have no other option but to adapt the change. Parents are learning things like smartphones, social media, video calling, restaurant food, frequent outings & get together.

All these things that are adapted by parents are actually the influence of the children. It's much needed in current world scenario and somehow it helps them in different ways.

Need For Study:

To understand the impact of current lifestyle of youth on their elder's and to generate an over view on how there can be co-relation maintained between both the generation. This is to acknowledge to what extent does the running/upcoming scenario has influenced the lifestyle followed up till now

Research Objective

1. To understand and study the factors that is influencing parents.
2. To study to what extent parents are being influenced.
3. To understand and study how parents feel about the change.

Scope of the Study

The present study covers factors like eagerness to know trending things and to cope with the changing /modernized lifestyle.

Research Methodology

- The sample size for this study is 50 data is collected primarily through structured questionnaire
- The geographic location of the respondents is pune located in the state of Maharashtra
- The simple random sampling methodology is used for collection of primary data
- The respondent for this study are ageing between 35-55 years(parents)

Data Collection:

Primary

- Questionnaire

Secondary

- Google
- C.R Kothari

Findings

1. Most of the respondents were having two or more children
2. Yes they are living the life of current generation.
3. Parents are being influenced by their children to adopt the current lifestyle.
4. It was found that out of all the factor’s the usage of smartphones was the most influencing factor.
5. It was also witnessed that the daughters have an upper hand in influencing and bringing the change in their parents.
6. Study revealed that most of the parents are happy in their lives with
7. The changing scenario in the lifestyle influenced more of the household’s in an up bringing pace than the working society

Conclusion:

From the study it is concluded that in today’s competitive environment, children are growing fast desire towards the numerous brands offered in front of them through various medias. By seeing these ads they influence their parents to buy certain products of their interests. The parents also agreed that their kids do have an impactful influence on them as they many a times end up buying products of their kid’s choice in spite of the fact that they want to be a stricter parents. One of the factors that contribute in this influence is the increase in the purchasing power of the parents as nowadays both the father and the mother of maximum kids are working.

Suggestions:

It is suggested that parents should be more cautious about the changes being adapted by them through the changing lifestyle’s so as to make sure that the change does not adversely affect their lives as well as their children’s lives and it proves to be fruitful in the future case scenario.

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21. GROWTH STRATEGY FOR INDIA AS AN EMERGING MARKET: OPPORTUNITIES AND CHALLENGES

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Abstract

Since nineties Globalization has opened new vista and opportunities to India. Globalizations smoothens the flow of technology, capital, information, goods and services across the world. Over past decade remarkable changed in economic power balance and change in conduct of business. Developed countries experiencing stagnancy in its growth rate. It is very important for emerging market like India to utilize SWOT analysis to understand challenges and opportunities in global market for implementing effective development strategies to spared its wings in global market. In this paper attempt is made to study challenges and opportunities for India as emerging global market and strategy for growth.

Keywords: *Globalization, SWOT analysis, emerging market, growth strategy.*

Introduction

During golden era India was self sufficient country. British come in 1600 for the purpose of trading in subcontinent. They utilized India as supplier of raw material for their industries as well as market for finished goods which were exported from Briton. They used two-edged sword to destroy India's self sufficiency and prosperity of the people of the region for their own interest. They left India in 1947 keeping behind massive problems like renovation and bringing back Indian economy on track of development. There were massive expectations of the people of India from its own government. To fulfill their expectation government of India established number of support institutions for development of the country. (like- Planning commission, IFCI, ICICI, IDBI, UTI, NABARD, SIDBI, OTCEI, SEBI and NSE) But till nineties Indian economy was remain closed. Its trade relation with rest of the world was so limited but in the year 1991 New Economic Policy bring LPG (Liberalization, Globalization and Privatization) which open not only the doors of opportunity to India in global market to accelerate its growth for transforming India as developing market to an emerging market. To understand challenges and opportunities to India as global emerging market and strategy to follow, we need to understand geographical, natural, historical, cultural, social, demographical, political, educational and economical background of India. For better picture of India about present status need to apply SWOT analysis.

Objectives Of The Study:

1. To understand emerging global market.
2. To understand opportunities available to India as an emerging global market

3. To understand challenges of India as global emerging market.
4. To understand strategy to follow by India in global market.

What Is Emerging Market?

- An emerging market is a country that has some characteristics of a developed market, but does not meet standards to be a developed market.
- This includes countries that may become developed markets in the future or were in the past.
- An **emerging market economy** describes a nation's economy that is progressing toward becoming more advanced, usually by means of rapid growth and industrialization. These countries experience an expanding role both in the world economy and on the political frontier.
- The economies of China and India are considered to be the largest emerging markets in the world.

Opportunities:

- **Natural Advantage:** India has vast landmass and availability diverse natural resources. Land mass which provide competitive advantage to India with the rest of the world. India has fertile land and availability of water for agriculture. Till date India has achieved bit of success in Green Revolution. But when we compare India's agricultural growth with Israel then it reflects that we have tremendous scope and lot of opportunities available in this sector. India also has natural storages of mineral, metals and ores which are very important for growth of industrialization in the country.
- **Demographics Advantage:** India is home for over 130 cores people of the world. 50% of population is below the age of 25 years and approximately 65% of its population below the age of 35. India still has a positive birth rate meaning that the size of the workforce will continue to grow for the foreseeable future. This will provide to the nation with a large workforce for many decades, helping in its growth. Labour cost is major factor in production cost of any product availability of such huge work force give India competitive advantage as well as opportunity to attract foreign business to grow in India.
- **Outsourcing:** India has the world's largest non-native English speaking and understanding population along with educated (well qualified) huge work force make India an attractive destination for outsourcing through KPOS and BPOS. There is much more opportunities available in this sector but available infrastructure are not good enough to tap this extra potential effectively.
- **Political advantage:** India is world's largest Democratic republic. With its well functioning democracy and role in peace keeping India has developed good relationship with other democratic countries. India has bilateral ties in trade and another sector. This had opened doors of opportunities to India in international trade.
- **India's economy:** India is one of the world's fastest growing economy with forecasted growth rate around 7% to 8% till 2020. All Three sectors (primary,

secondary and tertiary) are doing good but still have to much potential to grow beyond 10%. India is an attractive destination for FDI.

- **Science and technology:** India has been continuously investing in research and development activates for technological advancement. The institute like ISRO and DRDO are doing really good in this field. India has been trying to develop more and more highly skilled and knowledgeable intellectual people to fit in future knowledge economy. India is becoming one of the world's leading producers as well as user of computer software's along with mushrooming R&D centers in the country. It is experiencing a steady revolution in science and technology.
- **Positive Government Initiatives:** The government of India is taking positive steps to make India an attractive destination for doing business in the world. Government of India have taken several imitative like Make In India, Skill India , Startup India , Swachh bharat abhiyan, Mudra bank, Digital India, Reform in tax system by implementing GST(Goods And Service Tax) to make India business friendly country in global market. The scheme Digital India is step toward cashless economy and it has potential to reduce corruption in the system. GST has made India single market. All this steps taken by the government are positive for ease of doing business in India. Also government focusing on development of infrastructure which is really positive step to make India an emerging market of the world.

