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Amrita Tatia Karnawat

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**CUSTOMER LOYALTY IN SELECT HYPERMARKETS IN CHENNAI**

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**ABSTRACT**

*Satisfying customers is one of the main objectives of every business. Businesses recognize that keeping current customers is more profitable than having to win new ones to replace those lost. Management and marketing theorists underscore the importance of customer satisfaction for a business's success. Customer satisfaction is the key factor in knowing the success of any retail store or business, therefore it is very important to measure it and to find the factors which affect the customer satisfaction. Customers are most likely to appreciate the goods and services that they buy if they are made to feel special. This occurs when they feel that the goods and services that they buy have been specially produced for them or for people like them. It should be always keep measuring in order to get feedback for the product and service in order to develop it further with wide customization. Customer satisfaction refers to the extent to which customers are happy with the products and services provided by a business. Customer satisfaction levels can be measured using survey techniques and questionnaires. Gaining high levels of customer satisfaction is very important to a business because satisfied customers are most likely to be loyal and to make repeat orders and to use a wide range of services offered by a business. Customer satisfaction is an asset that should be monitored and managed just like any physical asset. This is true for both service-oriented and product-oriented organizations.*

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**INTRODUCTION**

The word 'Shopping' is frequently heard in every household. There are various reasons for our shopping starting from meeting our daily requirements and getting pleasure out of it. The organized retail sector has witnessed drastic changes in the past especially due to entry of corporate companies in the retailing sector. The emergence of larger shopping stores and centres have replaced the old traditional retail stores.

In multi-branded retail settings, store environment impacts the perceived quality and value of products sold in the store (baker et al. 2002). Accordingly, customer retention strategies, buying habits and motives are also changing drastically. Shopping stores are visited not only younger people but also by old people for fulfilling various shopping requirements. The present study focuses on the 'Hypermarket' one of the promising retail format which has emerged as the essential and stand-alone retail market with the concept of "all under one roof" selling.

Chennai is one of the most happening cities in India and it is the fourth largest Metropolitan with the population of more than 10 million with many IT and ITES industries. People who live in Chennai are from diverse culture and their shopping requirements also varies accordingly needs are also diverse. Modernisation and technological advancement have increased the Personal Disposable Income in the last 15 years which has made it necessary to have giant retail stores where everything is easily available under one roof.

Hypermarket is very large retail store which and it is a combination of supermarket and Departmental Stores which serves as a One-Stop shop for consumers to fulfill all their shopping needs without visiting various stores. Hypermarkets basically have all the merchandise such as clothes, grocery, medicine, crockeries, electronic items etc.

The purpose of the hypermarket is to allow the consumers to purchase all the goods they would need under the same roof, eliminating having to visit various stores.

Customer retention strategies for shopping in hypermarkets is influenced by several factors such as store attributes, demographics, psychographics and cultural factors. This study attempts on exploring some of the important attributes and dimensions which influence the customers to prefer for shopping in few Hypermarkets in Chennai.

**LITERATURE REVIEW**

Customer Loyalty According to Dick (1994) customer loyalty has been defined as the strength of the relationship between the individual relative attitude and repeat patronage towards products. Customer loyalty is always related with brand. Based on ideas and principles in marketing a brand is a name, sign, symbol, term or design or combination of these, created to identify and differentiate a particular brand from goods and services of one seller from those of competitor Kotler (2003) operationally, a brand conveys to identify the name or



fame that are used to represent a specific set of unique features, benefits and services to the buyers. Where an organization fails to develop a brand name as a major part of marketing its goods and services it fails to attract customer loyalty (Kotler, 2003). It is majorly agreed according to Chaudhuri & Holbrook (2001) that loyalty is the most important factor which affects the performance of the company as its customers will be cheap to maintain than gaining new ones. However, it is still uncertain whether a repeat purchase behaviour or retention of a customer by a particular store can be fully regarded as customer loyalty or devotion is the considered to be the case (Oliver, 1999). Several studies have proven that there exists a direct connection between the satisfaction and loyalty. According to Kasper (1995) satisfied customers become loyal and dissatisfied customers may move to other sellers. The term customer loyalty is used to describe the behaviour of repeat customers, as well as those who offer good ratings, reviews, or testimonials. Some customers do a particular company a great service by offering favourable word of mouth publicity regarding a product, telling friends and family, and adding them to the number of loyal customers. Customer loyalty includes much more, however; it is a process, a program, or a group of programs geared toward keeping a client happy so he or she will provide more business. Customer loyalty is built in some cases by offering a quality product with a firm guarantee. Provision of free offers, coupons, reduced prices, high value trade-ins, extended warranties and other rewards and customer loyalty incentive programs. The ultimate goal is happy customers who will return to purchase again and persuade others to use that company's products or services. This equals profitability and happy stakeholders. Customer loyalty may also involve a one-time program or incentive, or an ongoing group of programs to entice consumers (Kotler, 2003). Buy-one-get-one free programs are very popular, as are purchases that come with rebates or free gifts. Another good incentive is offering a risk free trial period for a product or service especially on electronics sold in supermarkets. Also known as brand name loyalty, these types of incentives are meant to ensure that customers will return, not only to buy the same product again and again, but also to try other products or services offered by the company. Mostly customer loyalty has been viewed by several authors as a multidimensional concept acknowledged by different dimensions, some of which can be identified by behaviour of customer which is uncertain and other psychological processes (Allen, 1998), for example, pointed out that it should be measured by individualising the attitudinal loyalty defined as a customer tendency towards a brand that include preference thus a supermarket store having a stable consumer base basing on attitudinal loyalty creates the opportunity for cross-selling and it decreases the stores marketing cost as word of mouth from a satisfied customer does market it (Lasser, 1998). Loyalty to an object for example a brand, store, service or company is shown by favourable propensities towards that object. These propensities may be behavioural or attitudinal. In industrial and service marketing, behavioural loyalty is viewed as retention of the brand (Reichheld, 1996). For services, particularly those in semi-continuous use such as mobile-phone airtime, such retention can be measured by the duration of time that the customer has used the service and, for durables, by the customer's repeat purchase of the brand. In markets such as supermarkets, where customers may use several brands in a category, the share-of-category expenditure is used to measure customer loyalty (Aaker, 1992). Another behavioural measure of customer loyalty, is the portfolio size; this is the number of brands used in a period, the larger the number, the lower the loyalty. Turning to attitudinal measures, liking the brand has been used as a predictor of retention, while other researchers have explained loyalty in relation to satisfaction commitment and trust (Oliver, 1999). Definitions may be singular, in the sense that they focus on single concepts, either attitudinal or behavioural. However, much of this discussion of loyalty has centred on more consequences of loyalty. These elaborate treatments have often represented consumer loyalty as a combination of concepts. For example, Chestnut (1978) proposed a six-component definition on loyalty that included both attitude and behaviour. This approach to the conceptualization of loyalty seems to be partly related to a need to represent the causes of loyalty, and partly semantic, that this is what the term 'loyalty' means. Semantic considerations provide a start in scientific definition but the idea that attitude-behaviour congruence is required for loyalty seems ill founded. In interpersonal contexts, loyalty is shown when persons do not undermine others by what they say or do. A person who has undisclosed misgivings, yet still behaves supportively, is seen as loyal. Thus, everyday usage appears to link loyalty more with behaviour than attitude. The inclusion of potential causes in the definition of loyalty is typified by Oliver (1999) he defines loyalty as a deeply held commitment to re-buy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour. This definition implies a positive correlation between attitude and behaviour in loyal groups but Oliver reports that this association is usually quite weak and concludes that true loyalty, with emotional commitment to the brand, is rare.

#### **STATEMENT OF PROBLEM**

Indian Hyper-market industry is more vibrant than ever, with major industry players vying for their share in the retail segment. The size and share of the Indian Hyper-market is expected to increase in the coming years, given

the strong macroeconomic performance, favourable consumption pattern due to growing personal disposable income, rapid development of Tier II and III cities, availability of quality retail space and the recent entry of big industrial houses into retailing with focus on large store formats. Hyper-market has to retain and attract customers from different segments. The study is also a systematic analysis of different marketing practices adopted by Hyper-markets managers. The key questions addressed in the study are:

What are the strategies that the emerging hypermarkets should adopt in order to retain their customers in Chennai?

What are the factors that contribute to the consumer behavior?

How consumer buying behaviour is influenced by the marketing practices?

### **OBJECTIVES OF THE STUDY**

- To study the socio economic factors of the respondents who shop in hypermarkets
- To determine perception of consumer loyalty towards hypermarkets

### **RESEARCH HYPOTHESES**

- There is a significant difference in the consumer preferences for shopping in hypermarkets with respect to age.
- There is a significant difference in the consumer loyalty for shopping in hypermarket with respect to gender, qualifications, occupation, monthly
- There is a significant difference in the characteristics of a good hypermarket.
- There is a significant difference in the perception of consumer loyalty towards hypermarket.

### **SCOPE OF THE STUDY**

Hypermarkets have emerged as one of the most important retailing entities in many countries offsetting traditional retail format and supermarkets (Barros 2006; Shannon 2007, Sehib et, al 2012) In the present-day scenario emergence of large-scale organised retail formats like hypermarkets are increasing in large number to fulfil the one stop shop shopping needs and recreational needs of customers. Consumer preference for shopping in retail formats is largely influenced by many factors like- availability of all items under one roof, pricing and promotional discounts, customer service quality, facilities and assortments inside the store, wide variety of merchandise to choose. accessibility and parking facilities, Easy payment options, service quality, crowd management, online and mobile apps for easy of customer shopping. Consumer shopping preference is changing in a fast pace and their expectations are rising, so it is clearly understood that there is a tough competition among hypermarket retailers and other stores. The need of this study is to understand the factors that motivate them to visit the hypermarkets and how hypermarkets lure customers by introducing some technological strategies.

