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From the Editor's Desk

This is the first issue of Volume Nine of “ASM Business Review”, the referred research journal of the ASM group of Institutes.

ASM Group of Institutes is committed for qualitative research in academics. And this ASM Business Review is a product of its commitment. Audyogik Shikshan Mandal has been playing a pioneering role in the field of creative education ever since its inception in 1983. With a mission “Excellence in Management Education, Training, Consultancy and Research for success”, ASM is marching towards excellence having more than 65,000+ alumni working at all levels of management in all types of industries.

The ASM Business Review is a medium created by ASM to demonstrate the research skills of authors. It is a strong communication link between industry and academia and aims to work as a catalyst for knowledge sharing between various sections of society. ASM Business Review provides a platform for academic scholars and champions from industry to come together for common cause of developing innovative solutions to various problems faced by society and business entities. The present review is a medium to faculty members, research students and they like to present their research findings before the wider audience. The opportunity to publish their research results would provide ample motivation to this type of scholars. The previous issue of the Review received encouraging response from the academic and corporate community as well. Research articles accepted and printed herein are subject to objective editorial processing and are peer reviewed.

ASM Business Review looks forward as a strong link and partner for society and industry to develop workable solution for day to day problems. We believe our success is a team work of various contributions to this journal. ASM BUSINESS REVIEW is always committed to excel academic research and consultancy.

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A STUDY TO FIND OUT TOOLS FOR COST LEADERSHIP THROUGH EXCHANGE OF RESOURCES-SOLAR ENERGY PLANT

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ABSTRACT :

Renewable energy sources are the fastest growing energy source in the world. It is found that from last three decades, tapping the energy from the sun has always had great potential. Solar energy is a clean renewable resource with zero emission. Most of the developed countries are switching over to solar energy as one of the prime renewable energy source. The objective of present study is to check feasibility of solar energy through establishing solar power plant in Iran by recognizing bilateral trade opportunities with Indian state i.e. Gujarat for achievements of sustainable energy. As the power generation for solar power plant in Iran is higher than India, having low cost labour and capital, value addition technology, skilled human resources and good business culture in Gujarat make it possible to enter in an agreement for trade because India-Iran share a friendly trade relations since years and it has been seen in various bilateral agreement entered by both nations. We develop 2 application models such as RESCO and CAPEX for entering into Iranian market. This paper is focusing on creating cost leadership through exchange of resources between both the nations.

KEY WORDS: *Renewable energy, solar energy, Bilateral trade opportunities, Cost leadership, RESCO, CAPEX*

INTRODUCTION

Solar Energy is one of the most promising sources of energy. Every hour the sun beams on to earth more than enough energy to satisfy global energy needs for an entire year. It is available for use in its direct (solar radiation) and indirect (wind, biomass, hydro, ocean etc.) forms. The American space agency NASA has even developed a solar powered plane. India is the only country with a ministry dedicated

to new and renewable energy when the government has been trying to enhance the % of renewable energy in various states. The Indian Government has launched Jawaharlal Nehru National Solar Mission (JNNSM) with a target of achieving 20000 MW by 2022. Our research paper is focusing on ongoing research- recognizing bilateral trade opportunities with INDIA-IRAN which finds out tools for generating solar power in Iran by combining raw material such as technological resources, labour, business culture and capital from India/ Gujarat.

OBJECTIVES: Primary objective: To focus on creating cost leadership through exchange of resources between both the nations- India& Iran.

- **Secondary objectives:**
- To check feasibility of solar energy through establishing solar power plant in Iran by recognizing bilateral trade opportunities with Indian state i.e. Gujarat for achievements of sustainable energy.
- To find out tools that generates solar energy & to increase awareness among India especially in Gujarat by providing information regarding significance of using solar energy.

METHODOLOGY:

Research Area	India-Gujarat & Iran Region
Research Design	Exploratory Research
Method of Exploratory research/ Sources of data	Analysis of secondary data

CURRENT SITUATION w.r.t SOLAR ENERGY IN INDIA-GUJARAT:

India has a great potential to generate electricity from solar energy and the country is on course to emerge as a solar energy hub. The techno-commercial potential of Photovoltaic in India is enormous. The country's solar installed capacity reached 31.696 GW as of 31 October 2019.

Gujarat is capable of producing 35000 MW of wind energy and 69000 MW of solar energy. The state also hosts Asia's largest solar plant. Gujarat has over 1 GW of installed solar capacity accounting for 17% of nation's total capacity. Gujarat also host Asia's first solar park in CHARANKA, PATAN. It covers 2024 hectares of wasteland. For setting up 3000 MW generations and manufacturing facilities 345MW CAPACITY POWER PLANTS are installed. **AUTHORITIES** in power sector in Gujarat- energy and petrochemical department of Gujarat, SERC, GEDA, GPCL, GSECL and Individual Power plants, GETCO, PGVCL,DGVCL,MGVCL,UGVCL,TORRENT, MPSEZ,KPT.

CURRENT SITUATION w.r.t SOLAR ENERGY IN IRAN: RENEWABLE IS BOOMING IN IRAN- a HUB FOR SOLAR ENERGY PRODUCTION: It is the only country that has both a Caspian Sea and an Indian Ocean coastline. The climate of the Iran is continental. Iran covers an area of 1648000 sq km. Iran is becoming a highly attractive emerging market for renewable energy product. Feed in tariffs- The applicable tariffs are reviewed on a yearly basis and determined by SUNA. Required feed in tariffs in solar farm is over 10 MW (Iranian Rials per KWH 5600), 10 MW and less (Iranian Rials per KWH 6750), 100 KW and less (Iranian Rials per KWH 8730) and 20 KW and less (Iranian Rials per KWH 9770) respectively. According to Iran law and regulations, ministry of energy is obliged to purchase electricity from power plant established by private sector with specific tariffs: Article 62, 61, paragraph B of article 133.

BUSINESS PLAN:



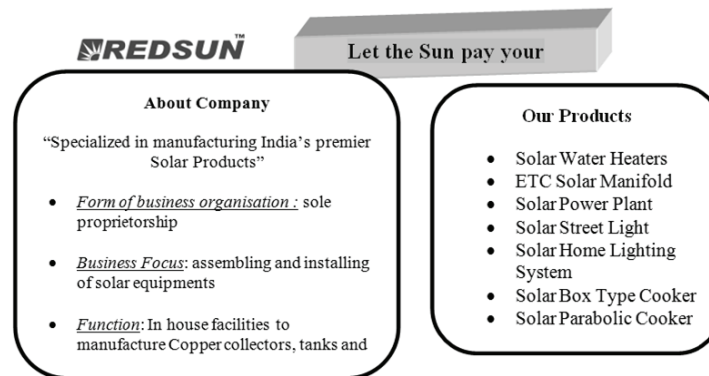
REASON FOR PRODUCING SOLAR PRODUCTS IN GUJARAT:

Availability of low cost labour, Government subsidies, Local availability of raw materials, Low cost photovoltaic cell, 10 year tax holyday.

SETTING UP SOLAR PLANT IN IRAN: 300+ sunny days available for generating solar power, Wide desert and wasteland available to set up solar park, Government incentive for setting up solar park, Market for exporting power to nearby countries, 12% return on investment if associated with a good buyers and regular production of around 100kw, Only 1% of electricity is produced by solar energy.

SELLING ELECTRICITY IN IRANIAN TERRITORY: Neighbour countries can be potential customers, the price at which the government purchases electricity is above average price than rest of the Asian countries, 6.5% growth in consumption of electricity in country.

As per our plan, we will contact solar products manufacturing company REDSUN which is situated in Gujarat as a mediator. The products and raw material of this manufacturing company will be sent to the agent of IRAN via mode of shipping and the agent will contact to respected solar firm to establish solar plant and generate solar energy by accessing Indian raw material and sell out solar energy.

COMPANY OVERVIEW:

VALUE CHAIN ANALYSIS: Value Chain represents the internal activities when transforming inputs into outputs. The goal is to recognise, which activities in the organization are most valuable to the firm and which activities are important enough to provide competitive advantages over other. Also VCA helps in determining two types of advantages namely, **Cost Advantage and Differentiation Advantage**. For REDSUN, in this activity, all the inbound functions are carried out at the side hall. Raw materials are stored and arranged in such a manner that it helps in the production. The suppliers are scattered in both, Gujarat as well as Southern India. The technology plays a key role as it helps in reducing the cost and making products with better quality and utility. At REDSUN, the installations are done by the in-house staff itself.

STEEPLED ANALYSIS: STEEPLED analysis is a variant of strategic business management to find out external factors affecting the business, sector or an industry.

TABLE 1.1 STEEPLE ANALYSES OF INDIA/GUJARAT & IRAN

Points	Iran	Gujarat
S – Social	The cultural beliefs on Iran is quiet rigid. Being a Muslim dominant country, it may seem that they are a little bit more attached towards their traditional dressing.	Gujarat being influenced by joint family culture is more relaxed when it comes to sticking to a matter. The mind set of people are expanding month by month.
T – Technical	Currently there are new plans for solar power plant budding in Iranian economy.	Having a huge area of land and many numbers of players in the sector, there are various departments in such plants engaged in R&D department.
E – Economical	Because of its huge oil reserve, Iran is 27 th largest economy.	Considering the GDP of India and SDP of Gujarat, the rank secured by Gujarat is 5 th .

Points	Iran	Gujarat
E – Environmental	Because of high emission of CO ₂ gas in atmosphere the Iranian government has opted for green and clean energy production.	In Gujarat under the leadership of Shri Narendra Modi and after him becoming the prime minister the focus is shifted on producing green energy.
P – Political	There are four to five major political parties in Iran, mostly following the Islamic laws and 5 favouring the majority.	Apart from the three – four major parties there are as much as 32 political parties active in Gujarat. But the contribution towards the sector is made by just one or two.
L – Legal	Islamic laws are followed in Iran and the main bodies include Parliament, Guardian Council and Islamic Consultative Assembly.	In Gujarat, the legal bodies are district court and high court. The verdict can be later challenged in Supreme Court.
E – Ethical	Iran was ranked 131 st in the list of corrupted country which is the reason of rigid actions against convicted corrupt felon.	India is ranked 79 th corrupt country out of 176 countries but on the other hand Gujarat.
D- Demographic	The literacy rate of Iran is as high as 93% of its 8 crore population.	Out of population of 6 crore, the literate are 79 % who are comfortable with regional languages.

MODE OF ENTRY: As per our business model, the mode of entry will be Exporting & Foreign direct investment. Exporting will help us in making our product reach to the IRANIAN market and make it available for sell using CAPEX model. Foreign direct investment will allow us to obtain easy establishment setup in IRAN and will help us get benefits available in country like tax relief, low expenditure, easy set up, high feed-in-tariff rates and basic infrastructure in the country. The applicability of RESCO model needs FDI as entry mode the country and thus to apply both RESCO and CAPEX model easily in IRAN preferred mode will be to export along with FDI.

EXPORT IMPORT NORMS: DOCUMENTS REQUIRED FOR IMPORT OF GOODS AND SERVICES INTO IRAN: Import declaration, Commercial ID card, Warehouse receipt, Bill of Landing, Certificate of Origin, Invoice, For-Ex Statement (Confirmed by bank), Pro-forma Invoice, Order of registration in the Ministry of Trade, Packing list, Insurance policy, Operation license (If needed), Catalogue and brochure (If needed), Legal permission for clearance, including the certificated of health, standards, atomic energy, quarantine (If needed), Power of attorney and

customs brokers card (If needed), Clearance form (If needed). **DOCUMENTS REQUIRED FOR EXPORT OF GOODS AND SERVICES FROM INDIA:** For sample; Invoice & Packing List, for commercial shipment; Invoice, Packing List, Annexure A, SDF (Standard declaration Form), and Shipper's letter of instruction.

EXPORT IMPORT DATA ANALYSIS: India continues to progress impressively towards achieving its target of adding 175 GW of renewable energy capacity by 2020, to include 100 GW of solar power. While Iran's export is around 31.8 billion dollar, making it to the 60th largest exporting country the country exports various products in china, India, and turkey and Japan. Iran has imported round 43.9 billion \$, making it to 51st largest importer in world Iran mainly imports from china, south Korea, turkey, India and Germany.

SHIPPING NORMS: Shipping and transportation for the solar energy industry involves careful handling of equipment. Careful planning and transportation is needed for establishment of solar utility power plant. The efficient shipping partner manages the individual shipments to consumers or business in a cost effective and efficient manner than other shipping firms. REDSUN SOLAR PVT LTD is also following safe shipping policy and is hiring an agent to export the solar products to nations. Supportive institutions are export Promotion Council, Commodity Boards, Export Credit Guarantee Corporation, Indian Trade Promotion Organisation, Export Inspection Council, Indian Council of Arbitration, and Directorate General of Shipping, Department of Commercial Intelligence and Statistics, Central Advisory Board, EX-IM Bank are few of the institutions which provide support.

SEGMENTING/TARGETING/POSITIONING FOR NEW TARGET MARKET:

SEGMENTING	
INDIA/GUJARAT	IRAN
Solar power plant can be set up at various parts of India such as Gujarat, Rajasthan, Kerala because of availability of vertical solar lights	Solar plant can be established in Tehran, the capital of Iran due to availability of 300 sunny days and heat ways and DNI of 5.5 kwh/sqm/day
TARGETING	
INDIA/GUJARAT	IRAN
91 solar power plants are situated in Gujarat-highest in any state. The infrastructure set-	5000 MW of solar power is targeted to be produced by 2020. 17 power plants established showcasing higher growth potentials in TEHRAN; moreover the

SEGMENTING	
INDIA/GUJARAT	IRAN
up and easy availability of resource is great boon for industry	establishment of SUNA has shown greater growth in solar power generation as well as FDIs.
POSITIONING	
INDIA/GUJARAT	IRAN
In INDIA, especially in GUJARAT the positioning needs a special work using CAPEX model, the model is applicable as it allows installing solar products on owners capital expense	In IRAN the application is to be done using both CAPEX and RESCO model, the economy of IRAN may not be capable of huge capital expenditure so RESCO is better option

TABLE 1.2 STP FOR NEW TARGET MARKET

INTEGRATED MARKETING COMMUNICATION FOR PROJECTED FIRM:

TABLE 1.3 PROJECTED MARKETING STRATEGIES FOR NEW MARKET ASSUMPTIONS IN PREPARING INCOME STATEMENT AND BALANCE SHEET:

<u>INDIA/GUJARAT</u>	<u>IRAN</u>
The IMC in INDIA focus on 4C's they are consumer, communication, convenience and cost.	IMC in IRAN is based on B2B as well as B2C communication channel as the market is new and needs more focus on developing potential consumer using CAPEX and RESCO model
In INDIA, the IMC can be done with the use of modern technological platform and social media	IRAN is comparatively backward and needs more technical innovation so promotional focus needs to be on traditional medias
In INDIA, the market for selling the solar panel is larger and much scattered, so the best option would be to register firm under sites like	The Iranian economy is much backward, poor growth and low development in sub urban areas are the reason for low growth; the marketing

<u>INDIA/GUJARAT</u>	<u>IRAN</u>
INDIAMART, and JUSTDIAL to get further exposure.	technique would be excessive use of print and television media to promote the firm.
The main intention of our company would be on using social media tools like facebook and Instagram marketing along with direct mail and telephonic conversation.	In IRAN the economy is backward and will be focusing on newspaper advertisement, poster and hoardings along with television advertisement

- Installed capacity is 20 KW of for both IRAN and INDIA. The statements are made with consideration of 50%, 60%, and 75% capacity of plant and machinery and sales in the respective years. Cost of material is assumed as per current market rate as on, 31-3-2018. The solar power plant will cost 35000 per 1 KW and other solar panels at 12500 to 22000 per single KW. The fabrication and maintenance cost are extra and are to be considered during the life of products.
- The depreciation is counted at 5% on each and every asset, considering it as 20 year life calculating with straight line method for purpose of understanding. Labor and maintenance are considered as 26% of total tariff receivable for the solar power plant. Taxes and duties are considered as 33%, as the turnover increase by 1 Crore and firm is eligible for 30% slab in IT. The soft loan with 6% interest rate will be availed for purpose of funding. Majority of funding will be from loans.

FINDINGS: The power generation for solar plant is higher in IRAN then in INDIA. The 20 KW solar plants in IRAN produces 134,000 units of power in a year and the same plant in INDIA produces 1, 25,000 units of power. The loan availed in INDIA is much cheaper than in IRAN, so majority of the loan will be bought from INDIA. The tariff rate in IRAN is higher than in INDIA. Iran and India have arrived at a political understanding that they want to take their relationship in the energy sector ahead, evolving it from that of a buyer and sellers to a more comprehensive partnership, said the Indian ambassador to Iran.

CONCLUSION IN TERMS OF COMPARATIVE ANALYSIS OF BILATERAL TRADE POLICY BETWEEN INDIAN STATES- GUJARAT AND IRAN IN SOLAR ENERGY:

- The demand is expected to be around 18478 mw in 2017 for Gujarat. While Use to excessive heat and availability of oil and natural gas the heat generation in climate is high in Iran thus the electricity demand increased up to 52790 mw in

Iran in 2016-17.29431 mw of installed capacity is posed by Gujarat of which 5996 mw is produced by state sector, 8035 mw by private sector, 5905 mw by central government of which solar contributes 1016 mw while Iran is capable of generating 77000 mw of electricity and ranks 19th in world electricity production.

- The government of Gujarat is providing various benefits such as 10 year tax holiday, low cost land, and subsidy up to 80% on installing solar rooftops while Iran government is giving special benefits for setting plant in Iran to generate solar energy the benefits are received in form of such as 20 year purchase power agreement.

REFERENCES:

- Afsanehsadat Omidiani (2015), Solar Energy and Its Future Role in India and Iran(online), Pune: International Journal of Scientific and Research Publications, Volume 5, Issue 9, September 2015 [accessed 12 December, 2019]
- [http://www.ijesi.org/papers/Conf.1802\(ICMEEP\)/Vol-2/2.%2006-11.pdf](http://www.ijesi.org/papers/Conf.1802(ICMEEP)/Vol-2/2.%2006-11.pdf) [accessed 12 December, 2019]
- <http://www.redsunin.com/> [accessed 12 December, 2019]
- <https://medium.com/age-of-awareness/renewables-are-booming-in-iran-98781650669d> [accessed 12 December, 2019]
- https://www.researchgate.net/publication/26482208_Renewable_Energy_In_Iran_Challenges_and_Opportunities_for_Sustainable_Development [accessed 15 December, 2019]
- https://www.researchgate.net/publication/309727659_Environmental_and_Economic_Analysis_of_Scenarios_for_Transition_to_Renewable_Energy_in_the_Iranian_Electricity_Supply_System [accessed 14 December, 2019]
- <https://www.export.gov/article?id=India-Energy> (accessed 15 December, 2019)

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A STUDY ON WORK SATISFACTION WITH RESPECT TO WORK-VALUE CONGRUENCE

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ABSTRACT :

Work-value congruence and its effect on employee job satisfaction were investigated in this study. Total 123 responses were collected from employees in Pune city on a 20 item scale. The scale comprised on two subscales; one (work-value congruence) was adopted from Ucanok (2009) and other (Work satisfaction) was developed by the researchers. The scale was found reliable. The findings suggested that there is significant positive correlation between work-value congruence and work satisfaction.

Key Words- *Work-value, Work-value congruence, Work Satisfaction*

Introduction

Zedeck (1997) defines work values as goals employees strive to achieve through employment.

A value system is the sum of enduring standards of perception, attitudes and modes of behavior that serve the existence of a society. (Wright, Cullinan, and Blin1997; Meglino, and Ravlin1998)

Work values are more specific than life values. Work values predominantly emerge from one's basic value system, culture and help individual to find direction in organization setting. Vast literature is available on work values. Many scholars have given scale to measure work values. Super (1970) first developed the inventory of Work Value which contained 45 items. After that many attempts were made to compress and rectify the scale, yet the scale is popular amongst researchers today also. This study however focused on Work-value congruence rather than work-values to investigate its effect on work satisfaction.

Work-value congruence is the process by which employee think that their life values can be (cannot be) achieved through the job they are doing. If they think so then work-value congruence is high. This study tried to investigate the effect of such work-value congruence on job satisfaction.

Job/ work satisfaction is much studied phenomenon. Most of the antecedents are known from the existing body of knowledge. However scarce resources are available which investigated the effect of work-congruence on work satisfaction despite work-value congruence seemed to be antecedent of work satisfaction.

Literature Review

Bolton (1980), worked on work values inventory and developed second order dimensions of work values inventory. Author made the scale short and understandable. The author performed factor analysis of original 45 item work values inventory. Based on results of factor analysis, the author categorized the scale into six factors (second order dimensions) viz.-stimulating work, interpersonal satisfaction, economic security, responsible autonomy, comfortable existence, and esthetic concerns. The author further added that these six factors can be administered to variety of employees with respect to age, education and intelligence level. The study provides the guidance for hand scoring of the items. After this study many other studies also attempted to compress the 45 item work values inventory into various factors through factor analysis.

Li, Liu and Wan (2007), surveyed 316 Chinese respondents. They found that old age employees perceive high work values. Their findings further reveal that male, high position employees also hold high work values perceptions compared to their counterparts. The study also says that education and work value perception are significantly positively correlated. In summary research work proposes that the demographic effect on work values hold importance when it comes to management theory and practices.

Judge and Bretz Jr.(1991) in their working paper noted that individual work value orientation can affect job decision significantly when organization's value system (Where they are applying) are known at least to some extent. The analysis found that some work values viz.-concern for other, achievement orientation and fairness had significant effect on decision making process than did pay and advancement opportunities had .The authors also noted that when there was congruence between individual's values with those of organization or job then individuals were more likely to be satisfied in their jobs and more likely to be with the same organization for longer.

Smola and Sutton (2002)collected data from 350 respondents. The data so collected was analyzed. Then the results were compared to the similar study which was conducted in 1974. This comparison of results showed that the work values differ across generations. The research also suggested that work values change as the employees become older. The authors noted that American workers wanted to balance their work and personal objectives. Authors further suggested that there should be continuous research in this area as work values keep on changing with

time and age of the same person. Such findings will help managers to manage their employees and organization as whole effectively.

Mannheim(1993) found that men and women differ in their value perception on only one dimension- Upward Striving. The results showed that women do not strive to get promotions compared to their male counterparts. The authors attributed this to lack of ambition due to gender discrimination that exists. The research further found that women do not relate to their jobs through an ideological perspective but through status and situational aspects.

Wong and Yuen (2015) attempted to test the reliability of the work value inventory of 45 items. They found that the scale is not reliable. They analyzed the results and suggested some measures to improve the reliability of the scale. The study suggested that one should consider the cultural differences which affect the work values and general values held by that culture and this in turn causes differences in individual responses to work value inventory subscales.

Ucanok (2009), examined the effects of work values, work-value congruence on organizational citizenship behavior. The study validated the scale of work values and work- values congruence and suggested that they can be used in future research as they were found reliable. This study introduced an important concept- work-value congruence. Work-value congruence gives better insights into work value's understanding and its relationship with the attitude towards job/ organization. Author explains that the work-value congruence is a process which explains the relationship between values and behavior just as Vroom's Expectancy theory does. The findings of this research revealed that the workers who believed that they can achieve their values through the act of working (in current job) were responsible employee of the organization.

Hypothesis of the study

H1- Work-value congruence is significantly positively related with the work satisfaction

Research Methods

Instrument for data collection was the Work-Value congruence scale developed by Ucanok (2009). It is 12 value item Scale. All the items were rated on 4 point scale where 1 represented 'cannot be achieved through current job' and 4 represented 'can be achieved only through current job' The second part of the questionnaire consisted of three questions to check the work satisfaction of the respondents. The last section included forced choice questions to collect demography of the respondents. There were total 20 items in the scale.

Around 240 employees of various organizations in Pune city (India) were approached using non-probabilistic judgmental sampling method for getting the questionnaire filled. Only 130 people voluntarily filled in the questionnaire. Out of these 130 questionnaires 7 had to be rejected due to either incompleteness or unengaged responses. Therefore finally 123 responses were analyzed through SPSS.

Data Analysis and Results

The reliability of the scale- It is very important that the scale used in data collection is reliable; otherwise the findings will not hold any integrity and generalization would be another challenge. Therefore the reliability of the scale was tested using Cronbach's alpha coefficient. The result is shown in table no. 1 below.

Table no. 1- Reliability Statistics

Cronbach's Alpha	N of Items
.881	20

From table no 1 it was observed that the Cronbach's alpha value is greater than .7 which is the benchmark value for a reliable scale (Nunnally & Bernstein, 1994). Therefore the scale is considered reliable.

Descriptive statistics

Table no. 2. Descriptive statistics of subscales

	Mean	Std. Deviation
Mean of Work-Value Congruence subscale	2.5610	.83812
Mean of Work Satisfaction subscale	3.2439	1.47954

The mean values suggested that there was high congruence between job characteristics and value system of respondents. In other words the work-value congruence perception was moderately high for respondents. The mean value of satisfaction scale also suggested that the respondents are moderately satisfied. However the high standard deviation value for work satisfaction scale suggested that the responses are widely distributed around mean value.

Hypothesis testing

H1- Work-value congruence is significantly positively related with the work satisfaction

To investigate the relationship between work-value congruence and work satisfaction one way ANOVA test was run in SPSS.

Table no. 3 ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	28.392	3	9.464	5.918	.002
Within Groups	59.169	37	1.599		
Total	87.561	40			

From ANOVA table the significance value (p) of F test was noted and found that it is less than .01 ($p < .01$). Therefore the null assumption that there is no relationship between work-value congruence and work satisfaction was failed to be accepted. That meant that there is significant relationship between the two variables. To examine the strength and direction of the relationship Pearson's correlation test was used.

Table no.4 Correlation Correlations

	Mean of Work-Value Congruence	Mean of Work Satisfaction
Mean of Work-Value Congruence	1	.512(**)

** Correlation is significant at the 0.01 level (2-tailed).

The correlation value was found to be .512 and the significance value was less than .01 that means this correlation is statistically significant. In other words the hypotheses 'Work-value congruence is significantly positively related with the work satisfaction' was accepted as null hypothesis was failed to be accepted. The correlation value (.512) indicated that the correlation is moderately high. It means as work-value congruence increases the work satisfaction level also increases significantly.

Discussion and Practical Implications

This study found that there is significant correlation between work-value congruence and satisfaction. Therefore HR managers should give due consideration to investigate the work-value congruence perception of their employees. If work-value congruence perception is low, then HR managers may design a new job environment which may give opportunities to their employees in fulfilling their own values. The other possibility is that HR managers should assess the work values of the candidates before they get hired (during Interviews). This would help them understand if the candidate's personal values can be in line with organizational value system or so. Then only the decision about the candidate being hired should be taken. HR managers would have been practicing it based on their wisdom. However this study gives them a concrete scale which was found reliable to use for hiring purpose.

To the surprise the demography of the respondents had no relations with the work-value congruence and work satisfaction. The literature suggested that as the employees grow older their value system also changes. Therefore authors expected that work-value congruence levels may be different across the ages, gender, education levels and income levels. However no such relationship could be established in this study. This study due to its limited scope cannot answer as to why demography did not have any effect on work-value congruence. Further research is needed in this direction.

Limitations and Future Scope

The small sample size limits the power of findings in generalization. The future study may include larger sample size. Future study may also include work-value scale to examine the work value perception and work-value congruence and their impact on satisfaction and intention to stay with the organization.

Work-value congruence is a concept that is believed to exist in explaining relations between basic variables such as values/goals and attitudinal variables like centrality, Satisfaction, citizenship and commitment. It is defined as the distance between one's values or goals and one's belief in attaining the specific value/goal through the act of work. Bourdieu [7], [8] asserts that the formation of goals in a specific life sphere, change according to the belief in reaching that specific goal. Individuals observe events around them and make judgments –consciously or unconsciously- about the

Attainability of their goals and act according to their perception of the attainability of the goal. Zedeck [70] argues that work values influence the importance of work in the life of the individual, and add that this relationship is moderated by the perception of one in attaining the specified goals through the act of working (p.327).

An empirical study questioning the attainability of work values through working has not been found in the literature. Therefore, a pilot study by the author was designed to

Investigate the link between values and work. The participants were asked to rate work value dimensions defined by Tevruz and Turgut [62] in terms of their attainability by the act of working on a four dimensional scale. The results showed that the least attainable values through working were 'religiosity' and 'avoidance' and the values that can definitely be attained by working were 'making a living' and 'gaining status'. When these 12 work values are placed in the dimensions they were previously found to belong in Tevruz and Turgut's study [62], the work value dimension most likely to be attained by work occurred to be the 'worldly work values' and the dimension least likely to be attained emerged as the 'normative values'.

References

1. Zedeck, S. (1997). Commentary on diversity and work-family values. Earley and Erez, 319-332.
2. Wright, G. B., Cullinan, C. P., & Bline, D. M. (1997). The Relationship Between an Individual's Values and Perceptions of Moral Intensity. *Behavioral Research in Accounting*.
3. Meglino, B. M., & Ravlin, E. C. (1998). Individual values in organizations: Concepts, controversies, and research. *Journal of management*, 24(3), 351-389.
4. Super, D. E. (1970). *Work values inventory*. Houghton Mifflin.
5. Bolton, B. (1980). Second-order dimensions of the Work Values Inventory (WVI). *Journal of Vocational Behavior*, 17(1), 33-40.
6. Li, W., Liu, X., & Wan, W. (2008). Demographic effects of work values and their management implications. *Journal of Business Ethics*, 81(4), 875-885.
7. Judge, T. A., & Bretz, R. J. (1991). The effects of work values on job choice decisions (CAHRS Working Paper# 91-23). Ithaca, NY: Cornell University, School of Industrial and Labor Relations. Center for Advanced Human Resource Studies, 1-35.
8. Wey Smola, K., & Sutton, C. D. (2002). Generational differences: Revisiting generational work values for the new millennium. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 23(4), 363-382.
9. Mannheim, B. (1993). Gender and the effects of demographics, status, and work values on work centrality. *Work and Occupations*, 20(1), 3-22.
10. Wong, S. W., & Yuen, M. (2015). Super's Work Values Inventory: Issues of subtest internal consistency using a sample of Chinese university students in Hong Kong. *Journal of Employment Counseling*, 52(1), 29-35.
11. Uçanok, B. (2009). The effects of work values, work-value congruence and work centrality on organizational citizenship behavior. *International Journal of Behavioral, Cognitive, Educational and Psychological Sciences*, 1(1), 1-14.
12. Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory* (McGraw-Hill Series in Psychology) (Vol. 3). New York: McGraw-Hill.

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INFLUENCE OF BALANCED PSYCHOLOGICAL AGREEMENT ON ORGANIZATIONAL OBLIGATION-

A STUDY ON AUTOMOBILE INDUSTRY IN SOUTH INDIA

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ABSTRACT :

The Indian automotive industry is projected to be amongst the top three of the world in the area of engineering, manufacturing and overseas sales of vehicles and automotive components facing tremendous challenges from it's competitors. In Today's world it is very important to keep the employees highly engaged and motivated to attain the goals of the organization. This research focuses on studying the connection between balanced mental contract and the organizational obligation. The independent variables are both the employee promise and employer promise towards Performance support, Career development and external marketability from employees standpoint. The dependent variables are the 3 model commitment scale- Affective, Normative and continuance assurance. The study randomly collects opinions of n=140 respondents from 7 large automotive industries across south India through structured questionnaires. The data is fed into SPSS Version 25 to test the validity and uniformity of the statements. Descriptive statistics and correlation analysis is used to interpret the data. The Findings of the investigation revealed that there is no positive association between balanced psychological agreement and organizational obligation. Out of all variables performance support and affective assurance have a medium connection therefore the researcher suggest further study in this area to explore possibility of same or different prospects.

Keywords: *Balanced Psychological Contract, Organizational obligation, Affective assurance, normative assurance, Continuance dedication, Performance support, Career Development and External Marketability*

I. INTRODUCTION

The Indian automotive industry consists of automobile OEM manufacturers and automobile component manufacturers.. The automotive industry contributes around 9.4% of the country's GDP (automobile OEM equals to 7.1% and automobile component equals to 2.3%) and employs around 35 million (automobile OEM employs around 32 million & automobile component employs around 3 million

directly & indirectly). The Indian automotive industry is projected to be among the top three of the world in the area of engineering, manufacturing and export of vehicles and components. The major contribution of growth expected from automotive component industry in India's GDP as much as 5% to 7% by 2026 from current 2.3% (2018) with expected turnover of \$200 billion by 2026 from current \$43.5 billion in 2016-2017

To stay competitive in the changing business world, it is imperative to focus on managing the employer and employee relationship effectively from the psychological contract perspective and get employee's commitment towards the organization to meet the organizational challenges effortlessly. The psychological convention refers to the set of implied beliefs of expectations (pre-Rousseau period definitions), promises and obligations (Post-Rousseau period definitions) between employer – employee for continuing a mutually beneficial relationship by both parties to abide by mutual promises and obligations to achieve different objectives for mutual betterment of both parties in today's competitive world. The concept of psychological agreement is well established in the western world but gaining prominence in India only now in the organizational term which interprets the fulfillment and non-fulfillment of mutual obligations, expectations and promises between employer and employees relationship i.e. the assumptions about what each of them need to offer and are willing to deliver based on various issues being surfaced between employees and employers across various organizations at India.

II. LITERATURE REVIEW

In Indian context where interpersonal relationships are highly valued, the employment management systems are greatly influenced by the political, social and economic factors. The employee obligations are mostly dependent on these factors more than the job roles (Krishnan, 2016) . A vast majority of researchers (Guest and Conway, 2004) explained organizational obligation as a result of psychological convention. (Sels,Jansenns and Brande, 2004) measured psychological contract using 6 magnitudes of psychological indenture i.e. tangibility, constancy, capacity, instance , swap evenness and agreement level that results in effect on emotional assurance. (Rousseau, 1995) affirmed that traditions and customs are a chief feature that has influence on an employee's psychological contract. Employees in India do not differentiate their work roles with their societal roles. The employees create a sense of belongingness to the organization to have a long term relationship with the organization. Preponderance of the researcher revealed that there is difference in the opinions of the employees on the psychological bond (Krishnan, 2016) and there is a lack of research in the Indian context on the psychological contract (Agarwal &Bhargava, 2010) . The research of (Zhuo J. and Yu M.F., 2013) studied the perception of knowledge workers on psychological indenture, the relational

psychological bond has a positive association where a transactional relationship has negative outcomes on the Organizational commitment. The study of (Cheng Wei Che and others, 2018) observed that job satisfaction and job performance are mediated by the effects of the Psychological indenture and organizational assurance.

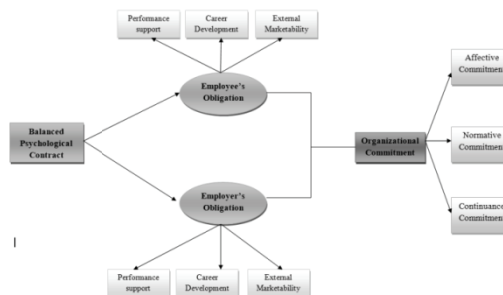
III. RESEARCH GAP

From the above literature it can be inferred that there are lot of studies on Psychological contract and organizational commitment (Deepthi&Baral, 2013 ; Gupta, 2015 ; Pei-ling, Yi-shyuan& Tung-han, 2013 ;), but there are no specific studies related to balanced psychological convention and its impact on 3 model organization assurance. There is a lack of psychological agreement researches referring to employer fulfillment of psychological bond to the employee (Grimmer, Martin, Matthew Oddy, 2007). There is extensive literature available on mental agreement and organizational obligation around the world, but very small research is done in automotive industry in India

So, the focus of current research will be to study this problem and attempt to fill this knowledge gap and provide facts on the current state of employment relationship in selected automotive companies' at South India. Therefore, the researcher tries to study the impact of emotional agreement on organizational assurance in select automotive companies at South India from employee's perspective

3.1 Conceptual framework for the current study

Conceptual framework for the current research showing the relationship between Balanced Psychological convention and it's attitudinal outcome as Organizational obligation.



Source: Author created

Above figure showing the extent to which employers accept worker management practices that influences the psychological agreement (reciprocal promises, obligations and commitments) mainly on balanced psychological bond contents (Performance support, Career development and External marketability) leading to attitudinal consequences which may be in form of (affective, continuance, normative) organizational commitment

IV. Statement of the problem

In the course of recent years, the monetary condition in India has confronted numerous difficulties following the commencement of economic liberalization in 1991. The Automotive business contributes around 9.4% of the nation's GDP and utilizes around 35 million workers additionally experienced huge individuals and hierarchical administration challenges because of nature of occupations changes, cutting back, globalization, re-appropriating, re-organizing, cost streamlining, mechanical development, mechanization, business cyclicity and changing client desires. These developed difficulties in the recent years prompted spotlight on the balanced psychological contract between the workers and employers to comprehend the employee's dedication towards the organization. Also to address the above difficulties adequately and stay focused in the present changing business world there is a need to understand the impact of Career development, External marketability and performance support (employer and employee obligation from employees perspective) on organizational loyalty.