Challenges:

- **Developing infrastructure:** More than seventy years of independence still infrastructure development is not catching up with rapid economic growth. This is a major bottleneck for growth. Traffic congestion and accidents in major cities and along highways show the urgent need to develop mass transit systems. Government have undertaken several infrastructural projects yet this projects fall behind schedule, due to inadequate finance and time consuming process etc. Short supply of electricity is another cause for concern, India one of the fastest growing economy facing problem of electricity. Still are not able to solve the rural areas problem of load shading, infrastructure in rural India is still lag behind. So potential of rural economy is underutilize.
- **Foster the manufacturing industry:** The rapid growth of the Indian economy as an emerging market largely driven by the service sector. The contribution in job creation and economic growth of India by manufacturing sector is little. Initiative like Make in India is vital to attract global business to manufacture in India. Expansion of the manufacturing industry is essential for increasing India's international competitiveness and absorbing redundant labor in rural areas.
- **Technological challenges:** Over last decade India is taking rapid strides in technological development but this development is not at par of the global standard latest and modern technology play vital role in development.
- **Under utilization of resources:** India is emerging global market but still India is not utilizing its available resources optimally. Human resources have too much potential but are underutilize. Adequate employment for its population is still a

major concern as 40 percent of the employable youth is unemployed and of the employed lot 60% are under-employed.

- **Illiteracy:** Illiteracy is another problem which challenging nation's promising future. There are some states with 100 percent literacy rates but still a huge part of the population has never gone to the school. Shortage of infrastructure and hygienic, Child labor, atmosphere and poverty is somewhere responsible for this.
- **Increasing gap between rich and poor:** Though government is promising inclusive growth the ground reality is very different rich are becoming richer and poor are becoming poor this hamper India's growth as emerging market.
- **Retaining talent:** Most of Indians prefer to go abroad for higher studies and settling there instead of coming back due to lack of opportunity available in India this affect the countries development process best talent going out which can play major role in counties growth.
- **Cross border Terrorism:** It continuously disturb peace and development process of the country. The continuous threat of terrorism is not conducive for development of emerging market like India.
- **Social issues:** India has a diverse mix of various religions, racess and caste which socially divide India in number of sub groups. India has been continuously expressing Communal violence's in the country. This violence's are big obstacle in the harmony of the country as well as growth of country.
- **Rapid urbanization and overlooked villages:** Cities are growing in unprecedented rates. Job creation is more in urban areas where as rural area is over looked. Rural population is mostly still depending on agriculture for employment but growth in agriculture sector is not satisfactory which hamper growth process of emerging market.
- **International Relationship:** International relationship is major factor influencing the growth of any country. No country is self sufficient. To increase cross border transaction with rest of the world has to maintain good relation with other country. And specially to keep peace and development process in the country they must have sound relationship with neighboring country. India's Relation with Pakistan and China are major cause to concern.
- **Corruption and Environmental issues:** Deeply rooted corruption in Indian system and Environmental issues are hampering growth of emerging India.
- **Economical problems:** Economic problem like low per capital income, poverty, inflation, unemployment, budget deficit, sustainable and inclusive growth, health care and international (global) competition are the major challenges of India.

Growth Strategy:

Labour market policies:

India ranks second in population growth after china. Employment in India is largely depending on traditional agriculture. Surplus labours from traditional agricultural sector have to shift to the progressive industrial sector to promoting industrialization. Competitive advantage in labour-intensive activities and the scaling-up of production

and export baskets need to be focused. India need to investment in the people of the country to make them more skilled, more knowledgeable and more productive.

Raising domestic and foreign investment:

Shortage of capital for development has been major problem of India since independence. To overcome this problem government has taken several steps like of privatization, globalization and open doors to the foreign investor to invest in various sectors in India. Importance of Foreign investment has not only helped in overcoming the shortage of capital, but also in stimulating economic growth. India need to focus on attracts more and more FDI in the country. Domestic investment relies heavily on the proper functioning of the banking system in the country, but unfortunately Indian banking system is in crisis's due to frauds and NPA(non performing assets). The creditability of Indian Banking system needs to restore for scaling up domestic investment in the country. India needs to make attractive destination for investment in the world.

Reform in Agriculture sector

India's extensive population is depending on agriculture for employment. India has vast land for cultivation but productivity is lower. To overcome the problem of productivity India need reform in agriculture sector to take competitive advantage of extensive land mass and large battery of workforce together.

Promoting R&D and innovation

Today is world of technology and technology is rapidly changing to cope with this changing technology we need to focus on investment in knowledge and innovation activities.

Reforms in various laws

Government of India started reform to make India business friendly destination. Government initiated reform by roll out of GST. But several reforms must be undertaken to make more conductive environment. Reform in labour laws and land acquisition laws are must.

Ease of doing Business

India as emerging market need to focus on ease of doing business to attract more and more foreign investor and MNC's (multinational company). Several steps have been undertaking but need to do lot more.

Peace, social and political stability

Peace, social and political stability is at core of the development of country. No business no country can grow in instability and violence.

Sound international relation

Sound international relations are conductive for foreign trade as well as to maintain peace in the country which is very necessary for growth.

Digitalization and transparency

Corruption is major problem of Indian economy, we are focusing on making India investment friendly and business friendly so eradication of corruption from Indian Economy is must. To eradicate corruption, we need to go more digital which will not only make our system transparent but also faster and smoother.

Infrastructure

Infrastructure play vital role in industrialization of country. India needs to focus on building necessary infrastructure

Improve standard

To meet global competition India needs to focus on improves Quality and standard of its product and services so it can survive.

Increase export

To increase foreign currency inflow India, need to focus on increase export. To increase export, we need to focus on reduction of cost but without compromising quality. To increase export various schemes can be implemented. Like duty drawback scheme etc.

Focus on manufacturing sector

India's growth is service sector lead growth. Manufacturing sector in India is not that much developed as compare to other emerging market countries. There is too much potential for development of manufacturing sector in India. Most developed country relay on manufacturing sector for growth but India's growth in manufacturing sector is not satisfactory. India need to focus on development of manufacturing sector. Scheme like Make in India have potential to boost manufacturing sector in the country.

Building economic foundation

Need to build economic foundation on which investment, innovation and economic growth can be encouraged. Sound, transparent financial and economic management for encourage public and private investment in the country. To do this required strong institutional support, fair regulations and balanced laws. To integrate local, regional and global economies required open market and trade policies of the government. Need to build economic foundation for sustainable development of the country.

Conclusion:

India is fastest emerging market of the globe. And it has strong opportunity of growth in global market. India has competitive advantage in various sectors like natural resources, human resources, demographic advantageous etc. This advantageous are providing opportunity to grow India stronger in global market. At the same time India is facing various challenge's like infrastructure bottlenecks, lack of manufacturing sector, under utilization of resources, economic problems likes poverty, inflation, unemployment, corruption, terrorism and retaining talent etc. India can become bright spot of the global market by adopting different tactics and strategy to deal with each kind of problem. India has potential grow much faster rate than the present. The Government of India so far has taken various steps to make India strongest emerging market of the world. Steps like Make in India, Skill India, Start up India, Digital India, Crop insurance scheme, GST, Mudra bank etc. Success of India as emerging market depends on different strategy followed by India in changing global equations and effective implementation of its own initiatives.