### **RESEARCH METHODOLOGY**

Methodology adopted in this study is exploratory research design. The Primary Data is collected through questionnaire Method. Through the various steps, which are involved in the exploratory research, are as:

1. Research Design : Exploratory
2. Data Source : Primary & Secondary data
3. Research Instrument : Questionnaire
4. Sample Plan : Hypermarkets in Chennai
5. Sample Size : 800 customers
6. Sampling Procedure : Non Probability Sampling – Convenience sampling
7. Sampling Methodology : Personal Survey

Data has been collected using both primary as well as secondary method. Primary data has been collected using structured questionnaire. The population of the study comprised of customer visiting retail malls such as Big Bazaar, SPAR Hypermarket, Saravana Hypermarket, Pothys Hyper, D Mart

## DATA ANALYSIS

TABLE – 1: AGEWISE CLASSIFICATION OF THE RESPONDENTS

AGE	FREQUENCY	PERCENTAGE
16 - 30	48	32
31 - 45	58	39
40 - 60	34	22
> 60 years	10	7
<b>Total</b>	<b>150</b>	<b>100</b>

TABLE - 2

GENDER	FREQUENCY	PERCENTAGE
Female	85	57
Male	65	43
<b>Total</b>	<b>150</b>	<b>100</b>

The sample was dominated by females. Gender-wise analysis as shown in Figure 5.2 indicates that 43 percent respondents are males and 57 percent are females.

TABLE - 3

EDUCATION	FREQUENCY	PERCENTAGE
Higher Secondary	17	11
Graduation	109	72
Post – Graduation	21	14
Others	3	2
<b>Total</b>	<b>150</b>	<b>100</b>

The educational qualifications of the groups of respondents undertaken in the study are: higher secondary level, graduate level and post graduate level. As depicted through Figure 5.3, respondents falling in the higher secondary level are 11%. This was followed by 72.% of respondents in the graduation level, 14 % respondents are post graduates and other constituted 2 % of the total respondents.

TABLE - 4

OCCUPATION	FREQUENCY	PERCENTAGE
Salaried	48	32
Professional	36	24
Self-Employed	35	23
Home Maker	18	12
Others	13	9
<b>Total</b>	<b>150</b>	<b>100</b>

The respondents under the study has a mix up with respect to the occupation. 32 % were salaried, 24 % were professionals, 23 % were self-employed, 12 % were home makers, and 9 % were classified as others.

TABLE - 5

INCOME (in Rs)	FREQUENCY	PERCENTAGE
<20000	39	26
20001 TO 40000	64	43
40001 TO 60000	33	22
>60000	14	9
<b>Total</b>	<b>150</b>	<b>100</b>

26 % of the total respondents had a monthly income less than Rs 20000/-, 43 %, 22 % and 9 % belonged to the monthly income group between Rs 20001/- to Rs 40000/-, Rs 40001/- to Rs 60000/- and above Rs 60000/- respectively.

**Null Hypothesis  $H_{01a}$**  : There is no significant difference in the consumer preferences for shopping in hypermarkets with respect to age.

**Test Applied** : Chi Square Test

**TABLE - 6 : CROSS TABS BETWEEN AGE & SHOPPING PREFERENCE**

AGE	SHOPPING PREFERENCE			Total
	ALONE	BOTH	with family friends	
16 - 30 yrs	6	9	33	48
31 - 45yrs	6	11	41	58
46 - 60yrs	1	18	15	34
above 60yrs	3	1	6	10
Total	16	39	95	150

**TABLE – 7: Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.832 <sup>a</sup>	6	.002
Likelihood Ratio	18.958	6	.004
Linear-by-Linear Association	1.820	1	.177
N of Valid Cases	150		

a. 3 cells (25.0%) have expected count less than 5. The minimum expected count is 1.07.

Since P Value < 0.05, null hypothesis is rejected.

**INFERENCE** : There is a significant difference in the consumer preferences for shopping in hypermarkets with respect to age.

**Null Hypothesis :  $H_{01b}$**  : There is no significant difference in the consumer preference for shopping in hypermarket with respect to gender.

**Test Statistic** : Chi Square

**TABLE – 8: CROSS TABS BETWEEN GENDER Vs FREQUENCY OF VISIT**

GENDER	FREQUENCY OF VISIT				Total
	once a week	once a fortnight	once a month	as and when required	
Female	28	24	7	26	85
Male	17	21	4	23	65
Total	45	45	11	49	150

**TABLE – 9: Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.246 <sup>a</sup>	3	.742
Likelihood Ratio	1.254	3	.740
Linear-by-Linear Association	.499	1	.480
N of Valid Cases	150		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 4.77.

Since P Value > 0.05, null hypothesis is accepted.

**INFERENCE :** There is no significant difference in the consumer preference for shopping in hypermarket with respect to gender.

**Null Hypothesis : H01c :** There is no significant difference in the consumer preference for shopping in hypermarkets with respect to educational qualifications.

**Test Statistic :** Chi Square

**TABLE – 10 : CROSS TABS BETWEEN EDUCATION & PREFERRED MODE OF PAYMENT**

EDUCATION	PREFERRED MODE OF PAYMENT				Total
	cash	debit cards	credit cards	multiple options	
Higher secondary	7	1	5	4	17
Graduation	14	6	48	41	109
Post-Graduation	0	4	8	9	21
Others	1	1	0	1	3
Total	22	12	61	55	150

**TABLE – 11: Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.883 <sup>a</sup>	9	.009
Likelihood Ratio	21.591	9	.010
Linear-by-Linear Association	3.968	1	.046
N of Valid Cases	150		

a. 8 cells (50.0%) have expected count less than 5. The minimum expected count is .24.

Since P Value < 0.05, null hypothesis is rejected.

**INFERENCE:** There is significant difference in the consumer preference for shopping in hypermarkets with respect to educational qualifications.

**Null Hypothesis H01d:** There is no significant difference in the consumer preference for shopping in hypermarkets with respect to occupation.

**Test Statistic :** Chi Square

**TABLE – 12: CROSS TABS BETWEEN OCCUPATION & AMOUNT SPENT IN HYPERMARKET**

OCCUPATION	AMOUNT SPENT IN HYPERMARKET				Total
	less than 1000	1001-2500	2501-4000	above 4001	
Salaried	12	27	6	4	49
Professional	3	14	13	5	35
Self-employed	13	17	5	1	36
Home Maker	5	9	2	1	17
Others	12	1	0	0	13
Total	45	68	26	11	150

TABLE – 13: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	44.519 <sup>a</sup>	12	.000
Likelihood Ratio	43.899	12	.000
Linear-by-Linear Association	11.740	1	.001
N of Valid Cases	150		

a. 8 cells (40.0%) have expected count less than 5. The minimum expected count is .95.

Since P Value < 0.05, null hypothesis is rejected.

**INFERENCE :** There is a significant difference in the consumer preference for shopping in hypermarkets with respect to occupation.

**Null Hypothesis H01e :** There is a significant difference in the consumer preference for shopping in hypermarkets with respect to monthly income.

**Test Statistic :** Chi Square

TABLE – 14: CROSS TABS BETWEEN INCOME AND PREFERRED MODE OF PAYMENT

INCOME	PREFERRED MODE OF PAYMENT				Total
	cash	debit cards	credit cards	multiple options	
<20000	17	3	7	12	39
20001 to 40000	5	9	27	23	64
40001 to 60000	0	0	19	14	33
>60000	0	0	8	6	14
Total	22	12	61	55	150

TABLE - 15 : Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	46.957 <sup>a</sup>	9	.000
Likelihood Ratio	50.664	9	.000
Linear-by-Linear Association	23.265	1	.000
N of Valid Cases	150		

a. 5 cells (31.3%) have expected count less than 5. The minimum expected count is 1.12.

Since P Value < 0.05, null hypothesis is rejected.\*

**INFERENCE :** There is a significant difference in the consumer preference for shopping in hypermarkets with respect to monthly income.

**Null Hypothesis H01f:** There is no significant difference in the influence on the source of information on the consumer preference for shopping in hypermarkets.

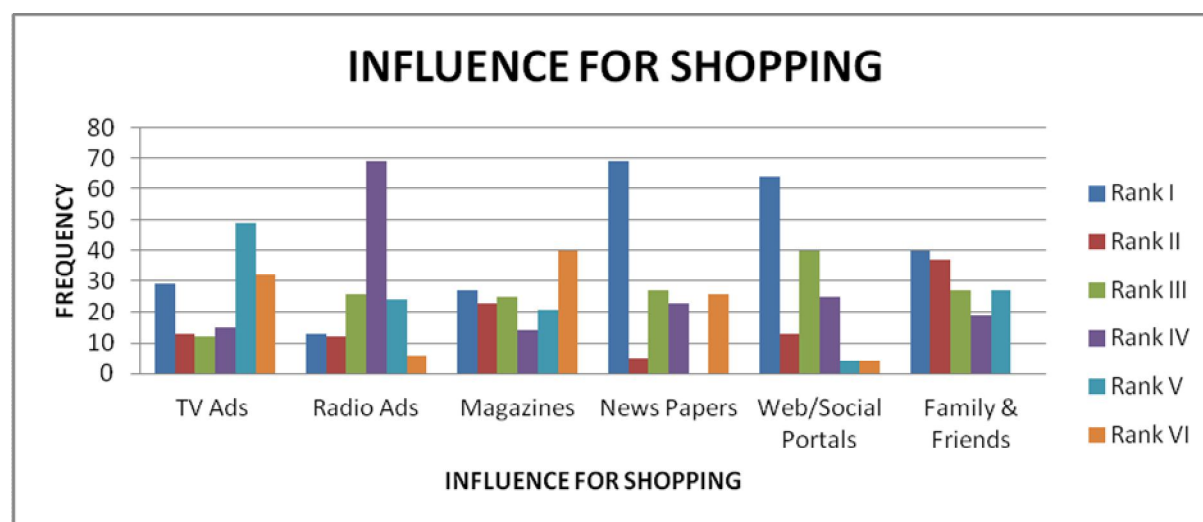
Based on the below table it is significant that web portals are the highest scored rank for people to visit hypermarkets.