In this context, a study on above will give new proof and further knowledge about the influence of balanced psychological convention on organizational obligation from employees' viewpoint for the businesses to improve their employees engagement.

V. OBJECTIVES OF THE STUDY

The objectives of the study are:

- To study the relationship between balanced psychological convention (Employee obligation) and organizational assurance
- To study the connection between balanced psychological bond (Employer obligation) and organizational obligation

VI. HYPOTHESIS

1. H0: There exists no association between balanced psychological agreement (Employee obligation) and organizational loyalty
2. H0: There exists no association between balanced psychological agreement (Employer obligation) and organizational loyalty

VII. SCOPE OF THE STUDY

This study is conceded in the automobile companies, namely Large Automobile OEM & its Tier-1 Supplier in South India only. An effort is carried out to comprehend the association between balanced psychological indenture and organizational assurance of employees at executive / management Level.

The chief rationale of this examination is to study the effect of balanced psychological agreement on organizational dedication in selected large automobile

companies at South India. The study covers the employee perspective on the Psychological bond and its impact on organizational assurance with a self-rated questionnaire.

VIII. DATA COLLECTION AND TOOLS FOR ANALYSIS

The data for the study is collected through structured questionnaires which are filled by the senior employees of the automobile industry in South India.

8.1 Structured questionnaires for employees

The questionnaire consisted of three parts:

- **Part A: Biographical questions-** Multiple choice questions on the age, qualification, experience and other demographics are administered in this section
- **Part B: Balanced Psychological Contract-** This section contained (12) Likert scale statements relating to employee obligation and employer obligation on performance support, Career development and external marketability
- **Part C: Organizational Commitment** – This part of the questionnaire included (6) Likert scale statements on Affective, Continuance and Normative commitment

8.2 Sampling Techniques

Simple Radom sampling technique is used to select employees from the Automotive OEM and its Tier 1 suppliers in South India. The senior employees who are at the managerial level are selected for the study.

8.3 Population

The sample size for this study will be based on the population of the Large automotive Industry in South India. The table below summarizes the number companies in South India Large Automobile Industry.

Table –1: South India Automobile Industry

	South India
Automobile Industry - (OEM)	52
Tier - I Large Automobile component manufacturers'	57
Total Large Automotive Industry	109

Source: The Society of Indian Automobile Manufacturers (SIAM) and the Automotive Component Manufacturers Association of India (ACMA)

8.4 Sampling Size

The sample size of employees for the study is ascertained by using the sample size determination formula proposed by Cochran. The sample size is computed by

assuming the finite population of Automobile OEM and its Tier I suppliers; hence the formula for sample size from the finite population is given as follows:

$$n = \frac{\frac{z^2 * p(1-p)}{e^2}}{1 + \left(\frac{z^2 * p(1-p)}{e^2 N} \right)} = \frac{\frac{1.959964^2 * 0.5(1-0.5)}{0.36^2}}{1 + \left(\frac{1.959964^2 * 0.5(1-0.5)}{0.36^2 * 109} \right)}$$

= Sample Size of Automobile OEM and its Tier I suppliers companies is 6.938516 rounded off to 7 Companies

8.5 Sample Design

Table – 2: Sample of employees

Sample of employees

	Company Name	No of employees
1	Tata Ficos Automotive Systems Private Limited	20
2	Automotive Axles Limited	20
3	Meritor Heavy Vehicles System India Limited	20
4	JK Tyre and Industries Limited	20
5	Tata Marcopolo Motors Limited	20
6	Bosch Limited	20
7	Rane (Madras) Limited	20

On the basis of the sample size which is determined statistically 7 companies from south India are selected and 20 employees from each of the companies are randomly selected. A total 140 respondents are studied.

8.6 Statistical Tools Used

This study uses Descriptive statistics to summarize the quantitative data, Graphs and charts increase the effectiveness of the statistics. Further Correlation analyses are used to study the association between the dependent and autonomous variables. Spearman's correlation is the best measure to analyse the ordinal data and therefore this method is used.

IX. LIMITATIONS OF THE STUDY

- The study is geographically limited to south India
- The study is limited to select large automotive industries only
- The study is limited only to senior employees at leadership and managerial level.

- The study considers only employee perspective and employer perspective is not considered due to constrained time frame and lack of feasibility on data collection.

X. ANALYSIS AND INTERPRETATION

Demographic profile& data analysis

The anecdotal synopsis of the respondents uncovers that a greater part of 57.1 % respondents had a place with Bangalore-Mysore locale in Karnataka state, 29.3% respondents had a place with Chennai area in Tamilnadu and remaining respondents had a place with different states in south India. The education profile uncovered that 40% respondents have finished their graduation, 49.3% respondents have finished their post graduation, 3.6% respondents have finished above post graduation and staying 7.1% respondents have different capabilities.

The work profile of the respondents uncovered that 47.2% respondents had over 12 years to 24 years of involvement with the present business which is finishing the statistical data points of the Total understanding. A greater part of 40 % respondents have a general working encounter of over 24 years which might be a marker that there is a huge worker extent that is focused on the association for long time.

An enquiry into work jobs and positions demonstrated that a lion's share of half representatives is at asst. directors/agent chiefs/supervisors level and the level of representatives' declines as the position expands. The vehicle business has foreordained occupation jobs and the assessment of the equivalent uncovered that 40.7 % of the respondents catch second Level positions(Managers/Executives who are answering to Functional Heads), 53.3 % workers held first level positions (Functional Heads who are answering to Site Head/Business Head/MD/CEO) and staying 5.7% are assigned at Level - 0 positions(Site Head/Business Head/MD/CEO)

Table – 3 : Descriptive statistics on the statements

Descriptive Statistics						
		N	Minimum	Maximum	Mean	Std. Deviation
EEOPS_1	Acknowledge progressively more demanding performance principles	140	1	5	4.48	0.673
EEOPS_2	React optimistically to dynamic performance necessities	140	1	5	4.53	0.673

Descriptive Statistics						
		N	Minimum	Maximum	Mean	Std. Deviation
EEOCD_1	Construct abilities to amplify my worth to this organization	140	1	5	4.49	0.684
EEOCD_2	Create myself progressively more important to my employer	140	1	5	4.55	0.638
EEOEM_1	Build associates externally that improve my job prospective	140	1	5	3.66	1.058
EEOEM_2	Augment my visibility to prospective employers externally	140	1	5	3.29	1.049
EROPS_1	Sustain me to achieve the maximum potential stage of performance	140	1	5	4.17	0.804
EROPS_2	Sustain me in meeting progressively more advanced goals	140	1	5	4.18	0.789
EROCD_1	Growth prospects with this firm	140	1	5	4.14	0.741
EROCD_2	Progression inside this organization	140	1	5	3.99	0.749
EROEM_1	Assist me expand externally viable skills	140	1	5	3.59	0.929
EROEM_2	Prospective work opportunities outside the firm	140	1	5	3.24	1.015
ACS_1	I actually experience as if this organization's troubles are my own	140	1	5	3.93	0.887

Descriptive Statistics						
		N	Minimum	Maximum	Mean	Std. Deviation
ACS_2	I feel 'psychologically connected' to this firm	140	1	5	3.96	0.981
NCS_1	I consider that an individual must constantly be faithful to his or her organization	140	1	5	4.09	0.971
NCS_2	Jumping from one firm to another firm seem to be at all times ethical to me	140	1	5	2.64	1.032
CCS_1	I feel that I have very few choices to believe leaving this organization	140	1	5	2.86	1.215
CCS_2	One of the few severe consequences of exiting this organization would be the shortage of accessible choices	140	1	5	2.64	1.188
Valid N (listwise)	Valid N (listwise)	140				

Analysis and interpretation: The employer responsibility and employee commitment on balanced psychological contract and organizational commitment is measured using Likert scale of Agreement. The scale has 5 points, 1= Strongly Disagree, 3= Neutral and 5= strongly agree. The mean scores of the likert scale indicate level of agreement of the respondents for the given statement. The employee perspective in relation to (EEOPS) Employee obligation on performance support has mean scores above 4.50 which indicate strong agreement on the statements. In case of (EEOCD) Employee obligation on career development the mean scores are above 4.50 signifying strong agreement. On a contrary, the (EEOEM) Employee obligation on external marketability has mean scores below 3.5 which points out that the employees are not agreeing with their contribution on external marketability. The workers perception on the employer's promise is also very important, in comparison to the employee obligation (EE) it can be inferred that the employer obligation(ER) on performance support (EROPS), career development (EROCS) and external

marketability (EROEM) are similar. The employee perspective does not change on the worker's promise and the manager's promise in relation to balanced psychological contract.

Organizational dedication is measured with the same tool as the balanced psychological convention. (ACS) Affective assurance scale has mean scores above 4 which show that the affective commitment of the employees is high. (CCS) Continuance dedication scales have very low mean scores below 3, the employees do not agree with the continuance obligation towards the organization. In case of (NCS) the normative loyalty the mean scores are above 3 but below 3.5 which signifies that the employees neither agree nor disagree to the statements.

Hypothesis

H0: There exists no correlation between balanced psychological indenture (Employer obligation) and organizational obligation

The stated hypothesis that there is no relationship between balanced psychological convention (Employer obligation) and organizational assurance is tested by using Spearman's rhocorrelation coefficient

Correlations								
			EROPS_1	EROPS_2	EROCD_1	EROCD_2	EROEM_1	EROEM_2
Spearman's rho	ACS_1	p	.249**	.329**	.250**	.356**	0.129	0.006
		Sig. (2-tailed)	0.003	0.000	0.003	0.000	0.128	0.942
	ACS_2	p	.294**	.292**	.198*	.287**	0.147	0.052
		Sig. (2-tailed)	0.000	0.000	0.019	0.001	0.083	0.541
	NCS_1	p	.235**	.236**	0.133	.275**	0.153	-0.049
		Sig. (2-tailed)	0.005	0.005	0.117	0.001	0.072	0.564
	NCS_2	p	0.086	0.007	0.076	0.057	0.058	0.118
		Sig. (2-tailed)	0.314	0.932	0.370	0.504	0.498	0.165
	CCS_1	p	-0.050	-0.059	0.034	0.060	.207*	0.075
		Sig. (2-tailed)	0.558	0.488	0.692	0.480	0.014	0.380
	CCS_2	p	-0.118	-0.133	-0.053	-0.060	0.104	0.110
		Sig. (2-tailed)	0.166	0.117	0.530	0.479	0.222	0.198
**, Correlation is significant at the 0.01 level (2-tailed).								
*, Correlation is significant at the 0.05 level (2-tailed).								

The above table shows the ρ (Spearman's rho correlation co-efficient) The highlighted ρ values are very far from 1 and some ρ values are also negative therefore it can be inferred that null hypothesis is accepted, There exists no association between balanced psychological bond (Employer obligation) and organizational loyalty. Affective obligation has a weak positive association with balance psychological convention of career development and performance support.

H0: There exists no correlation between balanced psychological contract (Employee obligation) and organizational commitment

The stated hypothesis that there is no connection between balanced psychological indenture (Employee obligation) and organizational dedication is tested by using Spearman's rho correlation coefficient

Table – 5 : Correlation coefficient for H0 (Employer Obligation)

			EEOPS_1	EEOPS_2	EE OCD_1	EE OCD_2	EEOEM_1	EEOEM_2
Spearman's rho	ACS_1 ρ		.299**	.242**	.199*	.328**	0.042	-0.083
		Sig. (2-tailed)	0.000	0.004	0.019	0.000	0.625	0.331
	ACS_2 ρ		.311**	.193*	.211*	.274**	-0.014	-0.040
		Sig. (2-tailed)	0.000	0.022	0.012	0.001	0.869	0.642
	NCS_1 ρ		.250**	0.151	0.161	.207*	-0.087	-.216*
		Sig. (2-tailed)	0.003	0.075	0.057	0.014	0.309	0.010
	NCS_2 ρ		-0.059	0.021	-0.019	-.230**	0.135	.178*
		Sig. (2-tailed)	0.486	0.801	0.822	0.006	0.111	0.036
	CCS_1 ρ		-.280**	-.191*	-0.148	-.197*	0.145	0.072
		Sig. (2-tailed)	0.001	0.024	0.082	0.020	0.087	0.397
	CCS_2 ρ		-.218**	-.386**	-0.164	-.238**	.176*	.204*
		Sig. (2-tailed)	0.010	0.000	0.052	0.005	0.038	0.016
**, Correlation is significant at the 0.01 level (2-tailed).								
*, Correlation is significant at the 0.05 level (2-tailed).								

The above table shows the ρ (Spearman's rho correlation co-efficient) The highlighted ρ (values for CCS – Continuous commitment are very far from 1 and some r values are also negative therefore it can be inferred that null hypothesis is

accepted, There exists no association between balanced psychological convention (Employer obligation) and organizational obligation (Continuance Commitment).

In case of PS and ED, small relationship can be ascertained between employee obligation on Affective obligation and normative dedication. In this case it can be inferred that a small positive relation exist between PS and ED with ACS and NCS.

XI. FINDINGS, SUGGESTIONS AND CONCLUSION

11.1.Findings

- The anecdotal synopsis of the respondents uncovers that a greater part of 57.1 % respondents had a place with Bangalore-Mysore locale in Karnataka state, 29.3% respondents had a place with Chennai area in Tamilnadu and remaining respondents had a place with different states in south India.
- The education profile uncovered that 40% respondents have finished their graduation, 49.3% respondents have finished their post graduation, 3.6% respondents have finished above post graduation and staying 7.1% respondents have different capabilities
- The work profile of the respondents uncovered that 47.2% respondents had over 12 years to 24 years of involvement with the present business which is finishing the statistical data points of the Total understanding. A greater part of 40 % respondents have a general working encounter of over 24 years which might be a marker that there is a huge worker extent that is focused on the association for long time.
- The vehicle business has foreordained occupation jobs and the assessment of the equivalent uncovered that 40.7 % of the respondents catch second Level positions(Managers/Executives who are answering to Functional Heads), 53.3 % workers held first level positions (Functional Heads who are answering to Site Head/Business Head/MD/CEO) and staying 5.7% are assigned at Level - 0 positions(Site Head/Business Head/MD/CEO)
- The employee perspective in relation to (EEOPS) Employee obligation on performance support has mean scores above 4.00 which indicate strong agreement on the statements. In case of (EEOCD) Employee obligation on career development the mean scores are above 4.00 signifying strong agreement.
- (EEOEM) Employee obligation on external marketability has mean scores below 3.0 which points out that the employees are not agreeing with their contribution on external marketability.
- The workers perception on the employer's promise is also very important, in comparison to the employee obligation (EE) it can be inferred that the employer

obligation(ER) on performance support (EROPS), career development (EROCS) and external marketability (EROEM) are similar.

- The ρ values are very far from 1 and some r values are also negative when correlation between Employee promise on balanced psychological indenture and organizational dedication is tested. It is inferred that there exists no association between balanced psychological bond (Employee obligation) and organizational obligation
- In case of PS and ED, small relationship can be ascertained between employer obligation on Affective commitment and normative commitment. In this case it can be inferred that a small positive relation exist between PS and ED with ACS and NCS
- The ρ values for CCS – Continuous obligation are very far from 1 and some ρ values are also negative therefore it can be inferred that There exists no association between balanced psychological contract (Employer obligation) and organizational commitment (Continuance Commitment).

11.2.Conclusion and recommendation

- This study concludes balanced psychological contract consisting performance support, career development and external marketability does not necessarily prove that employees will be willing to stay with the organization.
- Therefore this research concludes that psychological indenture consisting performance support, career development and external marketability does not impact on organizational loyalty. Hence, this research concludes that the balanced psychological agreement has no significant impact on organizational dedication.
- Automobile industry businesses need to utilize true employee engagement practices specifically, fortifying receptiveness with clear articulation of association's qualities and shortcomings, present execution, tentative arrangements, approaches identifying with all work, compensation, remuneration, reward and professional success, will prompt huge improvement in boss worker relationship. Automotive industry managers need to take measures by and large to improve their responsibility/commitment to workers. Specifically, they can enhance 'the presentation backing and outside attractiveness'. It is significant for the leaders to make enough commitment to balance out the mental contract of the employees.

11.3 Recommendations:

- The Automobile industry needs to focus on balanced relationship contract with their workers prompting association duty specific to Job Security and soundness of the representatives.

- Automobile industry managers need to take vital activities to upgrade their corresponding commitments as perceived by representatives uniquely to improve the employer obligation on career development, eternal marketability and performance support
- Employees utilize mental agreement as a psychological guide to work adequately in the association. It is significant for the leaders to make enough commitment to balance out worker's mental agreement.
- Balanced mental agreement, however it has no impact on the Organization's duty of the representatives in automotive industry, it is basic to take measures to keep the laborers faithful to the organizations.
- Industry HR must guarantee that the commitments are satisfied to improve representative relations through positive mental agreement, likewise associations must accentuation on improving apparent reasonableness to create positive mental agreement
- Lastly the Automotive part associations must guarantee or offers long term agreements to its workers to make positive mental agreement.

11.4 Future Research Direction:

- The extent of future analysts can be stretched out to other kind of industry crosswise over India and as just car OEM and its Tier-1 providers at south India are taken in the present examination. Expanding the investigation in different portions will break down whether there stays any a distinction or likenesses of the social mental agreement impacts on association responsibility. Additionally, the analyst can be developed likenesses among how longitudinally to look at the progressions of the outcomes comprehend the emotional idea of mental agreement enhanced concerning better employer employee relationship.

XII. REFERENCES

- I. T.N. Krishnan (2016). Understanding employment relationship in Indian organizations through the lens of Psychological contract. Employee Relations, Vol. 33 Iss 5 pp. 551 - 569, 2016
- II. Neil Conway and Rob B. Brinder (2005). Understanding Psychological Contract at Work, A Critical Evaluation of Theory & Research, Oxford University Press, Great Clarendon Street, Oxford ox2 6dp, 2005
- III. Sels L., Jansenns M & Brande V.D.I. (2004). Assessing the nature of psychological contract: a validation of six dimensions. Journal of Organisational Behavior, 25, 461-488.

- IV. Denise M. Rousseau (2000). Psychological Contract Inventory Technical Report – University Professor at Carnegie Mellon
- V. T.N. Krishnan (2016). Understanding employment relationship in Indian organizations through the lens of Psychological contract. *Employee Relations*, Vol. 33 Iss 5 pp. 551 - 569, 2016
- VI. Promila Agarwal (2011). Relationship between Psychological Contract & Organizational Commitment in Indian IT Industry. Shri Ram Centre for Industrial Relations and Human Resources in collaboration with Indian Journal of Industrial Relations, Vol. 47, No. 2, October 2011
- VII. Zhou, J. , Plaisent, M. , Zheng, L. and Bernard, P. (2014) Psychological Contract, Organizational Commitment and Work Satisfaction: Survey of Researchers in Chinese State-Owned Engineering Research Institutions. *Open Journal of Social Sciences*, 2, 217-225. doi: 10.4236/jss.2014.29037.
- VIII. Cheng-Wei Che, Pei-Ling Tsui, Ming-Chih Chen, Ching-Sung Lee, Yen-Cheng Chen (2018). Job Performance and Job Satisfaction: Roles of Organizational Commitment and Psychological Contract. *International Journal of Research in Tourism and Hospitality (IJRTH)* Volume 4, Issue 1, 2018, PP 18-26, ISSN 2455-0043
- IX. Deepthi U. & Baral R, Dr. (2013). Psychological contract fulfilment and its impact on employees' job attitudes: Does generations make any difference?,
- X. Gupta M. (2015). Corporate social responsibility, employee–company identification, and organizational commitment: Mediation by employee engagement. *Current Psychology*, 1-9
- XI. Pei-ling T., Yi-shyuan L., & Tung-han Y. (2013). The influence of psychological contract and organizational commitment on hospitality employee performance. *Social Behavior and Personality: An international journal*, 41(3), 443-452
- XII. Grimmer, M., & Oddy, M. (2007). Violation of the Psychological Contract: The Mediating Effect of Relational Versus Transactional Beliefs. *Australian Journal of Management*, 32(1), 153–174. <https://doi.org/10.1177/031289620703200109>
- XIII. <http://www.siamindia.com/members.aspx?mpgid=1&pgidtrail=4>
- XIV. <https://www.acma.in/benefits-of-joining.php?str=U>



WHAT KIND OF LEADERS WILL GENERATION Z WANT? AN EXPLORATORY STUDY OF PREFERRED LEADERSHIP STYLES AMONG THE NEXT GENERATION OF EMPLOYEES IN ITALY

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ABSTRACT :

Research on generational differences within the field of organizational behavior has grown over the years. This growth has resulted in the recognition that generational characteristics play a significant role in how employees prefer to be led and managed. The present study explores what leadership behaviors are more valued by members of the Generation Z using data obtained from a unique sample of 1,188 high schools students in Italy. Our results indicate that both transformational and transactional leadership are the preferred leadership styles of Generation Z while the laissez-fair leadership style is the least desired.

Keywords: leadership, leadership style, generations, generational differences

1. Introduction

In recent years, management research has increasingly focused on generational differences in the workplace. The underlying argument in this strand of research is that members of different generational cohorts have distinct work values, attitudes, motivations, and behaviors (for a review see Twenge & Campbell, 2008). Consequently, it is critical that organizations understand these differences in order to be more effective in managing a multigenerational labor force.

Recently, the idea that generational differences exist has also emerged within contemporary leadership theory (e.g., Balda & Mora, 2011; Graen & Schiemann, 2013). It is argued that preferred leadership styles differ significantly among employees who belong to different generations. Indeed, several studies suggested that different generations require different leadership styles.

The present study aims to explore the preferred leadership style(s) of the cohort of young people who were born between 1999 and 2003 in Italy. This age cohort, commonly referred to as Generation Z, is attracting increasingly scholarly interest as it will soon enter the labor force.

This paper will start by reviewing existing theories on generational differences in the workplace. It then explores what leadership behaviors are more valued by members of the Generation Z using data obtained from a unique sample of high schools' students in Italy.

Results from the field study suggest new directions for the development of leadership theory by shedding light on the perspective of the next generation of workers on leadership. This is significant for managers in order for them to adapt their leadership styles to employees' needs and characteristics in order to elicit the highest level of motivation and job performance.

2. Theoretical Background

2.1 Generational differences in work values and attitudes

The impact of generational differences has received growing attention in the academic literature and in the popular press. A generation can be defined as an "identifiable group that shares birth years, age location, and significant life events at critical developmental stages" (Kupperschmidt, 2000, p. 66). This concept has its early origins in sociology, namely in the work of Karl Mannheim (1952). The author defined a generation as a 'social location', suggesting that members of a generation not only share the same year of birth but also participate in certain common experience (social and historical events). This shared experience creates a 'collective memory' (Schuman & Scott 1989) of those events that affects their future attitudes and behaviours. Indeed, each generation is influenced by social, cultural and economic forces (i.e., parents, friends, media, economic and social events, and popular culture) that create common value systems distinguishing them from people who grew up at different times (Twenge et al., 2010).

This idea of generation has been widely adopted by marketing and human resource scholars in order to differentiate among groups of people having different values, expectations and preferences (Parry & Urvin, 2011).

However, setting clear boundaries between generations is problematic. Most research into generational differences has been conducted across Western economies such as USA, UK, and Canada, where the standard approach has been to assume that there are currently in the workforce four generations of Veterans, Baby Boomers, Generation X and Generation Y, and another group, called Generation Z, that is just entering the workforce (Table 1).

Generation	Years of birth	Also known as
Veterans	1925-1945	Silent Generation, Matures, Traditionalists
Baby Boomers	1946-1964	
Generation X	1965-1981	Thirteenth, Baby Busters, Lost

Generation	Years of birth	Also known as
		Generation
Millennials	1982-1999	Generation Y, Nexters, Echo Boomers
Generation Z	1999-2014	iGeneration, Gen Tech, Net Gen

Figure 1 – Generational groups currently in the workforce

Although it is not easy to distinguish the generation effects to the changes due to ageing, life stage or career stage, several authors suggested that work values differences may exist between generations (Cennamo & Gardner, 2008). Gaining a better comprehension of the work values of the new generations entering the workforce and how they differ from the values of previous generations represents one of the biggest challenges for organizations.

Researchers have proposed numerous approaches to classifying work values, starting from the assumption that values are useful indicators of an individual's decisions and actions, being enduring and relatively resistant to change (Rokeach, 1973). Brief (1998) defined work values as the outcomes people desire and feel they should attain through work, suggesting that these values shape employees' preferences at work and consequently their attitudes and behaviors (Dose, 1997).

One of the most widely used distinction in work values is between values that are extrinsic, or a consequence of work (i.e. external to the individual, such as job security, income, status, advancement opportunities) or intrinsic, occurring through the process of work and reflecting the inherent interest in the work, the opportunity to be creative, the learning potential (Deci & Ryan, 1985). In their longitudinal study on generational differences conducted on a nationally representative sample of U.S. high school seniors, Twenge and colleagues (2010) added on other work values to the extrinsic and intrinsic ones: autonomy in decision making, job security, altruistic rewards (e.g. helping others, contributing to society), social rewards (e.g. interpersonal relationships at work), and leisure rewards (e.g. opportunity for free time, work-life balance, freedom from supervision). They found that compared with Boomers, Generation X and especially Generation Y hold stronger values for leisure time and favor work that provides extrinsic rewards.

Contrary to what popular press usually indicate, Generation Y does not place more value on work that provide altruistic rewards more than previous generations. Interestingly, these results are confirmed by other time-lag studies (i.e. studies examining people of the same age at different points in time) which indicate that more recent generations place less value on work for its own sake (Kowske et al. 2010; Smola & Sutton 2002). Specifically, Smola and Sutton (2002) found that 1999 respondents were more likely than the 1974 respondents to quit their job if they inherited a lot of money and disagreed that "rich people should feel an obligation to

work even if they do not need to''. Consistently, Kowske et al. (2010) reported that work centrality declined for the youngest generations. In her review of empirical research on generational differences in work attitudes, Twenge (2010) indicated that most studies found that Generation X, and especially Generation Y, expressed a weaker work ethic, believed that work was less central to their lives, and sought more freedom and work-life balance than their Boomer counterparts. Thus, most research found a fairly consistent generational trend toward leisure values while no significant differences in altruistic values and intrinsic rewards were found among generations. These results suggest that an emphasis on meaning in work and how the work helps others may be effective, but no more effective than it was for previous generations (Twenge, 2010).

2.2 Leadership Styles

Contemporary theories on leadership styles stem from Burns's seminal work (1978). Burns introduced the concepts of transformational and transactional leadership in his treatment of political leadership. Burns focuses on the difference between transformational and transactional leadership in terms of what leaders and followers offer one another. Transformational leaders offer a purpose that transcends short-term goals and focuses on higher order intrinsic needs. Transactional leaders, in contrast, focus on the proper exchange of resources.

Bass and his colleagues (Bass, 1985, 1999; Hater and Bass, 1988; Waldman et al., 1990; Yammarino et al., 1993; Avolio et al., 1999; Bass and Riggio, 2006) have developed Burns's conceptualization, with several modifications and further elaborations. They have focused on the "full-range" of leadership behaviors distinguishing transformational, transactional, and laissez-faire ("full-range") leadership styles, elaborating considerably on the behaviors that manifest these different styles.

The transformational leadership style encompasses four dimensions: the idealized influence, the inspirational motivation, the intellectual stimulation and the individual consideration (Bass & Avolio, 1994). Transformational leadership and charismatic leadership are often used synonymously due to the charismatic attitudes of the transformational leader (Brassey-Schouten, 2011). Charisma, or idealized influence, is the degree to which the leader behaves in ways that stimulate admiration and foster followers' identification with the leader. Charismatic leaders display conviction, take stands, and appeal to followers on an emotional level. According to Bass and Avolio (1994), transformational leadership is seen when leaders stimulate interest among colleagues and followers to view their work from new perspectives; generate awareness of the mission or vision of the team and organization; develop colleagues and followers to higher levels of ability and potential; motivate colleagues and followers to look beyond their own interests toward those that will

benefit the group. Transformational leaders “motivate others to do more than they originally intended and often even more than they thought possible” (Bass & Avolio, 1994, pp. 2-3).

The transactional leadership style is based on transaction or exchange. The three dimensions of transactional leadership are contingent reward, management by exception—active, and management by exception—passive. Transactional leaders offer “promise and reward for good performance” and “treat and discipline for poor performance” (Bass, 1999).

A final form of leadership is laissez-faire leadership. Leaders who score high on laissez-faire leadership avoid making decisions, hesitate in taking action, and are absent when needed. The main characteristics of the laissez-faire leadership style are minimal information and resources, virtually no participation, no involvement or communication (Goodnight, 2004). Thus, laissez-faire is often described as a form of “non-leadership” (Bass, 1985; Harland et al., 2005 and Kurfi, 2009) because the leader holds nearly no influence over his followers.

The main proposition of transformational–transactional leadership theory is that “transformational leadership styles build on the transactional base in contributing to the extra effort and performance of followers” (p. 5). In this regard, Bass (1999) suggested that “the best leaders are both transformational and transactional” (p. 21). Howell and Avolio (1993) agreed with this viewpoint, stating that transformational leadership complements transactional leadership and that effective leaders often supplement transactional leadership with transformational leadership.

3. Methods

3.1 Participants and data collection

The field study involved students from eight high schools located in central Italy. For the purpose of this study, only students who were in their last two years of education, thus approaching the labor market, were contacted. Data were collected in 2018. With the support of research assistants, questionnaires were distributed randomly during high school classes. Participants were assured anonymity and guaranteed that their responses would be reported as an aggregate score only. Complete valid responses were obtained from 1,188 students from different educational domains (58 per cent scientific studies, 20% humanistic studies, 22% technical).

The sample consisted of 56 per cent men and 44 per cent women. Participants were born between 1999 and 2003. Age was distributed as follows: 13 per cent of students were between 15 and 17 years old, and 87 per cent were between 18 and 19 years old (Table 1).

Table 1 –Sample Composition

	Absolute Frequency	Frequency percentages
Gender		
Women	520	44%
Men	662	56%
Age		
15-17	154	13%
18-19	1028	87%
Mean		
SD		
Education Field		
Scientific	686	58%
Humanistic	236	20%
Technical	260	22%

3.2 Measures

For the purpose of the present study the leadership styles construct has been conceptually defined in terms of the theory of transformational – transactional leadership developed by Bass and Avolio (Bass & Avolio, 2000). The leadership styles were measured with 13 items from the Multifactor Leadership Questionnaire (MLQ) (Avolio & Bass, 2004). The MLQ is considered the standard instrument for assessing leadership styles and its effectiveness has been proven in a number of settings and in many countries around the world (Judge & Piccolo, 2004). The MLQ questionnaire was originally developed by Bass (1985) and re-examined and improved several times afterwards. It assesses the degree to which subordinates feel that their leader exhibits transformational, transactional or laissez- faire leadership.

For the purpose of the present study we selected items that describe the three leadership styles: transformational leadership (5 items), transactional leadership (4 items), and passive/avoidant style (4 items). Each item describes a certain behavior. On every one of those questions participants were asked to indicate how much the described behavior reflect their ideal leader on a 5-point Likert scale.

4. Results

Our results indicate that both transformational and transactional leadership are the preferred leadership styles of Generation Z while the laissez-faire leadership style is least desired style for most respondents (Figure 1). These findings are consistent with the idea that transformational and transactional leadership are not opposite ends of a single continuum because best leaders are both transformational and transactional (Bass, 1998). In addition, our results confirm that laissez-faire leadership is firmly separate from transformational and transactional leadership, because it represents the absence of any leadership (Avolio, 1999; Bass, 1998).

Taken together, these findings suggest that members of the Generation Z are looking for leaders who devote themselves to employees, appeal to them on an emotional level, and give them support (transformational leaders), or for leaders who are able to make followers' expectations clear, and to offer recognition and rewards when goals are achieved (transactional leaders). More importantly, our data show that Generation Z does not look for passive leaders, who leave room to individual autonomy without setting clear objectives or strong relationships with their followers.

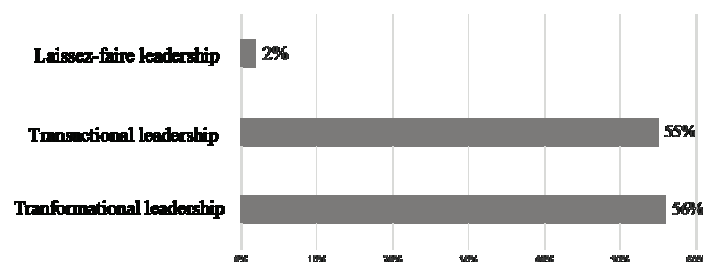


Fig. 1- Percentage of respondents who strongly believe that a leadership style is desirable at work

This might appear a counterintuitive result as we all know that Generation Z is the first truly digital native generation, constantly connected, used to have often 'technology-mediated' relationships with other people. This might suggest that these young workers will be less motivated to pursue quality relationships with leaders. Instead, our results suggest that they value a leader who is around for them, who inspire them and set clear goals and expectations.

5. Discussion and conclusion

The overall objective of this empirical work was to fill a gap in the literature about the preferred leadership style of young people who will soon enter the labor force. Our findings suggest that generation Z look for leaders who are transformational and/or transactional, while dislike laissez-faire leaders. Of course, these results should be interpreted in light of several limitations. The study is based on measurements taken only at one point in time, therefore we cannot distinguish the effect of generation to that of age or career stage. In addition, we collected data only

on members of Generation Z, and this does not allow for a comparison with other generations' preferences towards leadership styles. Finally, data were collected among young students who do not have any work experience therefore their preferences with regard to leaders' behaviors should be interpreted with caution. However, this study represents a first attempt to explore the kind of leadership that Generation Z is looking for. While several studies have focused on comparing Boomers and Generation X and a few researches explored the Generation Y values and attitudes at work, Generation Z has received no empirical examination. Filling this gap is important if one considers that members of this generations currently represent a quarter of the US population and are joining the workforce in massive numbers(Lanier, 2019). Organizations need to get ready for the challenge of motivating this new generation, that brings at work unique expectations, values and attitudes. To do that, they have to develop and encourage leadership styles that are tailored to this young workers' values and expectations and design team structures that optimally and strategically engage them.

6. References

- Avolio, B. J. & Bass, B. M. (2002). Developing potential across a full range of leadership. Mahwah, N.J.: Lawrence Erlbaum Associates.
- Avolio, B. J. & Bass, B. M. (2004). Multifactor Leadership Questionnaire. Manual and sampler set. (3rd ed.) Redwood City, CA: Mind Garden.
- Avolio, B. J., Bass, B. M., & Jung, D. I. (1999). Re-examining the components of transformational and transactional leadership using the Multifactor Leadership Questionnaire. *Journal of Occupational & Organizational Psychology*, 72, 441-462.
- Avolio, B. J., Waldman, D. A., & Yammarino, F. J. (1991). Leading in the 1990's: Towards understanding the four I's of transformational leadership. *Journal of European Industrial Training*, 15, 9-16.
- Balda, J. B., & Mora, F. (2011). Adapting leadership theory and practice for the networked, millennial generation. *Journal of Leadership Studies*, 5(3), 13-24.
- Bass, B. M. (1985). Leadership and performance beyond expectations. New York: Free Press.
- Bass, B. M. (1998). Transformational leadership: Industry, military, and educational impact. Mahwah, NJ: Erlbaum.
- Bass, B. M. (1999). Two decades of research and development in transformational leadership. *European Journal of Work and Organizational Psychology*, 8, 9-32.