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22. CUSTOMER RELATIONSHIP MANAGEMENT: INNOVATION

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Abstract

In recent times, customer relationship management (CRM) efforts were reported as failures in terms of generating revenue, and the strategy was thought to be on the decline. But the potential isn't over for CRM software. With the advent of social media and smart-phones, businesses are reconsidering and re-evaluating CRM initiatives. The marketing and sales landscapes are changing to adapt to customer behavior. CRM trends are bound to change how businesses deal with customers. But regardless of the technological landscape, successful CRM entails the observance of best practices and continued innovation. In future mobile will continue to dominate and grow as a preferred channel. A host of predictive technologies powered by artificial intelligence will assist professionals in completing tasks more quickly and efficiently. The transition from on-premises solutions to cloud computing will continue, albeit gradually, in spite of security concerns. Companies will increase their use of software that helps them better understand the journeys customers take with them. And tools that alter our reality will start to gain legitimate affiliation with CRM. But if there is one overarching theme, it's that customer expectations for excellent experiences are not going to let up anytime soon, and because of this, companies can't afford to get too comfortable. Despite the unsurpassed popularity of social platforms, CRM has yet to truly harness social media for customer marketing. 2017 may be the year of social CRM, with growing retention activities on all social channels and a deepening emphasis on social influence and sentiment analysis. The factor that may finally tilt CRM towards social may be customer support: Facebook and other platforms are putting weight behind customer support, via both humans and bots.

Keywords - CRM; Software on Social Media, Smartphones

Introduction

Customer Relationship Management (CRM) is a business strategy that integrates organizational culture, human resources, processes and technology, to acquire and retain high value customers. With the most demanding and critical consumers vis-à-vis trademarks by their access to information, organizations can no longer do without a new reflection on the customer relationship. If the digital revolution and the social web renew the opportunities to enrich the customer relationship strategies, pitfalls are to be avoided to not lose the customer who now does not hesitate to turn to the competition if he finds more advantages. The customer relationship management handles all aspects of customer interactions. It offers a view on the company's performance and employees and brings productivity. After a good consolidation of all possible data sources within

the enterprise, commercial and marketing department can manage profitably the service and targeting of customers and prospects. In fact, it is necessary to consider the challenges of the implementation of the CRM as justified by the commercial market studies, which have shown that approximately 70% of CRM projects result either losses or no improvement in performance of the company.

What we can add is that there are many actors and startups that are placed on the new operating niche of big-data and CRM, but there was therefore a gap between their positioning and state of evolution of their systems due to the rapid development, diversification and heterogeneity of the data available today. This requires a review of the start of the development cycle of these solutions and review the structure and architecture that give a clear view of the modules and the possible interfaces between them. It is in this sense that we started our research on managing the customer relationship, precisely the part of the recommendation, and in this paper, we have made a study of some existing architectures of the main market industries and we proposed an architecture which will include a module with features that could add value to the final results of an electronic customer relationship management system.

Principles And Architecture

A. Definitions CRM: Traditionally, CRM has been divided into three customer-facing branches: sales, service, and marketing. That was fine in the past, but today's customers want more, and they really don't care about the title of the person (or machine) with whom they're interacting; they simply want to accomplish their specific tasks with as little friction as possible. "Customers want to be able to easily reach in and interact with a company, if it's to research a purchase, to buy a product, to get support, or to get on-boarded," says Kate Leggett, vice president and principal analyst at Forrester Research. "They want effective interactions; they want to be able to fully complete their tasks in one go." That has forced professionals from sales, service, and marketing to take on functions that might historically have fallen outside of their purview. Service agents might be asked to cross-sell or upsell, pitching to the caller a product that might complement or improve upon what he already bought. A marketer might be called upon to respond to customer service inquiries through social media. Similarly, it behooves salespeople to know about the customer's service history and to follow up after the sale has been made. The megatrend of customer success is breaking down the barriers between sales, marketing, and service.

A push toward outcome-based selling is forcing customer success experts to become much more involved in the sales motions, participate in ongoing efforts to on-board new customers, and even monitor their adoption and consumption of a product or service to make sure that they're interacting in the way the organization hopes they will. "Sales can't make promises that customer success can't deliver, so these teams must be much more in sync than ever before," Ragsdale says.

Unfortunately, breaking down the walls between job titles has created some confusion among professionals as they try to access all of the information necessary to complete the tasks assigned to them. Technology vendors have been expected to keep up and

integrate the data that exists in separate systems so those systems can communicate with one another, experts point out.

Social CRM:

The Social Customer Relationship Management is a business strategy considered as a natural evolution imposed by the new social customers in the sense of creating a bilateral relationship between the customer and the company. It can be conveyed through different technological platforms and customer relationship tools such as a CRM system. Consumers took power on social networks and brands within thousands of simultaneous conversations of these "consume-actors" who seek to intrude.

Architectures Studies of architectures and CRM conceptual models show that there is a resemblance and similarities between the CRM global architectures.



Fig: CRM Overview (Source: Salesforce.com)

Objectives:

To explore how Social Media and Smartphones can provide path-breaking ways to provide ways for easy access and assess customer experience holistically across all the customer interaction points and detect behavioral patterns which customers exhibit for customer relationship management.

Hypothesis:

Social Media and Smart Phones can provide path-breaking ways to provide ways for easy access and assess customer experience holistically across all the customer interaction points and detect behavioral patterns which customers exhibit for customer relationship management.

Research Methodology:

This whitepaper is a combination of the qualitative and primary information based on the own experience in the industry work and observations made thereof. The secondary data available in the public domain which mainly include the various articles, papers and books are also taken in to consideration.

Conceptual Understanding

Social CRM (customer relationship management) refers to the practice of integrating big data into a company's CRM processes with the goals of improving

customer service, calculating return on investment on various initiatives and predicting clientele behavior. Companies struggle, in general, to make sense of big data because of its sheer volume, the speed in which it is collected and the great variety of content it encompasses. Tools and procedures are evolving in order to help companies house and examine these large amounts of data and help companies move toward making data-driven decisions.

Social CRM's goal is to combine internal CRM data with customer sentiment data that exists outside of the company's existing system, such as on social media networks. By finding patterns and trends in this data, sales opportunities and adjustments to product and service offerings can be made to boost profits.

Combining big data with other CRM data can improve customer analysis and lead to predictive modeling and other practices. Companies using big data in conjunction with CRM aim to have systems that can process data in real time and therefore connect with customers faster. Analytics is of paramount concern to companies looking to achieve big data CRM. The other key concern for companies is pulling together inbound and outbound interactions with customers across all channels so that analytics can be applied. Customer data silos and other inflexible architectures are factors in companies' inability or unwillingness to adopt systems using advanced algorithms or other machine-learning technology that can translate big data into actionable business information.