Test Statistic : Friedman's test

TABLE - 16 : RANKING OF SOURCE OF INFORMATION

Source of Information	Rank I	Rank II	Rank III	Rank IV	Rank V	Rank VI
TV Ads	29	13	12	15	49	32
Percentage	19	09	08	10	33	21
Radio Ads	13	12	26	69	24	6
Percentage	9	8	17	46	16	4
Magazines	27	23	25	14	21	40
Percentage	18	15	17	9	14	27
News Papers	69	5	27	23	0	26
Percentage	46	3	18	15	0	17
Web/Social Portals	64	13	40	25	4	4
Percentage	43	9	27	17	3	3
Family & Friends	40	37	27	19	27	0
Percentage	27	25	18	13	18	0

Based on the inputs given by the study population, the source of information for the shopping is ranked as newspapers (46 %) followed by web/social portals (43 %) and family and friends (27 %).



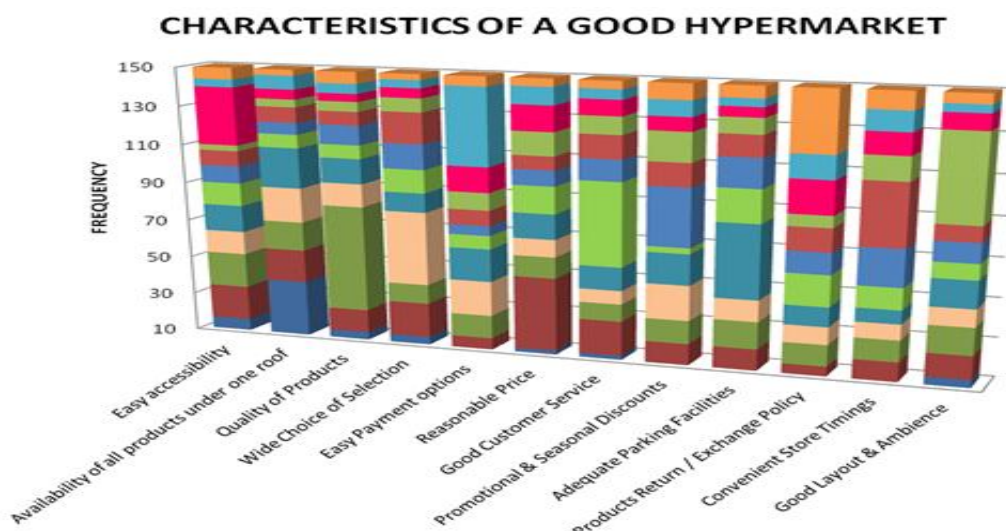
**INFERENCE :** There is a significant difference in the influence on the source of information on the consumer preference for shopping in hypermarkets. It is evident from the above table that newspapers influence the consumers to shop in the hypermarkets followed by web/social portals and family and friends

**Null Hypothesis : H01g :** There is no significant difference in the characteristics of a good hypermarket.

Test Statistic : Friedman's test

TABLE – 17: RANKING OF CHARACTERISTICS

CHARACTERISTICS	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Easy accessibility	16	18	18	12	14	12	9	8	3	30	4	6
Availability of all products under one roof	39	17	15	18	21	7	6	8	4	5	7	3
Quality of Products	14	12	55	12	13	7	10	7	5	4	5	6
Wide Choice of Selection	14	18	10	38	10	12	13	16	7	5	4	3
Easy Payment options	7	9	12	18	17	7	5	8	9	13	40	5
Reasonable Price	12	38	11	9	13	14	8	7	12	13	9	4
Good Customer Service	12	18	9	7	12	43	11	12	9	8	5	4
Promotional & Seasonal Discounts	10	11	12	18	16	1	30	14	15	7	8	8
Adequate Parking Facilities	10	11	14	11	38	17	15	11	8	5	4	6
Products Return / Exchange Policy	8	7	11	9	10	16	11	12	6	17	12	31
Convenient Store Timings	10	10	11	8	7	11	19	32	12	11	10	9
Good Layout & Ambience	14	12	14	9	14	8	10	8	44	8	4	5



**INFERENCE:** There is a significant difference in the influence on the characteristics of a good hypermarket. From the above data, it is evident that the availability of all products under one roof is the primary characteristic for a hyper market from the consumers' perspective. The second choice is reasonable price, followed by quality of products, wide choice of selection, adequate parking facility, good customer service, promotional and seasonal discounts, convenient store timings, good layout and ambience, easy accessibility, easy payment options, products return / exchange policy.

**Null Hypothesis H01h :** There is no significant difference in the products preferred during the shopping in a hypermarket.

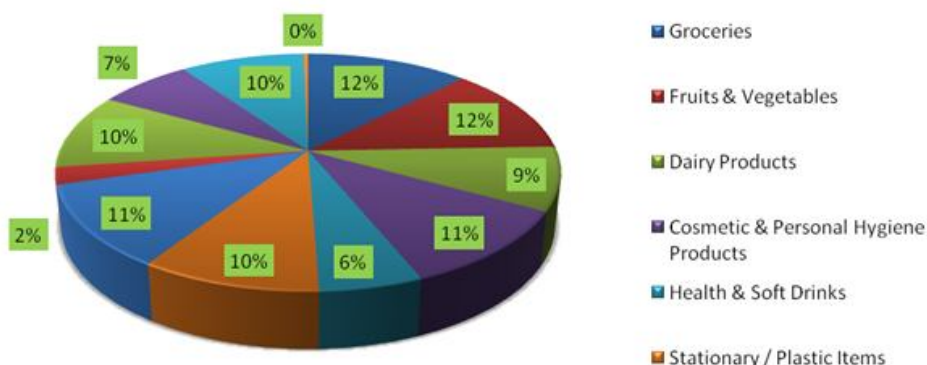
**Test Statistic :** Friedman's test

**TABLE – 18: LISTING THE PREFERENCE OF PRODUCTS**

PREFERENCE OF PRODUCTS	Yes	No	Total	RANK
Groceries	106	44	150	I
Fruits & Vegetables	103	47	150	II
Dairy Products	74	76	150	VIII
Cosmetic & Personal Hygiene Products	92	58	150	IV
Health & Soft Drinks	48	102	150	X
Stationary / Plastic Items	84	66	150	VI
Clothes & Accessories	96	54	150	III
Furniture	20	130	150	XI
Electrical & Electronics Application	88	62	150	V
Home / Kitchen Appliances	61	89	150	IX
Foot Wear	81	69	150	VII
Others	03	147	150	XII



## PREFERENCE OF PRODUCTS



**INFERENCE :** There is a significant difference in the influence on the source of information on the consumer preference for shopping in hypermarkets.

## SUMMARY OF FINDINGS

- The age groups of respondents falling in the age group of 16-30 years are 32%. This was followed by 39% of respondents in the age group of 31-45. 22% respondents are in the age group 40 - 60 years and the least among the age groups were > 60 years which comprised 7%. It is evident that hypermarkets are visited by the age group 31 – 45 years predominantly.
- Gender-wise analysis indicated that 57 % respondents were females and 43 % are males. It is significant that females were frequent hypermarket goers based on the study.
- The educational qualifications of the study group showed that respondents falling in the higher secondary level were 11%. This was followed by 72.% of respondents in the graduation level, 14 % respondents were post graduates and other constituted 2 % of the total respondents. Hence the majority of the study population were graduates who visited hypermarkets.
- The respondents under the study had a mix up with respect to the occupation. 32 % were salaried, 24 % were professionals, 23 % were self-employed, 12 % were home makers, and 9 % were classified as others.
- 26 % of the total respondents had a monthly income less than Rs 20000/-, 43 %, 22 % and 9 % belonged to the monthly income group between Rs 20001/- to Rs 40000/-, Rs 40001/- to Rs 60000/- and above Rs 60000/- respectively. It was understood that major income earning group was Rs 20001 to Rs 40000/-
- Based on the study population, the highest preferred hypermarket is Saravana Legend (47 %) (The reason being the availability of all products under one roof) followed by D Mart (41 %) (Reasonable price), Big Bazaar (37 %) (Quality of products & wide choice of selection), SPAR Hypermarket (37 %) (technological innovation), Pothys Hyper (24 %) ((Promotional & Seasonal Discounts)
- Age has influence on the consumer preferences for shopping in hypermarkets with respect to age.
- Gender has no influence on the consumer preference for shopping in hypermarket with respect to gender.
- Educational qualifications is not an influencer of consumer preference for shopping in hypermarkets with respect to educational qualifications.
- Occupation has impact on the consumer preference for shopping in hypermarkets with respect to occupation.
- There is no significant difference in the consumer preference for shopping in hypermarkets with respect to monthly income.
- There is a significant difference in the influence on the source of information on the consumer preference for shopping in hypermarkets.
- It is evident that newspapers influence the consumers to shop in the hypermarkets followed by web/social portals and family and friends.
- It is evident that the availability of all products under one roof is the primary characteristic for a hyper market from the consumers' perspective. The second choice is reasonable price, followed by quality of products, wide choice of selection, adequate parking facility, good customer service, promotional and

seasonal discounts, convenient store timings, good layout and ambience, easy accessibility, easy payment options, products return / exchange policy.

- Source of information plays a vital role on the consumer preference for shopping in hypermarkets. Newspapers and web/social portals were the prominent sources of information as per the study.

### **LIMITATIONS OF THE STUDY**

The sample size is restricted to Chennai covering only 150 respondents will be composed of only 150 customers which is extremely small size to represent entire population of customers who visit the hypermarkets.