- Bass, B. M., & Avolio, B. J. (2000). MLQ: Multifactor leadership questionnaire: Technical report, leader form, rater and scoring key for MLQ (Form 5x-Short). Redwood City, CA: Mind Garden.
- Bass, B. M., & Yammarino, F. J. (1991). Congruence of self and others' leadership ratings of naval officers for understanding successful performance. *Applied Psychology: An International Review*, 40, 437–454.
- Bass, B.M. & Riggio, R.E (2006). *Transformational leadership*. Mahwah, New Jersey 07430: Lawrence Erlbaum Associates, Inc.
- Brief, A. 1998. *Attitudes in and around organizations*. Thousand Oaks, CA: Sage.
- Burns, J. M. (1978). *Leadership*. New York: Harper & Row.
- Cennamo, L., and Gardner, D. (2008). Generational differences in work values, outcomes and
- Deci, E. L., and Ryan, R. M. 1985. *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Dose, J. (1997). Work values and integrative framework and illustrative application to organizational socialization. *Journal of Occupational and Organizational Psychology*, 70, 219-241.
- Graen, G. B., & Schiemann, W. A. (2013). Leadership-motivated excellence theory: An extension of LMX. *Journal of Managerial Psychology*, 28(5), 452-469.
- Hater, J. J., & Bass, B. M. (1988). Superiors' evaluations and subordinates' perceptions of transformational and transactional leadership. *Journal of Applied Psychology*, 73, 695–702.
- Howell, J. M., & Avolio, B. J. (1993). Transformational leadership, transactional leadership, locus of control, and support for innovation: Key predictors of consolidated business-unit performance. *Journal of Applied Psychology*, 78, 891–902.
- Judge, T. A., & Piccolo, R. F. (2004). Transformational and Transactional Leadership: A Meta-Analytic Test of Their Relative Validity. *Journal of Applied Psychology*, 89(5), 755–768.
- Kowske, B. J., Rasch, R., & Wiley, J. (2010). Millennials' (lack of) attitude problem: An empirical examination of generation effects on work attitudes. *Journal of Business and Psychology*, 25(2), 265–279. doi:10.1007/s10869-010-9171-8.
- Kupperschmidt, B. (2000). Multigenerational employees: strategies for effective management. *Health Care Manager*, 19, 65–76.

- Lanier, K. (2017). Five things HR professionals need to know about generation Z. *Strategic HR Review*, 16(6), 288-290.
- Mannheim, K. (1952). The problem of generations. In Kec- skemeti, P. (ed.), *Essays on the Sociology of Knowledge*. London: Routledge & Kegan Paul, pp. 276–322.
- Parry, E., and Urwin, P. (2011). Generational differences in work values: A review of theory and evidence. *International Journal of Management Reviews*, 13, 79–96.
- person-organization values fit. *Journal of Managerial Psychology*, 23, 891–906.
- Rokeach, M. 1973. *The nature of human values*. New York: Free Press.
- Schuman, H. and Scott, J. (1989). Generations and collective memories. *American Sociological Review*, 54, 359– 381.
- Smola, K. W., & Sutton, C. D. (2002). Generational differences: Revisiting generational work values for the new millennium. *Journal of Organizational Behavior*, 23, 363–382.
- Twenge, J. M., Campbell, S. M., Hoffman, B. J., & Lance, C. E. (2010). Generational differences in work values: Leisure and extrinsic values increasing, social and intrinsic values decreasing. *Journal of Management*, 36, 1117–1142.

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LEVERAGE AND VALUE CREATION: EVIDENCE FROM ITALY'S FRAMEWORK

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ABSTRACT :

The aim of this paper is to analyse the evolution of the leverage in Italian micro enterprises over the last decade, in order to figure out how the financial structure of these firms has been modified by the crisis that began in 2007. The starting point can be identified with a theoretical and empirical literature review on the main financial difficulties of micro firms and on the real effects of financial crises; the next step is aimed at investigating the financial structure of Italy's micro firms, with a special emphasis on the level of their debt. Based on a survey of the balance sheets of a sample of Italian micro firms, this paper shows the trend of the leverage from 2008 to 2017 and assesses whether they have been able to create value during the crisis.

Keywords: Leverage, Value creation, Micro firms, Crisis.

The aim of this paper is to analyse the evolution of the leverage in Italian micro enterprises over the last decade, in order to figure out how the financial structure of these firms has been modified by the crisis that began in 2007. The starting point can be identified with a theoretical and empirical literature review on the main financial difficulties of micro firms and on the real effects of financial crises; the next step is aimed at investigating the financial structure of Italy's micro firms, with a special emphasis on the level of their debt. Based on a survey of the balance sheets of a sample of Italian micro firms, this paper shows the trend of the leverage from 2008 to 2017 and assesses whether they have been able to create value during the crisis.

Keywords: Leverage, Value creation, Micro firms, Crisis.

1. Introduction

Micro firms make up about 94% of the Italian entrepreneurial system and contribute to the creation of 29% of value added and to the employment of 46% of the workforce in this country. These firms, and in general the subsystem including them and all Italian small and medium enterprises (SME), have always been subject to stringent financial constraints and their fragility has been exacerbated by the dynamics of the recent crisis.

Deep-rooted problems, such as those associated with high level of debt (Arcelli, 1994) and the equity gap (Gualandri e Schwizer, 2008; Bini, 1996), have combined with the lack of liquidity (Allen et al, 2007 e 2008) and the deterioration in profitability generated by the crisis, thus multiplying the difficulties in paying back debts and in accessing new finance, up to cause the bankruptcy of several firms.

In this context, it is important to investigate the trend of the leverage in micro firms and to verify if and how they have been affected by the problem of the credit crunch and by the equity gap.

Furthermore, this study analyses the ability of the micro firms to create value, using the Economic Value Added model proposed by Bennet Stewart (1991) (from now on EVA).

This research work is organised as follows. Section 2 presents a literature review on the issues of financial constraints of micro and small business; section 3 introduces the empirical analysis carried out on a sample of over 29.000 Italian micro firms, highlighting the results in terms of leverage and value creation over the past decade. The fourth section summarises conclusions based on the results and outlines issues for further discussion.

2. Literature review

Recent literature reveals a significant relation between small size of the firm and difficulty in accessing funding channels (Ayyagari et al., 2006; Beck et al. 2005; Beck e Demirgüç-Kunt, 2006; Berger et al. 1998). First of all, especially in non-Anglo-Saxon countries, the access to capital markets is limited because of the so-called “financial gap” regarding both a supply gap and a knowledge gap (Holmes and Kent, 1991). As a result of the financial gap, the main long-term financial source for SMEs is internal fund, followed by bank loans.

The bank-firm relationship, often based on the relationship lending approach (Berger e Udell, 2002), has always been affected by the problem of information asymmetry. The prevailing view tends to shed light on an inverse relationship between firm size and the level of information opacity: when the company grows, opacity decreases while disclosure increases. Due to insufficient information, a high number of profitable investment projects may not be financed or may not obtain funding at a reasonable cost.

Furthermore, empirical research shows that small and micro firms frequently resort to short-term debt, limiting the use of long-term debt due to the lack of assets to offer as collateral (Chittenden et al, 1996).

Another important financial constraint associated with SME financial structure is the equity gap, that deals with the low weight that equity has on the total sources of financing (Gualandri e Schwizer, 2008). The main determinants of the equity gap are: the corporate governance structure, often characterized by a clear coincidence between ownership and control and by the fear of the entrepreneur losing control of the company by allowing the entry of other shareholders; difficulties in accessing to financial markets because of the lack of requirements to going public and the high costs of listing (Berger e Udell, 1998).

The issue of financial constraints of SMEs takes on an even more important meaning when analysed in a period of financial crisis like the one that has affected the world economy since 2007.

Empirical research shows that a banking crisis tends to generate a contraction of the loans (credit crunch): there it follows that the economic sectors most dependent on external finance (of banking origin in particular) are more penalized by the crisis. This evidence confirms the presence of real effects produced by crisis and therefore the presence of a real cost of the banking crisis. In a context of crisis, it is physiological to expect an increase of information asymmetry between firms and banks and the latter are forced to revise the portfolio in favour of more liquid assets, thus penalizing loans to companies perceived as more risky (fly to quality, Bernanke et al., 1996).

Signs of credit crunch inevitably lead to pay attention to other “side effects” for corporate finance: liquidity management and investment opportunities. Following the outbreak of the subprime mortgage crisis, many companies affected by financial constraints had problems both in accessing credit and in the renegotiation of credit lines (Campello et al., 2009). Furthermore, these companies were forced to give up the implementation of investment projects with positive net present value precisely because of the difficulties encountered in accessing credit.

Within this theoretical framework, the research objectives of this study are the following:

- ~ analyse the trend of the debt of the Italian micro companies during the last decade, to understand if it has been affected by the recent financial crisis;
- ~ verify whether the Italian micro companies were able to create value during the financial crisis.

3. The analysis

This empirical analysis is set to cover the period from 2008 to 2017 and has been conducted on balance sheets provided by the database AIDA (Bureau van Dijk), which includes financial and economic information for private corporation companies. The sample consists of 29.265 micro non-financial firms, with a number of employees less than ten.

3.1. Results on leverage

The situation of Italian micro firms in terms of leverage has been investigated by analysing the evolution of the following indicators:

- ~ Leverage, defined as the ratio of all the debts (financial and trade debts) over total assets. The balance sheets of micro firms often do not allow to highlight the different types of debt, due to the possibility of drawing up the financial statement in abbreviated form. This is why it has been impossible to use only financial debts, as suggested by the prevalent literature (Rajan and Zingales, 1995).
- ~ Composition of financial sources, i.e. the weight of total debt on assets (Leverage, as defined above), compared to the weight of equity on assets. This information allows to verify the level of capitalization of the firms and the presence of the problem of equity gap.
- ~ Financial charges on EBITDA, calculated as the ratio between total financial charges over the earning before interest, taxes, depreciation and amortization. This indicator shows the degree of absorption of economic resources by current operations by financial charges.

Table 1 presents the results obtained by applying the Leverage ratio to the selected sample. It shows a progressive reduction of the debt since 2008, in other words during the period of economic recession following the financial crisis.

Table 1. The leverage of Italian micro firms (percentage values)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Average	63,74	62,37	61,83	61,25	59,97	59,27	58,69	58,18	58,39	60,23
Median	67,73	65,99	65,37	64,67	63,07	62,08	61,46	60,48	59,64	58,70

Results confirm the findings from theoretical and empirical literature and can be traced back to the topic of credit crunch, which mainly affected small business suffering from financial constraints. Starting from 2015, data suggest an inversion of trend, with an increase of the level of debt, as it emerges more clearly from the Figure 1.

The decrease of leverage is also confirmed by the research carried out by De Socio and Finaldi Russo (2016) on a sample of Italian non-financial firms until 2013. These authors underline how, despite the reduction in leverage recorded by Italian

companies, their recourse to debt stands at higher levels than comparable firms in other main European countries.

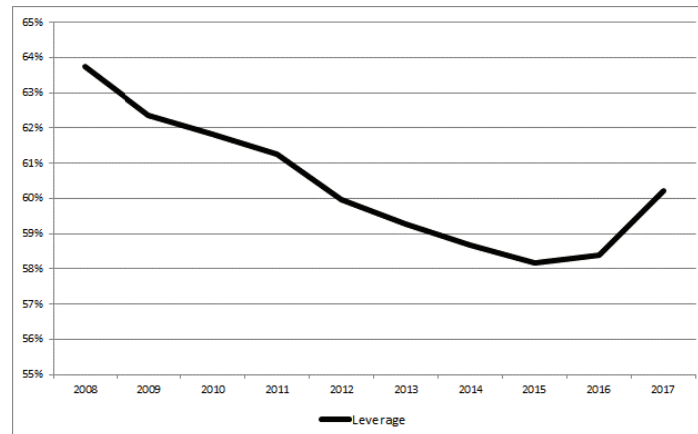


Figure 1. The evolution of leverage (average values)

In terms of composition of financial sources, results indicate a greater weight of the debt in the financial structure compared to equity: at the beginning of the crisis under investigation, leverage was about twice the equity, confirming the empirical evidence on equity gap (Table 2, Figure 2).

Table 2. Composition of financial sources (average values, percentage values)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Leverage	63,74	62,37	61,83	61,25	59,97	59,27	58,69	58,18	58,39	60,23
Equity	32,26	37,63	38,17	38,75	40,03	40,73	41,31	41,82	41,61	39,77

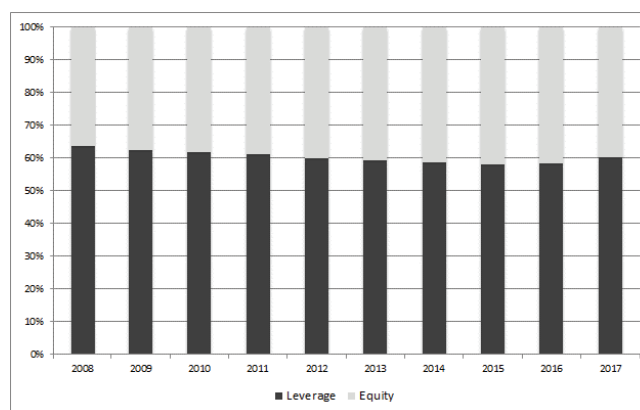


Figure 2. Composition of financial sources

The analysis of the financial charges on EBITDA ratio presents median values – which in this case are more reliable and less distorted than average values – decreasing during the same period. This information too confirms the evidence of the theoretical and empirical literature regarding the contraction of the debt during a financial crisis.

Table 3. Financial charges on EBITDA (percentage values)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Average	29,72	17,63	39,74	4,13	14,95	0,32	3,50	96,7	17,63	2,66
Median	9,65	7,36	6,76	7,33	7,57	7,54	7,26	6,61	5,78	4,56

3.2. Results on value creation

The ability of Italian micro firms to create value has been assessed by applying the EVA model (Bennet Stewart, 1991) to the companies in the sample. This model is expressed as follow:

NOPAT = Net Operating Profit After Taxes

CIN = Net Invested Capital

wacc = weighted average cost of capital

$$wacc = K_d(1 - t) \frac{D}{D + E} + K_e \frac{D}{D + E}$$

$$K_d = \text{Return on Debt} = \frac{\text{Financial charges}}{\text{Total Debts}}$$

$$K_e = r_f + (\bar{r}_m - r_f)\beta$$

It seems appropriate to make a clarification regarding the calculation of the wacc, with special reference to the cost of equity. Due to the lack of data required for the calculation of systematic risk, summarized in the beta ratio, and following the approach used by Wald (1999) for the definition of default risk, in this work the beta has been replaced with the standard deviation of ROI (Return on Investments).

Table 4. Value creation (euro)

	2009	2010	2011	2012	2013	2014	2015	2016	2017
Average	-42.378	-7.801	-9.272	-19.882	-25.089	-23.081	-20.600	-9.376	-9.405
Median	6.674	7.823	7.329	3.947	4.009	4.581	6.417	5.821	6.196

Table 4 shows the average values always negative for the EVA for the whole period of reference, while the median values are positive, but low.

These data highlight the difficulties encountered by micro enterprises in creating an income (NOPAT) higher than the opportunity cost (wacc x CIN). Furthermore, these results confirm the financial suffering of small business during the crisis.

4. Conclusions

Italian micro enterprises have always been affected by several financial constraints that have led these firms, in the run-up of the crisis, to increase their use

of debt. The financial crisis that started in 2007 and the consequent problem of credit crunch have generated further financial difficulties for small business.

As a matter of fact, they had to face the lack of liquidity and the impossibility to replacing the debt with other forms of financing, first of all equity, because of the equity gap. Needless to say, this situation has contributed to worsen the economic and financial performance of the companies focused on and probably to scale down their investment policy.

Further thoughts should be devoted to the other side of the coin: there are reasons to believe that it would prove not less relevant to analyse the effects of the global crisis on corporate investments.

To sum up, the results of this research work suggest that some incentives should be promoted, in an attempt at encouraging a wider recourse to equity financing and a reduced use of debt. For example, it may sound convenient to replicate fruitful measures taken in some sectors, including limits to the amount of interest expense that could be deducted from income. This action is likely to reduce the level of leverage, increase the level of equity and bring about a more balanced financial structure.

References

- 1) Allen F., Carletti E. (2008). The Role of Liquidity in Financial Crises. Available from: <http://ssrn.com/abstract=1268367> [Accessed: 12 December 2018].
- 2) Allen F., Gale D. (2007). An Introduction to Financial Crises, Wharton Financial Institutions Center, Working Paper, n. 7.
- 3) Arcelli M. (1994). Il finanziamento delle piccole e medie imprese: situazione attuale e prospettive, in «Economia Italiana», 34, pp. 291-307.
- 4) Ayyagari M., Demirgüç-Kunt A., Maksimovic V. (2006), How Important Are Financing Constraints? The Role of Finance in the Business Environment, World Bank Policy Research Working Paper, n. 3820.
- 5) Beck T., Demirgüç-Kunt A., Laeven L., Levine R. (2005). Finance, Firm Size, and Growth, World Bank Policy Research Working Paper, n. 3485.
- 6) Beck T., Demirgüç-Kunt A. (2006). Small and medium-size enterprises: Access to finance as a growth constraint, in «Journal of Banking & Finance», 30, pp. 2931-2943.
- 7) Bennet Stewart (1991). The Quest for Value, New York, HarperCollins.
- 8) Berger A.N., Udell G.F. (1998). The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle, in «Journal of Banking & Finance», 22, pp. 613-673.

- 9) Berger A.N., Udell G.F. (2002). Small business credit availability and relationship lending: the importance of bank organizational structure, in «The Economic Journal», 112, pp F32-F53.
- 10) Bernanke B.S., Gertler M., Gilchrist S. (1996). The Financial Accelerator and the Flight to Quality, in «The Review of Economics and Statistics», 78, 1, pp. 1-15.
- 11) Campello M., Graham J.R., Harvey C.R. (2009). The Real Effects of Financial Constraints: Evidence from a Financial Crisis. Available from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1318355 [Accessed: 12 December 2018].
- 12) Bini M. (1996), Finanza delle imprese minori. Caratteri e ipotesi di sviluppo. in Atti del Convegno AIDEA, Vitalità del capitale di rischio e fattori di sviluppo delle piccole e medie aziende, Bologna, Clueb.
- 13) Chittenden F., Hall G., Hutkinson P. (1996). Small firm growth, access to capital markets and financial structure: review of issues and an empirical investigation, in «Small business economics», 8, pp. 233-251.
- 14) De Socio A., Finaldi Russo P. (2016). The debt of Italian non-financial firms: an international comparison, Questioni di Economia e Finanza, Roma, Banca D'Italia.
- 15) Gualandri E., Schwizer P. (2008). Bridging the equity gap: il caso delle PMI innovative, in «Studi e Note di Economia», 1, pp. 101-138.
- 16) Holmes S., P. Kent (1991). An empirical analysis of the financial structure of small and large Australian manufacturing enterprises, in «Journal of Small Business Finance», 1(2), 141-154.
- 17) Rajan R. G., Zingales L. (1995). What do we know about capital structure? Some evidence from international data, The Journal of Finance, Vol. 50, n. 5, pp. 1421-1460.
- 18) Scheda informativa SBA (2015). European Commission.
- 19) Wald J. K. (1999). How Firm Characteristics Affect Capital Structure: An International Comparison, in The Journal of Financial Research, 22, 2, pp. 161-187.



LITERATURE REVIEW ON ANALYTICAL STUDY OF RELATIONSHIP OF CASH HOLDING AND OTHER COMPONENTS OF WORKING CAPITAL FOR MSMEs SUPPORTING DEFENCE INDIGENISATION

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ABSTRACT

This paper presents literature review on management of working capital by MSMEs. A critical analysis is done on the available literature to find out the gaps defining the problem statement related to analysis of different components of working capital with cash holding. As is widely known working capital comprises of four basic components viz., Cash, Inventory, accounts receivables and accounts payables. The cash holding assumes greater importance in case of MSMEs. This is because of the fact that MSMEs have to balance between their order books and availability of liquid assets to meet the inventory requirements for honouring the order books against the challenges in managing the receivables and payables. The paper brings out research methodologies adopted by previous researchers who did research on the topic of working capital management followed by various MSMEs across the globe. The literature surveyed was analysed to follow the relationship studied between various components of working capital specifically in defining the dependent and independent variables. The gap was analysed with respect to definition of cash as the dependent variable as well as to identify research being undertaken on the MSMEs supporting the defence indigenisation in India.

Keywords: Working Capital, Cash holding, Inventory, Accounts Receivables, Indigenisation, Expression of Interest, Acceptance of Necessity, L1 Lowest Bidder, EoI Expression of Interest, 4th Degree Polynomial, Coefficient of Correlation

1. Introduction

Managing the working capital has always been an area of interest for many researchers. The working capital management classically involves managing the four components viz., cash, inventory, accounts receivable and accounts payables. Managing these components individually is crucial; however, their basic characteristics of interdependency and quick transformation from one form to other makes the task quite complex. Policies developed for management of one component

may have positive or negative impact on the other. The task becomes further complicated in case of the MSMEs supporting the process of defence indigenization. Indigenisation process requires the firms to respond to the Expression of Interest (EoI) floated by the defence organisations to understand the requirements. Devoid of accurate specifications and task involving manufacturing the form-fit-compatible substitution of the existing equipment of major assembly requires investments by the MSMEs at an early stage without having the guarantee to confirmation of order. Thus, investments done during the 'EoI' stage get converted into sunk cost. Further, the MSMEs have to tread a very balanced path as the inventory buildup in case of non confirmation of order by defence may not be economically viable to be used for commercial products resulting in 'cash holding' assuming greater importance. The authors therefore focus on analytically studying the relationship of cash holding with other components of working capital for MSMEs supporting defence indigenisation.

2. Literature Review on Importance of Working Capital Management

Deloof (2003) based his research on the statistical data put forth by National Bank of Belgium which brought out that the receivables, inventories and account payables constitute 17 %, 10 % and 13 % of the total assets of the Belgium firms. In the research, author investigates the relationship between cash conversion cycle and profitability. The correlation analysis indicates manifestation of negative correlation between gross operating income and the measures of working capital management. The regression analysis of accounts receivable, number of day's inventories, number of day's accounts payables indicates negative coefficient which according to author entails that an increase in number of days of accounts receivable, inventories and accounts payable by a day is associated with the decrease in gross operating profit. The cash conversion cycle also manifest negative coefficient but is not significant. The author concludes that firms can create value for their share holders by reducing the number of day's accounts receivables and inventories to a reasonable minimum. The author argues that the negative relation between the accounts payable and profitability can be attributed to the fact that less profitable firms wait longer to pay their bills.

Padachi (2006) in his research emphasised the need for well designed implementation of Working Capital Management for creation of firm's value. The author analysed five years of data (1998 – 2003) of 58 Small Manufacturing Industries of Mauritius. His research aims in analysing the relationship between components of Working Capital Management (WCM) and Return on Assets (ROA). The analysis led to the findings that Return on Total assets manifest positive correlation with Operating Profit Margin and capital turnover ratio and negative correlation with measures of WCM except for CCC. In his study the author has

empirically proved that high investment in inventories and Cash Receivables is associated with lower profitability. One of the important aspects that have been deliberated up on by the author is the importance of cash as an indicator of continual financial health of the firm.

Teruel et al. (2007) undertook empirical research for study the effects of working capital management on the profitability of 8,872 Spanish Small and Medium Sized firms. Authors use Return on Assets (ROA) the measure of profitability as dependent variable. The correlation analysis results by the authors indicate significant negative correlation between the return on assets and the number of days of accounts receivable, days of inventory and days of accounts payable and the cash conversion cycle.

Zainudin (2008) in his research has postulated the importance of credit collection period in improving the performance of the firm. The researcher has studied the average collection period of 279 small and medium sized manufacturing companies in Malaysia over a period of four years (1999-2002). According to the author the spearman's rank correlation analysis indicates weak negative correlation between ACP and operating profit to Total Asset Ratio. The author further based on analysis of the results states that there is weak negative correlation between ACP and size (total assets) of the firm. The author concludes that firms that collect their debt faster are poised to generate better returns.

Ramachandran (2009) analysed the relationship between Working Capital Management Efficiency (WCME) and Earnings Before Interest and Taxes (EBIT) of paper industry in India during the period from 1997 to 2005. The regression analysis indicates negative relationship between EBIT and Accounts Payable Days. However, the association of EBIT and WCM efficiency measures, Cash Conversion Cycle, Accounts Receivables Days and Inventory Days has an insignificant one to one relationship. The authors on analysing the results conclude that firms with less financial assets and financial debt ratio earned more EBIT by decreasing Cash Conversion Cycle.

Mohamad (2010) in his research gives empirical evidence on the Working Capital Management and its effects on the performance of 172 Malaysian listed firms. The author uses correlation coupled with multiple regression analysis in establishing the relation between the individual dependent variable with five independent variables. From the empirical results the author concludes (i) Tobin Q manifest positive correlation with Current Asset to total asset ratio, Current liabilities to total asset ratio and debt to asset ratio and negative correlation with Cash Conversion Cycle, (ii) Return on Assets exhibits positive correlation with Current Assets to Current Liability Ratio and Current Asset to total asset ratio, while it has negative correlation with Cash Conversion Cycle, Current liabilities to total asset ratio and debt to asset

ratio, (iii) return on invested capital manifests positive correlation with Current Assets to Current Liability Ratio, Current Asset to total asset ratio, Current liabilities to total asset ratio and negative correlation with Cash Conversion Cycle and debt to asset ratio. The author further undertakes regression analysis and establishes the fact that any increase in TobinQ, Return on Assets, and return on invested capital is result of reduced Cash Conversion Cycle indicating that the firms that have shorter Cash Conversion Cycle are most profitable firms. The author concludes that the study highlights the importance of managing working capital requirements to ensure an improvement in firm's market value and profitability.

Karaduman et, al., (2010) researched the impact of working capital management on the selected companies in Istanbul. In their analysis the authors considered Return on Asset (ROA) as measure of profitability and defined it as dependent variable. The ROA is manifest negative correlation with all the working capital components. The authors conclude that the firms ROA increases by shortening the number of day's accounts receivable, accounts payable and inventory. In short reducing the CCC improves the ROA.

Bellouma (2011) studied the effects of working capital on the profitability of the firms. The Pearson correlation analysis by the author indicates negative relationship between day's sales inventory and profitability and positive relationship between the cash conversion cycle and profitability. The regression analysis by the author brings out negative relationship between days payable outstanding, days sales outstanding, cash conversion cycle and profitability. Thus, the author concludes that aggressive working capital management which reduces the cash conversion cycle improves the profitability.

Sunday (2011), emphasises the need for effective Working Capital Management within Small and Medium Scale Enterprises (SMEs) for maintaining solvency and liquidity. However, according to the author the SMEs do not give due diligence in managing the WC.

Bashar (2012) in his research attempted to evaluate the problems associated in managing working capital in Small Scale Industry (SSI). The scope was limited to SSI in Rajasthan area. The author brings out that the major component of working capital comprised of inventories followed by receivables. According to author inventory constitutes 50 % of the current assets. The current asset ratio of SSI hovered at 3.44 to 3.58 compelling author to conclude that the working capital management is suboptimal as the current asset turnover ratio is indicative of how quickly the assets are turned over. The author concludes that the SSI is marred with financing for the current assets.

Gill et al. (2012) studied 166 firms in Canada to find the determinants of cash holding. On undertaking bivariate correlation analysis the authors' conclude that the

corporate cash holdings of Canadian firms is positively correlated with the cash flow, leverage, board size, CEO duality, and industry dummy and negatively correlated with net working capital. They further state that their findings also indicate positive correlation of corporate cash holdings with market-to-book ratio and net working capital, and negative correlation with firm size in the Canadian manufacturing industry. As regards the service industry the authors conclude that corporate cash holdings manifest positive correlation with leverage and the CEO duality, and negative correlation with net working capital. Authors use Ordinary Least Square regression analysis to establish relationship between variables. The findings reveal that there is positive relationship between (i) Cash Flow and Cash, (ii) Leverage and Cash, (iii) Board Size and Cash, and (iv) CEO Duality and Cash. The authors thus conclude that increase in cash flow, leverage, large board size, and CEO duality results in increasing cash holdings in the Canadian firms. The authors further state that Negative relationships are manifested between (i) Market to Book Ratio and Cash, (ii) Net Working Capital and Cash, and (iii) Firm Size and Cash. The authors therefore conclude that increase in market-to-book ratio, net working capital, and firm size reduces cash holdings in the Canadian firms. The authors further state that there is no significant relationship between Dividend Paid, Industry Dummy, and Cash.

Islam (2012) researched the determinants of cash holding of manufacturing firms by studying sample of 66 manufacturing firms of Bangladesh for period from 2006 to 2010. The main objective selected by the author for research is to identify variables those influence firms cash holding policies. The author defined cash held by firm as dependent variable. The regression analysis indicates Net working capital; Tobin's Q and Volatility of cash flow do not have significant relationship with Cash held by the firms. Current asset, Operating income, cash flow, Size, Short term Debt, Total Debt, Intangible asset, Leverage ratio, net cash and tangibility ratio manifest significant relationship with cash held by the manufacturing firms.

Quayyum (2012), in his research paper analyses the relationship between working capital management and profitability of manufacturing corporations' enlisted with the Dhaka Stock exchange. The author uses Return on Assets (ROA) and Net Profit Margin as the measures of profitability and these are taken as dependent variables. The independent variables used by the author are (i) Receivable Collection Period (RCP), (ii) Inventory Turnover Period (ITP), (iii) Payable Deferral Period (PDP), (iv) Cash Conversion Cycle (CCC), (v) Current Ratio (CR), and (vi) Quick Ratio (QR). On analysing the result the author concludes that for cement industry ROA and NPM are negatively correlated with CCC. Similarly the inventory turnover period also manifests negative relationship with ROA and NPM for cement industry. Current ratio, quick ratio and payment deferred period exhibit positive relationship with ROA however insignificant relationship is manifested with NPM. In case of

food industry the author establishes negative relationship between CCC and ROA as well as Inventory Turnover Period and NPM while positive relationship between PDP and ROA as well as CCC and QR with NPM. For the pharmaceutical industry the research establishes negative relationship between (i) ROA and CCC, (ii) ROA and RCP, (iii) NPM and CCC, while positive relationship between (i) ROA and PDP, (ii) ROA and QR, and (iii) NPM and QR. For the engineering industry the research establishes negative relationship between (i) ROA and CCC, (ii) ROA and RCP, (iii) NPM and CCC and (iv) NPM and RCP, while positive relationship between (i) ROA and CR (ii) ROA and QR, and (iii) NPM and CR. Thus the ROA has negative relationship with CCC for all the four sectors and NPM also has negative relationship with CCC except for food industry. The author thus concludes that working capital management has significant effect on the profitability of the firms and amongst all components the CCC is most significant factor.

Sabri (2012) analysed the difference in profitability of the firms with low cash conversion cycle vis-à-vis the ones having high cash conversion cycle of 45 Jordanian industrial companies listed at Amman Stock Exchange. The authors use Cash Conversion Cycle as the measure of Working Capital. Authors use t-test and Mann-Whitney – U test to test the hypotheses. The authors conclude (i) the profitability has inverse relationship with Cash Conversion Cycle indicating more efficient way of managing the cash flow since it rotates the working capital several times., (ii) The profitability of companies with low accounts receivables was higher than the companies with high accounts account receivables thus indicating negative relationship between profitability and accounts receivables., (iii) The authors justify the negative relationship between accounts payable and profitability by stating the fact that delayed payments contribute towards exposing the firms to fine of delay causing aspirations on the credibility and also the companies may loss on the cash discounts thereby reducing the profits. The authors in their research conclude that the companies having low inventory have more profitability as compared to the companies having high inventory.

Silva (2012) researched eight factors those according to author are the likely factors associated with the profitability and growth of Small and Medium Sized enterprises (SMEs) viz., (i) Leverage, (ii) Liquidity, (iii) Education, (iv) Industry Performance, (v) Low Cost, (vi) Differentiation, (vii) Product focus, (viii) Customer Focus. The sample for study was 134 SMEs aged five years or more operating in different sectors. The authors relied on primary data collection by conducting face to face interviews. Author used structural equation modeling. The authors conclude that (i) Profitability is associated with positive relationship with low debt, effective liquidity management, operation in a profitable sector, avoidance of low cost approach, use of differentiation and avoidance of a customer focus, (ii) Growth is associated with positive relationship with effective liquidity management and differentiation.

Vahid et al. (2012) researched impact of working capital management on profitability of 28 firms from Iran for a period from 2005 to 2009. The authors used the ratio of total current liabilities to total assets as proxy to measure financing policy and ratio of total current assets to total assets as proxy to measure investment policy. To measure the effect of working capital management on profitability the authors relied on the return on assets and Tobins Q as the measure of firm's value. On regression analysis the author state that the negative coefficient of Aggressive Investment Policy variable indicates that the relationship between conservative investment policy and firms profitability is negative. Therefore the authors conclude that the firms which follow conservative investment policies will have negative impact on the profitability while the firms which follow aggressive investment policies will have positive impact. This according to the authors can enhance the firm's value by adopting aggressive investment policies. The negative coefficients of Aggressive Financing Policy according to the authors indicate that aggressive financing policy and firm's profitability are negatively related. Thus, authors conclude that using more current liabilities to finance firm activities may negatively impact the profitability. Finally the authors state that following conservative financing policy by using more long term debt to finance the firm operating activities has positive effect on firm's profitability and value.

Vural et al. (2012) researched the impact of working capital management on the performance of 75 manufacturing firms in Turkey for period from 2002 to 2009. The measure of firm's performances used in the research by the authors was Gross operating profit which was defined as dependent variables. To measure the firms value authors use Tobin Q which is ratio of market value plus book value of debt and total assets. The authors also use firm size and leverage as control variables. To arrive at the relationship between various independent variables and the dependent variables the authors use correlation and regression analysis. The correlation analysis indicate that the gross operating profit manifest significant negatively relation with accounts receivables and cash conversion cycle. The Tobin Q manifests significant negative relation with leverage. Which is further amplified in regression analysis. From the results the authors conclude that the profitability of the firm can be improved by reducing the collection period thereby shortening the cash conversion cycle. Whereas the cash conversion cycle has positive relationship between the firms value indicating if we increase the cash conversion cycle then the value of the firm can be increased.

Addae (2013) analysed effect of working capital management on the performance of 125 non listed Ghanaian firms for a period from 2004 to 2009. The author used Gross Profit to total assets (GPA) as the dependent ratio. The correlation analysis by the author indicates negative correlation of GPA with Accounts receivables, inventory, Accounts payables and Cash Conversion Cycle. The authors interpret this

analysis by stating that the firm can increase its profit by early payments to the suppliers and early collection of the payments from customers with reduced stock. On further assessment author state that the regression analysis indicates that GPA is reduced by increasing the number of days of accounts receivables, number of days of accounts payables and number of days of inventories. The authors conclude that the firms can increase its profitability by reducing the number of days of accounts receivables and inventories.

Arunkumar et al. (2013), researched the effects of working capital management on the profitability of the manufacturing firms. The authors use return on Assets a proxy for profitability as dependent variable. The correlation analysis by the authors indicates negative relationship between the debtors day, inventory days and creditors days. The negative relationship between the return on assets and current assets proves that the profitability of the firm is inversely related to liquidity. The authors on performing the regression analysis conclude that the coefficients of debtors and inventory days are positive which suggests positive relationship between them and return on assets whereas since the coefficients of creditors days are negative these manifest negative relationship with the return on assets.

Pastor et al (2013) have based their research on basic premise that adequate cash levels are essential for smooth operations of the firms. The authors' further state hat Cash levels are influenced by firm's capital structure, cash flow, investments and asset management policies. The authors analyse the drivers of cash holding of Portuguese manufacturing Small and Medium Sized companies (SMEs). The authors focus their research on primary question of Why do SMEs hold large amount of cash and cash equivalents. The authors conclude in their research that SMEs hold 4.77 % of their total assets in cash and the decision to hold this cash is influenced by information asymmetry and agency conflict characteristics. They further conclude that the SMEs are more dependent on banking credit and shorter debt structure and further state that SMEs with greater probability of financial distress and those with high level of cash flows relative to total net assets tend to hold higher cash levels. The regression analysis result of study suggests cash holding has inverse relationship with growth opportunities, coefficient of liquidity, coefficient of size and positive relationship with debt and cash flow. Thus the authors conclude their research by stating that Portuguese SMEs weigh marginal costs and marginal benefits before taking decisions on cash holdings.

Sharma (2013) in her research analysed the firm's efficiency in managing the working capital and establish relationship between efficient management of working capital with the profitability. The research was progressed as case study of two steel industries one PSU and other private. The researcher progress the case study with an objective to establish relationship of working capital with total assets, fixed assets,

sales and PBIT. The author concludes that profitability ratio is negatively correlated with measures of working capital management except the cash conversion cycle. The positive relationship manifested is indicative of resources getting blocked at different stages of supply chain thus stretching the operating cycle.

Turyahebwa (2013) studied the financial management practices and business performance of sample of 335 Small and Medium Enterprises (SMEs) from a population of 10730 SMEs in Uganda. The authors used correlation design to establish relationships between financial management practices and business performance of SMEs. The results from the study indicate that there is positive and significant relationship between, (a) working capital management practices and business performance (b) Positive and significant relationship between investment practices and business performance indicating efficient investment practices like appraisal of investments with techniques like payback period, net present value; internal rate of return is highly associated with better performance., (c) Positive and significant relationship between financial reporting practices and business performance. The authors conclude that since all correlation coefficients were positive and significant it indicates that all financial management practices were positively related to business performances. This according to authors indicates that efficient financial management practices combined together are associated with high business performance levels among SMEs. The regression analysis indicates that influence of financial management practices on business performance is 33.9 % and that of the working capital management is 22 %. The authors conclude that the owners of SMEs need to develop a positive attitude towards adopting financial management practices so as to achieve desired business performance.