Literature Review:

When Relationship Managers can't pull the data from disparate systems together, expect businesses to grow weary of so-called best-of-breed solutions that present integration, implementation, and deployment challenges, warns Leslie Ament, senior vice president and chief research officer at Hypatia Research Group. "Vendors with integration-ready partnerships, partnership ecosystems, and/or one-stop solutions are gaining ground in this marketplace," she states.

This is especially important considering that most companies still buy their CRM technologies in separate pieces for each individual department. For instance, while a firm might elect to purchase Oracle's Marketing Cloud for the marketing department, it might choose Salesforce.com's Sales Cloud for the sales organization. Those two must connect seamlessly to allow for cross-pollination. It's not only sales and marketing software that needs to be integrated. The need for a single product or suite of integrated products transcends departments and software types, and this can only happen when data is readily available across departmental lines.

As those lines dissolve, many of the large CRM vendors have come a long way in incorporating knowledge management (KM) into their core offerings.

Until now, customers' social media activity has been something of a closed book – a channel of communication that wasn't trackable, measurable, plannable or improvable. With social CRM, that's changed. By adding the critical social media channel to your existing CRM systems, you can combine everything you already know about each customer, prospect and lead with new information about their social media activity. And when a customer chooses to contact you via Twitter or Facebook, you can track

and manage the conversation in as much detail as you would for a telephone or email enquiry. You'll be able to act faster, respond better and anticipate your customers' needs. It's a familiar story: the marketing department is diligently creating and publishing tweets, Facebook posts, YouTube videos and more – all carefully crafted to make the most of each channel and designed to encourage sharing, retweeting and customer engagement. But the audience doesn't come. Meanwhile, your customers are elsewhere on Facebook and Twitter, having conversations about your organisation – discussing you, recommending you, complaining about you and even trying desperately to talk to you. But they're not getting the answers they want. That's where social CRM comes in. A customer relationship management platform that integrates social media gives you access to the same level of insight you have for more traditional channels, plus the ability to use social tools for communicating internally. You can monitor, track and benchmark your social media communications using familiar tools, dashboards and metrics. With social CRM you can place the customer right at the heart of your organisation. No more forcing customers to use the channel you prefer. No more losing track of issues when they change channels. You can engage and respond to customers individually and in the way they choose, without compromising your ability to track and manage communications on a global scale. You'll have both a broad overview of your brand's reach and a granular, detailed view of each customer interaction. Customer service, marketing and sales all benefit from a more dynamic, complete picture of each individual customer, and can make use of social tools to communicate between themselves. You see the cost of delighting customers fall. Your customers see an organisation that listens to what they want and responds in a way that suits them, across multiple channels. Everybody wins. There's no big secret to customer service on social media – rather, it's an opportunity to get the basics right and provide excellent responses to customers in the way they choose. Telecoms provider BT says 40% of its customer feedback originates on Twitter, and its story is far from unique. By enabling you to track social interactions with customers using the same sophisticated tools as you use for other touchpoints, you can deliver faster, more complete resolutions to customer service cases from across your business – and that means happier customers. But it's not just about reacting. Using monitoring and tracking tools, social CRM can help you to identify and reward brand advocates and influencers, encouraging them to spread the word still further.

The combined promise of reduced cost and increased effectiveness is a heady one for any marketer. And while social CRM has a valuable role to play in customer services and sales, it can also revolutionize your marketing effort. It can change your understanding of brand reach and perception, while giving you access to a raft of new information about customer behavior and opinions. Social CRM can help you deliver:

- Greater exposure in the places where your audiences spend their time;
- Increased engagement and deeper relationships with customers;
- Increased web traffic and conversions and higher search rankings;
- High-quality inbound leads that turn into revenue faster;
- More efficient marketing budgets with higher returns;
- Faster marketing campaigns with better targeting.

Methodology

Here I look for technology to also continue to help the CRM industry overcome the adoption challenges that have long been its greatest obstacle. Because it was a chore, many professionals simply didn't like to use CRM. Gamification is one way software vendors are making it more enjoyable to use CRM systems. Companies like Badgeville (recently acquired by CallidusCloud) offer tools that are meant to stimulate competition and participation among sales teams and individuals. But if they have any hope of driving employee engagement across the board, gamification tools will need to be easy to use, experts maintain. Indeed, vendors have placed a heavy focus on making tools that resemble what professionals have grown accustomed to in their personal lives. It is observed that compelling visualizations and displays have helped marketing and sales professionals make better use of Big Data to gain actionable insights that lead to desired outcomes. It took the technology role out a little bit, because the regular marketing and sales individuals might be able to use these tools and not have to struggle a whole lot in terms of what the data really means.

At the same time, the ability to leverage complex technologies is reaching everyday users, according to Leggett. One need not be a data scientist in a lab coat, capable of building out sophisticated algorithms and models, to make an impact, she says; CRM vendors have been making concerted efforts to infuse their products with predictive and prescriptive analytics that put intelligent recommendations in the hands of ordinary business users.

What Is Big Data?

Big data is a sort of catchall phrase that can be used to describe a massive volume of fast moving data which exceeds the current processing capacity of most enterprises. In general, standard tools and procedures are not designed to store and analyze these massive datasets.

When used by vendors, big data can also refer to the emerging technology used to store and process the large amounts of data. The data can be transactional (e.g. social media) or analytic (e.g. clicks). It can also be structured or unstructured and include text, audio, video and images.

How Are Businesses Using IT?

Big data can be divided into **5 main categories**:

1. **Social media** – used to understand consumer sentiment.
2. **Server logs** – used to deliver responsive IT.
3. **Web clickstream** – used to gain granular customer segmentation.
4. **Machine/sensor** – enabling predictive analytics.
5. **Geolocation** – optimizing global logistics operations.

How Big Data Creates Big Value:

- Using big data, organizations can collect more accurate and detailed performance information on everything from product inventories to customer sentiment, and therefore expose variability and boost performance.

- Leading companies are using data collection and analysis to make better management decisions for low frequency forecasting and high frequency “now casting” to adjust their business decisions in real time.
- Big data allows narrower customer segmentation, resulting in more precisely tailored products and services.
- Big data can be used to improve upon the development of future products and services.