The study is only for the hypermarkets confined to Chennai and a very small sample of respondents. Hence The findings cannot be treated as representative of the entire retail industry.

No demographical or psychographic differences will be considered before choosing the customers for questionnaire and for interview purpose.

The overall research is based on information provided by the selected customers, employees and managers of select hypermarkets in Chennai.

### **CONCLUSIONS**

The factors leading to customer loyalty in hypermarkets are mainly those which either stem from customers' evaluations and subsequent perceptions of the service such as service quality and customer satisfaction or ones that fall into the category of relational outcomes of repeated service transactions like trust and commitment they develop towards a particular supermarket. There are few others which are broadly related to the company's own position such as the supermarkets image, industry dynamics like switching costs, changing customer preferences and the competition in the industry as has been established in this study from the data collected from hypermarkets in Chennai. Therefore, for hypermarkets to develop customer loyalty and obtain the benefits associated to having loyal customers these factors relating to its own position should be well facilitated. The hypermarkets should develop a corporate image to clearly distinguish its brand from other hypermarkets in Chennai for instance as well as establish a perception of a hypermarket that delivers the expected promise to its customers.

### **SUGGESTIONS**

The above study reveals the customer loyalty on hypermarkets and the shopping behavior of the customer in the hypermarkets. It should be noted that customer loyalty cannot be created in a vacuum as there are other factors which need to be taken care of in order to attain customers' loyalty. Service quality is of primary importance in respect of customer loyalty and who desire unwavering loyalty of their customers, should carefully assess and deliver quality services to their customers by offering better products with greater flexibility and reasonable charges, hassle free shopping procedures and a proactive and systematic grievance handling mechanism. Such measures will help the hypermarkets in instigating committed behaviours among their customers which are another requisite of customer loyalty.

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**IMPACT: INTERWEAVING MATHEMATICS PEDAGOGY AND CONTENT OF TEACHING - AT  
ELEMENTARY LEVEL**

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**ABSTRACT**

*The scientific study explores the facts related to intermingling pedagogy in mathematics teaching at elementary level. The proposed study selected the sample of 125 each for both control and experimental groups; Grade Two students studying in GPS of Bhimtal Block, Nainital, Uttarakhand, India. The objective of the understudy is to examine the application of IMPACT on pupil's achievement in mathematics.*

*The essence of interweaving pedagogy is to promote teacher's role as a mediator and student plays an active role; listening, writing, responding, questioning and critical assessment.*

*The specific study used two different tools; Diagnostic Tool as Pre Test and Endline Tool as Post Test. SPSS 21 used for data analysis. The results of the study focussed on the advances of mathematics pedagogy by using IMPACT it "kick upstairs" the students both intellectually and socially; inculcate the habit of group dynamics.*

*The study is highly original and innovative, it is an effort to make teaching and learning process more interesting and result oriented.*

*Keywords: Interweaving, Pedagogy, Mathematics, Elementary*

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**INTRODUCTION**

Mathematics is considered as a key subject world-wide. It is also mandated that students should study mathematics by the end of the compulsory years of schooling. In most of the countries the aim of teaching mathematics is to gauge mathematical literacy so that students at the end of compulsory education can apply mathematical knowledge in their real life situations and equipped with knowledge to serve the nation.

Mathematics is an important subject inspite of it, in most of the cases it is found that students show poor performance in mathematics. There are many possible reasons as to why students fail in mathematics? Most of the reasons are related to curriculum and methods of teaching rather than the student's lack of capacity to learn (Carnine, 1991; Jones, Wilson and Bhaswani 1997). Traditional method of teaching makes the learner to memorise the information, performs mathematical calculations by using mathematical calculations by using specific algorithm. The traditional teacher as information provider and the text book guided classroom have failed to bring above the desired outcomes of productive thinking amongst students (Young and Collins, 2003).

Teacher has to come outside of their comfort zones and have to adopt some different methods so that it may be easy for the students to grasp.

**MATHEMATICS AT ELEMENTARY STAGE**

Any curriculum for primary mathematics must incorporate the progression from the concrete to the abstract. The first step in the classroom is to enable child to understand the connections between logical functioning in their everyday life to that of mathematical thinking.

The NPE (1996) has considered the importance of mathematics in general education and suggested that 'Mathematics should be visualised as the vehicle to train the child, to think, reason analyse and to articulate logically'.

National Curriculum Framework (NCF, 2005) stated that developing children's abilities for mathematician is the main goal of mathematics.

**IMPACT**

IMPACT (Interweaving Mathematics Pedagogy and Contents of Teaching) emphasis on different methods of teaching supported by Sampark Mathematics Tool-kit. It focussed on by intermingling teaching methods and teaching learning materials, we can make teaching of mathematics more interesting and result-oriented. Activity based teaching and Play-way method is used while teaching mathematics with the help of mathematics tool-kit.

**A. ACTIVITY BASED TEACHING**

Activity based teaching, student learns by performing activities. Activity learning promotes pleasure of learning and develops self-reliance in the students. The activity based learning involves following activities.

**a. Cross Over Groups**

The class is divided into two or more smaller groups with transfer of some students between groups at appropriate times. For instance, student begin with task A in a group of 4, after completing that task two student switch over to second group, to form a new group of 4, then they start task B and so on.

**b. Buzz Group**

Teacher write a question on the black-board and ask from each student to answer it, if anyone answer that question than teacher directs that student to help their colleagues in solving such questions.

**c. Self-help Group**

Group of 4-5 students form by a teacher or by students itself and in that group one of the student acts as a tutor and help other students in solving problems and clarifying their doubts.

**d. Jig Saw**

Two set of cards having two set of alternative variables or situations. The students would be given one set of cards having problems and other set of cards having answer to their problems; students ask to match them accurately.

**B. PLAY –WAY METHOD**

In this method student learns anything while playing in a group. Generally students likes to play rather than studying so this method is used for making learning more easier and interesting. Play-way includes following methods

**a. Role Playing**

In this method one member is responsible for teaching any content he/ she act as a teacher and other acts as students than other designated as an expert for other content all these activities takes place under the guidance of a teacher.

**b. Play Money**

It helps the student's to learn transactions in day to day life, by the help of paper currency. In such type of game students play different role like customer, banker, shopkeeper and so on. In this way they learn the different types of operations takes place by the help of money in the market.

**c. Dice**

3 pairs of dice of different colours help in learning numbers and different operations in mathematics. Blue Green and Yellow Dices

Yellow shows- Unit Place

Blue shows- 10<sup>th</sup> Place and

Green shows- 100<sup>th</sup> Place

Mathematics Tool-Kit includes **16 TLM**, their information as shown in Table.

**TABLE - 1: SAMPARK MATHEMATICS TOOL-KIT**

S.No.	TLM	DESCRIPTION
	Square Counter	Coloured Square Counters are used for learning numbers
	Round Counter	Coloured Round Counters are used for learning
	Number Line & Clip	In a group of 10 beads, there are 100 beads in a wire
	Base 10 Block	Yellow Cubes- Unit, Blue Rods- 10 <sup>th</sup> and Green- 100 <sup>th</sup> Place
	Play Money	It helps the students tom learn transactions in day to day life
	Operation Mat	It represents unit, 10 <sup>th</sup> and 100 <sup>th</sup> place and helps in solving problems (BODMAS)
	Place Value Strips	Strips of different colours represents unit 10 <sup>th</sup> and 100 <sup>th</sup> position
	Special Blocks	Blocks of different shapes; Triangle, Square, Rectangle, Circle and Hexagon, help the students to identify them
	Geo Board	Square Board with pegs, by the help pf rubber band students will draw several figures

	3D (Solid Fig.)	Cylindrical, Cube, Cuboid, Pyramid, Cone, Prism- Students identify these pictures and their respective features
	Pattern Block	6 Figures of different colours; Y- Hexagon, O-Square, R Rectangle, G-Triangle, B-// Gram, W- Rhombus (Fig. Shapes)
	Clock	Time related problems by the help of wooden clock
	Add./Sub Chart	Chart helps in learning addition and subtraction of numbers
	Dice	3 pairs of dice of different colours helps in learning numbers
	Hundredth Chart	Consists of numbers 1-100; learning numbers and their place
	Square Line Chart	Chart consists of small squares it helps in practising mathematical operations

(\* Toolkit designed by Sampark Foundation, Noida)

### STATEMENT OF THE PROBLEM

To study the effectiveness of IMPACT on pupil's achievement in mathematics, studying in Grade 2 of Government Primary School, Bhimtal Block District Nainital (U.K.).

### NEED & SIGNIFICANCE OF THE STUDY

In most of the government primary schools traditional method is used for teaching mathematics, students depend upon their teachers they do not apply their mind in solving problems. In such situation if the teacher is not competent enough they will show worst result.

The study is an intensive attempt to explore how mathematics teaching can become more interesting by using change in pedagogies supported by teaching learning material in the pragmatic way in day to day classroom teaching activities.

### REVIEW OF LITERATURE

Review of literature is helpful in exploring the previous studies enriches and excites the intellect of the investigator. Some of the studies are:

**Alkane Yamaji (2016)**, 'Teacher Discourse Supporting Peer Collaboration in Mathematics'. The paper focused on two year lesson study by a teacher exploring peer collaboration. A math class conducted by a teacher in Tokyo secondary school was observed for two years. The study was implemented from May to November 2011 (called here the first year) when the target class was in the 7<sup>th</sup> grade and from June to December 2012 (called here the second year) when the class was in the 8<sup>th</sup> grade. The class was composed of 40 students 20 boys and 20 girls (39 members, since in September 2012, a boy changed the school). Observed lessons were video recorded from May to July in the first year. After September 2011, when somewhat familiar with the author's presence, 10 voice recorders were placed with 10 groups. Video recorded utterances are considered for the main analysis

Classroom discourses of 42 lessons (16 lessons in 7<sup>th</sup> grade and 26 lessons in 8<sup>th</sup> grade) were transcribed except for when students worked individually or in group. The study discussed that the teacher discourse support for students needing help in their learning. Long term continuous observation enabled the author to investigate systematically the actuality of lesson study.