Babu et al. (2014) conducted an empirical analysis of the efficiency of Working Capital Management in leather industry of India. In their research they try to establish relationship between working capital components with Return on Assets (RoA) which was used as a measure of profitability. The authors used RoA as dependent variable and working capital components viz., Inventory Conversion Period (ICP), Average Collection Period (ACP), Average Payment Period (APP) and Cash Conversion Cycle (CCC) as dependent variables. The correlation analysis indicates negative relationship of ROA with ICP while positive insignificant relationship with ACP and APP and positive significant relationship with CCC. On performing multiple regression analysis the authors conclude that 60.9 % of the variation in profitability is manifested through the defined independent variables viz., ICP, ACP, APP and CCC and remaining 39.1 % is from other unobserved factors. The authors conclude that working capital management plays significant role on profitability of leather industry.

Caballero et al. (2014) studied the working capital management corporate performance and financial constraints of the firms in U.K. The authors weigh the pros and cons of maintaining positive working capital and then conclude that these positive and negative implications result decision making based on principles of tradeoff. The authors use Net Trade Cycle (NTC) as measure of working capital management. The authors regress the NTC, Return on assets, size, growth with the corporate performance. The results indicate inverted U shaped relationship between corporate performance and working capital. With the analysis of the results the authors conclude that working capital levels below optimal effects dominate higher sales and discounts for early payments and hence the authors conclude that the working capital has positive impact on the corporate performance. On the other side the opportunity cost and financing costs effects dominate when the firm has a working capital level above the optimum level and hence the relation between working capital and corporate performance becomes negative.

ENOW et al. (2014), researched effect of working capital management on profitability of the SMEs operating in South Africa. The sample selected for study was of 15 SMEs and the data was captured for the period from 2008 to 2012. Return of assets was taken as measure of profitability and defined as dependent variable. The independent variables choosed were various components of working capital viz., Average Collection Period (ACP), Average Payment Period (APP), Average Age of Inventory (AAI) and Cash Conversion Cycle (CCC). The authors also used variables like firms size, growth, leverage and current ratio as control variables. The correlation analysis indicates negative correlation between ROA and ACP, APP, CCC, size, growth and current ratio whereas positive correlation with AAI and leverage. The regression analysis confirms positive relationship between inventory, growth, size, current ratio and leverage with the return on assets. The authors conclude that increasing the growth and current ratio will increase the size of SMEs whereas lengthening the number of days of accounts receivables will result in higher profits. Also, the ROA manifest negative relationship with account payable and cash conversion cycle indicating decrease in the time taken to repay the creditors will enhance the profits and also if the cash conversion cycle is reduced the profitability is increased. Thus the authors conclude that the SME can enhance the profitability by decreasing the cash conversion cycle.

Javed (2014) researched the impact of working capital management on the SMEs performance in Pakistan. The authors used Tobins Q as proxy to market value, Return on assets and net operating profit as proxy to profitability and defined them as dependent variables. The independent variables representing working capital components identified to assess their effect on firm's performance choosen by the author were Average Collection Period (ACP), Inventory Turnover in Days (ITID), Average Payment Period (APP), Cash Conversion Cycle (CCC) and Net Trading

Cycle (NTC) of the firm. The authors also used Liquidity of firm, size of the firm, the growth in its sales and financial leverage (debt) as the control variables. The authors used 54 sample firms for collecting the data for period from 2006 to 2010. The correlation analysis indicates that the Net operating Profit is negatively correlated with inventory turnover in days, accounts collection period, average payment period but positively correlated with cash conversion cycle and net trading cycle which according to the author signifies that reduction in WCM components leads to higher NOP. ROA negatively correlated with inventory turnover in days, accounts collection period, average payment period but positively correlated with cash conversion cycle and net trading cycle. The relationship among ROA and WCM components are insignificant except ACP. The results according to author suggest that collecting receivables on time enhances the profitability of firms. Tobin's Q is negatively correlated with all the five explanatory variables including ITID, ACP, APP, CCC and NTC. However TQ have significant negative relationship with ITID and NTC, but insignificant relationship with other independent variables. The author concludes that the negative relation between average payment period and all profitability measures (NOP, ROA, and TQ) suggest that less profitable firms wait longer to pay their accounts payable. Another measure of working capital management considered by the author is the Net trading cycle which manifest significant negative relationship with profitability. This according to the author implies that if a firm is able to reduce the Net trade cycle period, it can enhance the profitability thereby resulting in creation of value for the shareholders. The results from the panel data regression show that average collection period and accounts payable period are the two most important WCM components to affect performance of SME firms.

Matadeen et al. (2014) in their research surveyed working capital management practices followed in the by the Mauritius SMEs. The authors bring out that the motives for holding cash varies amongst the SMEs with 38 % hold the cash with transaction motives, 26 % to handle unexpected problems or contingencies and 36 % to rip the benefits from unexpected price changes. However, the authors state that the survey indicates that only 14.3 % SMEs plan cash planning however none of the SMEs use any cash model to arrive at the policies to hold the cash. The survey on accounts payable management reveals that 50 % of the respondents who buy on credit state that credit is easily available while 38.2 % have issues with liquidity especially for seasonal business and 11.8 % state that the credit is informal. The credit payments period varies between less than 10 day to 30 days with 67 % falling in the bracket of 11 to 30 days and 17.6 % less than 10 days. 77 % of the respondents had confirmed selling on cash and credit with collection period ranging from less than 10 days (21.1 %) to more than 60 days (18.4 %) while 9 % sell only on cash. The sell on credit is associated with bad debt and 37 % confirmed bad debt

ranging from INR 50,000 to INR 1,00,000 and 15.8 % less than INR 50,000. 25% to 34 % of current assets is in the form of inventory. The authors from the survey conclude that the recent failures in the SMEs are due to poor management of working capital coupled with lack of financial management skills.

Muscettola (2014) researched the impact of Cash conversion Cycle on the profitability of Italian manufacturing SMEs. The authors on completing the correlation analysis conclude that (i) There is positive and moderate correlation between No of Days Accounts Receivable and profitability, (ii) Negative and weak correlation of stock turnover days with profitability, (iii) There is a negative and significant correlation between cash conversion cycle and profitability. The author on undertaking ordinal regression results show Earnings before Taxes, Depreciation and Amortization has positive relation with (i) Cash Conversion Cycle is significantly which is opposite to the common rule of lesser the cash conversion cycle greater would be the profitability of firms, (ii) Number of days receivables which indicate that decreasing firms' receivable days lead to a declining profit.

Aggarwal et al. (2015) researched the impact of working capital management on the profitability of the Indian firms. The regression analysis indicates that the gross profit ratio is negatively related to cash conversion cycle, creditors payable period, and inventory conversion period. The authors conclude that the major contributors in profitability are cash conversion cycle, inventory conversion period, creditor payment period and debtors' collection period.

Azeem et al. (2015) in their research studied the factors determining the working capital requirements in Pakistani non-financial firms. On analysing the relationship between working capital requirements and other components the authors conclude that, (i) The operating cycle, return on assets, leverage, size and level of economic activity is negatively related to working capital requirements of a firm, and , (ii) operating cash flows and sales growth are positively related to working capital requirements.

Kumar (2015) focused his research to empirically examine the importance of Working Capital Management and its Components on the profitability of Small and Medium Enterprises (SMEs) in India. The author used panel data regression on 433 sample SMEs. Cash Conversion Cycle was used as the measure of working capital and Return on assets as proxy for SMEs profitability. The panel data regression study concludes that the number of days of inventory (DI), number of days of accounts receivables (DAR), the number of days of accounts payables (DAP) and cash conversion cycle (CCC) are negatively correlated with profitability of SMEs in India. The authors further consolidate the findings and states that the management of inventory (DI) and accounts receivables (AR) are important for SMEs profitability in India.

Pais et al. (2015), analysed the effect of working capital management on the profitability of 6063 Portuguese SMEs during the period from 2002 to 2009. The authors defined Return on Assets (ROA) the measure of profitability as dependent variable. The independent variables defined were the components of working capital management viz., number of days accounts receivables (AR), number of days accounts payables (AP), number of days of inventory (INV) and Cash Conversion Cycle (CCC). The authors used size of the firm, growth and leverage as control variables. The correlation analysis indicates negative correlation of AR, AP, INV and CCC with ROA. The authors conclude that the profitability of the firms could be enhanced by reducing inventories, number of days that firms take to settle liabilities and to collect the payments.

Anil (2016) in her research focuses on the impact of working capital management of 58 firms listed on Bombay Stock Exchange. The author uses descriptive statistics, correlation coefficient and multiple regression models for analysing the data. The Correlation analysis results indicate that Asset Turnover Ratio, Cash Conversion Cycle, Debtor Turnover Ratio, Current Ratio, Debt Turnover Ratio, and Creditor Turnover Ratio manifest significant correlation with Operating Profit Margin, whereas Inventory Turnover Ratio has no significant correlation with Profit Margin. The Regression analysis shows negative relation between the cash conversion cycle and operating profit margin. The author concludes that finance managers of manufacturing companies can increase their Operating Profit margin by improving the assets turnover ratio, current ratio, and size of the firm. On the other hand profitability decreases with decrease in inventory turnover ratio, increase in Cash Conversion Cycle and debt ratio.

Bagh, et al. (2016) researched the impact of working capital management on firm financial performance in Pakistan. The authors used working capital components of Inventory turnover (ITO), Cash Conversion Cycle (CCC), Average Collection Period (ACP) and Average Payment Period (APP) as independent variables and dependent variables used were the measures of firm's performance viz., Return on Assets (ROA), Return on Equity (ROE) and Earnings per Share (EPS). The multiple regression analysis by the authors indicate that ITO, APP and CC have negative impact where as ACP has positive impact on ROA, APP has negative and ACP positive impact on ROE where as ITO has negative impact on EPS.

Ha et al. (2016) studied the impact of working capital management on the financial performance of SME in Vietnam. The authors used Return on Assets as measure of profitability and considered it as dependent variable. The independent variables used were the components of working capital viz., days accounts receivables (ACR), average account payable turnover, inventory conversion period, cash conversion cycle (CCC), growth, size and age as independent variables. The data was analysed

for 1209 enterprises for period from 2008 to 2015. The regression analysis average cash collection cycle and cash conversion cycle have inverse relationship with the return on assets which according to the author is indicative of the fact that if the firms prolong the ACR and CCC the financial performance will be improved. Also the inventory conversion period and accounts payable period have direct relationship with the SME's financial performance. Thus, the authors conclude that the shortage of goods will hamper the financial performance whereas deferred payment will improve the financial performance which ultimately indicates that shorter cash conversion cycle improves the financial performance.

Kosmala et al. (2016) researched the risk associate with the liquidity component of the working capital management. The correlation analysis indicates strong positive correlation between the liquidity risk and net working capital components and weak relation with the demanded net working capital. Thus, the authors conclude that the impact of efficiency oriented variables on liquidity risk was less as compared to the impact of balance sheet oriented variables. The time suitability of liquidity reserves has moderate negative correlation with the cash conversion cycle. From the analysis the authors conclude that the firm's financial stability is relevant to the magnitude of liquidity reserves and the relevance of the liquidity reserves is influenced by the changes in the assets and capital structure.

Gorondutse et al. (2017) analysed the effect of working capital management on profitability of 66 SMEs in Malaysia during the period 2006 to 2012. The authors adopted quantitative methodology for analysing the data collected from the annual financial reports of the selected SMEs. The authors defined three dependent variables as measures of profitability viz., Return on assets (ROA), Net Operating Profit (NOP) and Return on Equity (ROE). The independent variables defined were the components of working capital viz., Days Accounts Receivables (DAR), Inventory Turn Over in Days (ITID), Days Accounts Payable (DAP) and Cash Conversion Cycle (CCC). The Pearson correlation analysis results shows that the days accounts receivables exhibit negative correlation with ROA, NOP and ROE whereas days accounts payable manifest positive correlation with ROA and ROE but negative correlation with NOP. The Inventory turnover in days and Cash Conversion Cycle has negative correlation with ROA, ROE and NOP. The regression analysis results show that an increase in DAR and CCC will decrease the profitability of SMEs whereas increasing the DAP will increase the profitability. As regards the NOP as measure of profitability the regression results indicate that reduction in DAR, ITIDs and DAP will increase the profitability. In case of ROE only DAP is significant and increase in DAP will increase the profitability. The authors conclude that ROE is not good measure of profitability in case of SMEs. From the results the authors conclude that WCM has considerable impact on the profitability of SMEs. The SMEs can increase their profitability by reducing the cash conversion cycle.

Hirnisssa et al. (2017), studied the impact of working capital with the profitability of the SMEs in Malaysia. The authors analysed the data of 722 firms in period from 2011 to 2013. The regression analysis shows positive association between Net Working Capital and profitability. The authors justify that SMEs should ensure high Net Working Capital is reflective on SMEs liquidity to fulfill demands of the customer and also to finance short term debt and daily operations since SMEs have limited access to the external financing. Thus, the authors conclude by suggesting SMEs to increase their profits they have to invest in working capital management.

Jakpar et al. (2017) studied the effects of working capital management on the profitability of 164 manufacturing firms in Malaysia for period from 2007 to 2011. The authors selected Return on Assets (ROA) as the dependent of endogenous variable and the components of working capital viz., Natural Logarithm of Cash Conversion Cycle (LCCC), Natural Logarithm of Average Collection Period (LACP), Natural Logarithm of Inventory Conversion Period (LICP), Debt Ratio (DR) and Firm Size (SZ) were considered as independent or exogenous variables. The correlation analysis indicates that the ROA is negatively correlated with log of cash conversion cycle, log of average collection period and debt ratio. The authors conclude that this manifestation is indicative of the fact that any increase in these proxy variables will adversely affect the profitability. The ROA has positive correlation with log of inventory conversion period and firms size. The profitability of the firm measured by ROA was regressed by the authors against natural logarithm of cash conversion cycle (LCCC), natural logarithm of average collection period (LACP), natural logarithm of inventory conversion period (LICP), debt ratio (DR) and firm size (SZ). The coefficient of determination R – square is 0.2804 and the intercept of equation is – 0390219. Thus, the authors conclude that the independent variables have 28.04 % variability of the ROA and since the intercept is negative the ROA tends to decrease when entire variables are constant and unchanged. Also, the results indicate negative relationship between ROA and log of cash conversion cycle as well as Debt Ratio. Results also indicate a positive association between ROA and Log of average collection period, log of inventory period as well as firm size. The authors therefore conclude that the firms should focus on improving the collection period, turnover of inventory and utilize internally generated funds to pay of the company debt.

Kasozi (2017) in his research studied the impact of working capital management on the profitability of manufacturing firms in South Africa. Further correlation and regression analysis of the data indicates that the average collection period and average payment period negatively impacts the profitability. There is positive relationship between number of days of inventory and profitability. The study could not conclusively ascertain the impact of cash conversion cycle on the profitability

due to weak relationship manifested. However, the authors observed that the firms are carrying lot of debt in their capital structure.

Kumari et al. (2017) researched the impact of working capital management on the profitability of the automobile industry in India. The correlation analysis brings out that the inventory turnover period has significant negative relationship with the net operating profitability. The multiple regression analysis with inventory turnover period manifests significant negative correlation with the profitability. The study also indicates current ratio is negatively correlated while quick ratio is positively correlated with the profitability. The authors conclude that inventory turnover period has major impact on the profitability of the firm.

Mortaza et al. (2017) analytically researched relationship between the turnover management and financial performance of firms within their financial constraints. The results of regression analysis between financial performance with the constraints indicate that 65 % of the return on assets is affected by the financial constraints and also 74 % of the financial gain is associated with financial constraints. The authors therefore conclude that the financial constraints do affect the cash flow. The manifestation of positive relationship between financial constraints with the profitability and asset efficiency the authors indicate that the firms have diligently invest particular attention on these variables while do financial planning.

Podile et al. (2017) in their case study has researched on the structure of working capital in one of the small enterprise in Nellore district of Andhra Pradesh. The authors also researched on the efficiency of the firm in managing the cash, debtors and inventory. The authors in their analysis conclude that inventory and debtors occupy highest percentage of the current assets. The authors also bring out that the current ratio, cash turnover and average collection periods did not manifest uniformity during the period of study. The authors finally conclude that the cash holding and the collection policy was not well managed by the firm.

Gap Analysis

The literature review analysis depicts following:

1. The research till date highlights importance of the Working Capital management for MSMEs.
2. Few researchers have analyzed that the working capital management is important and has its impact on the return on assets.
3. The authors have observed that most of the research is done on the performance analysis of MSMEs in manufacturing industry or service sectors. Moreover almost all researchers focus on analysing the working capital with profitability

and most researchers have taken Cash Conversion Cycle as measure of Working Capital Management.

4. Majority of researchers considered Return on Assets as dependent variable and components of working capital as independent components.
5. The authors have not come across any research which considers Cash Holding as a dependent component. The aspect is important since by basic nature of quick transformation of the working capital components from one form to another indicate relationship amongst themselves. This has motivated the authors to find out the relationship between one of the components with the remaining components. The authors suggest to take 'Cash' as dependent component as they are of the opinion that 'Cash' is extremely important for the firm to decide the liquidity position. The authors thus believe that formulating correct policies for holding the cash will trigger the optimisation process for other components.
6. The cash conversion cycle for the MSMEs is generally large since the long gestation period for the product finalization and meeting the desired specifications. The authors have not come across any literature on working capital management practices of MSMEs having perceivably stretched cash conversion cycle.
7. The authors have not come across any research undertaken specific to functioning of MSMEs supporting the defence sector.

In India, there has been greater emphasis on the in-house production of the defence equipment in the recent past. However, ab-initio manufacturing defence equipment is extremely time consuming and requires decades of research. Further, the product support to the equipment supplied by foreign Original Manufacturer of the Equipment (OEM) is waning due to rapid advancement in the technology rendering the imported equipment on verge of obsolescence. However, it is not always possible to replace defence equipment since it has operational connotations attached.

To overcome this situation, defence forces have come up with novel idea of replacing them with the indigenously manufactured equipments. The challenge in this process is the ability of reverse engineering of domestic MSMEs as the task is primarily being undertaken through MSMEs. With the focused approach towards self reliance domestic MSMEs have sprung up in prominence especially in defence indigenisation process. The Government is promoting role of MSMEs in defence production. However, the MSMEs in turn could be trying to cope up with peculiar issues of working capital management in defence environment. Efficient management of the working capital might assume a greater significance for the MSMEs in defence production where the cash conversion cycle is stretched.

The authors believe that incorrect cash policies may result in crises in production, marketing, liquidity and profitability thereby reducing in the MSME's net worth. The results of these crises possibly may manifest itself in sharp and wide fluctuations in the behaviour of cash system. Working capital management therefore may be considered as an important aspect for short term sustenance and in turn long term sustenance of MSMEs. Thus considering the limited or no research on working capital management of MSMEs supporting defence indigenisation, the authors are inspired to focus the research to address the issue.

The gap analysis depicts importance to undertake an analytical study of relationship of 'Cash Holding' with Other Components of Working Capital for Micro, Small and Medium Enterprises (MSMEs) involved in defence indigenisation process.

Reference

- Addae AlbertAmphonash., Bassi-Byarko, Michael. (2013). Working Capital Management and Profitability: An empirical Investigation in an Emerging Market. Research Journal of Finance and Accounting. Vol 4, No 15, 143 – 152. ISSN 2222-2847 (Online).
- Aggarwal, Agrim., & Chaudhary, Rahul. (2015). Effect of Working Capital Management on the Profitability of Indian Firms. IOSR Journal of Business and Management (IOSR-JBM) Volume 17, Issue 8.Ver. IV, 34-43. e-ISSN: 2278-487X, p-ISSN: 2319-7668.
- Anil, Ms. (2016). The Impact of Working Capital Management And Profitability: A Case Study Of Manufacturing Companies In India. International Journal of Innovative Research in Management Studies (IJIRMS). Volume 1, Issue 2, 118 – 131.
- Babu, Suresh, N., &Chalam, V. G. (2014). Study on the Working Capital Management Efficiency in Indian Leather Industry- An Empirical Analysis. IRACST- International Journal of Research in Management & Technology (IJRMT), ISSN: 2249-9563. Vol. 4, No.5. 196-201.
- Bagh, Tanveer., Nazir, Muhammad, Imran., Khan, Muhammad, Asif., Khan, Muhammad, Atif., & Razzaq, Sadaf. (2016).The Impact of Working Capital Management on Firms Financial Performance: Evidence from Pakistan International Journal of Economics and Financial Issues, 6(3), 1097-1105. ISSN: 2146-4138. Retrieved from <http://www.econjournals.com>
- Bellouma, Meryem. (2011). The Impact of Working Capital Management on Profitability: The Case of Small and Medium-Sized Export Companies in Tunisia. International Management vol. 15, n° 3, 71-88. URI: <http://id.erudit.org/iderudit/1005434ar> DOI: 10.7202/1005434ar

- Caballero, Banos, Sonia., Teruel, Garcia, J. Pedro., Solano, Matinez, Pedro (2014). Working Capital Management, Corporate Performance, and Financial Constraints. *Journal of Business Research*, Volume 67, Issue 3, 332-338. Retrieved from <http://dx.doi.org/10.1016/j.jbusres.2013.01.016>.
- Corina, C. Pastor., & Paulo, M. Gama. (2013). Determinant Factors of Cash Holdings: Evidence from Portuguese SMEs. *International Journal of Business and Management*; Vol. 8, No. 1. 104 – 112
- Deloof, Marc. (2003). Does Working Capital Management Affect Profitability of Belgian Firms? *Journal of Business Finance and Accounting*, 30(3) &(4),0306-686X.
- ENOW, Tabot, Samuel., Brijlal, Predeep. (2014). The effect of working capital management on profitability: The case of Small Medium and Micro Enterprises in South Africa *Journal of Accounting and Management*. Vol 4, No. 2, 7-15.
- Gill, Amarjit., and Shah,Charul. (2012). Determinants of Corporate Cash Holdings: Evidence from Canada *International Journal of Economics and Finance* Vol. 4, No. 1. 70 -79
- Gorondutse A.H., Ali R.A., Abubakar A., Naalah M.N.I. (2017). The Effect Of Working Capital Management on SMEs Profitability in Malaysia. *Polish Journal Of Management Studies*, Vol 16, No 2. DOI: 10.17512/pjms.2017.16.2.09
- Hirnissa, M.T., and Zariyawati, M.A. (2017). How Working Capital Management Affects The Profitability Of Small And Medium Size Enterprises (SMEs) In Malaysia? *International Journal of Economics, Business and Management Research*, Vol. 1, No. 04, 433- 445. ISSN: 2456-7760
- Ha, Doan, Thanh., Bui, Dan, Thanh., & Hang, Hoang, Thi, Thanh. (2016). Impact of Working Capital on Financial Performance of Small and Medium-Sized Enterprises in Vietnam. *Review of Contemporary Business Research*, Vol. 5, No. 1, 158-163. ISSN: 2333-6420. Retrieved from URL: <https://doi.org/10.15640/rcbr.v5n1a13>.
- Islam, Sohani. (2012). Manufacturing Firms' Cash Holding Determinants: Evidence from Bangladesh. *International Journal of Business and Management* Vol. 7, No. 6, 172 – 184. doi:10.5539/ijbm.v7n6p172. Retrieved from URL: <http://dx.doi.org/10.5539/ijbm.v7n6p172>
- Javid, Snober. (2014). Effect of Working Capital Management on SME's Performance in Pakistan. *European Journal of Business and Management*, Vol.6, No.12, 206-220. ISSN 2222-2839 (Online).
- Jakpar, S., Tingg,I M., Siang, T. K., Johari, A., Myint, K. T., Sadique, M. S. (2017) Working Capital Management and Profitability: Evidence from

- Manufacturing Sector in Malaysia. *Journal of Business Financial Affairs* Vol 6, Issue 2, 1-9. DOI: 10.4172/2167-0234.1000255. ISSN: 2167-0234
- KARADUMAN, Hasan, Agan., AKBAS, Halil, Emre., OZSOZGUN, Arzu., DURER, Salih. (2010). Effects of Working Capital Management on Profitability: The Case For Selected Companies in the Istanbul Stock Exchange (2005-2008), *International Journal of Economics and Finance Studies*, Vol 2, No 2, 47 – 54. ISSN: 1309-8055 (Online)
 - Kasozi, Jason. (2017). The Effect of Working Capital Management on Profitability: A Case of Listed Manufacturing Firms in South Africa. *Investment Management and Financial Innovations*, Volume 14, Issue 2, 336-346. DOI:10.21511/imfi.14(2-2).2017.05. ISSN: 1812-9358.
 - Kumari, Navena, Nesa., & Anthuvan, M. Victor, Louis. (2017). A Study on the Impact of The Working Capital Management on the Profitability of the Leading Listed Automobile Companies in India (2006-2012). *International Journal of Scientific Research and Management (IJSRM)* Vol 5, Issue 08, 6744-6757. DOI: 10.18535/ijssrm/v5i8.23
 - Kumar, Satish. (2015). The Significance of Working Capital Management and its Components on SMEs Performance - Evidence From India. 16th International Academic Conference, Amsterdam ISBN 978-80-87927-09-0, IISES. DOI: 10.20472/IAC.2015.016.040.
 - Kosmala, Monika, Wieczorek., Doś, Anna., Błach, Joanna., Gorczyńska, Maria. (2016). Working capital management and liquidity reserves: The context of risk retention *Journal of Economics and Management*, Vol. 23 (1), 5 – 20. ISSN 1732-1948.
 - Matarneh, Bashar. (2012). Working Capital Management of Small Scale Industries in Rajasthan *International Journal of Financial Research* Vol. 3, No. 2; 78-85. DOI:10.5430/ijfr.v3n2p78. Retrieved from URL: <http://dx.doi.org/10.5430/ijfr.v3n2p78>.
 - Matadeen, Jay, S., Aukhorjee, Sailesh. (2014). Working Capital Management of SMEs in Mauritius. *The Business & Management Review*, Vol 4, No. 4, 228 – 247.
 - Muhammad, Mehtab, Azeem., & Marsap, Akin. (2015). Determinant Factors and Working Capital Requirement. *International Journal of Economics and Finance*; Vol. 7, No. 2, 280 - 292.
 - Muscettola Marco. (2014). Cash Conversion Cycle and Firm's Profitability: An Empirical Analysis on a Sample of 4,226 Manufacturing SMEs of Italy. *International Journal of Business and Management*; Vol. 9, No. 5, 25 – 35.

- Padachi, Kesseven. (2006). Trends in Working Capital Management and its Impact on Firms' Performance: An Analysis of Mauritian Small Manufacturing Firms. *International Review of Business Research Papers* Vo.2 No. 2. 45 -58.
- Pais, Maria, Amélia., Gama, Paulo, Miguel. (2015). Working capital Management and SMEs profitability: Portuguese evidence *International Journal of Managerial Finance*, Vol. 11 Iss 3, 341 – 358. Retrieved from <http://dx.doi.org/10.1108/IJMF-11-2014-0170>
- Podile, Venkateswararao., Chinta, Siva., SuryachandraRao, D. (2017). Working Capital Management in Small Enterprise -A Case Study of P L PLAST Pvt. Ltd. *IOSR Journal of Business and Management (IOSR-JBM)* e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 19, Issue 4. Ver. IV (Apr. 2017), 61-65. e-ISSN: 2278-487X. Retrieved from www.iosrjournals.org.
- Quayyum, Sayeda, Tahmina. (2012). Relationship between Working Capital Management and Profitability in Context of Manufacturing Industries in Bangladesh. *International Journal of Business and Management* Vol. 7, No. 1, 58 – 69.
- Ramachandran, Azhagaiah., Janakiraman, Muralidharan. (2009). The Relationship between Working Capital Management Efficiency and EBIT. *Managing Global Transitions*, vol. 7, issue 1, 61-74. Retrieved from http://www.fm-kp.si/zalozba/ISSN/1581-6311/7_061-074.pdf.
- Sabri, Tamer, Bahjat. (2012). Different Working Capital Policies and the Profitability of a Firm. *International Journal of Business and Management*, Vol. 7, No. 15, 50 – 60.
- Silva, Ana, Paula. (2012). Financial and Strategic Factors Associated with the Profitability and Growth of SME in Portugal. *International Journal of Economics and Finance* Vol. 4, No. 3. 46 – 60.
- Shabani, Mortaza., Zaree, Moravej. (2017). The Relationship Between Financial Performance with Financial Constraints in Companies Admitted to the Tehran Stock Exchange. *Scinzer Journal of Accounting and Management*, Vol 3, Issue 4, 27-30. DOI: 10.21634/SJAM.3.4.2730 ISSN 2415-1017. Retrieved from www.Scinzer.com.
- Sharma, Asha. (2013). Comparative Analysis of Working Capital Management between Public & Private Sector Steel Companies in India. *International Journal of Management and Social Sciences Research (IJMSSR)*, Volume 2, No. 4, 77 – 82. ISSN: 2319-4421.

- Sunday, Kehinde, James. (2011). Effective Working Capital Management in Small and Medium Scale Enterprises (SMEs) International Journal of Business and Management Vol. 6, No. 9. 271 – 279.
- Teruel, Garcia, Juan, Solano, Martinez, Pedro. (2007). Effects of Working Capital Management on SME Profitability. International Journal of Managerial Finance, Vol 3, Issue 2, 164 - 177. DOI: 10.1108/17439130710738718
- Turyahebwa, Abanis., Sunday, Aurthur., Ssekajugo, Derick. (2013). Financial management practices and business performance of small and medium enterprises in western Uganda. African Journal of Business Management. Vol 7 (38), 3875 – 3885. DOI 10.5897/AJBM2013.6899.
- Vahid, Khanqah, Taghizadeh., Mohsen, Khosroshahi, Akbari., Mohammadreza, Ebrati. (2012). The Impact of Working Capital Management Policies on Firm's Profitability and Value: Evidence from Iranian Companies. International Research Journal of Finance and Economics, Issue 88, 155-162. ISSN 1450-2887. Retrieved from <http://www.internationalresearchjournaloffinanceandeconomics.com>
- Vural, Gamze., Sokmen, Gokhan, Ahmet., Chetnak, Huseyin, Emin. (2012). Affects of Working Capital Management on Firm's Performance: Evidence from Turkey International Journal of Economics and Financial Issues Vol. 2, No. 4, 2012, 488-495. ISSN: 2146-4138. Retrieved from www.econjournals.com
- Zainudin, Nasruddin. (2008). Tracking the Credit Collection Period of Malaysian Small and Medium-Sized Enterprises. International Business Research Vol. 1, No. 1, 78 – 86.

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SIGNIFICANCE OF DIGITAL MARKETING TOOLS USED BY PHARMACEUTICAL COMPANIES FROM PHYSICIANS PERSPECTIVE

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ABSTRACT :

The pharmaceutical industry is different from other industries because it offers to the nation cure and alleviation from diseases and contributes to the economies of the nations. The cost of marketing activities on pharmaceutical industry is more than 30% of their revenues and ninety percentage of it is aimed at doctors. In pharmaceutical marketing, the customer and the consumers are two different peoples. Pharmaceutical marketing is a specialized field where medical representatives form the backbone of entire marketing effort. Medical representatives try to influence prescription pattern of doctors in favor of their brands. Apart from sales representatives, to promote drugs, pharmaceutical companies are majorly depending on CME conferences, journals and Direct to Consumer Advertising. Pharmaceutical companies need to take cognizance of how medium of communication for society has changed in last 10 years. Pharmaceutical organizations are running hard to keep pace with changes realized by digital innovation. Innovation has provoked extraordinary changes in the marketing scene over the previous decade, and pharmaceutical marketing has not been avoided from this advancement. Majority of the pharmaceutical companies had already accepted the digitalization strategy in their day to day business although the intensity of acceptance varies from company to company. The digitalization strategy involved the creation of company websites, using emails, display of web banners, arranging web conferences, using social media for advertisements and displays of different products, using online newsletters and equipping the sales personnel with e-tools wherever necessary. Some of them were found using various Mobile Apps too. Number of physicians expected that the personal visits of the marketing representatives to their clinics and hospitals are most desired and should not be replaced for any reason. Mere implementation of digital marketing strategy was not what was expected by the physicians. A fine blend of both the strategies would enhance their level of satisfaction.

Keywords: Medical representatives, Physicians, prescription Pharmaceutical marketing, digitalization

1.0 INTRODUCTION

1.1 Marketing

According to the American Marketing Association, quoted by Kotler and Keller, marketing can be defined as “an organizational function and a set of processes for creating, communicating, and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders”.

1.2 Pharmaceutical Marketing

Marketing of pharmaceutical products can be described as providing the right drug at the right price, at the right place, with the right information, to the right market.

Pharmaceutical marketing is the business of advertising or otherwise promoting the sale of pharmaceuticals or drugs. Marketing plays a key role influencing or directing activities from the manufacturer to the patient. It is the demand from the consumer that determines which goods will be produced. Any pharmaceutical company that wants to serve its market has to endeavor in direct marketing activities so that the right product is sold in the right quantity in the right place at the right time.

1.2.1 Buying stages of Healthcare professionals

According to Marketing Planning for the Pharmaceutical Industry by John Lidstone the aim is to change from a non-usage of a product to usage or repeated usage. There are different buying stages of healthcare professionals in which the pharmaceutical companies have to make their product known they are Awareness to Interest, Interest to Evaluation, Evaluation to Trial, Trial to Usage, Usage to Repeat Usage.

Pharmaceutical marketing is a specialized field where medical representatives form the backbone of entire marketing effort. Pharmaceutical companies appoint medical representatives and assign them defined territories. Medical representatives meet doctors, chemists and stockiest as per company norms. Medical representatives try to influence prescription pattern of doctors in favor of their brands. Similar to other industries, pharmaceutical marketing decisions are taken to maximize profitability of the organization, by satisfying the needs and wants of the customers. It is little easy in non pharma industries as the customer can make a decision to what product and in what specification it should be purchased. In pharmaceutical marketing, the customer and the consumers are two different peoples. Even though the products are being purchased by the patients for curing the diseased condition, the decision of what brand that patient should purchase is taken by the physician. Hence the marketing strategies are mainly focused in consideration of customers' (prescribing physicians), retail chemists and purchasing consumer (patients). Not only these three but even the internal customers of the company that is the sales promotion employees of the company are taken into consideration before or along with

formulation of marketing strategies. Unlike other industry, pharmaceutical products are the specialized products, where sales promotions are based on scientific knowledge sharing, within restricted norms and that too with those people (Physicians), who are having better knowledge than those, who are promoting (Medical representatives).

1.2.2 Digital Marketing Strategies of Pharmaceutical Industry

Review of research work on digital marketing employed by pharmaceutical industry indicates that pharmaceutical industry is acknowledging the changes taking place in communication technology. Physicians and patient are fast in adopting new medium of communication and it is vital for pharmaceutical companies to adapt the new medium in effective way in order to survive and grow in dynamic pharma market. Pharmaceutical companies are keen in using social networking sites to reach-out physicians along with establishing meaningful dialog with physician communities that exist on these social networks.

Pharmaceutical companies are using digital marketing tools to effectively market their products to customers. Effective utilization of these digital communication tools is helping pharmaceutical companies improve overall organizational performance along with effective utilization of resources available.

As per Christopher Manz, Joseph S. Ross and David Grande proficient pioneers and medicinal associations have issued various calls to diminish the impact of pharmaceutical and gadget marketing on clinical practice. One probability is that marketing of medications and gadgets to doctors is taking new structures instead of lessening. Pharmaceutical organizations currently spend 25% of their marketing spending plans on computerized advances like sites and online networking. Electronic wellbeing records, online networking, and versatile applications speak to new routes for pharmaceutical organizations to lead statistical surveying and to advertise specifically to doctors.

As stated by Tim K Mackey and Bryan A Liang , computerized types of direct-to-customer pharmaceutical marketing (eDTCA) have globalized in a time of free and open data trade. However, the unregulated development of eDTCA has brought about unaddressed worldwide general wellbeing dangers. In particular, unlawful online drug stores are occupied with the offer of purportedly protected, authentic item that may in actuality be fake or substandard. These cybercriminal performing artists misuse accessible eDTCA mediums over the Internet to showcase their speculate items all around. In spite of these dangers, a point by point appraisal of the general wellbeing, understanding security, and cyber security dangers and administration systems to address them has not been led.