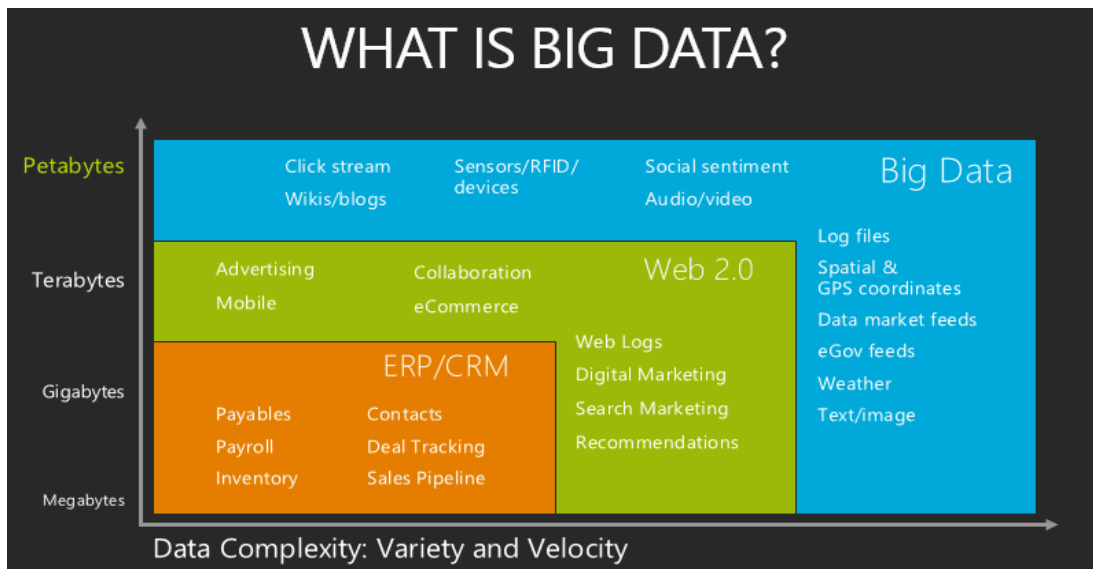


Fig: What is Big Data (Source: Google Images & Gartner.org)

How Is Big Data Relevant To CRM?

Big data has the potential to change the way companies manage customer relationships by offering businesses powerful new tools, capable of identifying sales opportunities and analyzing customers’ responses to products, by combining internal data with comments made on social networks.

Using big data and CRM analytics to find associations, recognize patterns and identify trends that allow a company to shape customer experiences for increased engagement and greater profits is a great way to bring the perspective of the customer into business decisions.

5 reasons to integrate big data into your CRM solution:

- 1. Improved customer analysis** – The analysis of all customer touch points, including social media, email, internet and call center, allow CRM and big data to segment customers according to actions. Customer trends can be mined from big data and used to predict needs, directing product development and promotional efforts.
- 2. Better picture of customer-facing operations** – Big data will provide businesses with sales, marketing and customer service performance metrics. With big data, organizations can predict and determine ROI and use it to endorse additional CRM investment.

3. **Better decision making**– Once the value or lack thereof in customer-facing operations is made clear, businesses can make course corrections and better decisions going forward.
4. **Predictive Modeling** – Using big data, businesses gain the ability to predict how customers will respond in the future, based on demographics and behavioral history.
5. **Benchmarking** – A powerful component of big data is the ability to implement comprehensive benchmarking over time, enabling organizations to define vital indicators such as customer sentiment, retention and cost vs. revenue per service call. Once the areas that need improvement are emphasized, companies have the tools necessary to rise above industry standards.

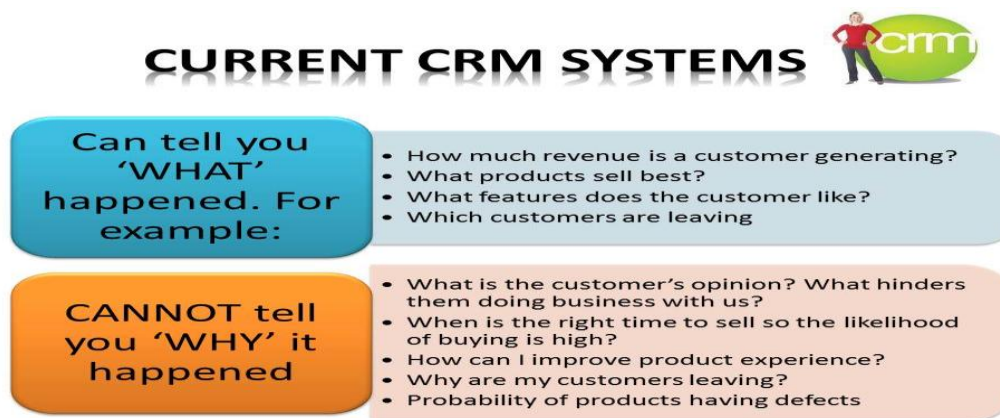


Fig: Current CRM System (Source: Salesforce.com)

Social Analytics for CRM

Collecting and analyzing big data on their customers allows companies to augment service by examining customer sentiment. Big data can provide businesses with metrics on sales, marketing and other areas to gauge performance and quality. It can also help make better forecasting decisions by allowing for real-time decision-making as well as giving information on product inventories, customer segmentation and assist in the development of products and services.

When referring to customer data, big data refers to large amounts of either transactional data or analytical data. It can also be structured, or easily quantified in charts, graphs or other standard record-keeping applications, or unstructured and contain things like audio, video or other images.

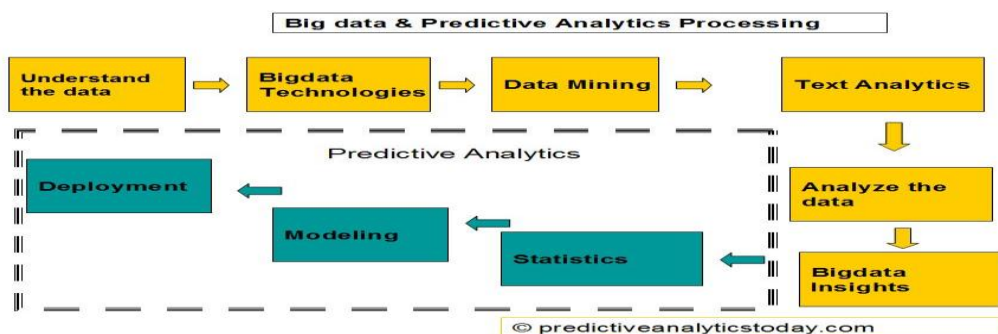


Fig : Big data & Predictive Analytic Processing (Source: Bynry.Com)

An important aspect of CRM-based big data is using it to identify trends. These trends could be patterns in demographics as they correlate to sales, past to future purchase correlations, and lead conversion trends during certain times of the year. If marketers know which customers are converting at faster rates than others they can offer different cross-sale products to either group to encourage initial or repeat buying. It enables more than just targeted A/B testing campaigns to different groups, but the ability to offer different content and learning experiences based on the consumers’ preferences.