**Floyd E. H. (2006)**, 'The Use of Technology and Its Effect on Student Achievement'. The study was conducted to examine the use of technology and its effect on student achievement. The responses of the teachers in teacher technology survey and the teacher pedagogy survey showed no correlation to student achievement and responses for the students in the student technology survey indicated a positive correlation to student achievement. The data showed that with the increase in the use of technology by the student their achievement increases.

**Jeong Suk Pang (2011)**, 'Case-based Pedagogy for Prospective Teachers to Learn How to Teach Elementary Mathematics in Korea'. The study describes a specific case-based pedagogy with videotaped mathematics lessons. The term case-based pedagogy is used to underline a series of pedagogical flow by which teachers first analyse others teaching practice and then design, implement and reflect on their own instruction both individually and collectively.

The paper discussed how such case-based pedagogy has been developed and implemented in the Korean context. The participants were 16 elementary prospective teachers enrolled in a course named 'Study and Practice of Elementary Mathematics Education. The course consists of two phases: one was to discuss the

developed cases (videotaped lesson and written narratives) and the other to discuss their own mathematics lessons implemented during the second practicum period. In the first phase, a total of 11 among the 15 cases were used. Three kinds of data were collected for this study. First the prospective teachers' written comment on each case were collected. Second, a survey was conducted three times during the semester. Each questionnaire consisted of 5 or 6 open-ended questions. Some questions were same, to detect changes in the prospective teacher's thinking throughout the semester. The third kind of data collected were the prospective teachers reports on their own teaching with video-taped lessons to analyse how they designed, implemented and reflect on their lessons.

The prospective teachers in this study demonstrated substantive increases in mathematics- specific analysis abilities while talking a university course in which a specific case based pedagogy was designed and implemented.

**Mohammad Reza SarkarArani (2017),** 'Raising the quality of teaching through Kyouzai Kenkyuu – the study of teaching materials'. The study attempts to examine cross-cultural learning and teaching materials known as Kyouzai Kenkyuu in Japan. The paper investigates the Iranian and Japanese teacher's view and awareness about the teaching materials. The findings of the study are intended to position Kyouzai Kenkyuu as an important aspect of Japanese lesson study and provide pedagogical reasoning that supports the quality of teaching can be improved through lesson study. Japanese teachers focus more on learners and the teaching materials for raising the quality of teaching whereas Iranians teachers focus more on the content of teaching and learning behaviour.

**Peter Kelly, Nick Pratt et al. (2013),** 'Comparing Pedagogy in Mathematics in Denmark and England'. The article reports the findings of a comparative study of pedagogy in lower-secondary school mathematics in Denmark and England. Data in both Denmark and England were collected from 8 teachers and their classes, two at each of 4 schools. Two lessons were observed for each teacher (in Denmark these lasted 90 minutes and in England 60 minutes) and audio recorded during a three-week period (in week 1 and again in week 3) during the summer term.

Denmark emphasized the intrinsic worth of learning mathematics; in contrast the English teaching was organized on a techno-rationalist basis, focused largely on its utility or the need to get particular exam grades for the job market.

**Peter Liljedahl, Egan Chernoff et al. (2007),** 'Interweaving Mathematics and Pedagogy in Task Design: A Tale of One Task'. The study used 2x2 array to explain the relationship between mathematics and pedagogy in terms of usage and goals.

m M : Use of mathematics to promote understanding of mathematics

pM : Use of pedagogy to promote understanding of mathematics

mP : Use of mathematics to promote understanding of pedagogy

p P: Use of pedagogy to promote understanding of pedagogy

The process of designing good mathematics tasks is a recursive process. The recursive process consists of four stages: predictive analysis, trial, reflective analysis and adjustment. The Pentomino problem is a task that has gone through many cycles of recursive process and although not yet complete, the task has reached a point where it can be described as 'good'.

Different sections of elementary mathematics method course, each section enrolling between 25 and 40 students. Each iteration involved a different group of students enrolled in different sections of the course, in each iteration students had about 8 weeks to complete the task outside of class time.

The Pentomino problem is just a tale of one task. The study examined the recursive process of designing tasks in order to construct tasks from our predictive and reflective experiences in using mathematics tasks with pre-service teachers.

## OBJECTIVES OF THE STUDY

The major objective of the study is to study the effectiveness of IMPACT on Pupil's achievement in mathematics. Specific objectives of the proposed study are:

- To diagnose the problems faced by the students in learning mathematics.
- To study the adaption of the IMPACT by the students.
- To study the effectiveness of the IMPACT in terms of student's reaction.

- To study the variations in achievement of students, taught by traditional method and through IMPACT supported by mathematics tool-kit.

### HYPOTHESIS

The following hypotheses are formulated and tested at 95% level of significance.

- There will be statistically non-significant difference between pre-test and post- test score after treatment.
- There will be statistical non- significant difference between control and experimental groups on the pre-test.
- There will be statistically non-significant difference between control and experimental groups on the post-test.

### RESEARCH METHODOLOGY

Research Methodology is the systematic procedure by which the research starts from the identification of the problem to its final conclusion.

### DESIGN

Quasi-experimental design includes both qualitative and quantitative techniques. The study tries to explore the difference in achievement of two groups of grade two learners who were taught through traditional expository method and IMPACT respectively studying in Government Primary Schools of Bhimtal Block, district Nainital of Uttarakhand, India. Design of study is presented as

<b>P<sub>1</sub></b>	<b>C</b>	<b>T</b>
<b>P<sub>2</sub></b>	<b>X</b>	<b>I</b>
<b>P<sub>1</sub></b> Pre-Test (Before Treatment)		<b>P<sub>2</sub></b> - Post-Test (After Treatment)
<b>C</b> - Control Group		<b>X</b> - Experimental Group
<b>T</b> - Traditional Method		<b>I</b> - IMPACT (Supported By Mathematics Tool-Kit)

### AREA OF STUDY

The area for the proposed study is students studying in Grade II of Government Primary School, Bhimtal Block District Nainital (U.K.).

### SCHEDULE OF THE STUDY

The Diagnostic Tool was administered between July- Aug and End Line Tool was administered from Feb-March.

### POPULATION

All the students studying in Grade II, Government Primary School, Bhimtal Block District Nainital comes under population of the study. According to Session 2016-17, there were 148 schools in which 609 students enrolled in Grade II.

### SAMPLE & SAMPLING TECHNIQUES

There are two groups for understudy Control and Experimental Group. Stratified sampling technique is used for selecting sample in case of control group 25 schools and 125 students selected for study. The study has adopted purposive sampling method for selecting 25 schools and 125 students in case of experimental group.

### TOOLS

Diagnostic Tool as Pre-test and End Line Tool as Post-test administered on Grade II students studying in GPS for studying the effectiveness of **IMPACT** used for teaching mathematics.

### A. DIAGNOSTIC TOOL

Diagnostic Tool test reflects the outcome of teaching before treatment. It includes **11 Items** and time allotted was 1 Hour. The distribution of Items and their parts were.

**TABLE - 2: ITEM DESCRIPTION**

Item No.	Areas	Parts	Marks Allotted
1	Shapes	1	02
2	Quantity (>, <, =)	3	06
3	Counting	3	06
4	Number Sense	2	04
5	Place Value	1	02



6	Addition	3	06
7	Subtraction	3	06
8	Multiplication	3	06
9	Division	3	06
10	Time (Clock)	2	04
11	Pattern	2	02
	<b>TOTAL</b>		<b>50</b>

## B. ENDLINE TOOL

End Line Tool as Post-test administered after 6 months of Diagnostic Tool Test. It reflects the outcome of teaching after treatment. End Line Tool Test was just like Diagnostic Test covering same areas/ topics with different items, administered on same groups on which diagnostic test conducted earlier.

## SCORING

0- If child does not attend the item

1- Child has answered but answer is wrong

2- Child answered correctly

\* The maximum mark was 50 for analysis we convert all the marks out of 100.

## ANALYSIS

SPSS 21 is used for analysis; Paired T Test, One Way ANCOVA and Repeated Measure ANOVA are used for analysing the results.

## RESULTS & DISCUSSIONS

### I. Paired Sample T Test

**Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre_Test	37.4200	250	16.08747	1.01746
	Post_Test	61.0200	250	17.74936	1.12257

**Paired Samples Correlations**

	N	Correlation	Sig.
Pair 1 Pre_Test & Post_Test	250	.932	.000

**Paired Samples Test**

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre_Test - Post_Test	-23.60000	6.44968	.40791	-24.40340	-22.79660	-57.855	249	.000

The Mean for Pre Test is 37.42 where as for Post Test is 61.02 which is quite higher.

The Correlation between Pre and Post test is 0.932 which reflects high degree positive correlation.

From the table of Paired Samples Test:

Pre Test\_ Post Test p value is 0.00 since p value is <.05

H<sub>1</sub>: There is statistically significant difference between pre-test and pos- test score after treatment.

Null Hypothesis is rejected, t value= -57.855

In fact treatment is effective that's why students show better results in post test.

**II. PRE TEST****Between-Subjects Factors**

	Value Label	N
Group	1.00 Control	125
	2.00 Experimental	125

**Tests of Between-Subjects Effects**

Dependent Variable: Pre\_Test

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	.196 <sup>a</sup>	1	.196	.001	.978
Intercept	350064.100	1	350064.100	1347.180	.000
Group	.196	1	.196	.001	.978
Error	64442.704	248	259.850		
Total	414507.000	250			
Corrected Total	64442.900	249			

a. R Squared = .000 (Adjusted R Squared = -.004)

From the table Tests of Between Subjects Effects

In case of Group as fixed factor and Pre-test as dependent variable, p value is 0.978 ( $> 0.05$ ), therefore Null Hypothesis accepted.