Bryan A Liang and Timothy K Mackey surveyed the predominance of direct-to-consumer advertising of driving pharmaceutical organization nearness and medication item marketing in online intuitive web-based social networking advancements. The review found that all pharmaceutical organizations explored have nearness in online intuitive web-based social networking advancements on Facebook, Twitter/Friendster, supported sites, and truly basic syndication nourishes. Also, larger part have devoted YouTube channels, and created medicinal services correspondence related portable applications.

Facebook and Twitter, the biggest online networking Web sites, have more than 350 million clients overall swing initially to the Internet when looking for wellbeing related information. It is consequently astonishing that the pharmaceutical and therapeutic gadget ventures have been ease back to build up a web-based social networking nearness. The medication business apportioned fewer than 4% of the more than \$4 billion it spent on direct-to-customer promoting to Internet outlets in 2008, and just a minor division of that was for informal communication sites. In the following year, in any case, as per Jeremy A. Greene and Aaron S. Kesselheim, the extent may change significantly.

Masood I, Ibrahim Mim, Hassali Ma and Ahmed M examined the development of marketing procedures utilized by pharmaceutical businesses keeping in mind the end goal to stay focused in this much directed item. With the innovative improvement, many existing techniques and practices has been either supplanted or changed in mix with mechanically created strategies. Electronic detailing (e-itemizing) is one of the strategies for tranquilize advancement presented couple of years back as mechanically create apparatus. In pharmaceutical industry it has been presented as another correspondence channel for the advancement of medications among the doctors.

Web 2.0 applications and apparatuses incorporate online journals, podcasts, wikis and social networking communities. These devices, particularly writes and wikis, have been quickly embraced by web sharp patients as a wellspring of data and talk about medicinal conditions and treatment alternatives. Data by means of these applications has affected patients' decisions about their medicinal services. Accordingly, openings with Web 2.0 have been investigated by pharmaceutical organizations and medicinal foundations. These organizations trust that Web 2.0 and Patient 2.0 apparatuses offer a creative approach to interface with doctors and patients. Moreover, Web 2.0 can be another strategy for marketing to buyers in a period where the arrival on venture is falling with more conventional channels. Fadi M. Alkhateeb, Kevin A. Clauson, Nile M. Khanfar and David A. Latif give a review of Web 2.0, points of interest related administrative dangers and outlines select

methodologies to help explore these generally unexplored, however conceivably intense components to achieve prescribers and patients.

The expanding ubiquity of Web 2.0 devices, for example, online journals, wikis, and virtual universes, is essentially changing how purchasers utilize the Web. The fundamental center of Web 2.0, those clients can create and share their own substance, frequently with respect to organization brands and items, gives both potential esteem and difficulties to marketing professionals. Alongside leading optional research, Salvatore Parise and Patricia J. Guinan talked with 30 marketing officials and senior directors at organizations at the bleeding edge of utilizing this innovation. We found that there were four standards which guided administrators' marketing activities: 1) encourage clients in producing content, 2) concentrate on building a group, 3) guarantee realness of the message, and 4) search for marketing openings through experimentation.

Julie M. Donohue, Marisa Cevasco and Meredith B. Rosenthal inspected far reaching patterns in spending by pharmaceutical organizations on direct-to-customer publicizing and advancement to doctors amid the previous decade. Authors described the medications for such promoting and surveyed the planning of publicizing after a medication is presented. Discoveries of the review uncovered that Spending on direct-to-buyer promoting has kept on expanding lately disregarding the reactions leveled against it. Additionally, it proposed that requires a ban on such publicizing for new medications would speak to a sensational takeoff from current practices.

In the arranged world, firms perceive the energy of the Internet as a stage for co-making an incentive with clients. Mohanbir Sawhney, Gianmario Verona and Emanuela Prandelli concentrate on how the Internet has affected the procedure of synergistic innovation; a enter handle in esteem co-creation. Creators diagram the unmistakable abilities of the Internet as a stage for client engagement, including intuitiveness, improved achieve, diligence, speed, and adaptability, and recommend that organizations can utilize these capacities to draw in clients in community item development through an assortment of Internet-based systems. Creators present contextual investigations to delineate the coordinated and precise use of Internet-based community oriented development instruments from Eli Lilly from the pharmaceutical business. They infer suggestions for administrative practice and scholastic research on communitarian development.

The web is presently perceived as a developing global wonder. A wide range of items and administrations are being advertised over the web to customers all through the world since nation fringes never again limit directing business in the universal commercial center. In spite of the fact that there are a few focal points of online business, this type of marketing raises moral situations, especially with regards to

marketing human services items and data to customers universally. Ashish Chandra, Andrew Sikula and David P. Paul analyzed some of these potential moral concerns and gives a few procedures to shoppers and online pharmaceutical advertisers to deal with these difficulties all the more properly.

As customary TV promotions keep on losing their viability, image administrators are in effect more forced to think imaginatively by going covert to achieve shoppers surreptitiously. To catch the consideration of tainted, whimsical purchasers, Andrew M. Kaikati and Jack G. Kaikati are encouraged to devise underneath the-radar approaches that are harder to recognize. The article inspects six stealth marketing procedures and shows how stealth marketing is a feasible contrasting option to prominent ordinary publicizing. Some stealth endeavors are subtle to the point that customers don't know they are being pitched to. There are rising moral and legitimate issues raised by pundits of these methods. While some stealth marketing efforts are setting off alerts with purchaser guard dog gatherings, these systems will unavoidably develop more typical. They have an effective part to play when they are elegantly executed and regard customers' insight. Mark administrators are betting that the advantages of stealth marketing will exceed the grumblings of its commentators.

Public use of the Internet for wellbeing data is expanding yet its impact on human services is misty. Elizabeth Murray, Bernard Lo, Lance Pollack, Karen Donelan, Joe Catania, Ken Lee, KingaZapert and Rachel Turner concentrated doctors' understanding of patients searching for wellbeing data on the Internet and their impression of the effect of this data on the doctor persistent relationship, social insurance, and workload. The review found that the nature of data on the Internet is principal: exact pertinent data is useful, while incorrect data is unsafe. Doctors seem to submit to clinically-improper solicitations produced by data from the Internet, either inspired by a paranoid fear of harming the doctor persistent relationship or due to the negative impact on time productivity of not doing as such.

As the digital revolution has occurred, organizations have tended to take a gander at the innovation itself while giving careful consideration to its suggestions for marketing. However as the world movements from physical to virtual, as esteem moves from the oily apparatuses and hard steel of the mechanical age to the high ideas of a learning economy. The reevaluation of marketing requires a reconsideration of the considerable number of ideas, techniques and practices of marketing to guarantee their suitability for the changing worldwide advanced condition. The most huge changes in the computerized marketing demonstrate the development of 'digital purchasers', the digital business-to-business world and the changing reality of an undeniably mind boggling, dynamic and worldwide markets.

As stated by Leonard Lerer and Mike Piper , in less than a decade, it has been possible to witness digital technology in the pharmaceutical industry traverse almost a full circle from the first tentative steps with sophisticated computing, websites and portals, the fear of competition and powerful intermediaries, the dotcom hype and technology such as e-R&D, e-detailing and customer relationship management. The astute observer will see many parallels between the pharmaceutical industry's relationships with digital technologies and its approach to biotechnologies.

Recent work by the author, Leonard Lerer , with Cap Gemini Ernst & Young has incorporated a worldwide review of customer relationship management (CRM) in the pharmaceutical business. One intriguing finding was the developing enthusiasm for the utilization of computerized innovation in the entire zone of CRM. The inquiry confronted by associations is the manner by which to market to people, to doctors or to littler fragments. It is in this setting this paper takes a gander at the development of computerized methodology.

Confronted with an inexorably troublesome working condition, pharmaceutical organizations are looking for approaches to build up close and feasible associations with clients. Market division is the apparatus of decision for recognizing and impacting target gatherings and Leonard Lerer investigates the ramifications of the Internet for division. Lerer highlights the advantages of little gathering or small scale division as a way to deal with individualized marketing and inspect its application in creating further client understanding.

Lynda M. Maddox takes a gander at how shoppers utilized a pharmaceutical Web webpage to find out about a specific infection or item. Tests whether guests utilized the Web webpage to choose which medicate were ideal for them and whether they really wanted to ask for the item from their specialist. Sex and age contrasts in the utilization of Web website data were likewise analyzed. Expanding utilization of the Internet and information that demonstrate that direct-to-consumer promoting of professionally prescribed medications enables the patient to play a more dynamic part in his/her selection of prescriptions.

2.0 Objectives of the Study

1. To study significance of digital pharmaceutical promotion from physicians point of view.
2. To study the comparative efficacy of digital marketing against traditional sales promotion used by pharmaceutical companies.

3.0 Scope of the Study:

1. Study is based on survey of physicians from Satara District in Western Maharashtra.

2. Study covers digital promotional tools and techniques adapted by Indian pharmaceutical companies along with traditional promotional tools used by Indian pharmaceutical companies.

4.0 Hypotheses of the Study:

In view of the above cited discussions and also the underlined objectives of the study, the researcher decided to test the following hypotheses.

H1: Physicians have positive attitude towards digital marketing of pharmaceutical companies.

H2: From the perception of physicians, digital marketing tools of pharmaceutical companies are more effective than traditional marketing tools.

5.0 Research Design

5.1 Type of Data Sources The researcher has used both primary data sources and secondary data sources to collect the information.

5.1.1 Primary data aimed at primary data, the researcher has developed and used 'structured, un-disguised questionnaire' as data collection instrument. The contemporary questionnaire is containing of dichotomous, multiple choice and likert-type scale questions. This questionnaire includes nominal, ordinal, interval and ratio scale. In order to make the questionnaire operational and to ensure quality to the replies received, the researcher has paid attention to the sequence of questions in preparing the questionnaire.

5.1.2 Secondary Data: Researcher has collected the secondary data through print-media like books, magazines, research Articles internet websites, related company literatures and online reports of various research organizations.

5.1.3 Sampling Design It is a definite plan for obtaining a sample from a given population. The researcher has adopted numerous techniques and procedures in selecting the items for the samples.

5.1.4 Population As the present study is based on the perception of physicians from Satara District towards digital marketing strategies of pharmaceutical companies, thus all physicians from the region becomes potential respondents for the existing research questionnaire and is a part of the population. There is no readily list available which denotes the size of the population. Thus, it is to say that population is finite, but unknown.

5.1.5 Sampling Unit Out of all potential respondents, the researcher has chosen physician, as respondents, having minimum 3 years of medical practice.

5.1.6 Sampling Method The researcher has adopted convenience sampling technique for selection of sample from population. To reduce the sampling error, the researcher has personally visited physicians.

5.1.7 Sample Size It refers to the number of items to be selected from the population to constitute a sample. Researcher has selected 312 physicians as respondents for present study.

6.0 Statistical Tools to Test the Hypothesis In this study, descriptive statistics was first employed and then inferential statistics, as t-Test Analysis was applied to validate the hypotheses. The Statistical Package for the Social Sciences Program (SPSS) version 17.0 was used in this study for all the statistical assessments. The data set was screened and examined for incorrect data entry, missing values, normality and outliers.

7.0 Limitations of the Study For the present study, the researcher has used both primary and secondary methods of collection of various data and naturally, the data collected is likely to be affected directly or indirectly. Researcher is fully aware of these possibilities and has tried to undertake due care to see that the results would be representative of the universe. The researcher is aware of the following limitations of his work.

1. The researcher had chosen Satara District as a geographical spread for the study. By the limited resources available with the researcher, the geographical area was limited.
2. The study had an instinctive constraint of time frame during which it was conducted. It may not be exaggerating to say that on account of the highly dynamic nature of the Pharmaceutical Industry, it is always possible that the data, references and periodicals may become obsolete.

8.0 Data Analysis:

Table 8.1 Reliability Statistics

Cronbach's Alpha	N of Items
.803	19

Table 8.2 Demographic Profile of Physicians

		Frequency	Percent	Cumulative Percent
Gender	Male	205	65.7	65.7
	Female	107	34.3	100.0
Age	Less than 35	102	32.7	32.7
	36 to 45	153	49.0	81.7
	46 and above	57	18.3	100.0

Interpretation:

The researcher has attempted to study the perception of the practicing physicians in view of various companies adopting digitalization strategies. Table No. 8.2 explains the demographic profile of the respondent-physicians.

Gender-wise profile

The sample of respondents comprised of about 66 per cent male physicians and 34 per cent female practicing physicians.

Age-wise profile:

Out of the total respondents, 32.7 per cent belonged to the age of below 35, whereas 49 per cent were between the group of 36 and 45 years. 18.3 per cent respondents belonged to more than 45 years of age.

Table 8.3 Exposure to Digital Marketing Efforts of Pharmaceutical Companies

		Frequency	Percent	Cumulative Percent
Company website	Yes	305	97.8	97.8
	No	7	2.2	100.0
Email marketing	Yes	308	98.7	98.7
	No	4	1.3	100.0
Web banners	Yes	304	97.4	97.4
	No	8	2.6	100.0
Web conferencing	Yes	300	96.2	96.2
	No	12	3.8	100.0
Mobile marketing	Yes	298	95.5	95.5
	No	14	4.5	100.0
Social media marketing	Yes	298	95.5	95.5
	No	14	4.5	100.0
Online newsletters	Yes	300	96.2	96.2
	No	12	3.8	100.0
e-tools for sales representatives	Yes	258	82.7	82.7
	No	54	17.3	100.0
Apps	Yes	258	82.7	82.7
	No	54	17.3	100.0

Interpretation

Table 8.3 provides the data pertaining to the pharmaceutical companies' digital marketing efforts that are noticed and witnessed by the respondent-physicians in this study.

- Nearing 98 per cent of the total respondents agreed that they have visited the companies' websites. Remaining 2 per cent did not browse the websites of the companies which approached them for the business purpose.
- Out of the total respondents, 98.7 per cent respondents confirmed that these companies have approached them through e-mail marketing tool. Others did not agree to this as they did not receive any such emails from the companies.
- 97.4 per cent respondents agreed that they have undergone web banners of the companies who visited them for business purpose. Others did not see such web banners.
- 96.2 per respondents revealed that the companies have approached them through web conferencing medium. Others had no such experience.
- 95.5 per cent respondent physicians agreed that companies visiting them for business purpose did have mobile marketing tool that they used for interacting with them.
- Again 95.5 per cent respondent physicians agreed that they were contacted by these companies by using social media marketing. Others did not come across such media.
- 96.2 per cent respondent physicians came into contact with the pharmaceutical companies through online newsletters. Remaining did not go through such newsletter form.
- 82.7 per cent confirmed that the companies provided e-tools to their representatives which they used for contacting these respondent-physicians. Others did not notice such provision.
- Again equal percentage of respondents (82.7 per cent) agreed to the fact that the pharmaceutical companies were using apps for contacting them with the intention of advancing their business with digitalization backup.

Table 8.4 Significance of Digital Marketing

	Mean	S. D.	Ranking
Effective tool to create brand awareness	3.63	1.01	3
Revolutionized marketing practices	3.94	1.06	2
Need of an era awareness	3.43	1.28	4
Achieves competitive advantage awareness	3.41	1.14	5
Develop community platforms	4.04	1.04	1
Novel engagement format	3.26	1.31	6

Interpretation:

In Table 8.4 the data relating to the opinion of the respondents towards the use of digitalization strategies has been depicted. As per the conviction of the respondent-physicians, majority of them confirmed that use of digitalization strategy would

result into developing community platforms, as it was given number one ranking in the process here.

The respondents also believed that digitalization can be considered as the revolutionized marketing practices in the modern era as they have voted this point at number two in the ranking.

Whether the digitalization was effective tool to create brand awareness was in question. The respondent-physicians opined this and ranked the statement at number 3 in the hierarchy.

The respondents also accepted that using digitalization strategy is needed in current era and according to them, it was the need of the hour. This was ranked by them at number four.

Whether the digitalization achieves competitive advantage and whether it was considered to be novel engagement format was ranked by the respondent-physicians at number 5 and 6 respectively; thus expressing doubts about the statements made by the researcher.

Table 8.5 Usefulness of Digital Marketing

	<i>Mean</i>	<i>Std. Deviation</i>	<i>Ranking</i>
Develop synergy	3.74	1.10	2
Great tools to connect	3.82	0.98	1
Increase scientific collaboration	3.67	1.02	3
Facilitates e-training	3.39	1.15	4

Interpretation:

Similar to the opinions given by the marketing representatives earlier, the same questions were asked by the researcher to the respondent-physicians with a view to understand their level of perception in terms of usefulness of digital marketing in pharmaceutical industry. The data appearing in Table No. 8.5 reveals that majority of the respondents believed that use of digitalization in business was great tool to connect people and business. They believed that it enhanced connectivity as this point was ranked at number one by the respondents. They also believed that use of digital media certainly helps in developing synergy, the vital requirement of any business.

'Digital use increases scientific collaboration and also facilitates e-training was given rank no. 3 and 4 respectively. Thus, majority of the respondents were in dilemma about these points and they were ranked at lower level.

Table 8.6 Effectiveness of Digital Marketing Tools against Subsequent Parameters

	Mean	Std. Deviation	Ranking
Sales Representative	3.98	1.00	2
Sponsorship	3.96	1.04	3
Free Samples	3.38	1.31	7
Brochures	3.76	1.05	5
Journal Articles	4.05	1.03	1
Drug Coupons	3.20	1.25	8
Peer Influence	3.85	1.06	4
Conferences	3.72	1.07	6

The data in a Table No. 8.6 indicates the opinion of the respondent-physicians in terms of effectiveness digital marketing tools with that of the conventional ways of marketing. It was opined by the majority of the respondents that Journal articles were equally effective to the modern digital marketing tools, as this point was ranked by them at number one position.

Second preference was given to the visits of the sales representatives to their hospitals and dispensaries. According to most of the respondents, sales representative visits were considered to be next powerful tool when compared to the modern way of digital marketing.

Sponsorship was recorded in the study at third position as per the opinions of the respondent-physicians; whereas peer influence was mentioned as the next powerful tool in the study as mentioned by the respondent-physicians. This was therefore ranked at number four. Brochures were given the fifth rank in the usefulness criteria when compared with digital marketing tools.

Conferences, free samples and drug coupons were given lower ranking i.e. 6th, 7th and 8th in the study.

Validation of Hypotheses

H1: Physicians have positive attitude towards digital marketing of pharmaceutical companies.

Table 8.7 Reliability Statistics

Cronbach's Alpha	N of Items
.715	6

Table 8.8 Item-Total Statistics

	Cronbach's Alpha if Item Deleted
Effective tool to create brand awareness	.692
Revolutionized marketing practices of awareness	.625
Need of an era awareness	.629
Achieves competitive advantage awareness	.652
Develop community platforms	.749
Novel engagement format	.661

Researcher has developed and used five-point likert scale to measure attitude of physicians, using 6-items, towards digital marketing as adopted by various pharmaceutical companies. Cronbach's Alpha reliability method was applied to check the reliability of all items in the scale. Cronbach's alpha is 0.715, which indicates reliability coefficient value was moderately significant and depicts high reliability of the scale. Moreover, researcher has also calculated 'Cronbach's alpha if item deleted.' From the calculations it can be observed that removal of any question, except question 5, would result in a lower Cronbach's alpha. Therefore, researcher does not want to remove these questions. Removal of question 5 would lead to a small improvement in Cronbach's alpha, this might lead researcher to consider whether he should remove this item. To validate hypothesis 1, researcher has used t-test analysis. Result of the analysis is depicted in the following tables.

Table 8.9 One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Attitude	312	3.7179	.639	.036

Table 8.10 One-Sample Test

	<i>Test Value = 4</i>					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Attitude	-7.791	311	.000	-.28205	-.3533	-.2108

Alternative hypothesis is 'physicians have positive attitude towards digital marketing of pharmaceutical companies,' which means population means are statistically significantly different from test value 4. Moving from left-to-right, above table, presented with the observed t-value ('t' column), the degrees of freedom ('df'), and the statistical significance (p-value) ('Sig. (2-tailed)') of the one-sample t-test. In the analysis, $p < .05$ (it is $p = .000$). Therefore, it can be concluded that the population means are statistically significantly different. Therefore null hypothesis can be

rejected. Thus, above table reveals that ‘physicians have positive attitude towards digital marketing of pharmaceutical companies.’

H2: From the perception of physicians, digital marketing tools of pharmaceutical companies are more effective than traditional marketing tools.

Table 8.11 Reliability Statistics

Cronbach's Alpha	N of Items
.680	8

Table 8.12 Item-Total Statistics

	Cronbach's Alpha if Item Deleted
Sales Representative	.646
Sponsorship	.631
Free Samples	.673
Brochures	.651
Journal Articles	.677
Drug Coupons	.641
Peer Influence	.646
Conferences	.636

Researcher has developed and used five-point likert scale to measure effectiveness of digital marketing tools over traditional marketing tools of pharmaceutical companies from physicians’ perspective using 8-items. Cronbach’s Alpha reliability method was applied to check the reliability of all items in the scale. Cronbach's alpha is 0.680, which indicates reliability coefficient value was moderately significant and depicts high reliability of the scale. Moreover, researcher has also calculated ‘Cronbach's alpha if item deleted.’ From the calculations it can be observed that removal of any question, except question 5, would result in a lower Cronbach's alpha. Therefore, researcher does not want to remove these questions. Removal of question 5 would lead to a small improvement in Cronbach's alpha, this might lead researcher to consider whether he should remove this item. To validate hypothesis 2, researcher has used t-test analysis. Result of the analysis is depicted in the following tables.

Table 8.13 One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Effectiveness	312	3.7917	.64018	.03624

Table 8.14 One-Sample Test

	<i>Test Value = 4</i>					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Effectiveness	-5.748	311	.000	-.20833	-.2796	-.1370

Alternative hypothesis is ‘from the perception of physicians, digital marketing tools of pharmaceutical companies are more effective than traditional marketing tools,’ which means population means are statistically significantly different from test value 4. Moving from left-to-right, above table, presented with the observed t-value (‘t’ column), the degrees of freedom (‘df’), and the statistical significance (p-value) (‘Sig. (2-tailed)’)) of the one-sample t-test. In the analysis, $p < .05$ (it is $p = .000$). Therefore, it can be concluded that the population means are statistically significantly different. Therefore null hypothesis can be rejected. Thus, above table reveals that ‘from the perception of physicians, digital marketing tools of pharmaceutical companies are more effective than traditional marketing tools.’

9.0 Conclusion

9.1 Opinions of the Respondent-Physicians

The researcher has interacted with the practicing physicians in Satara district to find out the issues and prospects of implementation of digital marketing strategy adopted by the pharmaceutical organizations. A structured questionnaire was distributed to 312 physicians. The researcher has found following facts from the results of this questionnaire:

9.1.1 It was observed that more than 90 per cent of the respondent-physicians were exposed to the websites of various pharmaceutical companies. They were also familiar with other digital marketing tools that were used by these companies like e-mail marketing, web banners, web conferencing, mobile marketing, social media marketing, online newsletters, and various apps. It was also found that many companies provided e-tools to their representatives so that they could use them for contacting these respondent-physicians for business promotion. In short, the respondent-physicians were exposed to almost all kinds of digital marketing tools being used by various pharmaceutical companies.[Ref: Table No. 8.3]

9.1.2 Majority of the physicians confirmed that the use of digitalization strategy would result into developing community platforms. Moreover, physicians considered the Digital marketing as the revolutionized marketing practices in the modern era. Most of them have accepted this phenomenal change in view of the modern tools of marketing. According to the physicians, implementation of digital marketing strategy

might not necessarily help in building companies' brands. It was agreed upon by majority of the physicians that digital marketing was the need of the present era. However, physicians did not accept that digitalization would help the companies in achieving competitive advantage against their competitors. They did not find any novelty in its implementation.[Ref: Table No 8.4]

9.1.3 According to the opinion expressed by the physicians, use of digitalization in business was great tool to connect people and business. They believed that it enhanced connectivity. They also agreed to the fact that the use of digital media certainly would help in developing synergy as it could coordinate amongst doctors, marketing personnel and the company as well. However, there was a difference of opinion about use of digital marketing for increasing scientific collaboration and also facilitation of e-training. [Ref: Table No. 8.5]

9.1.4 The researcher wanted to find out from the opinions of different physicians the effectiveness of various digital marketing tools with that of the conventional ways of marketing. It was found that Journal articles were equally effective to the modern digital marketing tools. Secondly, preference was given to the visits of the sales representatives to their hospitals and dispensaries. According to most of the respondents, sales representative visits were considered to be next powerful tool when compared to the modern way of digital marketing. The physicians expressed their nod to sponsorship. They also voted positively for peer influence being one of the powerful tools. According to the physicians, brochures were useful tool for them to recollect the information of the drugs. However, they did not rate conferences, free samples and drug coupons on higher scale even though it was practiced by most of the organizations for several years as some of the conventional marketing tools. [Ref: Table No. 8.6]

10.0 References

- Lidstone, J., MacLennan, J. (1999). Marketing Planning for the Pharmaceutical Industry. 2nd edition. Hampshire. England. Gower Publishing
- Manz, C., Ross, J. S., & Grande, D. (2014). Marketing to physicians in a digital world. The New England journal of medicine, 371(20), 1857.
- Mackey, T. K., & Liang, B. A. (2013). Pharmaceutical digital marketing and governance: illicit actors and challenges to global patient safety and public health. Globalization and health, 9(1), 45.
- Liang, B. A., & Mackey, T. K. (2011). Prevalence and global health implications of social media in direct-to-consumer drug advertising. Journal of Medical Internet Research, 13(3), e64.
- Greene, J. A., & Kesselheim, A. S. (2010). Pharmaceutical marketing and the new social media. New England Journal of Medicine, 363(22), 2087-2089.

- Masood, I., Ibrahim, M., Hassali, M. A., & Ahmed, M. (2009). Evolution of marketing techniques, adoption in pharmaceutical industry and related issues: a review. *J Clin Diagnostic Res*, 3, 1942-52.
- Alkhateeb, F. M., Clauson, K. A., Khanfar, N. M., &Latif, D. A. (2008). Legal and regulatory risk associated with Web 2.0 adoption by pharmaceutical companies. *Journal of Medical Marketing: Device, Diagnostic and Pharmaceutical Marketing*, 8(4), 311-318.
- Parise, S., &Guinan, P. J. (2008, January). Marketing using web 2.0. In *Hawaii International Conference on System Sciences, Proceedings of the 41st Annual* (pp. 281-281). IEEE.
- Donohue, J. M., Cevasco, M., & Rosenthal, M. B. (2007). A decade of direct-to-consumer advertising of prescription drugs. *N Engl J Med*, 2007(357), 673-681.
- Sawhney, M., Verona, G., &Prandelli, E. (2005). Collaborating to create: The Internet as a platform for customer engagement in product innovation. *Journal of interactive marketing*, 19(4), 4-17.
- Chandra, A., SikulaSr, A., & Paul III, D. P. (2004). Ethical considerations in the marketing of e-health products. *Journal of Medical Marketing*, 4(2), 110-118.
- Kaikati, A. M., &Kaikati, J. G. (2004). Stealth marketing: how to reach consumers surreptitiously. *California Management Review*, 46(4), 6-22.
- Murray, E., Lo, B., Pollack, L., Donelan, K., Catania, J., Lee, K., & Turner, R. (2003). The impact of health information on the Internet on health care and the physician-patient relationship: national US survey among 1.050 US physicians. *J Med Internet Res*, 5(3), e17.
- Wind, J., &Mahajan, V. (2002). Digital marketing. *Symphonya. Emerging Issues in Management*, (1), 43-54.
- Lerer, L., & Piper, M. (2003). *Digital strategies in the pharmaceutical industry*. Springer.
- Lerer, L. (2002). E-business in the pharmaceutical industry. *Journal of Medical Marketing*, 3(1), 69-73.
- Wind, J., &Mahajan, V. (2002). Digital marketing. *Symphonya. Emerging Issues in Management*, (1), 43-54.
- Maddox, L. M. (1999). The use of pharmaceutical web sites for prescription drug information and product requests. *Journal of Product & Brand Management*, 8(6), 488-501.

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STUDY ON DIGITIZATION ON FUNCTIONING OF SELF HELP GROUP IN INDIA

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ABSTRACT :

Self Help Group acronym SHG has been a buzzword for strengthening the lower income sector since last two decades. For strengthening the same lots of efforts has been taken in terms of micro-finance and financial inclusions for this sect of people for assisting them to not only survive but to start their own ventures with the little amount they gather. The study is the secondary data analysis study through the available literatures and reports which gives an overall view about not only the steps taken to strengthen the functioning of SHG but also the pathway towards digitization of SHG in to-days date.

Keywords: *Self help group, digitization, microfinance, financial inclusion.*

1. Introduction:

The delivery towards the underprivileged and lower income sector of the society in terms of financial services is termed as the Financial Inclusion. The procedure framed for providing and reaching the financial benefits to the grass root level of the nation especially the “economic rural backward class poor” is termed as Financial Inclusion. The banking services provided in terms of financial inclusion includes not only access to savings accounts, loans, insurance, payments and remittance facilities by robust linkage of banking systems which will thereby help in not only alleviation of poverty of nation but also the social status of individual which thereby adds to the GDP of the economy of any country. Access to the banking system by these rural bottom of pyramid zone is a challenge worldwide and India is also not an exception for the same. Self Help Groups (SHGs) have emerged as one of the effective modes through which micro finance services have been delivered to the poor. The existence of SHGS has lit a ray of hope and self-reliance among the poor. The Government has taken many measures to reduce the gap between the accessed populations. As stated in the NABARD report 2018-19 the movement of SHG in India has secured the world’s not only largest but also successful community owned by females. NABARD in 1992 started with SHG bank linkage programme which is a breakthrough model. This model was started to deliver reasonable banking services which is there to achieve the financial inclusion goals. Started as a bank outreach programme, SHG-

BLP transcended itself into a holistic programme for building financial, social, economic, and of late, technological capital in rural India.

Financial Inclusion in India:

A process of guaranteeing access to apposite products and services related to finance which are in need by the all sectors of the society mainly the bottom of the pyramid. The process of financial assistance at affordable and transparent state is termed as financial inclusion.(Shri S. S. Mundra, Deputy Governor, RBI, 2016). The Rangarajan Committee, GOI outlines that the process for the poor rural people for availing the financial services in time and in adequate credit or loan where ever in dire need at low and affordable cost is termed as financial inclusion. The journey towards inclusion started in April 2005, where the then Governor of RBI Y. Venugopal Reddy mentioned about Financial Inclusion in the Annual policy statement. In July 2005 in the Khan Committee report RBI urged the Bank to provide a basic bank account with no frills or additional features. The committee recommendations got special attention from the chairman of Indian Bank K.C. Chakraborty. A pilot project for financial inclusion began in the UT of Pondicherry, which then became the first among the other states and UTs in India to achieve 100% financial inclusion. As per Census 2011 Total number of households availing banking services is only 54.4% in rural area and 67.8% in the urban area. Having recognized the importance of bring the entire nation into the formal financial circle the Government has taken various initiatives to bridge the gap. Through financial inclusion the savings available with the low income group can be brought into the channel, which in turns help to generate funds for investment purpose.

Microfinance In India: The tool to assist the economic development so as to help the poor to attain a method for getting out of poverty is known as Microfinance. This includes the variety of services in terms of savings, money transfers, credit provision, counseling etc. (RBI, Reports. 2011). The basic idea of microfinance is to make available small amount of loan to the poor for productive purpose and with no collateral. The borrowed money is repayable in smaller installments in a convenient manner to the small borrower. The microfinance industry and witnessed rapid evolution post the Andhra crisis regarding product, pricing and protection of customers' interest. The initiatives of microfinance have led to creating the possibility of future investments.

Self-help Groups: Robinson defines SHGS as a "small financial service in the form of credit and savings given to people who farm, fish or herd. A voluntary association of small group of economically weaker sect people is known as Self Help Group (SHG). These economically weaker sect people come along with each other for solving common financial problem for mutual help. These people come together for small savings in the bank which is deposited in the name of the group and they can

access the fund as and when required by each out of 10 to 15 members. The formation of such groups help the members in raising the socio economic background by raising their dependence on formal sources of financial services from the informal channel. It was noted that the SHG has grown exponentially after the silver jubilee attainment of SHG bank linkage programme. The rural poor people involved in SHG were also able to access from their own federations and the NGO MFIs. In 2019 it was evidenced that the SHG BLP programme has touched many a landmark by including 1 crore group members of SHG nationwide. This has created a mark which is evident for Indian financial upliftment wherein the loans were extended from INR 87000 crore to 50.77 lakh SHG.

Models of SHGs in India

There are three models of SHGs followed presently:

1. Bank – SHG members – the bank promotes the SHG and provides the assistance in terms of account deposits, credits and other financial assistance to the members.
2. SHG and the bank facilitating agency: in this model NGOs, government agencies and other community organizations together forms the group acting as facilitators and nurture and provide training to the SHGs.
3. Bank-NGO-MFI-SHG members: NGOs act as the main facilitators and promote the creation, nurturing and provide assistance to the members.

Growth of SHGs in India

SHGs – Bank Linkage Programmed has been one of the strongest initiatives towards financial inclusion in the nation. As per the report of NABARD on Status of Microfinance 2016-17, there has been positive growth in the major parameters i.e. the number of savings bank account of SHGs, amount of credit disbursed during the year and the amount of bank loan outstanding.

Table: 1 - Growth of SHGs, Saving, Loan across

Year	2014-15	2015-16	2016-17	2017-18	2018-19
No of SHGs, lakh	76.97	79.3	85.77	87.44	100.14
Total Savings, Cr	11,059	13,691	16,114	19,592	23,324
Loans Disbursed to No. of SHGs, lakh	16.26	18.32	18.98	22.61	26.98
Amount of Loans Disbursed to SHGs, Cr	27,582	37,286	38,781	47,185	58,317
Outstanding Loan, No. of SHGs, lakh	44.68	46.73	48.48	50.20	50.77

Year	2014-15	2015-16	2016-17	2017-18	2018-19
Outstanding Loan Amount SHGs, Cr	51,545	51,428	61,581	75,598	87,098

Source: Report of NABARD, “Status of Micro Finance in India – 2018-19”

Digitization of SHG: The government launched E- Shakti project through NABARD in the year 2015. This project started with a pilot study in Dhule Maharashtra and Ramgarh Jharkhand. After the pilot study it was further extended to 23 more districts in 2016 which showed a positive results and thereby e Shakti was extended to 75 more districts in 2017. As of now the project covers 22 states with 100 districts and one UT.

The digital work as per the report of NABARD 2018 comprises of the following elements:

- e-book keeping for the SHGs
- Regular updates for transactional data
- Reports generated in the formats as required by bankers.
- Inbuilt automatic grading of SHGs based on NABARD / IBA(for NRLM) norms
- System Generated Loan application for the bankers
- SMS alerts in 10 local languages to the SHG members.

1. Literature Review

(Goyal, 2016) has mentioned about the progress and standardization of SHG for the performance effectiveness due to the growing interest of the stakeholders as well as the banks which are termed as financial institutions. The monitoring of the financial activities was also must as per the authors study which mainly considered the females of the nation who became the member of the SHG for managing not only self finances but also their own development in terms of financial status. The study also convenes the economic and social benefits availed by females as they are provided with a common community platform so as to abolish the social evils practiced against them. The SHG is not only a positive platform for female but also a moral booster for the financial and social status of females as discussed by the author.

(U, 2011) in his paper discussed about the self helpgroup ‘s performance and potential for acting as mediators between the rural poor people and banks. The author utilized statistical analysis in terms of data mining so as to analyze the SHG database of Kerela. The analysis revealed there was a drastic improvement in the

financial status of SHG groups. As the SHG members take the loan for the education for their kids due to which their performance deteriorates due to loan repayment wherein the author has suggested to provide education free to their kids for utilization of their loans in some constructive work. It was also revealed by the author that the loan availed for agriculture is not only getting gains but also proper repayment is done by SHG. The model suggested by author shows that loans from nationalized banks should be given to SHGs working for poultry or agriculture and proper linkage from bank is mandatory.

(Sudhir, 2018) with 440 samples of SHG women in Rayalseemas four district studied on usage of TV, Mobile, newspaper, computer and ATM. The authors used ANOVA to test age with problems in using ICT and found no association with mobile usage or newspaper usage but problems were there with usage of computers and TV. It was also found that the satisfaction level and ICT attributes had a significant impact on each other and it was found that ICT empowers SHG but need arises for increasing the awareness level and educating them for effective ICT usage.

(Chauhan, 2005) has enlightened on “credit plus approach of SHG” which helps the poor to work on the saving behaviour along with timely and small loans availability when required. The success of microfinance lies with these active groups which function well. The paper overall attempted to explain the SHG working performance in Haryana.