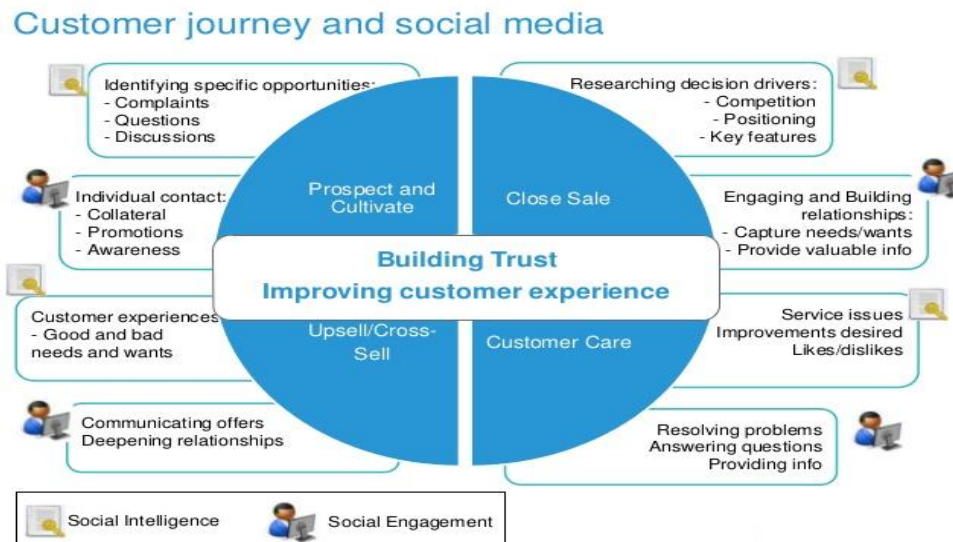


Fig: Big Data Architecture (Source: Accenture.com)

Key marketing benefits of CRM-driven Big Data include:

ROI can be boosted due to better targeting and timing of campaigns resulting from data review Cause and affect correlation s between brand content/offers an consumer actions can be found through data analysis Automated rules and messaging can be setup to keep correlations active, which can improve conversions while reducing costs Predictive modeling is possible with big data. Businesses can better predict customer actions in the future, so they can alter campaigns accordingly and adjust sales target numbers if necessary.

Benchmarking of various metrics are a vital way to judge customer feelings, retention numbers compared to costs, and other areas that should be reviewed over time. Management wants to see the longer-term ROI of capital investments, and big data can provide the desired context to justify investment decisions.

Conclusion:

Emergence of artificial intelligence, cognitive computing, machine learning, deep learning, virtual reality, intelligent assistants, and a host of other buzz terms, the talk of robots taking over bubbles up in our culture more than ever. And, according to analysts, the chatter is at least partly legitimate. We suggest that customers are definitely not interested in interacting with humans if they don’t have to. According to research, 75 percent of business professionals indicate that buying work products from a website is more convenient than doing so from a sales rep. In customer service, the idea is similar. Customers use self-service channels as their first point of contact and only make a

phone call as an “escalation point.” Consequently, the trend is to automate as many customer interactions as possible to enable customer self-service. What this means for companies is that they need to make self-service journeys easier. In the coming year, companies will be wise to use new tools for submitting tickets, tracking orders, scheduling service visits, and recommending content, among other tasks. It’s important to remember, however, that customers don’t necessarily want to feel as though they are interacting with a machine, even if that’s what they’re doing.

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23. APPLYING MACHINE LEARNING TECHNIQUES TO CATEGORIZE AND REDUCE STRESS IN HUMAN BEINGS

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Abstract

The number of individuals in the modern world experience elevated stress level, which is non-specific response on the body and plays a significant toll on health, productivity at work, relationships and also effect overall well-being. Many individuals are not aware of the stress triggers and potential health problems caused by prolonged stress. In order to effectively combat stress and its ill effects on health, stress triggers and responses to stress must be recognized and managed in real time. In this paper, applications of machine learning techniques are suggested to categorize and reduce stress is explored. The idea of monitoring stress and reducing stress uses methods like personalized music, wallpaper themes, favorite games or favorite food ordering and so on. Activities which reduce stress and their degree of reduction are monitored in real time and based on customized stress reduction portfolio is designed using machine learning algorithms.

Keyword: Chronic stress, Categories of Stress, Wearable sensors, Machine learning techniques.

Introduction

The chronic stress (non-specific behavior of person) cause elevated change in the overall well-being namely cause irritability, anxiety, depression, headaches and insomnia [1]. Stress can be short term and long term, short term stress are normal namely due to test, interview and so on, Long term stress are termed as chronic, Chronic stress is also a factor in behavior such as overeating, not eating enough, alcohol or drug abuse and social withdrawal. Increase in chronic stress lead to prone of mental disorders, anxiety and mood swings in early life. Illness of stress related namely post-traumatic stress disorder (PTSD) which occurs after extreme stress and changes the volume of the gray and white matter in the brain.

Numerous consumer wearable's today include sensors and other features for monitoring heart rate (HR), heart rate variability (HRV), physical activity level, and galvanic skin response (GSR). Consumer wearables capable of monitoring all four of these physiological signals can provide an accurate stress status profile in real time. With the help of machine learning, wearable applications not only make it possible for individuals to monitor and manage stress themselves, but also provide analyses far beyond the reach of traditional medical devices.

As the population increases in the world, the ratio of health careers is rapidly decreasing. Actually, the Organization for Economic Co-operation and Development (OECD) warns about future shortages of available health workers and doctors [3]. Therefore, there is an urgent need to create new technologies to monitor the health of people, both physical and mental, during their daily life with the aim of supporting health workers, caregivers, and doctors in their tasks. These technologies, also known as Quality of Life Technologies (QoLTs), have emerged as the concept of applying findings from different technological areas to assist people and improve their quality of life.

An emerging research topic inside QoLTs is their application to psychology and self-therapy to improve the mood of people and thus, their quality of life. Although there exist several technologies to support the health of people at the physiological level, the technologies that are able to provide similar support at the mental level are almost inexistent. Treating negative mental states in people is becoming a priority in our new societies. In particular, stress is a big problem in modern populations due to the increment of stressful situations during everyday activities including work. Stress is a natural reaction of the human body to an outside perturbing factor. The physiological responses to stress are correlated with variations in heart rate, blood volume pulse, skin temperature, pupil dilation, electro-dermal activity. Stress may have beneficial effects on fighting the stress factor, like increasing reflexes, but it was determined that long term stress is correlated with various health problems like depression and premature ageing. Stress is creating new problems that have a great impact in our societies and economies. For example, according to the Mental Health Foundation in UK [3], around 12 million adults in the UK visit their general practitioner doctor (GP) each year with mental health problems, most of which are related to stress. As a consequence, 13.3 million working days are lost per year due to stress problems. Moreover, according to the World Health Organization stress has a cost of around 8.4 million to UK enterprises. Finally, current appointments for national health mental services in UK, such as Cognitive Behavioral Therapy (CBT) are taking 3-6 months to be processed, with the subsequent danger for the patient because cumulative stress may have broad negative consequences on societal well-being and costs. In this research we aim to detect stress and reduce stress in people using wearable sensors that measure physiological responses.

Literature Suvery

In [1] author explored the mechanism to monitor stress using wearable sensors and mobile phones. They find out the overall performance of 15 sets of related features: sleep survey; Big Five ; post survey ;phone survey (morning) ;phone survey (evening) ;CALL ;SMS ; MOB ; SC ;ACC ; COMM ; SCREEN etc. Reorganization take place using six kinds of classifier: 1) Support vector machine (SVM) with linear kernel 2) SVM with Radial basis function (RBF) kernel 3) k-nearest neighbors (k=1-4) 4) Principal component analysis (PCA) and SVM with linear kernel 5) PCA and SVM with RBF kernel 6) PCA and k nearest neighbors (k=1-4).

In [2], Intelligent Mobile Health Monitoring System collects human's physiological data with the help of bio-sensors. The data is accumulated in the sensor network and a concise of the collected data is send to a patient's personal computer. These devices transmit data to the medical server for determination. After the data is analyzed, the medical server sends response to the patient's personal computer. The patients can take necessary actions depending on the response. The IMHMS contains following three components. They are Wearable Body Sensor Network; Patients Personal Home Server and Intelligent Medical Server.