Ho: There is statistical non- significant difference between control and experimental groups on the pre-test.

**III. POST TEST WITH ONE WAY ANCOVA****Between-Subjects Factors**

	Value Label	N
Group	1.00 Control	125
	2.00 Experimental	125

**Descriptive Statistics**

Dependent Variable: Post\_Test

Group	Mean	Std. Deviation	N
Control	57.5440	15.96392	125
Experimental	64.4960	18.79929	125
Total	61.0200	17.74936	250

**Levene's Test of Equality of Error Variances<sup>a</sup>**

Dependent Variable: Post\_Test

F	df1	df2	Sig.
2.716	1	248	.101

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

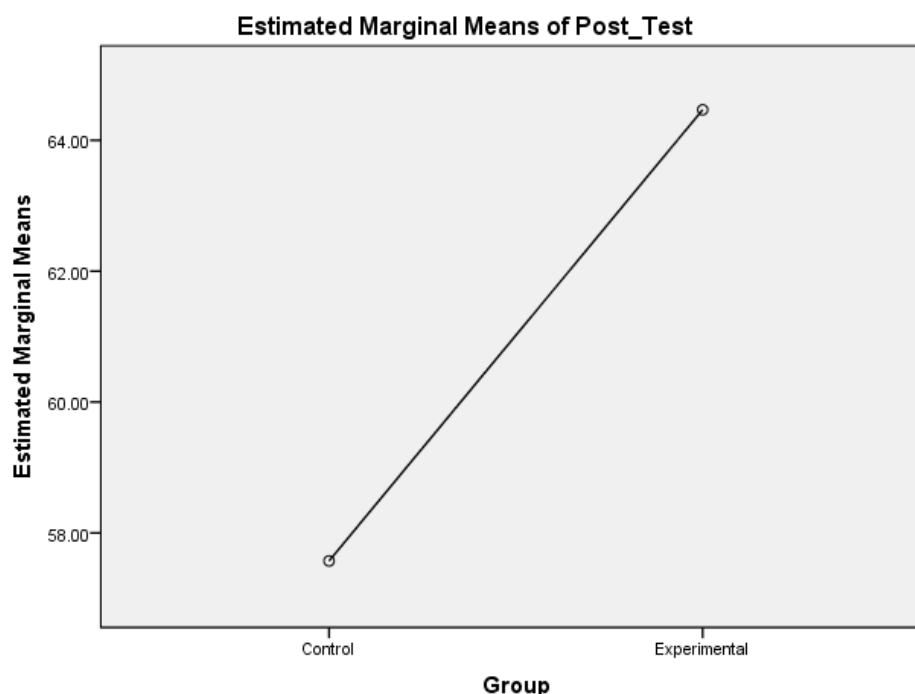
a. Design: Intercept + Pre\_Test + Group

**Tests of Between-Subjects Effects**

Dependent Variable: Post\_Test

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	71109.234 <sup>a</sup>	2	35554.617	1197.163	.000	.906
Intercept	19774.592	1	19774.592	665.832	.000	.729
Pre_Test	68088.590	1	68088.590	2292.618	.000	.903
Group	2970.820	1	2970.820	100.031	.000	.288
Error	7335.666	247	29.699			
Total	1009305.000	250				
Corrected Total	78444.900	249				

a. R Squared = .906 (Adjusted R Squared = .906)

**PROFILE PLOTS**

Covariates appearing in the model are evaluated at the following values: Pre\_Test = 37.4200

**i. On the basis of Descriptive Statistics**

Mean of control group for post-test is 57.54 whereas Mean of experimental group for post-test is 64.50 which shows improvement in mean score from control to experimental group.

**ii. Levene's Test**

In case of Levene's Test the p value is .101 (>.05) non statistically significant which shows that it met the assumption of Homogeneity of variance.

**iii. Test of Between Subjects Effects**

In case of D.V. Post-test, I.V. Group and Covariate as Pre-test, p value in case of Group is 0.000 (<0.005)

$H_1$ : There is statistically significant difference between control and experimental groups on the post-test

Therefore Null Hypothesis  $H_0$  is rejected.

Partial Eta Squared in case of Group is 0.288 i.e. 28.8% of any variation to post-test value movement in one variable to another can be explained by interaction between groups. In case of pre-test effect size; partial eta squared is 0.903 i.e. 90.30%. Pre-test is good covariate does have a strong effect on post-test results.

**iv. Profile Plots**

Hike in estimated marginal means from Control to Experimental group in case of Post-test.

#### IV. REPEATED MEASURE ANOVA

##### Within-Subjects Factors

Measure: MEASURE\_1

TEST	Dependent Variable
1	Pre_Test
2	Post_Test

##### Between-Subjects Factors

	Value Label	N
Group 1.00	Control	125
Group 2.00	Experimental	125

##### Descriptive Statistics

	Group	Mean	Std. Deviation	N
Pre_Test	Control	37.3920	15.89223	125
	Experimental	37.4480	16.34431	125
	Total	37.4200	16.08747	250
Post_Test	Control	57.5440	15.96392	125
	Experimental	64.4960	18.79929	125
	Total	61.0200	17.74936	250

##### Box's Test of Equality of Covariance Matrices<sup>a</sup>

Box's M	13.498
F	4.460
df1	3
df2	11070720.000
Sig.	.004

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + Group

Within Subjects Design: TEST

##### Multivariate Tests<sup>a</sup>

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
TEST	Pillai's Trace	.950	4675.378 <sup>b</sup>	1.000	248.000	.000	.950
	Wilks' Lambda	.050	4675.378 <sup>b</sup>	1.000	248.000	.000	.950
	Hotelling's Trace	18.852	4675.378 <sup>b</sup>	1.000	248.000	.000	.950
	Roy's Largest Root	18.852	4675.378 <sup>b</sup>	1.000	248.000	.000	.950
TEST * Group	Pillai's Trace	.287	99.799 <sup>b</sup>	1.000	248.000	.000	.287
	Wilks' Lambda	.713	99.799 <sup>b</sup>	1.000	248.000	.000	.287
	Hotelling's Trace	.402	99.799 <sup>b</sup>	1.000	248.000	.000	.287
	Roy's Largest Root	.402	99.799 <sup>b</sup>	1.000	248.000	.000	.287

a. Design: Intercept + Group

Within Subjects Design: TEST

b. Exact statistic

### Mauchly's Test of Sphericity<sup>a</sup>

Measure: MEASURE\_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon <sup>b</sup>		
					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
TEST	1.000	.000	0	.	1.000	1.000	1.000

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept + Group

Within Subjects Design: TEST

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
TEST	Sphericity Assumed	69620.000	1	69620.000	4675.378	.000	.950
	Greenhouse- Geisser	69620.000	1.000	69620.000	4675.378	.000	.950
	Huynh-Feldt	69620.000	1.000	69620.000	4675.378	.000	.950
	Lower-bound	69620.000	1.000	69620.000	4675.378	.000	.950
TEST * Group	Sphericity Assumed	1486.088	1	1486.088	99.799	.000	.287
	Greenhouse- Geisser	1486.088	1.000	1486.088	99.799	.000	.287
	Huynh-Feldt	1486.088	1.000	1486.088	99.799	.000	.287
	Lower-bound	1486.088	1.000	1486.088	99.799	.000	.287
Error(TEST)	Sphericity Assumed	3692.912	248	14.891			
	Greenhouse- Geisser	3692.912	248.000	14.891			
	Huynh-Feldt	3692.912	248.000	14.891			
	Lower-bound	3692.912	248.000	14.891			

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	TEST	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
TEST	Linear	69620.000	1	69620.000	4675.378	.000	.950
TEST * Group	Linear	1486.088	1	1486.088	99.799	.000	.287
Error(TEST)	Linear	3692.912	248	14.891			

### Levene's Test of Equality of Error Variances<sup>a</sup>

	F	df1	df2	Sig.
Pre_Test	.101	1	248	.751
Post_Test	3.186	1	248	.075

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Group

Within Subjects Design: TEST

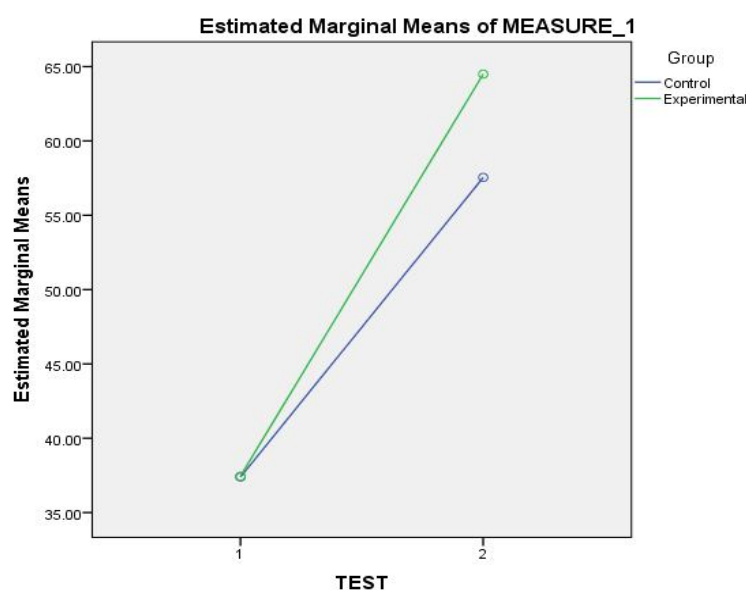
### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	1211304.200	1	1211304.200	2206.026	.000	.899
Group	1534.752	1	1534.752	2.795	.096	.011
Error	136174.048	248	549.089			

### PROFILE PLOTS



#### i. Descriptive Statistics

In pre-test there is slightly change in mean from control to experimental group which reflects that there is minor change in scores from control to experimental group before treatment where as post-test shows a great change in mean score between control and experimental groups and within pre and post-test. It reflects that after treatment experimental group shows fruitful changes.