(Prof.P.V.NARASIAH, 2015), in their paper refers to microfinance as the financial amenities availed by the poor people who are in need of small amount of money at a small scale for their needs as and when required. The authors have focused on the unfulfilled needs of people in catering financial needs, in spite of India having tremendous network of banks. But today micro financial institutes have come up to cater the needs especially in rural areas through the channels like SHG-Bank Linkage Programme, MFI's and JLG bank lending programs which lend finances to group of people and individuals. The study has also showered light on MFI progress in India and the pattern of progress in terms of performance in terms of outstanding loans and gross lending portfolios of some selected MFI's.

(Kannapan Devaki &PerumalMathialgan, 2015) in their paper developed a scale to understand the significant study of women empowerment in SHG in rural area of Kancheevaram's five blocks. The sample size of the study was 100 and 34 variables were tested for understanding the efficiency of SHG. The reliability of scales were at .991 for the reproducibility coefficient of each variables. Accordingly the scales were developed and tested which proved that the members of SHG and officials of SHG are significantly and positively correlated to each other.

(Gupta, 2014) mentions about the linkage of SHG and banks. The authors also entails about the problems and solutions of socio economic issues in Punjab by

group levels of SHG. The study found that vital variables for the SHG is adequate amount of training to members of SHG, meetings of SHG in terms of frequency, rate of savings, rule awareness of SHG, self employment of SHG, etc. It was found that there was a significant impact towards the tenure of SHG and performance of SHG. The author also suggests the training needs for SHG, and thereby improving performance of SHG in Punjab's Ludhiana district.

(Das, 2012) has showered light on SHG is one of the basic ingredient of microfinance in India which is helping in various development and up gradation agenda in the nation. It was found that there was no uniformity in SHG programs and banks in varied states and districts which needs to be worked on. The author studied the 28 parameters of quality of SHG as per the studied literature review. The author also focuses on the grass root problems of the SHG in three blocks of Assam's Nandgaon district. It was also found by the author that there was a drop in quality of SHG due to stress of SHG and bank linkage mandatory by government.

(MugeshkannanReguraman, 2017), showers light on the linkages between credit operation delivery system and expansion of credit institutes for the revival of the rural economy. The theoretical foundation of micro financing and its relationship to informal finances was used in a model to study the member of informal self-help groups of Tamil Nadu. The author studied 477 sample who availed microfinance loan. Almost all the sample SHGs were formed with an emphasis on Self-Help and with a view to promoting objectives like freedom from exploitation, economic improvement and raising resources for development.

(Mr. MunishKapila, 2014) the study depicts the linkage of bank & SHG taking of 15 factors collected from 44 SHG of Punjab's Ludhiana district. Kruskal-Wallis test was used to test the significance between performance score of different SHGs. The author identified the variables for study for effectiveness and efficiency of SHG like the loan disbursement time, meeting attendance regularity, common funds utilization etc. The paper also highlights about the vital variables which needs to be put attention on like SHG members training, frequency of meeting to be increased, SHGs members awareness for rules and regulations etc. The study shows the impact of the time of operation of SHG started and the performance of SHG in Ludhiana of Punjab.

(NABARD, 2018) depicts the brochure contents like objective of e-Shakti projects, stakeholders and the attributes. The brochure also contains the process website advantage for bankers etc the glimpse include "The project has a dedicated website <https://eshakti.nabard.org>, in which information of all the SHGs is uploaded through 'app' on Android Mobiles. Data authenticity is ensured through sample audits and SMS alerts to members. MIS reports of groups are generated and progress is tracked

on a real time basis. Overall, the whole ecosystem is designed to address the complex issue related to poor book keeping and patchy financial records of SHGs.”

(**Rao, 2019**), authors spoke about the promotion activities of NABARD since last few decades in upliftment of SHG through microfinance programme. NABARD the acronym for ‘The National Bank for Agriculture and Rural Development’ has an impact on poors of rural area all over the country since last two decades. NABARD in its report of AY 18-19 has depicted that there are eleven cr household across India with over 87 lakh SHG and has created deposits over Rs. 195 billion. The author also showers light on the millions of people usage of mobile and internet in this decade, it was also stressed on the financial transaction through online services. E-Shakti launched by NABARD in 2015 has digitalizing information of SHG across India. World bank has seen a online bookkeeping of SHG raising over a million transactions every week across lakhs of house households even in rural area. The article also depicts significance of paradigm shift of digitalization of SHG with mobile.

(**Saxena, 2019**), Despite the hard work coming from every sector, 2.0 billion individuals are prohibited or omitted from formal sources of financial services, yet. Digital financial services offers a new ray of hope in order to provide the last-mile consumer in a way which proves to most economical and appropriate. When we mention about the Indian economy, while there has been a incredible improvement in financial inclusion indicators with 53% of people being included in the sphere of formal financial services, the gender gap in access to finance between men and women remains significant. This research paper is an endeavor to highlights the issues faced by the SHG’s and banks at the time of disbursing the credit to the rural poor just because of the manual book keeping of accounts. This paper addresses the need of the hour about the digital empowerment of the microfinance.

2. Rationale & Significance of the study

Finance is an important resource which leads towards the path of Economic development. The exclusion from financial sector impacts the overall social development of the nation as well. It is like a vicious circle, access to formal sources leads to increase in the social benefits and vice versa. The regulator has put great efforts in terms of various schemes and measures to reduce the level of financial exclusion. In India the major portion of excluded population belong to the rural area. Rural areas have their own distinguishing feature which needs to be given special recognition while designing the plans to cover them in the financial system.

The present literature points out the level of financial inclusion in India and the challenges faced by the intermediary in the process of inclusion. Since the past decade great efforts have been undertaken to provide the rural masses with the basic financial services. The challenge that still persists is not the access but the usage of

these financial services through ICT like e Shakti. Self-help groups have been a major mode of providing financial benefits to the rural households today through mobile or other forms of ICT .

The study aims to find out the reasons which limit the usage of ICT and its effectiveness at the same time to provide measures that may lead to taking the maximum benefit from the financial sector. This study is aimed to analyze the various factors responsible for access in the various districts of Haryana state. The study would be of great use to the Government to analyze the benefits created out of these SHGs through ICT usage and also to the financial intermediaries in the region to make valuable changes in the approach and measures while dealing with this section of the society.

Conclusion & Suggestion: As per the latest report of NABARD and the literature review it was found that Haryana witnessed the maximum NPA level comprising to 50.1 % followed by Assam on 33.3 percent and then states like Tripura , Meghalaya and UP which is a state of concern and here exists the gap for the effectiveness of digitization towards the SHG. It was also witnessed that Haryana has been one of the states along with J&K, Punjab, Bihar, MP, Goa and Andhra Pradesh where the average credit disbursement per SHG has increased during 2017-18 and 2018-19. According to the literature review it was also found that internet has increased in leaps and bounds since 2011 to 2019 which includes increased usage of social media like facebook, linkedin, whatsapp etc. The government's e- governance project has also taken a strong grip in all the states of India.

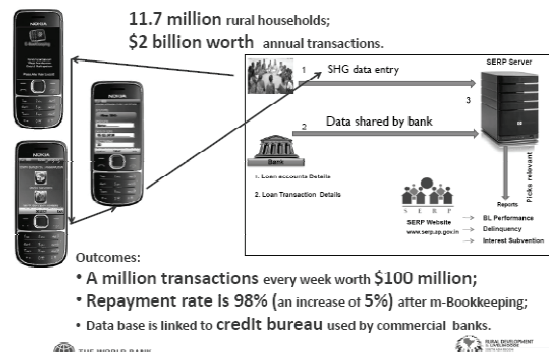
Table: 2 - Growth and Penetration of Internet with growth of mobiles in India

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Internet users	62.16	92.32	125.6	158.9	193	233	354	462	472	492
% of population	5.10	7.50	10.10	12.60	12.80	18.10	27	34	36	38
Mobile users, millions	525	752	894	865	886	944	970	1034	1168	1183

Source: (Rao, 2019)

e- Governance in India started with full swing since last two decades and which have been essential for transparency, more effective and thereby to reach the services to the bottom of pyramid. The need was also felt in the sector of SHG and for attaining more transparency in terms of banks as well as SHG it was imperative to work on digitization and e- Shakti project was the output for the same. It was then observed that effectiveness of digitization in SHG was must and need of the hour.

M-Book Keeping Model from SERP and E-Shakti along with World Bank



Digitization has incurred a huge amount of money which needs to be checked that the effective services are availed both by banks as well as the SHG's. Data has to be reliable and validated, data processing is time consuming, and there can be poor internet connectivity. Mobile ownership and knowledge has to be greatly improved. Technology plays a significant role in government monitoring besides facilitating financial services for the rural and urban poor especially for SHGs. Just like SMS, every SHG has to recognize that digital information is the key but comes with an initial fixed cost but a minimal cost over a period of two or three years. Accountability and transparency through digital information opens the doorway from "Banks, NABARD, NGOs and others" to facilitate more SHGs. As digitalization and mobile usage reach more than 50%, the platform for low income households is set to access formal financial services at affordable costs and greater convenience. With the positive aspects there also come challenges in the services which are as follows as per the e-Shakti website. This includes the connectivity of GPRS, banking cooperation's, training of SHG and capacity building in large scale, SHPI and others involved in implementation of programme, sourcing of information from poor databases and records. As the study intends to find out more challenges and success factors which will be achieved by the interviews with SHG as well as the bank and thereby the gap can be fulfilled for effectiveness of digitization of the SHG.

References

- Chauhan, S. F. (2005). Performance of Dairy Self Help Groups (SHGs) in India: Principal Component Analysis (PCA) Approach. Indian Journal of Agricultural Economics, Indian Society of Agricultural Economics, vol. 65(2), 1-13.
- Das, S. K. (2012). GROUND REALITIES OF SELF HELP GROUP –BANK LINKAGE PROGRAMME: AN EMPIRICAL ANALYSIS. International Journal of Research in Social Sciences, 465-479.
- Goyal, D. M. (2016). PERFORMANCE ANALYSIS OF SELF HELP GROUPS IN SOUTHERN HARYANA. EPRA International Journal of Economic and Business Review, 51-60.
- Gupta, M. K. (2014). Performance of Self Help Groups in Ludhiana District of Punjab. IJSR - INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH, 81-83.

- Kannapan Devaki & Perumal Mathialgan, V. S. (2015). Developing a cumulative scale for measuring the performance of self-help groups in rural areas .International Journal of Applied Research , 8-14.
- Misha Sharma and Shreya Chatterjee (2017) “Digitization of SHGs: Will it lend a new lease of life to the movement?” Inclusive Finance India Summit IFMR Lead.
- Mr. Munish Kapila, D. M. (2014). Performance of Self Help Groups in Ludhiana District of Punjab. IJSR, 81-83.
- Mugeshkannan Reguraman, V. R. (2017). RURAL DEVELOPMENT: MICRO FINANCING THROUGH SELF-HELP GROUPS. Pezzoiate Journals.
- NABARD. (2018). e- shakti Brochure. NABARD.
- Prof.P.V.NARASIAH, D. M. (2015). PERFORMANCE EVALUATION OF MICRO FINANCE AND SELF HELP GROUPs – A ROLE PLAYED BY INDIAN BANKS .Research gate.
- Rao, K. P. (2019). A review on Digitization of SHG with mobile usage in India. Research Gate.
- Saxena, A. (2019). E-Shakti: Digitisation of SHG’s. Pramana Research journal, 293-300.
- Shreya Chaterjee (2016) “Digitizing Self-Help Groups in India” Blog post in Center for financial inclusion.
- Schiendler, D. R. (2010). Business Research Methods. New York: Tata Mc Graw Hill.
- Sudhir, B. R. (2018). Self Help Groups and role of ICT.
- U, K. T. (2011). Assessment of Financial Status of SHG Members: A Clustering Approach .International Journal of Computer Applications , 7-14.
- NABARD’s Annual Reports 2017-18.
- NABARD, “Report on Status of Microfinance in India, 2017-18”, NABARD

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RURAL MARKET CHANNEL PREFERENCE FOR CONSUMER DURABLES: ONLINE VS. OFFLINE

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ABSTRACT :

Change is the only constant in this dynamic world and rural market is not an exception. For last few years rural market experiencing ecommerce. This study attempted to understand online and offline channel preference among rural consumers and how factors affect their channel preference decision making. Study is conclusive cross sectional and inferential in nature. To make rural market more representative quota sampling is used. Scope of this study is Jharkhand state and 604 sample size taken from 10 rural districts based on consumer durable consumption. To analyze results ANOVA and t statistics used. Research found that although customers are using ecommerce but still physical stores are more preferred across various segments. However, shift is clearly visible among younger consumers between 18 to 30 years age and those who are earning 15000 to 30000 per month towards online platforms. This study will help marketers to make more effecting marketing plans for hinterland. It will pave path for further research like webrooming and showrooming behavior, exploring rural customers' journey on online platforms.

Keywords: Distribution Channel, E-commerce, Channel Preference Decision Making, Rural Marketing

1.0 Introduction:

Last decade witnessed paradigm shift the way marketers are selling their products and services and technological advancements have made these attempts more effective and successful. Traditional distribution channel are being challenged by online channels even in rural markets. The rural ecommerce by 2022 has a potential to reach around \$10 billion to \$12 billion. This is fueled with various factors like Indian government consistent effort for digital India, increasing household income and cheaper digital devices (Tewari, 2018).

There are new ecommerce and logistics service providers for ecommerce giants to reach the hinterland are quite commendable. Some of the new breeds of marketing

and distribution outfits are StoreKing, Boonbox (Inthre), Vakrangee, Connect India, LinQ store, 1BA. They are paving path for ecommerce to remote locations and smaller towns (Das, 2018). However, these brands are not yet household names like Amazon or Flipkart but the way they are growing is impressive. Bigger brands are reposing their trust in these upcoming rural ecommerce startups. Boonbox, an startup has already served more than 2 million customers with a access to 16 states and till date sold more than Rs 4.5 billion (Inthre, nd) goods. They directly serve customers to door step and helps big consumer durable brands to reach to remote locations.

StoreKing is the largest distribution network among all startups for rural market (Ghosh, 2017). They have created a network of nearly 50,000 rural retailers, enabling them to be a part of online supermarket (Virendra, 2018).

Vakrangee offers host of services and instrumental in providing distribution solution which connects brands and service providers to the untapped rural and smaller towns. They are operational in 18 states across country and ensure last point of sales and financial services (Vakarangee, 2018).

Another startup LinQ stores are addressing the shopping needs of rural and smaller town. They open their stores in the busiest area of the locality and connect consumers with Amazon, NetMeds, Gati, Via.com, Rubique and Hitachi offline in the form of physical stores, 150 -300 square feet. They have already opened more than 350 stores across country (Shruti, 2017). A Bengaluru based logistic startup Connect India helping e-commerce firms reach out to smaller towns and rural areas. They open common service centres (CSCs) and connect through well known kirana stores in the locality. This is in line with the National e-Governance Plan, formulated by the Department of Electronics and Information Technology (DeitY). Centre are helping prople and make various egovernance solution easily accessible. They have around 130,000 CSCs active across the country (Anita , 2015).

It is worth noting that opportunity exit and new startups growth rate ensured this further with their success stories. These new breed of rural marketers are enabling as well as challenging the existing distribution channel. To make the ecommerce rural market friendly in 2015, Flipkart came up with Progressive web app (PWA). The app consumes less data and even works well with 2G and 3G. Now, PWA is the second largest channel in terms of transaction (Vignesh, 2017).

2.0 Objective of the Research

This is an attempt to understand how rural customers' preference about online and physical stores for consumer durables. Following are the objectives of this study.

- 1) To compare online and offline channel preference among various segments of customers based on age, education and income group.

- 2) Customers Perception about factors influencing channel preference decision making

3.0 Conceptual Framework

Since, last two decades all across the retailing industry single channel is replaced with multichannel. Even the online retailers like Firstcry, Lenskart, Pepperfry etc. are at the forefront of physical store drive. Almost every consumer marketer uses multichannel to reach various segments of customers. Various studies have tried examining the factors affecting channel preference. One study suggests the transaction cost theory for electronics items for channel preference (Liang and Huang, 1998). Another study found service quality, transaction cost and TAM for adoption of newer channels and help to understand the channel preference in B2C (Devaraj et al. , 2002).

It is important for marketers to understand customers channel preference because it helps them to devise their marketing strategies. Kushwaha and Shankar (2013) observed that traditional channel customers of low risk categories provide higher monetary value, whereas, for high risk product category web only customer segments are more valuable segment. There is no study which deals with rural market channel preference between offline and online. To understand the channel preference among customers, following are the alternative hypothesis:

H1a: There is a significant difference of channel preference among various age groups

H2a: There is a significant difference of channel preference among various education levels

H3a: There is a significant difference of channel preference among various income groups

Numerous of studies have been conducted on customer decision making process and now in the era of digital technology marketers try to understand customer journey more closely. Be it online or offline, consumer decision making is a dynamic process. The traditional model of purchase decision is a five stage process (Engel, Kollat, & Blackwell, 1968; Howard & Jagdish, 1969) and authors have adapted the same to understand the channel preference among rural customers. The channel selection preference is a five stage process comprising tangible and intangible factors contributing to it.

Firstly, customer recognizes the need, then information search, later they evaluate and then purchase decision is taken. Once, she is done with the purchase decision in the process. It leads to post purchase experience or feeling of right channel selection. After recognising the need customers move to next stage which information search.

In this stage customer seeks information like brands, price, functions, alternative options etc. These inputs make a set of options which is known as consideration set. Shim et al. (2001) observed that information search has a positive impact in the prediction of purchase intention. While customers are in this stage their attitude towards convenience and product variety have their significant impact in channel preference (Rohm and Swaminathan, 2004; Verhoef and Langerack, 2001). There are empirical evidences in various researches which show the relationship between product variety and market performance (Esther P.Y. Tang and Richard C.M. Yam, 1996).

In this study, authors defined convenience as the amount of time and effort required for searching relevant information. The next important factor to consider in information search stage is product variety. More variety may likely lead to a situation where each customer segment finds the product of their choice and this also help diversity of options to users (Kahn, 1998). In this study product variety deals with brand selection, product features for particular category of product.

After gathering relevant inputs customers start evaluating the options in evoked set. Various studies suggest that in this phase consumers keep accessibility and product quality in mind. For services online channel is more preferred compared to offline channels. However, for tangible products consumer prefer offline channels more specially for bigger size product, or product which are more personalized (Werthner and Ricci ,2004; Rajasree et al.,2007). Xiaomi, a Chinese brand, after testing states like Telangana and Karnataka, they opened around 500 stores across country to help customers to explore their products like TV and Mobile and understand the quality of product. They saw the demand of mid segments devices in rural market planning to open 5000 stores across by the end of 2019 (Navadha, 2018). In this study, accessibility means degree to which channel allow customers to explore products. The next factor in this phase is product quality perception. Although, various researchers are suggesting that offline stores allow users to examine product quality better (Rajamma et al., 2007). But success of One plus Mobile and Mi along with other Chinese brands forced Samsung to go online more aggressively (Paramjeet, 2018).

Punit and Girish (2019) observed that service quality especially after sales service is an important factor in decision making and it has been found that innovative distribution channels like ecommerce is the effective way to reach out the rural customers profitably. In the evaluation stage, consumer ranked the products/brands in the evoked set which helps to take the purchase decision (Lilien et al., 1992). However, there are various other factors contributes to the final decision (Sheth, 1974). In our study service quality include financial services, after sales service, showroom salespersons behaviour, delivery boy/team behaviour, warrantees etc. and

price assessment include price of the product, shipping charges and maintenance cost. Purchaser compare the acquisition cost, transaction cost with the perceived benefit from the product (Dhruv et. al, 1998).

4.0 Methodology

4.1 Research Design

This is a conclusive, cross sectional inferential study. It is an attempt to understand rural customers' preference about online and physical stores for consumer durables. In this study consumer durable include white goods, brown goods and consumer electronics (IBEF, 2008). To compare the channel preference that is online versus offline store among various segments of customers based on age, education and income, one way ANOVA (Analysis of Variance) is used. ANOVA is mainly used for comparing means among two or more segments (Deepak, 2011). For various factors which affect the consumers' channel preference, paired t statistics has been found most suitable to compare (Kent State, nd.). Since, respondent were rural customers purposely questionnaires have been interviewer administered.

To check the reliability of the scale used Cronbach's alpha value was calculated. It has been decided to go with three point scale and the value was 0.89 which is much greater than the recommended level 0.70 (Bernardi, 1994).

4.2 Sampling Strategy:

Quota sampling which is a non probability has been found most suitable to address the entire population and make it more representative. In this study authors took a base of a study conducted by Avizare which segments country's districts into leader, contender and laggards based on consumer durables (Nigoshkar & Kapoor, 2012). Total 604 samples were taken across Jharkhand from 10 rural districts.

Scope and Limitations of the Study:

The study has only been conducted for Jharkhand state. Refrigerator, Washing Machine, Iron, Electric Fan, Mixer/Grinder, TV, Mobile, Laptop and Tablet were included in the study. Instead of including all brands only prominent consumer durable brands considered for the study.

5.0 Results and Discussions:

It is evident from table 2 that there is significant difference among various age groups in terms of channel preference (H1a). If we examine the values of table 1, we could observe that age 30 onwards rural consumers prefer offline store instead of online. However, in the younger age group (18 to 30 years) there is a negligible difference.

Table 1 : Average score of consumer durables purchase decision making using internet and using retail store by Age

Age		Average score of consumer durables purchase decision making using internet	Average score of consumer durables purchase decision making using retail store
18-30 years	Mean	2.300725	2.309420
30-40 years	Mean	2.348797	2.502577
40 to 50 years	Mean	1.876812	2.420290
50+ years	Mean	1.780702	2.236842
Total	Mean	2.186810	2.398731

Table 2: ONEWAY Average score of consumer durables purchase decision making using internet and using retail store by Age

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Average score of consumer durables purchase decision making using internet	Between Groups	26.681	3	8.894	23.168	.001
	Within Groups	230.324	600	.384		
	Total	257.005	603			
Average score of consumer durables purchase decision making using retail store	Between Groups	4.499	3	1.500	4.565	.004
	Within Groups	197.112	600	.329		
	Total	201.611	603			

Table 4 suggests that there is a significant difference among customer segment based on education. Hence, H2a is also accepted. But table 3 shows that those who are graduate and above are in the transition phase of shifting more towards online platforms.

Table 3: Average score of consumer durables purchase decision making using internet and using retail store by Education

Education		Average score of consumer durables purchase decision making using internet	Average score of consumer durables purchase decision making using retail store
schooling upto 8th	Mean	1.529412	1.848039
education upto 12 or diploma	Mean	1.993023	2.387597
Highly educated	Mean	2.367136	2.458216
Total	Mean	2.186810	2.398731

Table 4: ONEWAY Average score of consumer durables purchase decision making using internet and retail store by Education

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Average score of consumer durables purchase decision making using internet	Between Groups	34.312	2	17.156	46.300	.001
	Within Groups	222.693	601	.371		
	Total	257.005	603			
Average score of consumer durables purchase decision making using retail store	Between Groups	11.594	2	5.797	18.335	.001
	Within Groups	190.018	601	.316		
	Total	201.611	603			

It is interesting to note from table 5 and 6 that those who have income of 15000 to 30000 per month use both online and offline formats almost equally. This is the segment which recently joined the workforce and wants to imitate the higher income group but also price conscious. Based on table 6, we could conclude that there is a significance difference among various income groups. Hence, H3a hypothesis is also accepted.

Table 5: Average score of consumer durables purchase decision making using internet and using retail store by Income

Income		Average score of consumer durables purchase decision making using internet	Average score of consumer durables purchase decision making using retail store
less than 15000/month	Mean	2.165378	2.473368
15-30 thousand/month	Mean	2.306373	2.264706
30-50 thousand/month	Mean	1.888889	2.084967
50000+/month	Mean	2.436782	2.580460
Total	Mean	2.186810	2.398731

Table 6: ONEWAY Average score of consumer durables purchase decision making using internet and using retail store by Income

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Average score of consumer durables purchase decision making using internet	Between Groups	8.461	3	2.820	6.809	.001
	Within Groups	248.544	600	.414		
	Total	257.005	603			
Average score of consumer durables purchase decision making using retail store	Between Groups	10.583	3	3.528	11.080	.001
	Within Groups	191.028	600	.318		
	Total	201.611	603			

Table 7: Paired Samples Test

		Paired Differences					t	df	Sig. (2 tailed)
		Mea n	Std. Dev iation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Convenience using internet vs. Physical store	-. .2517	.8975	.0365	-.3234	-.1799	-6.891	603	.001
Pair 2	Product variety using internet vs. Physical store	.0099	.9250	.0376	-.0640	.0839	.264	603	.792
Pair 3	Accessibility using internet vs. Physical store	-. .3874	.7890	.0321	-.4505	-.3244	- 12.06 8	603	.001
Pair 4	Product quality using internet vs. Physical store	-. .3030	.8017	.0326	-.3670	-.2389	-9.288	603	.001
Pair 5	service quality using internet vs. Physical store	-. .2500	.8840	.0360	-.3206	-.1794	-6.950	603	.001
Pair 6	Price assessment using internet vs. Physical store	-. .0993	.9015	.0367	-.1714	-.0273	-2.708	603	.007

Table 7, which deal with various factors affecting channel preference decision making. In most of the cases rural customers prefers physical stores over online platform. Except at the information search that is product verity when they seek information to make purchase decision both offline and online platforms are equally important.

6.0 Conclusion:

In this study authors have observed that in rural market physical stores are still more preferred option across age groups, income levels and even education levels. It also highlights the transition which is visible among younger customer (18 to 30 years) towards online platform. Among aspiration group which earns 15000 to 30000 per month a clear shift towards online stores primarily because they are price conscious and try to match up with higher income group. It is interesting to note that while customers are deciding which channel to prefer, across the process right from information search to decision making physical stores are always ranked better. But at the information search stage for product variety customers use both online and offline equally. This study will help markers to make more effecting marketing plans for hinterland. The study paves path for further research like webrooming and showrooming behavior, exploring rural customers' journey on online platforms.

7.0 References:

1. Anita, B. (2015, September 30). Connect India ropes in CSCs for e-commerce delivery in rural parts. Retrieved March 16, 2018, from https://www.business-standard.com/article/companies/connect-india-ropes-in-cscs-for-e-commerce-delivery-in-rural-parts-115093000267_1.html
2. Bernardi, R.A. (1994). Validating research results when Cronbach's alpha is below .70: A methodological procedure. *Educational and Psychological Measurement*, 54(3), 766–775.

3. Das, G. (2018, May 20). E-commerce Goes Rural. (B. Today, Producer) Retrieved March 1, 2019, from Business Today: <https://www.businesstoday.in/magazine/cover-story/e-commerce-goes-rural/story/275878.html>
4. Deepak Chawla, N. S. (2011). Research Methodology: Concepts and Cases. (1, Ed.) New Delhi: Vikas Publishing House Pvt. Ltd.
5. Dhruv Grewal, Kent B. Monroe & R Krishnan, (1998) The Effects of Price Comparison Advertising on Buyer's Perception of Acquisition Value, Transaction Value & Behavioral Intentions", Journal of Marketing, 62 , pp. 46-59.
6. Engel, J. F., Kollat, D. T., & Blackwell, R. (1968). Consumer behavior. New York: Holt.
7. Esther P.Y. T. and Richard C.M. Y., (1996), "Product variety strategy - an environmental perspective" Integrated Manufacturing Systems, vol. 7 no.6, DOI: <https://doi.org/10.1108/09576069610151158>
8. Ghosh, A. (2017, October 12). How This Entrepreneur Aims To Create The World's Largest Rural Distribution Network. India. Retrieved from <https://www.entrepreneur.com/article/302562>
9. Howard, J. A. S., & Jagdish, N. (1969). The theory of buyer behavior.
10. IBEF. (2008, July 10). Consumer Durable. Retrieved September 12, 2019, from www.ibef.org: https://www.ibef.org/download/Consumer_Durables_10708.pdf
11. Inthree. (n.d.). <http://www.inthreeaccess.com/about-story.html>. Retrieved December 20, 2018, from www.inthreeaccess.com: <http://www.inthreeaccess.com/about-story.html>
12. Kahn, B. E. (1998). Dynamic Relationships with customers: High-Variety Strategies. Journal of the Academy of Marketing Science, 26(1), 45–53. <https://doi.org/10.1177/0092070398261005>
13. Kent State University. (n.d.). PairedSamplestTest. Retrieved November 18, 2019, from libguides.library.kent.edu: <https://libguides.library.kent.edu/SPSS/PairedSamplestTest>
14. Kushwaha, T., & Shankar, V. (2013). Are Multichannel Customers Really more Valuable? The Moderating Role of Product Category Characteristics. Journal of Marketing, 77(4), 67–85. <https://doi.org/10.1509/jm.11.0297>

15. Navadha, P. (2018, November 21). Xiaomi prepares rural push to boost offline market share. Retrieved September 23, 2019, from <https://www.livemint.com/Technology/Bu9OJbPo30Cxdk7V8qdi6L/Xiaomi-to-set-up-5000-offline-stores-in-rural-India-by-2019.html>
16. Nigoshkar, D. & Kapoor, H. (November 2012). The 'Leaders' and the 'Contenders' – The way districts stack up. PHD Chamber Bulletin, Avizare Solutions, Gurgaon, India. (pp, 51-54). Retrieved January 18, 2017, from <https://www.avizare.com/assets/The%20Leaders%20and%20the%20Contenders.pdf>
17. Paramjeet, C. (2018, April 2). Samsung's Big Dreams For India. Retrieved August 18, 2019, from <http://www.businessworld.in/article/Samsung-s-Big-Dreams-For-India/02-04-2018-145127/>
18. Punit K M, & Girish K. S., (2019), Emerging Distribution Channel Effectiveness in Rural Jharkhand for Consumer Electronics, SUMEDHA Journal of Management, Vol 8, No 2, pp 97-112
19. Rajasree, R.K., Paswan, A.K. and Ganesh, G. (2007), "Services purchased at brick and mortar versus online stores, and shopping motivation", Journal of Services Marketing, Vol. 21 No. 3, pp. 200-213.
20. Rohm, A.J. and Swaminathan, V. (2004), "A typology of online shoppers based on shopping motivations", Journal of Business Research, Vol. 57 No. 7, pp. 748-57.
21. Seth, J.N. (1974), Models of Buyer Behavior: Conceptual, Quantitative, and Empirical, Harper & Row, New York, NY.
22. Shim, S., Eastlick, M.A., Lotz, S.L. and Warrington, P. (2001), "An online prepurchase intentions model: the role of intention to search", Journal of Retailing, Vol. 77 No. 3, pp. 397-417.
23. Shruti, K. (2017, October 30). With 350 stores in small towns, LinQ is helping people shop from Amazon, buy medicines online. Retrieved November 2, 2019, from <https://yourstory.com/2017/10/linq-entrepreneurs-small-town-amazon>
24. Tewari, S. (2018, November 02). Rural market presents \$10-12 bn opportunity for e-commerce firms. Retrieved August 18, 2019, from <https://www.livemint.com/Industry/r1OS291ITx6Ev7N1gu2CVL/Rural-market-presents-1012-bn-opportunity-for-ecommerce-f.html>
25. Vakrangee. (2018, February 8). vakrangee.in. Retrieved from <https://vakrangee.in/who-are-we.php>: <https://vakrangee.in/who-are-we.php>

26. Verhoef, P.C. and Langerack, F. (2001), "Possible determinants of consumers' adoption of electronic grocery shopping in The Netherlands", *Journal of retailing and Consumer Services*, Vol. 8 No. 5, pp. 275-85.
27. Vignesh, J. (2017, July 20). For Flipkart, this app is driving half of new customer acquisition in rural areas. Retrieved October 13, 2019, from <https://tech.economictimes.indiatimes.com/news/internet/for-flipkart-this-app-makes-rural-connect/59676200>
28. Virendra, P. (2018, September 13). StoreKing to help rural retailers access working capital. Retrieved February 27, 2019, from <https://www.thehindubusinessline.com/companies/storeking-to-help-rural-retailers-access-working-capital/article24935921.ece>
29. Werthner, H. and Ricci, F. (2004), "E-commerce and tourism", *Communications of the ACM*, Vol. 47 No. 12, pp. 101



A COMPARATIVE STUDY BETWEEN ZOMATO AND SWIGGY FOR LEVEL OF SATISFACTION OF CUSTOMERS OF RAJKOT CITY

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ABSTRACT :

This study examines the satisfaction level of consumers from the Rajkot City with reference to Zomato and Swiggy. Being availed with the facility for placing online order for food, using various mobile applications in one's life has become easier and simpler. Many of the hotels and restaurants becoming the 'Advertiser' for their product using such applications are trending in this age.

The most commonly used applications here in this study are used and adopted for the research upon i.e. Zomato and Swiggy. A continuous increase in the users of these two applications is observed in today's world. With reference to which an indeed research and study here is conducted to find the effectiveness of the application which creates the most positive image in the mind of the consumers. For this research Customers of Rajkot City who used these two applications are taken as a sample. Indepth research based on survey lead to the output that the clients of Zomato are more satisfied compared to the competitor application Swiggy. Various aspects for the evaluation like ordering, easiness, availability of number of restaurants' overall ratings, satisfaction in payment mode etc are the base of research.

KEY WORDS : Online food delivery, Customer Satisfaction, Zomato, Swiggy

INTRODUCTION

With the emergence of 21st century, we could see India at a rising pace. Young minds of the country are exceptionally excelling in the era of latest technology and innovations. Working class wants to perform well in their organizations and technology is playing a vital role in helping them in achieving the same. The things which seemed to be impossible are now becoming possible because of the technological advancements. Today, various kinds of businesses are setting up online stores because of technology. Various factors such as cheaper smartphones and cheaper internet data packs, people have started using more of mobile phone apps. The apps have made a lot of things convenient for the users.

Online food delivery can be defines a process of delivery of food or take out from a restaurant or a local food joint through a web page or mobile App. Such applications are Zomato, Swiggy, Food panda, etc. The customers can order food from their favorite restaurants, their choice of cuisines, can decide whether to get it delivered to pick up from the restaurant and can choose to pay from various modes such as cash on delivery, debit card, credit card, or any other mobile wallet.

In today's busy scenario everyone is busy with their own schedules and duties especially in metro cities like Rajkot city most of people are prefer order food online rather than going to the particular restaurant/hotel. Various Online food delivery applications are provides various discounts for attracting consumers. Zomato and Swiggy are the leading applications in online food delivery application in Rajkot city. Both the application provides delivery services of food from restaurants to customers home or office or their preferred address of consumer. Delivery charges applied according to customers preferred address. Main benefit of ordering food online is food is available within particular time period without living our home.

PROBLEM STATEMENT

A comparative Study between Zomato and Swiggy for level of Satisfaction of Customers of Rajkot City.

OBJECTIVE

1. To analyze the satisfaction level of the customers of Zomato and Swiggy with reference to Rajkot city.
2. To know the preferences of customers while ordering food online.
3. To know the average spending limit by customers while placing an order online.

LITRATURE REVIEW

Rathore et al. (2018) states that 50.8% of people order food delivery service since they don't like to cook, as it enables clients to have food delivered directly to their home or office in under 60 minutes.

Pathan et al. (2017) states that with online food ordering system, a restaurant and mess menu online can be set up and the customers can easily place order. Also with a food menu online, orders can be easily tracked, it uphold customers' database and develop the food delivery service. The restaurants and mess can even modify online restaurant menu and upload images easily. Having a restaurant menu on internet, potential customers can easily access it and place order at their convenience. Thus, an automated food ordering system is presented with features of feedback and wireless communication.

Kimes(2011) said that The amount of increase in online food ordering is because of convenience and control. Almost half of the populations has ordered food online. Personal interaction with restaurant employees, satisfaction level of consumers after ordering food online and changed behavior of the consumers regarding food mobile ordering Apps shows the perception of consumers for mobile food ordering apps.

J. Das(2018) has studied, analyzed and compared the top 4 food delivery apps namely, Zomato, Swiggy, Foodpanda and Ubereats. Providing better discounts” and “better choices of restaurants”, Zomato is positioned at the top by the customers. Zomato is also positioned at the top by the customers while considering on delivery on time and good customers service. In both the situations, customers ranked Ubereats at the last position.

According to G. See-Kwong(2017), The food delivery system in India has been growing at a larger pace due to technology. From making orders on call to ordering online and satisfying all the needs of the customers and making changes according to the changing needs of the customers. Now everything can be delivered to the customers at their doorstep.