In [4], they presented an approach to detect mentally stressful events using only a heart rate monitor (HRM). The method is related with the principal dynamics modes of Marmarelis, After Heart rate variability analysis done.

In [5], The Galvanic Skin Response (GSR) or galvanic skin level (SCL) is a measure of skin conductivity which is substantial related with human emotional condition during stress and activation level.

Skin conductance level or response (SCL and SCR), is an approach of measuring the electrical conductance of the human skin which varies with human mental and emotional conditions.

For the analysis of galvanic skin response, two electrodes are placed such that the conductive path between them crosses the palm of the hand. Skin resistance or it's reciprocal; skin conductance this variable is used for measurement

Ohm's Law states that skin resistance equals the voltage applied between two electrodes on the skin divided by the current passed through the skin. Hence measuring the potential difference of skin and acquired by data acquisition system.

In [6],They find out a new spectral feature that approximate calculate the balance of the autonomic nervous system by mixing information from the power spectral density of respiration activity i.e. breathe and heart rate variability. They also calculate features like mean, median and standard deviation from skin conductivity level and response. From this they calculate ambulatory stress with the help of logistic regression model.

With the help of wearable sensors signals like ECG information, skin conductance response and breathe rate is measured. After decomposition of EDA take place in to skin conductance level and skin conductance response

In [7], authors stated principled machine learning approaches to classifying large data of continuously acquired, multivariate physiological data, with the help of wearable patient monitors, Also gives early warning of serious physiological problem , such that a degree of valuation care may be provided.

In [8], authors stated principled machine learning approaches to classifying large data of continuously acquired, multivariate physiological data, with the help of wearable patient monitors, Also gives early warning of serious physiological problem , such that a degree of valuation care may be provided.

In [9], authors have analyzed the reported literature on wearable sensors and devices for monitoring different human activities. It is reveals that many more light-weight, high-performance wearable devices will be available for monitoring a wide range of activities.

Proposed Methods

As we explore the current work, we find following important open issues to be solved

1. Measurement of stress with great accuracy
2. Classification of stress into various levels
3. Reduction of stress using mechanisms like Jokes, Music or recommendation for breathing exercise.
4. Continuous stress measurement and improvising the stress reduction with consideration for personalization.

The main focus are: 1.Measurement of stress using wearable sensors 2.Classification of stress using machine learning approach 3.Using Fuzzy logic to decide the suitable stress reduction approach and fine tuning.

The effectiveness of approach metric are Accuracy measures if the stress is detected accurately at all times. This will be measured by the number of times stress detected accurately divided by the number of time stress happened

Classification accuracy measures if the stress is classified accurately. Stress reduction % measures the amount of stress reduced due to the stress reduction approach followed.

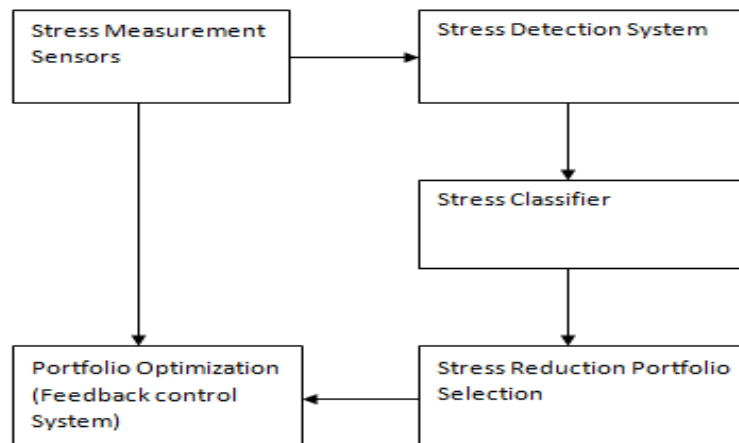


Figure: Proposed Method

Stress Measurement Sensors: Sensors measure the parameters like heart beat rate, pressure, EMG, ECG signals.

Challenge in this component is selection of suitable parameters for monitoring stress.

Stress Detection System: This system extracts features from the measured signals and then uses the features to detect the presence of stress. **Challenge in this component** is selection of features for detection of stress accurately

Stress Classifier: The stress classifier measures the level of stress and classifies to various stress levels. The levels are personalized according to the subject and different for each person. **Challenge in this component** is selection of suitable parameters to classify the stress. Classification accuracy must be improved.

Stress Reduction Portfolio selection: The portfolio selection module interacts with the mobile phone and extracts the favorite music, jokes, videos etc. and based on it builds a portfolio. Based on the stress level, stress reduction method is designed and proposed to subject. This is learning based system and its fine tunes based on the control from the Portfolio optimization component. **Challenge in this component** is application of machine learning methods to select the best stress reduction method.

Portfolio Optimization: This component uses methods like Fuzzy logic to continuously optimize the Portfolio selection component.

Challenge in this component is optimization of methods for the portfolio selection.

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24. THE STUDY OF PERSONAL PREPAREDNESS OF CITIZEN OF INDIA FOR TERRORISM WITH THE HELP OF DISASTERS MANAGEMENT W.R.T. WEST ZONE OF MAHARASHTRA

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Abstract

Risk of terrorism is increasing in the whole world every day. The safety of citizens is becoming a major challenge for every nation as terrorist attacks are increasing in the world. Military forces of the nations are taking utmost care to prevent the terrorist attacks but sometimes they fail. In such type of scenario; the personal preparedness of citizens to fight with the situation in a short period of time is required. Disasters Management tool which will definitely help to get out of the critical incidents like terrorist attacks.

Keeping a proper balance between affected people and the government is required to control the situations like terrorist attacks or man-made disasters. Responsible officials should have to most careful that such type of incidences should not be increased. They should have to be alert 24 X 7 to prevent the future attacks. Role of news media is also very important in such type of cases. This paper discusses on the personal preparedness of Citizens of India for terrorism. Do's and don'ts by the citizens while unexpected situations like terrorist attacks.

Keywords: Terrorism, Personal Preparedness, Disaster Management, Citizens, Government, Media etc.

Introduction

Terrorism is used as weapon for destruction of mass and fearing the citizens of any nation. Generally, “Terrorism is defined as an act that is violent and dangerous to human life, with the intent of furthering political or social objectives” (Source: <https://www.co.mchenry.il.us>).

It is always a threat for any nation because it may affect all the communities in the world. Criminal laws of the different countries have defined terrorism differently. But the common thing is that the purpose of terrorism is to involve the dangerous acts which will hurt or to affect a threat to human life. Terrorism could be any type such as bioterrorism, chemical disaster, bombs, cyber-attack, radiological emergencies, structure fire, explosives and incendiary devices etc.

Prevention of disasters with proper key actions for benefits of the country can help to get out of the situations. Hence the disasters management plays a vital role in the emergency situations. Disasters Management is defined by the International Federation of Red Cross and Red Cross Crescent Societies as, “the organization and management of resources and responsibilities for dealing with all the humanitarian

aspects of emergencies, in particular preparedness, response and recovery in order to lessen the impact of disasters

(Source: https://www.physio-pedia.com/Disaster_Management).