#### ii. Multivariate Analysis

In case of Within Subjects Design; Test, Pillai's Trace, Sig (.000) p-value is less than .05 statistically significant for the entire remaining effect. In case of Within and Between Subjects Design; Test\* Group, Sig (.000) p-value is less than .05 statistically significant for all the remaining effects. Partial Eta Squared in case of Test \* Group it is throughout 0.287 i.e. 28.7% of any variation in test can be explained by the interaction between Test\*Group.

#### iii. Mauchly's Test of Sphericity

Sphericity is one of the important assumptions for applying Repeated Measure ANOVA, since there is only two dependent variables pre and post-test that's why Sig or p-value is blank so we can't say anything about sphericity. Sphericity is visible when there will be three or more dependent variable.

#### iv. Tests of Within Subjects Effects

Same results are here as in Multivariate Tests. In this Sphericity Assumed and Greenhouse-Geisser included but all are giving the same results.

#### v. Tests of Within-Subjects Contrasts

This is the concise form of table as results are showing in Tests of Within Subjects Effects same values are reflecting in Mean Square, F, Sig (p-value) and Partial Eta Square columns. The test shows a linear relationship within- subjects.

#### vi. Levene's Test of Equality of Error Variances

Sig Value (p-value) in case of Pre\_Test is 0.751 whereas Post\_Test is 0.075, both values are greater than 0.05. It reflects statistically non-significant results; hence it is assumed there is homogeneity of variance for both the variables.

#### vii. Tests of Between Subject Effects

In case of Group the sig or p-value is 0.096 which is greater than 0.05 which reflects statistically non-significant results or findings.

#### viii. Profile Plots

1 = Pre-test and 2= Post-test

In case of Pre-test both control and experimental group starts simultaneously whereas in Post-test the difference between control and experimental group scores keep on increasing which reflects through profile plots.

#### DELIMITATIONS & SUGGESTIONS FOR THE FURTHER STUDIES

Since the present case is delimited to study the effectiveness of IMPACT supported by mathematics tool-kit used for the studying students in Grade II, Government Primary School, Bhimtal Block District Nainital, Uttarakhand, India. The suggestions for upcoming studies would be:

- The study should be conducted for students studying in other schools of Uttarakhand, India.
- Mathematics Tool-kit should be design for Upper- Primary and Secondary classes and later on study will be conducted in order to study the problems in administering and its effectiveness.
- Teaching strategies should be modified on the basis of findings of the study.
- Toolkit can also be developed for other subjects also like English, Hindi, Social Science etc. and study should be conducted for studying their effectiveness.
- We can also design Computer Assisted Instructions in Mathematics so that student learns at their own pace.

If the upcoming studies will cover these areas/ issues than the results will present several other facts and findings which will help the Government and other agencies working in Education sector to check their progress and implement the suggestions in the field of education.

#### CONCLUSION

IMPACT promotes the habits of mathematical argumentation, encourage the students to participate in debates, try to resolve conflicts and arrive at common understandings. It believes in concept formation rather than knowledge transformation. IMPACT is a mere attempt or an experiment to study the effectiveness of this pedagogy by using Mathematics Toolkit having teaching learning material in order to bring all together in Sampark; Educand, Educator and Mathematics as a subject i.e. in contact of each other so that we can make teaching- learning process more interesting and result oriented.

IMPACT is an experiment in the area of mathematics so that we can generate interest of the student in Mathematics at elementary level and this habit inherited to upcoming classes.

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**INDIA – TUNISIA RELATIONS SINCE 1956**

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Foreign policy is the link between the internal politics of a State and the International system. It is at the same time a response to domestic needs and an attempt to influence the behaviour of other States. The domestic aspects of foreign policy in new States raises a variety of interesting questions. Does the nature of colonial experience and the nationalist struggle affect foreign policy goals and strategies? Do different degrees of social mobilization, political participation and national unity produce different approaches to foreign policy? Are there significant differences between the foreign policies of authoritarian and competitive political systems in new states? From the international point of view, a study of foreign policy of Tunisia can contribute to an understanding of the effect of various international power configurations on the survival and development of new States. My paper will basically study the relations between India and Tunisia.

Tunisia is a small country, one twentieth the size of Sudan (Africa's largest). It has a long history. Tunisia, covers an area of 51,000 square miles, is edged by the Mediterranean in the North, by Algeria in the West, Libya in the East and Sahara in the South. Its average length is roughly 400 miles and its breadth 150 miles. On maps, Tunisia is drawn in a lozenge shape- President Bourguiba once described this country as 'that tiny stamp stuck on to the top edge of the continent of Africa.' This description is apt. Although small, a stamp is a very important part of any envelope for without it the letter cannot reach its destination. Tunisia has always played a leading role in Arab and Africa affairs. Even the word 'Africa' goes back to Carthaginian days and is derived from the Roman eruption of the older Berber word 'Ifriqa'.

History of Tunisia is closely bound up with that of North Africa as a whole, that is to say with the destiny of the Berbers, who were the earliest known inhabitants of the country, apart from the pre-historic peoples who had left traces of themselves in the settlements of Gafsa. It was mainly through Tunisia that other races penetrated into North -West Africa and in Tunisia itself, many decisive battles were fought.

"India is the cradle of the human race, the birthplace of human speech, the mother of history, the grandmother of legend and the great grandmother of tradition. Our most valuable and most instructive materials in the history of man are treasured up in India only." – Mark Twain

India has a unique culture and is one of the oldest and greatest civilizations of the world. It stretches from the snow-capped Himalayas in the North to the sun drenched coastal villages of the South and the humid tropical forests on the South-West coast, from the fertile Brahmaputra Valley on its East to the Thar desert in the West. It covers an area of 32,87,263 sq.km. It has achieved all-round socio-economic progress during the last 66 years of its independence. India is the seventh largest country in the world and ranks second in terms of population. The country stands apart from the rest of Asia, marked off as it is by the mountains and the sea, which give her a distinct geographical entity. Bounded by the Great Himalayas in the North, it stretches southwards and at the Tropic of Cancer, tapers off into the Indian Ocean between the Bay of Bengal on the East and the Arabian Sea on the West.

Lying entirely in the northern hemisphere, the mainland extends between latitudes 804' and 3706' north, longitudes 6807' and 97025' east and measures about 3,214 km from north to south between the extreme latitudes and about 2,933 km from east to west between the extreme longitudes. It has a land frontier of about 15,200 km. The total length of the coastline of the mainland, Lakshadweep Islands and Andaman & Nicobar Islands is 7,516 km.

India achieved independence in 1947. This gave a big boost to the process of national liberations in whole of the Middle-East and North Africa. After independence, adhering to its policy of non-alignment, its opposition to imperialism and apartheid, and its support to the liberation movements, India extended all types of assistance except military aid, to almost all the freedom struggle movements.

India has traditionally maintained cordial and friendly relations with Tunisia since the establishment of diplomatic relations in 1958. The first resident Indian mission at the level of Cd' A was established in Tunisia in 1963. The Tunisian Embassy in New Delhi was set up in 1981.

When the Tunisian struggle for independence from France took an ugly shape, the Indian Representative in the United Nations, Mr.A.K. Chadha, said in the United Nations General Assembly on 22nd October 1953 that if the Franco-Tunisian problem was not settled in accordance with the principles of the United Nations Charter,

the Tunisian people would be driven to desperation. He further said that the French Policy in Tunisia was not only contrary to the basic interests of the Tunisian people but also to the best interests of France itself. Moreover, if the problem was not solved, it could lead to increased tension between French and the Tunisian government and their people.

Though Tunisia was at last granted independence in March 1956, freedom alone could not heal the sufferings and grievances of the Tunisian people because of the presence of the mighty French troops in Tunisia even after her independence. The French government was not prepared to leave Tunisia as she served many national interests of the former. The presence of French troops in Tunisia caused great resentment among the nations of the world. Most of the countries condemned French obstinacy in refusing to withdraw its troops from Tunisia. India was also one of the staunch critics of the presence of the French troops in Tunisia. C. S. Jha, the Indian representative, in a letter to the president of the UN General Assembly, said on 27th July 1961:

We, the undersigned representatives wish to convey to you our deep concern at the situation now prevailing in Tunisia. The situation has been considered by the Security Council which has adopted an interim resolution calling for an immediate cease-fire and the withdrawal of all armed forces... we consider that this resolution should immediately be put into effect without any reservations or qualifications.

In the UN General Assembly, the permanent Representative of India, C. S. Jha, said on 21st August 1961:

To my delegation it is clear that the status of Tunisia as a sovereign independent state and her membership of the international community give her a position no way inferior to any other member of the UN- a position which does not admit of any infractions of her sovereignty except in accordance with her own free will and judgement... There can be no justification for the continued presence of French forces in the face of the clear and unequivocal stand of Tunisian government and its people. The only question is of the orderly evacuation of such forces through peaceful negotiations. It is imperative that such negotiations be undertaken immediately, so that situation in Tunisia which is already grave and dangerous and which not only involves relation between France and Tunisia but it is a source of deep concern throughout Asia and Africa, should not be further aggravated... The presence of foreign troops on the territory of a state without ths. latter's consent and agreement is not permissible and that such presence violates the sovereignty of that country...

Tunisia and India both hold, more or less, the same position on many international problems. Both the countries have demanded the withdrawal of Israel from the occupied Arab land and recognition of the rights of the Palestinian people. Despite immense possibilities of co-operation between the two countries, not much has been done by them to improve their relations in political as well as in other fields. The leaders and policy-makers of the two countries have not shown much enthusiasm in improving these relations. There have been very few visits of high level political delegations to each other's countries.