Dang and Tran(2018) said that Internet has played a major role in increasing the awareness of the online food delivery apps. Through internet, people can search about foods and restaurants, compare their prices and their services and have easy access to them. Internet has made all these things convenient for the customers.

Redseer(2016), a research firm has claimed that the online food ordering and delivery segment grew almost 150% in 2016 in comparison to 2015, with an estimated Gross Volume (GMV) of \$300 million in 2016. The major chunk of the online food delivery business is from the top 5 cities in India, although this segment is active in almost 20 Indian cities. The players in this segment are consolidating their business by concentrating on increasing their operational efficiency and profitability rather than searching for newer markets in other cities. But with large number of players in the market like Swiggy, Food Panda, Zomato etc the customer is spoilt for choice. It has become very convenient for them to browse through the list of eateries and cuisines in different parts of the city and order by just clicking a button on the app.

Sethu & bhavya saini “Customer Perception and Satisfaction on Ordering Food”. (2016): The study revealed that the online food ordering services was used by 100 percent of the respondents, and the buying decisions were largely influenced by opinions of friend’s family and discussions on online forums. The study reveals that good word of mouth and experiences by existing customers and online forums decides the success of web based food shopping.

RESEARCH METHODOLOGY

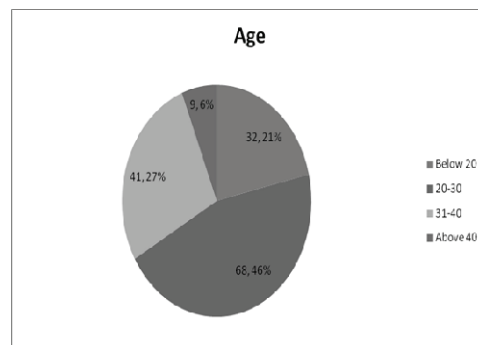
- Research design : Descriptive Research design
- Sources of Data : Primary Data & Secondary Data
- Data Collection Tool : Questionnaire
- Targeted Population : Customers of Online food ordering application
- Sample Size : 150
- Sample Area : Rajkot City
- Sampling Method : Convenient Sampling
- Presentation Tool : Pie Chart & Bar Chart

DATA ANALYSIS& INTERPRETATION

1. Personal Profile

AGE

Age	No. of Respondents	% of Respondents
Below 20	32	21
21-30	68	46
31-40	41	27
Above 40	9	6

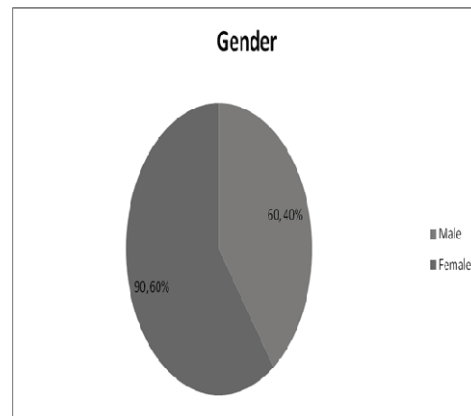


Interpretation

From the chart I can conclude that, most of respondents are between 21-30 age, 41 respondents are from 31-40, very few customer that are 40 up use this type of applications.

GENDER

Gender	No. of Respondents	% of Respondents
Male	60	40
Female	90	60

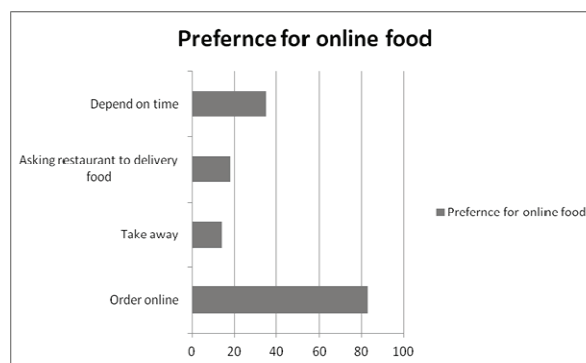


Interpretation

Out of 150 respondents more than 50% respondent that is 90 respondents are females remaining 60 respondents are male.

2. What are your preferences when it comes to have outside food at your place?

Particular	No. of Respondents	% of Respondents
Ordering Online	83	55.33
Take Away	14	9.33
Asking restaurants deliver food	18	12
Depends on time	35	23.33



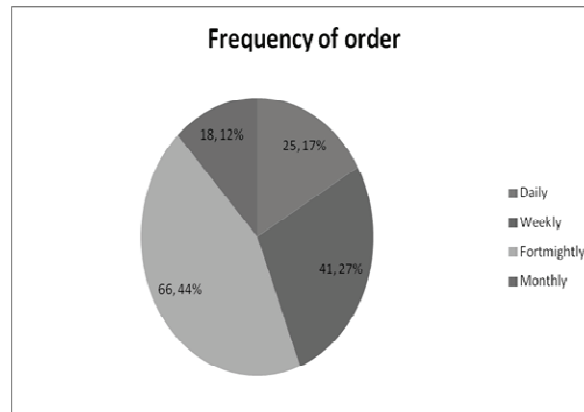
Interpretation

From the data collected, I can conclude that most of respondents, 81 out of 150 prefer online ordering when it comes to have outside food. Few customers prefer options like take away or delivery from restaurant or hotel.

3. How frequently do you order food online?

Particular	No. of Respondents	% of Respondents
Daily	25	17
Weekly	41	27
Fortnightly	66	44

Particular	No. of Respondents	% of Respondents
Monthly	18	12

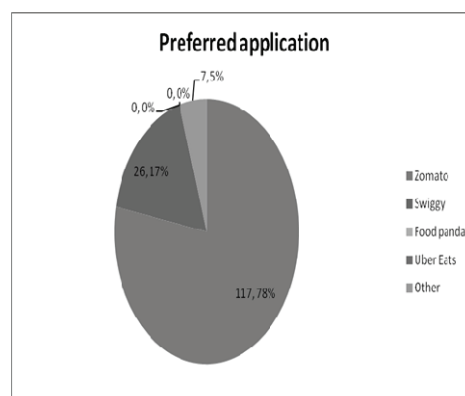


Interpretation

From the chart, I can conclude that, there is a low range of customers who prefer online food daily. Most of customers, which are 66 respondents, order fortnightly online food. Remaining 41 and 18 respondents order weekly and monthly.

4. While placing order online which of the following is your preferred application?

Particular	No. of Respondents	% of Respondents
Zomato	117	78
Swiggy	26	17
Uber eats	00	0
Foodpanda	00	0
Other	7	5

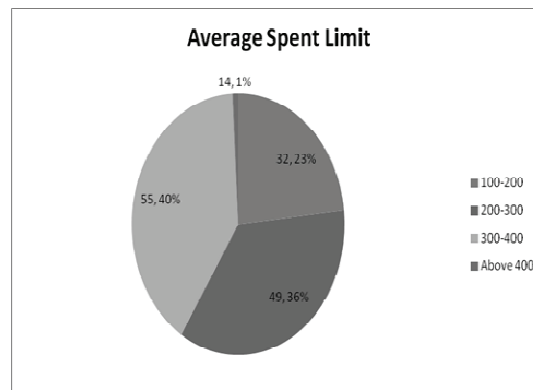


Interpretation

The chart shows the result of mostly used application by customers for online food ordering. Out of 150 customers, more than 70% means 117 customers choose Zomato as a food order application. And Swiggy is on 2nd position among all applications.

5. What is the average spend limit while placing an order using this application?

Particular	No. of Respondents	% of Respondents
100-200	32	23
200-300	49	36
300-400	55	40
Above 400	14	1

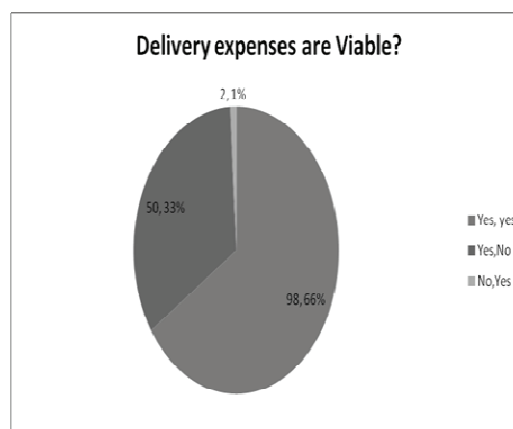


Interpretation

Out of total respondents, 49 respondents spend between 200-300 for online food purchase. 55 are spending between 300-400. Less no of customer are ready to spend more than 400 behind online food.

6. Do you incur the expenses of delivery charges while placing an order from your preferred application? If yes is it viable?

Particular	No. of Respondents	% of Respondents
Yes, Yes	98	66
Yes, No	50	33
No, Yes	02	1

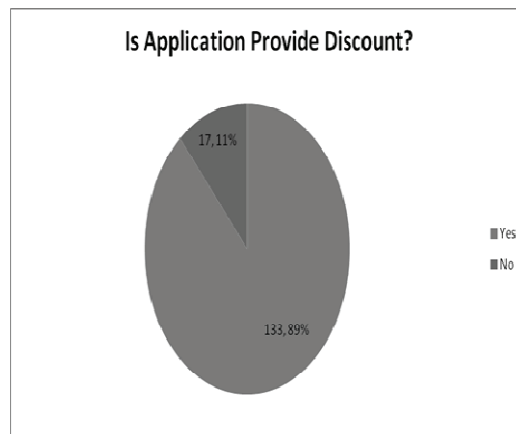


Interpretation

From the chart I can say that most of customer believes that yes delivery charges incur while placing an order and they also believe that it is viable. 50 of them say that yes charges are incurring but it is not viable. Only 2 are not agree with this both statement.

7. Do your preferred application provide discount?

Particular	No. of Respondents	% of Respondents
Yes	133	89
No	17	11

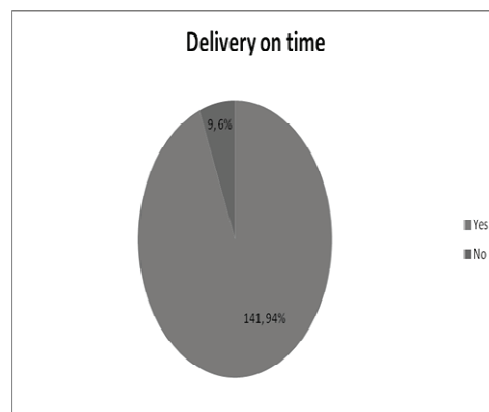


Interpretation

From the chart and collected data, we can say that obviously customer need discount. And out of 150, more than 80% respondents preferred discount while they are ordering online.

8. Do you get food delivered within the time specified online?

Particular	No. of Respondents	% of Respondents
Yes	141	94
No	09	6

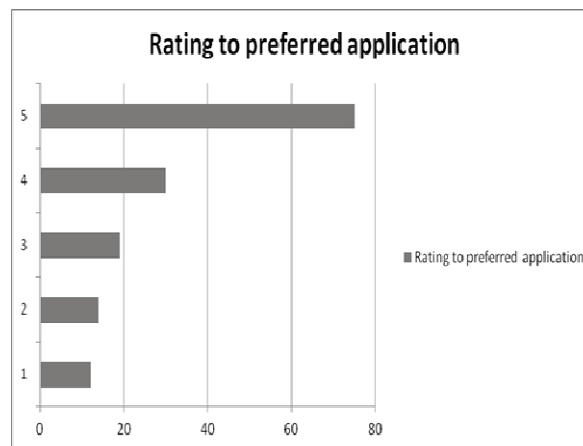


Interpretation

From the chart, I can conclude that out of total respondents, 141 customer responds that they get food delivered within a specified time, that means service provider are very conscious about their customer and their demand.

9. What would be rating given for the delivery person behaviour?

Particular	No. of Respondents	% of Respondents
1	12	8
2	14	9.33
3	19	12.67
4	30	20
5	75	50

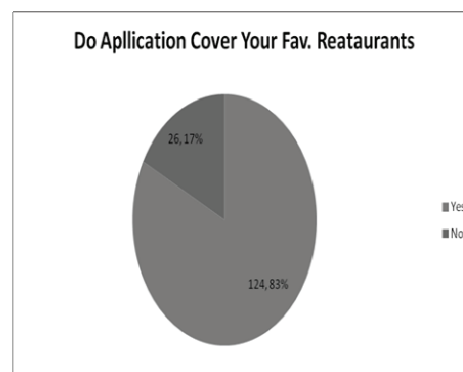


Interpretation

Out of 150 respondents, different customers give different rating to the behavior of delivery person of different applications. And chart shows that many of the customers are satisfied with the behavior of delivery person.

10. Do the application cover your expected restaurants and or hotels?

Particular	No. of Respondents	% of Respondents
Yes	124	83
No	26	17

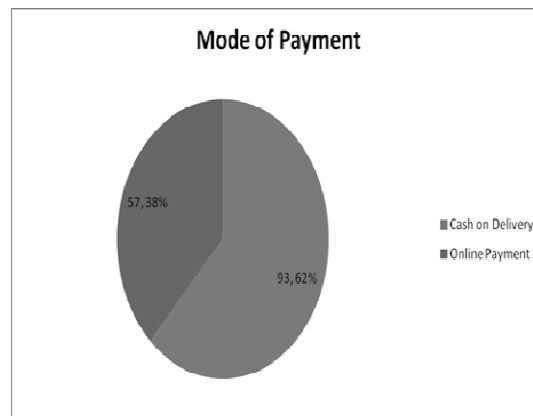


Interpretation

There are many hotels are restaurants who tie up with online food ordering applications. And from the responds of different customers, we can say that these applications cover most of all the hotels and restaurants which are expected by the customers.

11. What is general mode of payment adopted by you?

Particular	No. of Respondents	% of Respondents
Cash on delivery	93	62
Online Payment	57	38

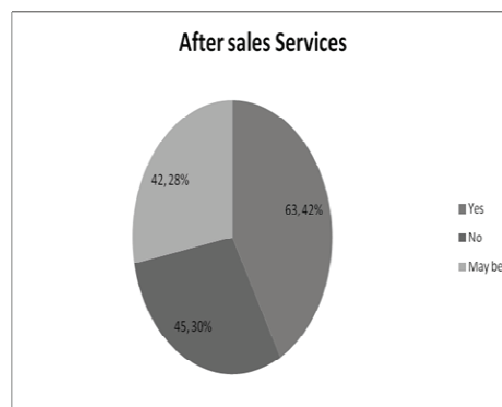


Interpretation

There are many options available for the payment. And mainly two are COD means cash on delivery and online payment. But this payment is sometimes depends on time. But chart suggests that Cash on Delivery is better option.

12. Do this application facilitate you with after sales services?

Particular	No. of Respondents	% of Respondents
Yes	63	42
No	45	30
May be	42	28



FINDINGS

- This study shows the data and result collected from the customers (users) of Zomato and/ Swiggy. This research paper defines the comparative analysis between satisfaction level of Zomato and Swiggy.
- From the survey, I came to know that most of the customers who use the online food delivery application are youngsters.
- In today's busy world almost people are used to with ordering food online rather than going outside for lunch or dinner.
- Out of 150 respondents 117 respondent are preferred ordering food online from the Zomato, 26 from Swiggy and 07 from others.
- 40% of customers spent INR 300-400 while placing an order from the online food delivery application. While, 36% customer spent INR 200-300, 23% customers spent INR 100-200 and very less spent more than INR 400.
- 75 out of 100 respondents had given 5 rating to the Zomato; only 12 customers gave 1 point rating to their preferred restaurants.
- 62% of customers pay cash on delivery; while 38% of customers pay online payment at the time of ordering.
- From the above research paper I came to know that customers want more discounts from their preferred delivery applications.

CONCLUSION

With the help of questionnaire this research concludes that In metro cities like Rajkot, lifestyles of people are very busy. Due to this reason people prefer to order food online. The most of the users of online food delivery application of Rajkot city preferred to order from Zomato, this shows that they are highly satisfied with the Zomato. I can finds reasons behind placing order from Zomato are they provide good discount, delivery of food within particular time period, service of delivery boy is good and they provide wide range of restaurants and hotels for foodie people.

ANNEXURE

1. Name :
2. Age of respondent
(A) Below 20 (B) 21-30
(C) 31-40 (D) Above 40
3. Gender of respondent
(A) Male (B) Female
4. What are your preferences when it comes to have outside food at your place?
(A) Ordering Online (B) Take Away
(C) Asking restaurants to deliver food (D) Depends on time

5. How frequently do you order food online?
(A) Daily (B) Weekly
(C) Fortnightly (D) Monthly
6. While placing order online which of the following is your preferred application?
(A) Zomato (B) Swiggy (C) Food panda
(D) Uber eats (E) Other
7. What is the average spend limit while placing an order using this application?
(A) 100-200 (B) 200-300
(C) 300-400 (D) Above 400
8. Do you incur the expenses of delivery charges while placing an order from your preferred application? If yes is it viable?
(A) Yes, Yes (B) Yes, No (C) No, Yes
9. Do your preferred application provide discount?
(A) Yes (B) No
10. Do you get food delivered within the time specified online?
(A) Yes (B) No
11. What would be rating given for the delivery person behaviour?
(A) 1 (B) 2 (C) 3 (D) 4 (E) 5
12. Do the application cover your expected restaurants and or hotels?
(A) Yes (B) No
13. What is general mode of payment adopted by you?
(A) Cash on delivery (B) Online payment
14. Do this application facilitate you with after sales services?
(A) Yes (B) No (C) May be

REFERENCES

1. Tsang M.M., Chun ho S., Liang T., 2004, Consumers attitude toward mobile advertising; an empirical study, International Journal of Electronic Commerce, 3, Vol. 8, page no. 66-68.
2. Persuad, A, Azhar, I. 2012, Innovative mobile marketing via smartphones: are consumers ready, Marketing Intellegence and Planning, vol no.30, page no. 1-3 and 20-23.
3. Kimes, S,E. 2011, Consumer perceptions of online food ordering, Center for Hospitality Research Publications, Vol. 11, page no: 4-12

4. Parashar. N, Ghadiyali. S, 2002, A study of customer's attitude and perception towards digital food app services, page no. 1-7
5. Das J., 2018, Consumer perception towards online food ordering and delivery services: an empirical study, Journal of Management, 5, Vol. 5, page no. 158-162
6. Rathore, S. S., & Chaudhary, M. (2018). Consumer's Perception on Online Food Ordering. International Journal of Management & Business Studies,8(4). Retrieved from <http://www.ijmbs.com/Vol8/issue4/2-suryadev-singh-rathore.pdf>
7. Kashyap, K. (2017). The food Delivery aps that are competing to get Market Share in India.The little black book of Billionaire secrets.

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EMERGING GREEN CONSUMERISM IN INDIA

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ABSTRACT :

. World over, economic growth has come at the cost of environment only. Global warming, an outcome of greenhouse gas emission, is the price the world pays for it's over ambitious progression. Where previously environmentalists saw excess consumption as central to the problem, green consumerism now places consumption at the heart of the solution. As the Green lifestyles and ethical consumption have become increasingly popular strategies in moving towards environmentally-friendly societies and combating global scarcity. In India, though consumerism is gaining momentum after 1991, when India threw her doors open to international trade, and the situation changed dramatically and so did consumerism in India, but green consumerism is not getting due priority. Government, business organizations and consumers are arpeggios for green consumerism in India. The study seeks to critically analyze the factors contributing to the rising green consumerism and to further study the governmental interventions which can effectively benefit both the marketers and consumers as well.

Keywords: Green Product, Green Awareness, Green Consumerism, Environmental Consciousness

INTRODUCTION

Green consumerism is the continuation of global consumerism action that started with consumer awareness about their rights to get proper product, safe, and eco friendly product. Consumer awareness of eco-friendly product become a suitable issue to be lifted remembering that stuff is important for future human sustainability. As it is said that the green consumer is someone who is environmentally and socially conscious and which leads him/her to purchase the products that are eco-friendly. Over the last few decades, it is being observed that people are changing their trends and lifestyle in a more environment conscious way paying more responsiveness towards green oriented behavior worldwide. The study and research about green consumerism has been interesting due to growing green awareness and significance of green orientation in the consumer purchasing process globally.

It is a concept which ascribes to consumers responsibility or co-responsibility for addressing environmental problems through adoption of environmentally friendly behaviors, such as the use of organic products, clean and renewable energy and the research of goods produced by companies with zero, or almost, impact.

OBJECTIVES OF RESEARCH:

1. To study the conceptual framework regarding green awareness and green marketing and green consumerism
2. To study the changing perception of consumers towards green products in Rewari District.
3. To study the consumer awareness and brand preferences towards green products.
4. To identify and evaluate the factors influence consumer buying behaviour towards green products.
5. To find out the level of consumer's satisfaction towards green products

RESEARCH METHODOLOGY:

The focus of this study is to understand the factors influencing consumers green buying behaviour and further to know the customer perception towards green products in Rewari city. The research design is exploratory cum descriptive. Primary and secondary data have been collected; Primary data has been collected through a structured questionnaire, personal interviews and observation.

Purposive sampling method is adopted for the study. The study is confined to Rewari district only. The sample size is 200 respondent consumers. The data has been collected with the help of structured questionnaire and through discussions with these respondents. The questionnaires were processed for coding the data in the computer. SPSS package was used for processing, classification, tabulation, analysis and interpretation of data. The following statistical techniques were applied depending on the nature of data collected from the respondents:-

T test: It is used to determine whether there is a significant difference between the means of two groups. With all inferential statistics, we assume the dependent variable fits a normal distribution.

- ANOVA: Analysis of variance is used to test differences between two or more means. The name is appropriate because inferences about means are made by analysing variance.
- • GARRET RANK METHOD: this method is used to assign a rank to the factors according to response of the respondents.

CHALLENGES BEFORE CONSUMERS ORGANISATION IN INDIA:

The old distinction between consumer protection and environment protection is gradually obliterating. In India, for instance, until recent past, consumerists and environmentalists have been pursuing their respective concerns independently. It seems that while they were pursuing their respective causes, they came to realise that some of their concerns were common and that they needed concerted efforts to tackle these problems.

Having learnt from the experiences of the west, and other developed societies, countries like India are today in an unenviable position of leap-frogging to the practice of green consumerism without having to wait for the natural confluence to occur. To produce green products require not only the legal framework or the willingness of the producer of goods and provider of services but also the appropriate technology which the developing countries like India may not be having. Moreover, there is a need for the national commitment to the cause. Thus in the light of these few observations, we are now in a position to delineate the challenges which lie ahead on the road to green consumerism.

In the first place, environmental issues are taking an increasingly important place on the agenda of consumer organisation. These organisations are now looking at most consumer problems from wider environmental perspective and are emphasising on the need for consumption of 'Environment Friendly Products' (EFPs) by the consumers. It is heartening to note that in India, for some of the active consumer associations like the Consumer Education and Research Centre

(CERC) in Ahmedabad and the Consumer Guidance Society of India (CGSI) in Bombay, environmental issues are among the top priority concerns. For instance, issues like air pollution, water contamination, chemical pollution, food irradiation, green testing, marketing of hazardous chemical and noise, pollution, food irradiation, green testing, marketing of hazardous chemical and noise pollution are some of the priority items on the latest agenda published by the CERC.

CERC is now venturing into the area of 'product testing' and more particularly, 'green testing' - evaluating the environmental impact of products. Such testing is needed to inform and help consumers select products on the basis of their 'value for the environment' as well as 'value for money.' It is believed that it is the consumer alone who will ultimately compel market forces to produce safer and environment friendly products.

This is an area which should be of increasing interest and importance also for the other prominent consumer groups in India. However, until recently, unlike many consumer organisations in industrialised countries, Indian consumer groups did not have the resources to carry out extensive and independent comparative tests of

various products. However, the CERC is currently engaged in setting up a new laboratory, the first of its kind in India, at Ahmedabad.

Secondly, surveys show that consumers in Western Europe are becoming increasingly environment conscious. More and more people say that they are prepared to buy 'green' environment products if by doing so, they can contribute to the reduction of damage to the environment caused by the depletion and waste of natural resources and pollution. Manufacturers and retailers are also responding to this by making environmental claims for their products.

Thirdly, product packaging is one of the most noticeable forms of environmental waste. Another significant challenge before consumer organisations in India, like their western counterparts is how to disseminate information amongst consumers and educate them about reducing product packaging waste. 'Green Dot System' is one of the easiest ways to inform and educate people about the environment friendly products. In the industrially advanced countries, the EFPK can be easily identifiable, for they have a green dot on the top of their packaging and through a cursory glance, an average educated consumer can easily identify the environment friendly product and distinguish it from other product. However, there are some inherent problems about this. In the fourth place, there is a need for spreading environmental awareness and imparting environmental education among the consumers. As is evident, the impact of environmental problems on all humanity has gradually become evident in the last two decades.

In the fifth place, there is a need for raising business ethics in general and environmental ethics in particular. Concern for a cleaner environment is an important dimension of corporate social responsibility. Business strategies need to include not only business but social goals too.

SIGNIFICANCE OF FACTORS INFLUENCING CONSUMER BUYING BEHAVIOUR: GARRET RANK METHOD

Section C of the questionnaire belongs to the factors, in this section there are seven factors. These factors were designed to examine the opinion of respondents about the factors and assign rank (1 to 7) according to their importance. To find out rank between the factors assigned by the respondents to factors, Garret rank method is used (To identify and evaluate the factors influenced consumer green buying behaviour).

The reliability and validity test was conducted using Statistical Package for Social Science (SPSS).

Table 1: Basic profile of the respondents

	Category	Number	Percentage (%)
Gender	Male	88	55
	Female	72	45
Age	15-25	44	27.5
	25-35	68	42.5
	35-45	24	15
	Above 45	24	15
Educational qualification	Primary	30	18.75
	Secondary	45	28.125
	Under graduate	30	18.75
	Under graduate Post graduate	30 55	18.75 34.375
Marital status	Married	120	75
	Unmarried	40	25
Occupation	Employee	72	45
	Own business	32	20
	Student	24	15
	Other	32	20
Income (P.A)	Less than 250000	88	55
	250000-500000	40	25
	More than 500000	32	20

Source: primary data and calculation through IBM SPSS (version 21)

ANALYSIS & INTERPRETATION:

Data which are collected through primary source were systematically tabulated, processed and made suitable for analyses and interpretations of the data.

Consumer Awareness - Gender Wise Analyses:

Null Hypothesis: There is no significant difference between male and female awareness towards green products.

Alternative Hypothesis: There is significant difference between male and female awareness towards green products.

Table 2: Responses regarding green awareness and products (Mean & Standard deviation)

Sr. No.	Statements	N	Mean	Std. dev.
1	Clarity on imaging the green brand in mind	160	4.62	.487
2	Easily reliable green brands	160	4.03	.816
3	Comes first in my mind	160	3.49	1.070
4	I am aware about all green products	160	3.38	1.186
5	Green provide herbal products with different choices	160	3.63	1.063
6	Recognize the green brand among other competing brands	160	3.73	.995

Source: primary data and calculation through IBM SPSS (version 21)

Table 2.1: Responses regarding green awareness and products (Gender wise analysis)

Clarity on imaging the green brand in mind	Gender	N	Mean	Std. dev.	t sig.		Result
	Male	88	4.63	.487	.179	.858	Not significant
	Female	72	4.61	.491			
Easily reliable green brands	Male	88	4.01	.750	-.233	.816	Not significant
	Female	72	4.04	.895			
Comes first in my mind	Male	88	3.57	.968	1.055	.293	Not significant
	Female	72	3.39	1.181			
I am aware about all green products	Male	88	3.49	1.194	1.344	.181	Not Significant
	Female	72	3.24	1.169			
Green provide herbal products with different choices	Male	88	3.51	1.145	- 1.501	.135	Not significant
	Female	72	3.76	.942			
Recognize the green brand among other competing brands	Male	88	3.81	.981	1.062	.290	Not significant
	Female	72	3.84	1.011			

Source: primary data and calculation through IBM SPSS (version 21)

As per the significance value of responses related to different statements, which shows the results according to gender indicates that there is no significant difference between responses of male and female consumers. There are six statements regarding consumer green awareness and green brand preferences towards green products and all reveal the same positive result. Value of t statistics of all the statements is more than 0.05. So genders do not impact on awareness of consumers, as responses of male and females are not significantly different. Hence null hypothesis is accepted.

Level of Satisfaction towards Green Products (Based on Different Income Groups)

Null Hypothesis: There is no significant difference in level of satisfaction between respondent of different income group.

Alternative Hypothesis: There is significant difference in level of satisfaction between respondents different income group.

Table 3: satisfaction level towards Green products (mean & std. dev.)

Sr. No.	Statements	N	Mean	Std. dev.
1	Green Products are good herbal products.	160	4.54	.571
2	The green brand is safe to use	160	4.20	.612
3	The green brand is well priced	160	2.59	.927
4	I always use the green brand	160	2.82	.808
5	I will recommend the products and green brand to others	160	3.88	.642
6	Green products are good for health.	160	3.86	.894
7	I am very loyal for the green brand	160	2.98	.820
8	Green products are cheapest as compared to other brands of herbal products	160	2.78	.945
9	Best products I could have bought.	160	4.02	.639
10	The green products are exactly what I need	160	3.60	.877
11	Sometimes I have mixed feeling about keeping green products	160	3.86	.722
12	I am satisfied with my decisions to buy green products.	160	3.76	.860

As per the mean value of the responses regarding various statements which are to show the level of satisfaction of consumers and brand preferences towards green products, out of total twelve statements, three statements have shown positive response i.e. agreement of the respondents as their mean values lie between five and four which represent either strongly agree or agree. Five statements have shown neutral response i.e. they are indifferent regarding these statements as their mean values lie between three and four. Four statements have shown negative response i. e .disagreement of the respondents as their mean values lie between two and three. Overall it may be viewed that respondents are not fully satisfied regarding green brands.

Table- 3.1. Satisfaction Level towards Green Products (Annual Income Wise Analysis)

Statements		sum of square	df	Mean square	f	Sig.	Result
Green Products are good herbal products.	Between group	.845	2	.423	1.303	.275	Not significant
	Within group	50.930	157	.324			
Green brand is Safe to use	Between group	.182	2	.091	.240	.787	Not significant
	Within group	59.418	157	.378			
This Green brand is Branwell priced	Between group	3.327	2	1.663	1.957	.145	Not significant
	Within group	133.448	157	.850			
I always use the green brand	Between group	.651	2	.325	.495	.610	Not significant
	Within group	103.093	157	.657			
I will recommend the green product to others	Between group	.984	2	.492	1.197	.305	Not significant
	Within group	64.516	157	.411			
Green products are good for health.	Between group	.227	2	.357	.528	.591	Not significant
	Within group	126.748	157	.677			
I am very loyal for green brand	Between group	.714	2	.357	.528	.591	Not significant
	Within group	106.230	157	.677			
Green products are cheapest as compared to other brands of herbal products	Between group	2.034	2	1.017	1.142	.322	Not significant
	Within group	139.866	157	.891			
This is one of the best products I could have bought	Between group	.014	2	.007	.017	.983	Not significant
	Within group	64.944	157	.414			
The green products are exactly what I need	Between group	.343	2	.171	.220	.802	Not significant
	Within group	122.057	157	.777			

A one way ANOVA test was performed on these mean scores obtained for the attributes to show the level of satisfaction towards Green products based on different income groups. P value of every statement is more than 0.05. Overall, a respondent which belongs to different income group do not make any difference in responding towards satisfaction; as responses of different income group are not significantly difference.

FINDINGS OF THE STUDY:

1 Findings Related to Customers Demographic Profile

- In the present study male respondents (55%) are more in number than female respondents. It shows that male candidates preferred more the green products as compare to female.
- Age group of 25-35 years (42.5%) have more preferred green products in comparison to other age groups Though the other age groups are also interested in it but they show less interest than 25-35 years age group.
- Age group of 35-45 years and above 45 (15%) is not much in favor of green products. They also believe that green products are very costly in comparison to chemical based product and the effect of green product is very slow.
- • The result reveals that post graduate respondents (34.37%) like more the herbal products compared to other respondents which are followed by the graduate respondents (28.8%). It shows that qualified respondents are more health conscious and avoid chemical based products.

2 Findings Related To Consumer Awareness towards Green Products-

- In most of the respondents families all the members used green products so these families know more about the benefits of green products as they are using the green products.
- More than 50% of the respondents are using green product since less than one year period. It indicates that recently consumers are more aware regarding green products

3 Findings Related to Consumers Green Awareness-

- Out of the total six statements regarding consumer awareness towards green products, two statements give positive response as the mean lie between four and five which shows that respondents are agree with these statements but for the other four statements, respondents are indifferent as the mean between three and four.
- To check out the various responses on the various statements t- test is performed and result indicate that significant value of t- statistics of all the statements is more than 0.05 so gender of the respondents have no impact regarding awareness.

4 Findings Related To Consumers Satisfaction towards Green Products-

- There are twelve statements regarding customer satisfaction in which only three statements have shown positive response i. e. agreement of respondents as their mean value lie between four and five.
- The statement 'this brand is well priced' has shown lowest mean value (2.59) and standard deviation (.927) is very high. It shows that respondents are not satisfied regarding the price of Green products. Overall consumers are not fully satisfied regarding this brand.

CONCLUSION:

In the era of cut throat competition, it is very necessary to understand the behaviour of consumers as their needs, wants desires are changing very frequently. Now a day's consumers are more health conscious and prefer green products. The present study attempts to examine the perception of consumer and brand preferences towards green products in Rewari city. This study concludes that there is no significant difference between male and female awareness towards patanjali products but consumers are not fully aware regarding green brands. This study also reveals the truth that there is no significant difference in satisfaction between respondents of different income group but consumers are not fully satisfied regarding price of green products. Product quality and product benefits are main factors which influence respondents buying behavior towards green products. The study since focused on a limited geographical area has limited generalizability but provides good insights regarding behavior of consumers towards green products. The marketing communication regarding green practices need to focus more on theme and message. Advertising appeals using green products and practices are likely to move emotions and result in persuasion. It is important for markets to be in top of mind recall of consumers to gain maximum from their green brand positioning. Constant and continuous communication from the organizations' side is required to make an impact and create a distinct green positioning and ultimately resulting a rise in green consumerism.

REFERENCES:

1. Cherian, J. and Jacob, J. (2012). Green Marketing: A Study of Consumers' Attitude towards Environment Friendly Products. *Journal of Asian Social Science*, Vol. 8, No. 12, pp. 117-126.
2. Saxena, R. & Khandelwal, P. K. (2010). Can Green Marketing be used as a tool for Sustainable Growth?: A Study Performed on Consumers in India- An Emerging Economy'

3. Juwaheer, T. D. (2005). Emerging Shades of Green Marketing Conscience Among the Population of a Small Island Economy-A Case Study on Mauritius. Source: http://irfd.org/events/wfsids/virtual/papers/sids_tdjuwaheer.pdf.
4. Keller, G. M. (1987). Industry and the Environment: Toward a New Philosophy. Vital Speeches. Vol. 54, No. 7, pp. 154-157.
5. Mainiery, T., Barnett, E. G., Valdera, T. R., Unipan, J. B., and Oskamp, S. (1997). Green Buying: The Influence of Environmental Concern on Consumer Behavior. Journal of Social Psychology, Vol. 137, No. 2, pp. 189-204. <http://dx.doi.org/10.1080/00224549709595430>
6. Ottman, Jacquelyn. (1998). Green Marketing: Opportunity for Innovation. NTC Business Books, 2nd Edition.
7. Polonsky, M. J. (1994). An Introduction to Green Marketing. Electronic Green Journal, Issue # 2 UCLA Library, UC Los Angeles. <http://escholarship.org/uc/item/49n325b7>
8. J.A Ottman et. al. (2006). "Avoiding Green Marketing Myopia", Environment, Vol-48, June-2006
9. Suki, N. M. (2013). Green Awareness effects on consumer's purchasing decision: Some insights from malaysia
10. Wulf, K. D. and Schroder, G. O. (2003). Assessing the Impact of a Retailer's Relationship Efforts on Consumers' Attitudes and Behavior. Journal of Retailing and Consumer Services, Vol. 10, No. 2, pp. 95-108.

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RFID - BASED TICKETING FOR TRANSPORT SYSTEM

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ABSTRACT :

The paper primarily based ticketing publicly transport system, prevailing within the cities introduces severe malfunction within the system, malicious argument among public, corruption and most of all traffic jams. This paper truly suggests a way additional public friendly, machine-controlled system of ticketing further because the credit dealing with the employment of RFID primarily based tickets. The overall system chiefly acts to bring out the consistency within the transport system that may conclude in uniform access of passengers in daily rides through an automatic server being updated each single time the passengers move carrying the RFID Primarily based tickets.