Disasters management helps to plan the multi action alternatives to face the unwanted incidences. It also helps to be prepared personally and adopt the strategies which will be used in the situations like terrorist attacks. Disaster Management this concept is often used as counter-terrorism and management.

When the question arises of personal preparedness of citizen of India, it is very significant that the psychology of citizen should be very positive towards facing the situation. They have to adopt the resources, skills, trainings and any other requirement management of the disasters. This will help to reduce the risk involved in the disasters. We can't predict the time and the manner of attack hence the level of preparedness of citizen determines the effect of such incidents.

Back Ground Study:

In India, especially Mumbai has been the main or preferred target of terrorist attacks. Following is the table shows the Mumbai has been attacked by the terrorists.

Sr. No.	Date	Place& Damage
1	12 March 1993	13 Bombs killed 257
2	6 December 2002	Bus Bomb in Ghatkopar, 2 Killed
3	27 January 2003	Bycycle bomb in Ville Parle, Killed 1
4	14 March 2003	Train Bomb in Mulund, killed 10
5	28 July 2003	Bus bomb in Ghatkopar, Killed 4
6	25 August 2003	Two bombs near the Gateway of India and Zaveri Bazar, Killed 50
7	11 July 2006	Seven Train Bombs, Killed 209
8	26 November 2008 to 29 November 2008	Coordinated series of attacks, Killed 172
9	13 July 2011	Bomb Explosions at three locations, Killed 26

Source: https://en.wikipedia.org/wiki/Terrorism_in_India#cite_note-satpmaha-27

Apart from the above, Pune city was also suffered from the two attacks. On 13 February 2010, Bomb explosion in German Bakery where 14 people were killed and more than 60 people were injured. The second attack was happened on 1 August 2012 at J M Road where bomb explosion resulted in injury to one person.

N. Gurr and B. Cole (2010), has reviewed in their book titled “*The Changing Face of Terrorism*” that, in the global concerns or in the international relation every nation has to fight against the terrorism. Chemical, biological, Radiological, Nuclear and terrorism are the main reasons which will force the nations to be maintain good

international relations. In the book further they shown the effective counter-terrorist measures which will based on the various activities like management, politics, motivations, scientific abilities, skills etc.

Perrow, Charles (2007), has stated in his book titled, “**The next Catastrophe: Reducing our Vulnerabilities to Natural, Industrial and Terrorist Disasters**”, that preventing the attacks is quite difficult rather than to minimize the risk of disaster. He focused on three basic reasons of disaster that was natural, organizational and deliberate. In his views to the nations Homeland Security was so poor that it doesn’t recognize the danger. Proper examination systems were not yet developed to identify the objectionable things.

Adrian Levy and Cathy Scott Clark (2013), have revealed in their book titled “*The Siege: The Attack on the Taj*” that the non-preparedness for the terror attack caused major loss for the Taj as well as country. The authors have mentioned that people who have been there at the time of attack, they were tried to escape from the place but failed because to non-preparedness. The book is not to read as a literary flair but it gives us various imaginary views which will help to develop the mind set when such type of incidence will happen.

Larry Collins and Thomas D Schneid (2000), have described in their book on “**Disaster Management and Preparedness**” that nations have to always plan for disasters so important things were considered and planning should be done. The book reviews the disasters, disaster management, pre-disaster planning and post-disaster planning. They said in their book that disaster preparedness provides a base for effective and coordinated planning which will result into increasing overall effectiveness for the society and community.

Objectives of the Study-

1. To know about the various effects of Terror attack
2. To study the Disaster Management, its application and importance
3. To alert and prepare themselves with the help of Disaster Management for reducing the impact of terrorism

Pre-assumption of the Study

1. Effect of terror attack is dangerous always and Citizens are supposed to know
2. The knowledge and its application of Disaster Management is needed against to fight the terrorism
3. There are various skills to adopt by the citizen to be more prepared them for a disaster should occur

Research Methodologies

The area of study is in selected places of Maharashtra state adjacent to Chhattisgarh and Telangana State, Mumbai and Pune, etc. It is Conceptual Researchstudy based on Secondary Data. This is our limitation of the study. Based on the secondary data the analysis will be done and collect the major findings. Then inference will be drawn.

Analysis and findings based on the secondary Data-

One of the strategies and tactics for counter terrorism is to develop the consciousness of the citizens and officials. Government should take to preventing measures for attack also improving skill of citizens and resources to reduce the after effect, which diminishes the other disasters and risk of the civilians and properties of the country.

Some aspects enhancing the major findings:

Psychology of Terrorism

The particular time, place and manner are unpredictable of the attack, though the confidential officials are always alert for the country. Always terror attack is targeting to the innocent civilians as they are the easier target and media can be boom with these matters throughout the world. Sometimes physical damage from terror attack may be less than the psychological attack to all and that will be significantly throughout the country and massive way. It has a very critical impact on the mind of the citizens. It is uncontrollable and frightening to all the levels of public. It is required to develop the citizens mind in such the psychological impact reduce in all respect.

Present Media and Terrorism

Media is always trying to gain the TRP or attract the mass viewers. The terrorism and the terror attacks are such matter attracting the mass people within no time. The duty and the responsibilities of media to send message exactly and accurately to the people. Sometimes it may not and the news may come in amplified way and may impact on disruptions in society. Now a days social media are more active and faster that they can accelerate and strengthen the application. Hence, the restriction is needed on amplification of wrong news. Facts should be communicated to the society for the benefits.

Civil defense and civil protection as a disaster management tools

Civil defense is the anticipatory protection given to the citizens from the military attack such as raid prevention, bio chemical attacks and nuclear attack etc. Here the emergency management is required by the government. Civil protection has disaster based attack as natural calamity or man-made disasters and issues for the public safety. Disasters are to be controlled by the anticipatory precaution through the disaster management system for the purpose of fewer damages to the society.

Civil protection mostly focuses on generic disasters than as the armed aggression directly rather protect themselves by adopting self-regulated process through disasters management, recognizing by mitigation, preparedness, response and recovery to reduce the effect of disasters. But situational attacks are termed as emergency management.

Suggestions

1. Every citizen should know about the role and functions of disasters management with regard to terrorism.
2. Citizens should enhance their physical as well as mental skills for fighting with the emergency situations.

3. Indian citizen should adopt the four important principles like mitigation, preparedness, response and recovery from the emergency situations.
4. Citizens should always be alert for the occurrence happening nearby environment and if so, immediate inform to the government authority and alert the local people also.

Conclusion

In India, terrorism is not new. Now a days the newspapers and news channels are publishing and broadcasting the news on terrorism every day. Attacks in India are increasing year on year and it damages the public wealth. Major attacks are leading towards human life threats as well as national wealth damages. Hence the preparedness of individual citizens may reduce and rather prevent the higher damages of the Society with the help of adopted tools as Disaster Management, in spite of the Government Authority and their confidential Agencies are doing utmost.

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