Keywords: *RFID, transport system, tickets*

I. Introduction

As for the RFID application, it's been a widespread tool for each trailing the transit transports and for the general public ticketing system. It's already been an excellent accomplishment throughout the world together with huge cities like London, U.S., Shanghai, Moscow, Oporto and plenty of additional countries. This technique are often enforced for subways, railways and public bus services for the sake of systematic operations in corresponding cases.

In our city, the traditional system of transport is primarily based on paper based bus or railway tickets that ultimately ends up in chaos among public, system loss, corruption and most of all hold up that's accountable for an enormous wastage of your time and cash and environmental losses. No previous notification of the arrival and departure of the transports are accessible making heaps of confusion among the passengers leading to a rough argument between them and also the bus supervisors or the operators. Once more having no government authority to require management or keep a watch over the total situation, the non-public sectors are making a monopoly, taking management over the general public transport and autocratic raise in fare.

The trailing and ticketing systems victimization RFID are often integrated to unravel the prevailing issues. Even though the GPS primarily based system are often

designed, we tend to propose the RFID primarily based tickets for its low price, simple operation, movability, durability, dependableness and being way more user friendly. Conjointly the high speed RFID tags and detectors create the trailing system of a running bus simply a child's play.

Public carrying RFID primarily based electronic tickets can have access to any bus company of town solely coming into his current location and his destination on the input device connected to each bus. The information can directly be transferred to the server main info and also the equivalent credit are going to be hold on within the corresponding bus account. By victimization this machine-controlled system can save time, have a better authoritative scrutiny and scale back chaos and confusion on the road.

II. System description

Radio Frequency Identification (RFID) could be a generic term for technologies that use radio waves. An RFID system consists of a tag, basically a microchip with an antenna and an interrogator or reader with an antenna. Most RFID tags contain a minimum of 2 components that's shown in figure1. One is Associate computer circuit for storing and process data, modulating and demodulating a radio-frequency (RF) signal, and different specialized functions. The second is Associate antenna for receiving and transmission the signal. The reader sends out magnetic attraction waves. The tag antenna is tuned to receive these waves. A passive RFID tag attracts power from field created by the reader and uses it to power the microchip's circuits. The chip then modulates the waves that the tag sends back to the reader and also the reader converts the new waves into digital knowledge.

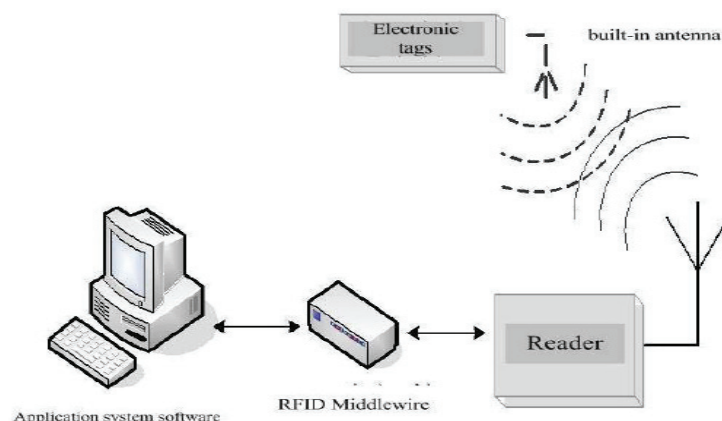
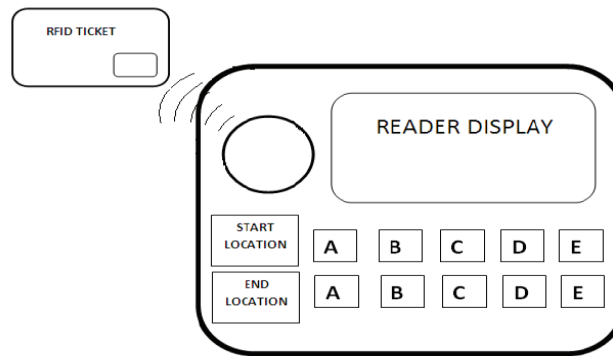


Figure 1- Typical RFID System Components



Each bus can have 2 tags: one is at the exterior door and different is at the rear door. The rear tag can inform the reader regarding its arrival to the stop whereas the front one informs its departure. Every bus also will have a reader that's connected to the most server for charging price tag fare from the passengers through a input device connected with the reader on that the passengers offer the knowledge of their departure & destination locations. The reader sends the magnetic attraction waves to the tag. The tags draw the ability from this wave and come back the bus data, that ar hold on in its memory to reader. The readers once more take out this wave and convert it as a digital knowledge.

For the aim of Ticketing, the operational feature of the cards is sort of a similar however here the tags ar connected to special cards carried by the passengers and also the reader collects the detail from them. By victimization RFID technology in ticketing system, permitting passengers to "tag on" and "tag off" and be charged mechanically, consistent with what percentage zones they need cosmopolitan.

III. Comparison & edges over standard system

In standard paper primarily based ticketing, every & everyday heaps of tickets are being written by the person sitting within the bus stoppage counter or the conductor . Once end movement, the passengers typically through away the tickets here & there that ultimately pollutes the atmosphere. Once more sizable amount of trees is being destroyed since the present system uses paper primarily based ticketing and also the used tickets are simply wasted. However in our projected system the RFID labeled card administrated by the passengers will everything mechanically and eventually eradicates the matter of pollution or degradation of atmosphere. Some edges of RFID primarily based price tagging system over standard system (both paper based tickets & magnetic tickets) ar mentioned below: victimization automatic ticket systems allows operators like transportation authorities to save lots of time and personnel costs; fare assortment are often organized way more expeditiously. These systems need low maintenance prices and reduced fraud-induced losses represent any blessings .

Actually, the RFID uses the low-end of the spectrum. So waves coming back from readers aren't dangerous and square measure kind of like those waves coming back from our automobile radio. Even as our radio tunes into totally different frequency to listen to different channels, RFID tags and readers square measure tuned to an equivalent frequency to speak . Radio waves travel through most non - metallic materials, so that they are often embedded in packaging or cased in protecting plastic for weatherproofing and bigger sturdiness. Like sensible tickets, RFID tickets square measure tougher to duplicate than magnetic tickets, reducing the chance of fraud.

RFID tickets come through virtually 100% browse rate. Not like magnetic readers, sensible price tag terminals don't have moving components. This reduces wear and tear, makes RFID terminals considerably additional reliable, and ends up in a discount of operation / maintenance-time ratios of quite four-hundredth. The paper based mostly construction and also the scale back memory size greatly reduce the tickets worth compared to a wise Card and makes migration of sectors of ticketing vary onto a wise platform economically possible.

IV. Operational principle of projected system

The browser can read the RFID tag hooked up to the rear aspect of the bus that's denoted because the rear tag. So the reader can have the thought of the bus and conjointly the route of the bus beside the time of arrival. Conjointly the reader being connected to the most server, the information can mechanically transfer to the server information. The screen within the bus can inform successive destination wherever the bus goes to prevent additionally the quantity of passengers sitting within the bus. All the passengers can carry a postpaid system RFID based mostly card which will have a singular ID variety. The cardboard is reversible from bound even mobile recharge booths placed at virtually each a part of town. The passenger making an attempt to urge on board can need to place the RFID price tag before of the reader hooked up to each bus .The reader can find the tag and need bound info from the passenger . In keeping with the route distance between departure & destination, it'll calculate the ticket fare and deduct the credit from the RFID tag based mostly ticket electronically and mechanically. The sample info hold on within the information regarding the route distance & credit unit is shipped to the server of town. The entire detection algorithmic program is represented in elaborated within the later half.

After all the passengers get on the board, the bus can leave the stop and also the reader can find the front tag hooked up to the bus .The reader can send the knowledge to the server and conjointly to the screen showing successive destination of the bus.

After the total day, the individual bus reader can savvy abundant credit has been transferred to the corresponding account and conjointly the knowledge are

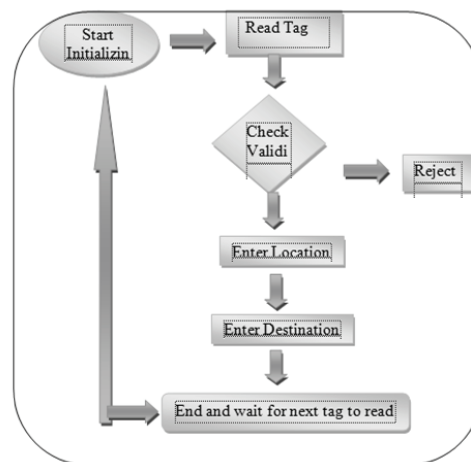
often found within the main information. Cross checking of all those info can enable higher observation, transparency and so reducing corruption.

Passenger ID	City ID	Ticket ID	Check Bit	Others
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Fig 4: possible data composition for RFID Ticket

V. Detection & process algorithm

As before long because the tag is placed before the reader hooked up to the bus, the tag can get energize revealing relevant info to the reader. An authenticated tag carrier can enter the beginning location and finish location info through the computer keyboard. The reader can settle for the cardboard if the cardboard has needed credit to travel that distance. The information non heritable by the reader are going to be hold on in its internal memory additionally as transferred to the most server information.



VI. Conclusion

RFID technology is beginning in Transportation at an progressively fast pace. Although there square measure few transportation firms using this technology now a days , however thanks to its customizable feature and continued improvement the communities square measure getting down to become involved in its development. It's straightforward to see that, the RFID tags contents can increase in power, costs square measure expected to say no and tag can dramatically improve its potency, security and accuracy. Conjointly major issues ought to be addressed for with success implementing this technology. In order that it'll amendment our personal and work lives in transportation and adorns the standard transportation management with a replacement plan and usher for a bright future.

VII. References

1. Venugopal Prasanth, Hari Prasad R., K.P. Soman, "Ticketing Solutions for Indian Railways Using RFID Technology," act, pp.217-219, 2009 International

- Conference on Advances in Computing, Control, and Telecommunication Technologies, 2009
2. Maria Grazia GNONI, Alessandra ROLLO, Pier Giuseppe TUNDO, "A smart model for urban ticketing based on RFID applications," IEEM09-P-0572, 2009 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM)
 3. Ana Aguiar, Francisco Nunes, Manuel Silva, Dirk Elias, "Personal Navigator for a Public Transport System using RFID Ticketing
 4. Hbeonlabs
 5. Go John Edwards-RFIDMontreal
 6. Bernard Menezes¹, KamleshLaddhad, Karthik B. KReSIT, "Challenges in RFID Deployment – A Case Study in Public Transportation"
 7. "Vehicle Tracking and Ticketing System (VTTS) Using RFID"
 8. Karaiskos, Dimitrios, Kourouthanassis, Panagiotis, Giaglis, George, "User Acceptance of Pervasive Information Systems: Evaluating an RFID Ticketing System":
 9. RFID journal
 10. George Roussos, VassilisKostakos, "RFID in Pervasive Computing: State-of-the-art and Outlook"
 11. Bo Yan, Danyu Lee; "Design of Sight Spot Ticket Management System Based on RFID", pp. 496 - 499, 2009 International Conference on Networks

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FUTURE OF DATA-DRIVEN PERSONAS IN THE ERA OF BIG DATA: A STUDY IN INDIAN ONLINE RETAILERS' PERSPECTIVE

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ABSTRACT :

Introduction: In order to understand what drives the interest and engagement in the usage of big data in marketing, its knowledge on assessing its marketing impact in online retailing is comprehensively significant. With the recent trends in digital marketing, business students and marketing practitioners around the globe are trying to get the best for further enhancing the economy. Thereby, the current review paper aims to assess the leveraging of data-driven personas in the era of big data and its marketing impact in online retailing (e-commerce), in particular to India.

Review of Literature: The review of the literature explored and highlighted the genesis of big data and the concept of persona. Further, the studies were explored which studied the impact of data-driven personas in e-commerce.

Findings: By reviewing the assessment and advantages elucidated in the previous related studies and also with those professionals who work on these large-scale online data, there is formulation of the use of personas which are data-driven. Substantially, personas which are driven digitally and tries capturing and covering the customer base attribution to representation of data in aggregated form while retaining the interpretability of analytics at individual level.

Implications: The current review paper contemplates how the digitally based personas which are data-driven draws from the technologically based advancements to remedy the concerns put forward by practitioners and scholars, including the inconsistency problem, persona validation, and long development times.

Keywords: *Big Data, Online retailing, Automatic Persona Generation, Data-driven Personas, Customer Segmentation, Online Analytics.*

1. Background of Study

In spite of the increase in the availability of the analytics data which is based online, the customer data is getting turned into practical insights by the decision maker (Salminen et al., 2017a). This online-based analytics is determined as Big Data. Due to this reason, various automatic analytics and insights generations have contended

(Salminen and Jansen, 2018; Wang and Yuan, 2015). For a better understanding of the customers, the technique of persona was characterized and popularised by researcher Cooper (2004). According to his research study, the persona is determined as a person who is fictitious in nature and represents an underlying customer or the user based group, often the customer's core to the organization, although they can also be potentially or desirable users of the system (Cooper, 2004). For various purposes, the personas are deployed. These include designing, software development, informatics of health and marketing (Goodwin and Cooper, 2009).

Big data plays a significant role in the business is made online and requires to meet the demands of the consumers and their preferences. According to a study manifested by Ghandour (2015), it was perceived that data analytics could be used for assisting business-oriented organizations in improving their performances and render the best services. The consumer based persona renders deeper understanding of those homogenous groups and permits ascertain feelings with them, which assists in recognizing key traits within them (Gilliland, 2017). Marketers and researchers use multiple based techniques for making personas which are consumer based. However, presently social media forms to be a vital tool in developing personas due to the built-in analytics tools to enable marketers with key datasets (Gilliland, 2017). Furthermore, Google Analytics is also discerned as a handy tool to get information pertaining to the customers and visitors visiting the sites. Primarily, significant information including gender, location, age, behaviour, channels and devices is rendered by google analytics. With the implementation of the tracking code along with the funnel making, google analytics provide us with the option to filter out the customers who are substantially promising in nature and enables the tracking of customer journals. (Clark et al., 2014). Furthermore, it is considered that majority of the web shop sales are only driven by a single kind of customer. For example, women who are young and non-professional aged between 25-30 are perceived to buy the most. Hence, for running the advertisements which are target based these parameters would be actionable. Hence, efficient and effective strategies are created with the use of consumer persona which subsequently enable in targeting the potentially based customers. Through the real-time based monitoring of social media many companies tries to understand from a marketing perspective (Valos et al., 2018). Globally, any change discerned in the buying behaviour of the customers about the brands and the products enables that even a slight deviation from the previously observed patterns could result in the immediate flag action for that brand or product (Dattoo, 2014). Thereby, such substantial amount of either continuous or specific customer based data enable the assistance of the companies in effectively tracking the trends in the products over time and further monitoring the engagement of the customers both online and offline. Consequently, data analytics that is

prescriptive renders a substantial amount of information in providing decisions which are smart and enables them to stay ahead in the competition.

2. Review of Literature

2.1. Overview of the genesis of Big Data and the concept of Persona

According to a study by McKinsey, big data is described as dataset which is huge and its size is beyond the ability of a normal sets of database software tools which are used for capturing, storing, managing and analysing (Manyika et al., 2011). Originally, Gartner was the first to bring forward the introduction of the big data by characterizing it by several V's including the volume (significantly large amount of data), variety (different types of data) and the velocity (speed and continuity pertaining to the data generation) (Zikopoulos et al., 2012; Berman, 2013) along with the degree to which it is structurally organized and searchable or in an unstructured form (Gandomi&Haider, 2015). In order to humanize the big analytic data gathered from different sources, these personas help in creating user format. Subsequently, these personas enable in understanding the users with more form of sympathy and relating users with more of marketing based efforts (An et al., 2018; Pruitt &Adlin, 2006). It has also been discerned that majorly 91% of the 1000 fortune companies have been investing in the BDA projects and there has been a substantial increase of 85% when compared to the previous years (Kiron et al., 2014). According to a study by Akter and Wamba (2016), the researchers discussed the varying nature of BigData being adopted in e-commerce. The online transactional data is the first type which deals with the selling of the goods and providing various other services online such as Expedia, Amazon, eBay, or provide services using the transactions which occur online like Netflix, Match.com etc (Akter&Wamba, 2016). In general, the mining of the web leads to some issues when it is applied to e-commerce.

2.2. Leveraging data-driven personas

Introduction of personas was rendered by Cooper (2004) as a technique designed to communicate and thereby understand the goals and hence the needs of varying forms of users. The personas since then have been put into use by the professionals who are engaged in designing work, development of software, marketers and also the groups associated with the decision making process (Pruitt &Adlin (2006); Nielsen (2013); Mulder &Yaar (2006)). Several advantages are known, which indirectly leads to the increase in the sales pertaining to the centralizing customer data sources, personalizing the shopping experience in real-time, and combining internal data sources with the external information (Sagiroglu&Sinanc, 2013). With the summarization of the information of the customers in intuitively based format of representation, the information gets communicated with very less efforts with the organizations, teams, departments, teams and with external stakeholders (Matthews et al., 2012). An engaging description gets further rendered by the use of personas of

the wants and the needs of the end-users', in humanly form, which is more memorable than numbers (Goodwin and Cooper (2009); Hill et al. (2017)). A study by Herskovitz and Crystal (2010) outlined that both the software and marketing personas have the same basic components; they both try to be easily recognizable, be familiar and attempt in creating an emotional bond articulating the personality and characteristics of the user group which the persona is made up of. In a study by Cayla and Arnould (2013), it was elucidated that the personas are created for rendering a more emphatic and holistic understanding of the target audience. They are further used for inducing human-centred design for processes. Through several steps, personas are created that combines qualitative and quantitative data (Tu et al., 2010). With the online analytics of data becoming more prevalent and accessible, the researchers over the past have contemplated novel techniques for the generation of data-driven persona digitally, instead of analogue, data for creation of the personas (Zhang et al., 2016). Majorly, two significant challenges are addressed by data-driven persona generation in the creation of personas. Firstly, the intricacy and difficulty of utilising substantial data of the customers for the creation of the personas. The second challenge which is discerned is that the process of creation of personas manually is slow and perceived to be expensive. Primarily, the online analytics data is transformed by the data-driven personas representing the process efficiently of the decision-makers (An et al., 2018c; Salminen et al., 2018a). Furthermore, these personas which are data-driven are created rapidly and are thus updated easily while maintaining the individual's privacy (An et al., 2018b). Moreover, the data that is based on the real-time enables the process of personas validation to determine whether the personas are representing the current customers or not (Chapman & Milham, 2006). Consequently, it ensures in the generation of the content which is digitally available for the different platforms available online like Facebook, YouTube, Twitter and Instagram and so on. Subsequently, the ability to provide perfect and matchable communication messages to the marketers is ensured (An et al., 2018). However, very minimal research is known to be related to the conversion of online based data of the customers to the personas. It is aberrant for generating personas from online customer's data and thereby ensuring marketing strategies accordingly. Pertaining to the marketing sector, advertisement marketer's work by segmenting substantially obtained data into small forms of groups or even the segments of the market (Clarke, 2015).

2.3. Impact of data-driven personas in e-commerce

Data is incredibly significant for e-commerce marketing. Although this data requires both resources and time, however, the returns it renders in are well worth it. The proliferation www and the Internet over the last few years has resulted in the development of newly based social and marketing spaces, and formulation of newly formed interaction and identity (Ozuem, Howell, & Lancaster, 2008). With

efficiently use of data, the efforts of marketing are of much effective use. Over the last few years, digitalization has identified a dramatic increase in data availability related to users who are available online (Motiwalla et al., 2019). It is a known fact that major percent of the users use internet regularly several times a day for various kinds of purposes (PewResearch, 2018; Mathwick, 2002; KengKau et al., 2003). With the use of this consumer-based data, the companies consolidate the attributes and also the characteristics related to the customers. Thereby, enhancement of the data which is available freely and data which comes from third-party tools about the users ensures in providing companies with the ability of building multiple set of groups. A study by An et al. (2018) utilised the data of the consumers in making segments to ensure they analyze the behavioural interactions of the customers with online content. Furthermore, studies have revealed that they have used the available data for classifying visitor's gender and for the classification depending on the behavioural segments. The companies with this get revenue from the classification of the segments according to the attributes of demographics. A study by An et al., (2018) helped to outline the optimization of their online campaigns, i.e. performance metric optimization. The segmentation of customers further assists in the identification of the primary attributes using which the companies segregate customers into various segments (Cooil et al., 2008). Processing of segmentation is essential before the personas are made since it enables in the validation of the identity of groups that are homogeneously based of the consumers (William, 2016). According to a study by Pruitt and Adlin, 2006, it was discerned that the concept of persona is vital for the development of the product. Multiple ideas are there in the product development cycle in the beginning (Stark, 2015). Because of the limited resources, it becomes challenging to use every feature for the development of the product; more significantly, the question which comes into mind is whether all the characteristics and the notions satisfy one's need or not. Thus, personas helps to focus the energy towards a single direction and hence limits the ideas. Many potential researchers have also shown argument that although the big data analytics have a comprehensively based potential to improvise the performance of the business, however, the decision makers needs to explore and highlight the challenges in the business in order to reap the benefits (Schroeck et al. 2012; Davenport et al. 2012; Shah et al. 2012). Although the paper highlights several advantages offered by leveraging data-driven personas.

3. Conceptual framework

A conceptual model is developed by considering the literature explored.

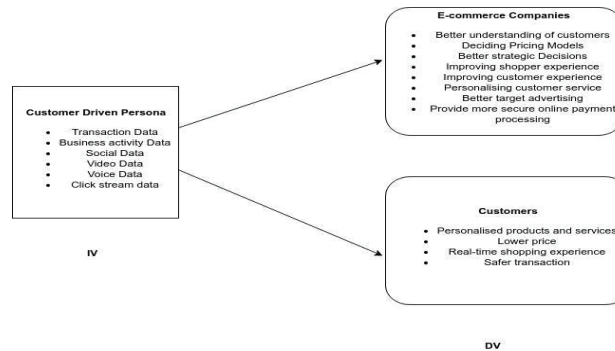


Figure 1: Conceptual Model depicting leveraging of data-driven personas

In this framework, customer-driven persona data is taken as an independent variable. The various parameters of customer-driven data are voice data, video data, click data, transaction data, and business activity data. Such independent variables will affect the business of e-commerce companies as well as the customers buying from such retailers. The E-commerce companies and customers buying behaviour are taken as the dependent variable. The various parameters of e-commerce companies and customers that are dependent on data-driven personas are mentioned in the conceptual framework.

4. Findings and Discussion

As the role of the data as an agent for change in marketing execution is studied, the attributions simultaneously represent one of the most vital challenges and opportunities. The subsequent step is to leverage the data for supporting a range of strategic business purposes. For powering more relevant, and engaging communications, there comes the need to identify and segment those audiences. The current review paper has thereby approached to obtain the major inferences from the existing body of literature pertaining to the adoption and the practicality of personas provided the accessible opportunity of data which is available online of the individual customer for the use of it in digital marketing. A very significant aspect of the practice of marketing is to target segments of consumers for the various kinds of promotional based activity (Andrews & Shimp, 2017). Primarily, the increase in the availability of individually based consumer panel data provided in opening the possibility of directly targeting individual households. Our study chiefly indicates that there is existence of tremendous potential for the improvement of the profitability of efforts in direct marketing by leveraging the data-driven personas. Many retailers, because of the widespread use of data-driven personas, have established loyalty or frequent shopper programs (Ettl et al., 2019). The present review paper shows its contribution both in terms of academic and practicing. Henceforth, there is an extension in the existing literature of knowledge management for incorporating data analytics aspects. By utilizing this big data, the organizations can not only improve financial and operational performances but also increase the learning and enhancement of the outcomes for both the customers and the

employees. The current surge in the big data is perceived to be unavoidable. For efficiently utilizing the voluminous data being constantly created, the organizations face the uphill task of having to convert the data into useful information. The most crucial conclusion of the current review paper is adoption of data that is sales database. Thereby, study discerns the using of data for marketing strategies. The vital form of data obtained from the sales based database could render significant knowledge like the demographics of the real based users, or the sales database sheet can be used in understanding more about the customers from tools which are used in customer intelligence. Previous studies have already demonstrated social media usage for the data in the analytical form for the identification of the major customer segments through the process of rendering significant data like the demographic data and behavioural data (Singh et al., 2018). Through this review paper, the researcher also discerns that the personas ensures and enables enhancement in the sales due to the reason that marketers can effectively communicate, thus assisting in the ability of focusing on the right audience. The generated personas not only help in marketing digitally but in the traditionally based marketing efforts also. The paper further discussed the segmentation process using social media and Google Analytics. These platforms are equipped with the demographic-based data, affinity-based data and the behavioural based data for creating the personas. In the digital-based landscape, the methods of persona help in the understanding of the consumers and thereby optimizing performance metrics including the management of the sales, effectiveness perceived in the speed of tasks, or obtaining of the aims in the advertisements (An et al., 2018). Moreover, many third-party tools presently are also available like the socialbakers.com which are available for generating personas from company's webshop consumer data through first stage of the sales funnel and using artificial intelligence for the creation of the personas (Goddard et al., 2019). Hence, the method of personas helps in the field of marketing. The humanized personas help in targeting the audience using the quantitative and qualitative data, thereby helping marketers in making content helpful in the communication of the brand and in precisely making of the focused strategies of marketing (Malik, 2018). Consequently, these personas forms to be the perfect way of transforming data that is customer-centric into easy and understanding representation for helping the firms in the process of decision making (An et al., 2018). Conclusively, four primary advantages are identified for the method of the personas. Firstly, the method of persona significantly enable in the development of the product (Pruitt & Adlin, 2006; Putnam, 2010; Miaskiewicz&Kozar, 2011). Secondly, personas help in the management of the project as it helps to focus on single primary theme thereby solving the most crucial question of understanding the targeted audience (Miaskiewicz&Kozar, 2011). Third, personas help marketers in communicating with their audience in an effective way since it ensures in developing a commonly based

language with regards to the users (Pruitt &Adlin, 2006; An et al., 2018). Lastly, these are used for to humanize the big analytic data accumulated from different sources which further help in creating user based format, further ensuring in the understanding of the user with more form of empathy and relating users with the efforts of marketing (Pruitt &Adlin, 2006; An et al., 2018).

5. Conclusion

From the current review paper, big data is discerned to be the fast-paced phenomenon in rendering organizations with sources and mechanisms that are unique and fresh and thereby also the channels for information and value creation. The paper clearly highlights the two significant and recent trends in the big data. Firstly, the creation of highly interactive based tools of database for the collection of information from various sources of data (such as customers, competitions, employees, and other stakeholders). Secondly, need-based data architecture that is capable of incorporating customers form the recent trend(Tableau, 2017). Consequently, substantial scope is there for the practitioners alike who can evaluate the effects of big data to bring enhancement in the capabilities of the organization. Further, futuristic directions for the study could combine the ability of inquiring deeper into the dynamics of big data for understanding the process of knowledge flow from big data to the employee experiential knowledge. Moreover, the subsequent step into future consideration could be to study the ethics involved in data capturing. An example like this could be the taxonomy-based approach rendered by Herschel and Miori (2017) for studying the ethical perspectives surrounding big data.

References

1. Akter, S., &Wamba, S. F. (2016). Big data analytics in E-commerce: a systematic review and agenda for future research. *Electronic Markets*, 26(2), 173-194.
2. An, J., Kwak, H., Jung, S., Salminen, J., Admad, M., & Jansen, B. (2018). Imaginary people representing real numbers: generating personas from online social media data. *ACM Transactions on the Web (TWEB)*, 12(4), 27.
3. Andrews, J. C., &Shimp, T. A. (2017). Advertising, promotion, and other aspects of integrated marketing communications. Nelson Education.
4. Berman, J.J., (2013). Principles of Big Data. Morgan Kaufmann.
5. Cayla, J., &Arnould, E. (2013). Ethnographic stories for market learning. *Journal of Marketing*, 77(4), 1-16.
6. Chapman, C. N., &Milham, R. P. (2006, October). The personas' new clothes: methodological and practical arguments against a popular method. In

- Proceedings of the human factors and ergonomics society annual meeting (Vol. 50, No. 5, pp. 634-636). Sage CA: Los Angeles, CA: SAGE Publications.
7. Clark, D. J., Nicholas, D., & Jamali, H. R. (2014). Evaluating information seeking and use in the changing virtual world: the emerging role of Google Analytics. *Learned publishing*, 27(3), 185-194.
 8. Clarke, M. F. (2015, April). The work of mad men that makes the methods of math men work: practically occasioned segment design. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems* (pp. 3275-3284). ACM.
 9. Cooil, B., Aksoy, L., & Keiningham, T. L. (2008). Approaches to customer segmentation. *Journal of Relationship Marketing*, 6(3-4), 9-39.
 10. Cooper, A. (2004). *The inmates are running the asylum: [Why high-tech products drive us crazy and how to restore the sanity]* (Vol. 2). Indianapolis, IN: Sams.
 11. Datto, S. (2014). How tracking customers in-store will soon be the norm. *The Guardian*, 10.
 12. Davenport, T. H., Barth, P., & Bean, R. (2012). How 'big data' is different. *MIT Sloan Management Review*.
 13. Davenport, T.H. and Patil, D.J., 2012. Data scientist. *Harvard business review*, 90(5), pp.70-76.
 14. Ettl, M., Harsha, P., Papush, A., & Perakis, G. (2019). A data-driven approach to personalized bundle pricing and recommendation. *Manufacturing & Service Operations Management*
 15. Gandomi, Amir & Haider, Murtaza. (2015). Beyond the hype: Big data concepts, methods, and analytics. *International Journal of Information Management*. 35. 137-144.
 16. Ghandour, A. (2015). Big Data driven e-commerce architecture. *International Journal of Economics. Commerce and Management*.(UK), 3(5), 940-947.
 17. Gilliland, N. 2017. What are customer personas and why are they so important? <https://econsultancy.com/customer-personas/>
 18. Goddard, D., Mulholland, P., & Piccolo, L. (2019). Deriving Personas Based on Attitudes to Interruption and Information Overload.
 19. Goodwin, K. and Cooper, A. (2009). *Designing for the Digital Age: How to Create Human-Centered Products and Services*. Wiley, Indianapolis, IN.

20. Herschel, R. and Miori, V.M., 2017. Ethics & big data. *Technology in Society*, 49, pp.31-36.
21. Herskovitz, S., & Crystal, M. (2010). The essential brand persona: storytelling and branding. *Journal of business strategy*, 31(3), 21-28..
22. Hill, C. G., Haag, M., Oleson, A., Mendez, C., Marsden, N., Sarma, A., & Burnett, M. (2017, May). Gender-Inclusiveness Personas vs. Stereotyping: Can we have it both ways?. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems* (pp. 6658-6671). ACM.
23. Holtzblatt, Karen, Jessamyn Burns Wendell, Shelley Wood. (2005). *Rapid Contextual Design - A How-to Guide to Key Techniques for User-Centered Design*. Morgan Kaufmann.
24. KengKau, A., Tang, Y. E., & Ghose, S. (2003). Typology of online shoppers. *Journal of consumer marketing*, 20(2), 139-156.
25. Kiron, David & Prentice, Pamela & Ferguson, R.B. (2014). The analytics mandate. *MIT Sloan Management Review*. 55. 1-25.
26. Malik, A. (2018) *Persona based marketing strategies - creation of personas through data analytics*. Master's Thesis, Oulu Business School, Finland.
27. Manyika et al. (2011). *Big data: The next frontier for innovation, competition, and productivity*. McKinsey Global Institute.
28. Mathwick, C., Malhotra, N. K., & Rigdon, E. (2002). The effect of dynamic retail experiences on experiential perceptions of value: an Internet and catalog comparison. *Journal of retailing*, 78(1), 51-60.
29. Matthews, T., Judge, T., & Whittaker, S. (2012, May). How do designers and user experience professionals actually perceive and use personas?. In *Proceedings of the SIGCHI conference on human factors in computing systems* (pp. 1219-1228). ACM.
30. Miaskiewicz, T., &Kozar, K. A. (2011). Personas and user-centered design: How can personas benefit product design processes?. *Design studies*, 32(5), 417-430.
31. Motiwalla, L., Deokar, A. V., Sarnikar, S., &Dimoka, A. (2019). Leveraging Data Analytics for Behavioral Research. *Information Systems Frontiers*, 1-8.
32. Mulder, Steve and Yaar, Ziv. (2006). *The User Is Always Right - A Practical Guide to Creating and Using Personas for the Web*. New Riders.
33. Nielsen, L. (2013). 5: Do You Know Karina?. In *Personas-User Focused Design* (pp. 59-79). Springer, London..

34. Ozuem, W., Howell, K. E., & Lancaster, G. (2008). Communicating in the new interactive marketspace. *European Journal of Marketing*, 42(9/10), 1059-1083.
35. Pew Research Center. (16 de marzo de 2018). Comparing Millennials To Other Generations. Recuperado el 20 de Abril de 2018 de: <http://www.pewresearch.org/interactives/howgenerations-compare/>
36. Pruitt, J., & Adlin, T. (2010). *The persona lifecycle: keeping people in mind throughout product design*. Elsevier.
37. Putnam, C. (2010). Bridging the gap between user experience research and design in industry - An analysis of two common communication tools: Personas and scenarios. Doctoral Dissertation, University of Washington.
38. Salminen, J., Jung, S. G., An, J., Kwak, H., & Jansen, B. J. (2018, April). Findings of a user study of automatically generated personas. In *Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems* (p. LBW097). ACM.
39. Salminen, J., Milenković, M., Jansen, B. J., & Dubai, D. (2017, January). Problems of data science in organizations: an explorative qualitative analysis of business professionals' concerns. In *Proceedings of International Conference on Electronic Business (ICEB 2017)*. Dubai.
40. Salminen, J., Nielsen, L., Jung, S. G., An, J., Kwak, H., & Jansen, B. J. (2018, April). "Is More Better?": Impact of Multiple Photos on Perception of Persona Profiles. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* (p. 317). ACM.
41. Salminen, J., Sengün, S., Kwak, H., Jansen, B., An, J., Jung, S. G., ... & Harrell, D. F. (2017, August). Generating cultural personas from social data: a perspective of middle eastern users. In *2017 5th International Conference on Future Internet of Things and Cloud Workshops (FiCloudW)* (pp. 120-125). IEEE.
42. Sagirolu, S., & Sinanc, D. (2013, May). Big data: A review. In *2013 International Conference on Collaboration Technologies and Systems (CTS)* (pp. 42-47). IEEE.
43. Schroeck, M., Shockley, R., Smart, J., Romero-Morales, D., & Tufano, P. (2012). Analytics: The real-world use of big data. *IBM Global Business Services*, 12(2012), 1-20.
44. Shah, S., Horne, A., & Capellá, J. (2012). Good data won't guarantee good decisions. *Harvard Business Review*, 90(4), 23-25.

45. Singh, A., Shukla, N., & Mishra, N. (2018). Social media data analytics to improve supply chain management in food industries. *Transportation Research Part E: Logistics and Transportation Review*, 114, 398-415.
46. Stark, J. (2015). Product lifecycle management. In *Product lifecycle management (Volume 1)* (pp. 1-29). Springer, Cham.
47. Tu, N., He, Q., Zhang, T., Zhang, H., Li, Y., Xu, H., & Xiang, Y. (2010). Combine qualitative and quantitative methods to create persona. In *2010 3rd International Conference on Information Management, Innovation Management and Industrial Engineering (Vol. 3, pp. 597-603)*. IEEE.
48. Valos, M. J., Haji Habibi, F., Casidy, R., Driesener, C. B., & Maplestone, V. L. (2016). Exploring the integration of social media within integrated marketing communication frameworks: Perspectives of services marketers. *Marketing Intelligence & Planning*, 34(1), 19-40.
49. Valos, M. J., Turner, P., Scheepers, H., & Stockdale, R. (2018). Integrating online communities within business-to-business marketing communications: an exploratory study. *Journal of Marketing Communications*, 24(5), 450-468.
50. Wang, J., & Yuan, S. (2015, February). Real-time bidding: A new frontier of computational advertising research. In *Proceedings of the Eighth ACM International Conference on Web Search and Data Mining* (pp. 415-416). ACM.
51. Wang, W. Y., Pauleen, D. J., & Zhang, T. (2016). How social media applications affect B2B communication and improve business performance in SMEs. *Industrial Marketing Management*, 54, 4-14.
52. Zhang, X., Brown, H. F., & Shankar, A. (2016, May). Data-driven personas: Constructing archetypal users with clickstreams and user telemetry. In *Proceedings of the 2016 CHI conference on human factors in computing systems* (pp. 5350-5359). ACM.
53. Zikopoulos, P., D. deRoos, K. Parasuraman, T. Deutsch, J. Giles, and D. Corrigan. (2012). *Harness the Power of Big Data -- The IBM Big Data Platform*. Mcgraw-Hill.

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