In March 1967, the Tunisian Minister for Justice, Mogni Salim, visited India. He met M. C. Chagla, Minister of External Affairs. Besides other issues, the two leaders discussed the Kashmir problem also. Mogni Salim said that the Kashmir dispute should be settled between two countries in 'a friendly spirit in accordance with the Tashkent Agreement which has been signed by India and Pakistan after the 1965 war.' He denied that Tunisia has ever taken the position that the Kashmir problem should be settled on the basis of principles of self-determination as demanded by Pakistan for the people of Kashmir.

Tunisia had been exporting rock phosphate to India even before Tunisia attained her independence in 1956. This naturally formed the basis of trade agreement between the two countries signed in 1960. Under the agreement, the two countries agreed to a barter trade covering a wide range of commodities. Almost at the same time, the State Trading Corporation (STC) of India entered a rupee clearing agreement with the Tunisian office, Commerce de Tunisie (TOC), under which Tunisia agreed to buy Indian goods in exchange for rock phosphate. This agreement worked well. There was a time when there used to be an exchange of only Indian tea and jute for the Tunisian rock phosphate. Now India's export to Tunisia covers tea, pepper, jute goods, cotton and textiles, diesel motors and agricultural pumps, cotton yarn, a number of steel items and steel machinery, raw tobacco, rice, finished leather, fine chemicals, polyethylene, machinery. Tunisia exports to India the rock phosphate, triple super phosphate, cork wood and cork products, lead, mercury and non-ferrous metals. In the present times, Tunisia exports olive oil, dates, leather and wiring harnesses to India. Efforts are made for further diversifying the range of these exports.

An agreement of friendship and technical and scientific co-operation between Tunisia and India was signed on 24th June 1965 at Tunis, Ismail Khellil, Director of International Cooperation signed on behalf of Tunisia and S.Than, Director of Foreign Trade, Ministry of Commerce signed for the Government of India.

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**CULTURAL AGREEMENT WITH TUNISIA**

The following is a brief summary of the Cultural Agreement signed between India and Tunisia on 24th June, 1969 in New Delhi. A cultural agreement between India and Tunisia was signed in New Delhi on 24th June 1969. This followed the discussions that were held earlier on various aspects of the Agreement between Mr. Habib Bourguiba, Jr. the Foreign Minister of Tunisia and Professor V.K.R.V. Rao, Minister of Education and Youth Services, Government of India. The two ministers signed the agreement on behalf of their respective Governments.

The two Governments have agreed to promote and develop, as far as possible the relations in the fields of education, science, culture and sports, in order to contribute to better knowledge of their respective cultures and activities in these fields.

The agreement also envisages exchange of teachers, research scholars, technicians as well as exchange of cultural and artistic programmes between the radio and television stations of the two countries. It also includes exchange of groups of youths and groups of journalists.

**INDO-TUNISIAN JOINT COMMUNIQUE**

The following is the text of Joint Communiqué issued in New Delhi on June 25, 1969 at the end of the visit to India of His Excellency Mr. Habib Bourguiba, Foreign Minister of Tunisia; At the invitation of Mr. Dinesh Singh, Foreign Minister of India, His Excellency Mr. Habib Bourguiba, Foreign Minister of Tunisia, visited India from June 20 to 24, 1969. During his stay H.E. the Foreign Minister of Tunisia was accorded a warm and cordial reception. He called on the President and the Prime Minister of India and held talks with the Foreign Minister, the Minister of Foreign Trade and Supply, the Minister of Tourism and Civil Aviation, the Minister of Industrial Development, Internal Trade and Company Affairs, and the Minister of Education and Youth Services.

The talks covered a variety of subjects of common interest including the present international situation and the friendly bilateral relations between the two countries. The talks were held in an atmosphere of great friendliness. They revealed a general similarity of views between the two sides and contributed to the bringing about of closer mutual understanding. The Foreign Minister of India expressed his great appreciation of the rapid progress being made in Tunisia under the leadership of President Bourguiba. The Foreign Minister of Tunisia who visited Bhakra Dam, the Nangal Fertiliser Factory and the Indian Agricultural Research Institute, expressed great appreciation of India's achievements under the leadership of her then Prime Minister.

The two Foreign Ministers expressed their conviction in the continuing validity of the policy of Non-Alignment which has made a positive contribution to the cause of peace and international cooperation. They also stressed the importance of the acceptance of the principle of peaceful co-existence in accordance with the United Nations Charter.

The two sides reiterated their firm opinion that an early conclusion of a comprehensive treaty on general and complete disarmament, both nuclear and conventional under effective international supervision, would be a vital contribution to the maintenance of world peace and security. They voiced their concern that there had been little progress so far in this direction and expressed the hope that the 18-Nation Disarmament Committee would give urgent consideration to this important matter.

The Foreign Ministers affirmed their faith in the principle of resolution of differences between States by peaceful negotiations and without resorting to force. In this spirit they expressed the hope that India and Pakistan would settle their difference peacefully and that in the interest of the Sub-Continent, the relations between India and Pakistan would soon register significant improvement.

The two Foreign Ministers expressed deep concern at the continuing occupation of the Arab territories by Israel. They stressed that while a comprehensive solution should be found by the implementation of the Security Council Resolution of November 22, 1967, any delay in withdrawal by Israeli forces from the Occupied Territories was fraught with further dangerous possibilities. The two Foreign Ministers reiterated the full support of their Governments to the legitimate rights of the Palestinian people.

The two sides also noted the imperative need for the developing countries to raise the living standards of their people as rapidly as possible. The two Foreign Ministers urged the advanced nations to pursue more constructive trade policies and show a deeper understanding of the role of trade in development in order to reduce dependence on credits. The Foreign Minister of Tunisia and the Indian Minister successfully explored the possibilities of expanding trade between India and Tunisia. Both sides expressed their keen interest in an increasing exchange of their respective goods and products.

The two sides examined the possibilities of economic and technical co-operation in various fields. It was decided that measures should be taken in pursuance of the Agreement on Friendship and Technical, Economic and Scientific Co-operation concluded between India and Tunisia in 1955, to strengthen technical and economic co-operation between the two countries.

The two sides emphasized the necessity of developing closer cultural contacts in all fields. The Foreign Ministers noted the great and diverse achievements of the civilizations in their countries and resolved to develop co-operation in many cultural activities. In this spirit the two Governments conclude the cultural agreement. The Foreign Minister of India stated that the Government of India would welcome the establishment of a resident Tunisian Mission in India to consolidate the increasing collaboration between the two countries in all fields. The Tunisian Foreign Minister accepted the idea in principle and stated that a Tunisian Mission would be established in India at a suitable opportunity.

The Foreign Minister of Tunisia referred to the invitation which the President of Tunisia had extended to the Prime Minister of India to visit Tunisia and conveyed the hope of His Excellency the President of Tunisia that the Prime Minister would find it possible to visit Tunisia soon. The Prime Minister expressed her thanks for the kind invitation and assured the Foreign Minister that she would, in consultation with the Tunisian Government, find a suitable opportunity to visit Tunisia. She requested the Foreign Minister to communicate her acceptance of the invitation to the President of Tunisia in the context of the desire of both Governments to strengthen the friendly relations already existing between them.

His Excellency, the Foreign Minister of Tunisia extended an invitation to the Foreign Minister of India to visit Tunisia. The Foreign Minister of India was happy to accept the invitation.

The two Foreign Ministers expressed deep satisfaction at the visit of the foreign minister of Tunisia and the opportunity it has afforded for a friendly exchange of views, further strengthening the existing ties of friendship, understanding and cooperation between the two countries.

#### **TRADE AGREEMENT WITH TUNISIA**

The following is the text of a Press release issued in New Delhi on June 29, 1969 on the Trade agreement signed between India and Tunisia.

A trade agreement between India and Tunisia was signed here today. This follows the discussions held by a Tunisian Trade Delegation, led by Mr. Naceur Ben Amor, Director of Foreign Trade, Government of Tunisia (who accompanied the Foreign Minister of Tunisia, this Excellency Mr. Habib Bourguiba Jr. to New Delhi) with an Indian Trade Delegation led by Mr. S. K. Singh, Director Foreign Trade. These talks were held in a spirit of friendliness and mutual understanding.

The two delegations agreed that the continued closure of the Suez Canal should not be permitted to affect their bilateral trade, the two delegations considered various ways and means for recommencing this bilateral trade.

India has agreed to the resumption of shipments of rock phosphate from Tunisia. Tunisia has agreed to import from India, with immediate effect, non-traditional items, particularly iron and steel products and engineering goods (Foreign Affairs Round).

#### **TUNISIA**

Vice-President M. Hiayatullah's Speech at Dinner for Mrs. Wassila Bourguiba;

Following is text of the speech by the Vice President Mr. M. Hidayatullah, at the dinner in honour of the first Lady of Tunisia Mrs. Wassila Bourguiba in New Delhi on November 3, 1982.

It gives me a great pleasure to welcome Her Excellency Madame Wassila Bourguiba and other distinguished members of her party this evening. We have been looking forward to this and are happy that it was possible for Your Excellency to accept our invitation. We would have greatly welcomed the President, His Excellency Mr. Habib Bourguiba but appreciate and understand his inability to come. President Bourguiba is highly admired and respected in India as a valiant fighter for independence and a champion of the cause of the oppressed and the downtrodden. I hope your Excellency will convey our warmest regards and good wishes to him.

Tunisia and India share many things in common. Our two peoples are no strangers. Both our countries have struggled to obtain independence and have faced the gigantic task of bestowing the benefits of Independence and modernization to our peoples. India has watched, with admiration, the successful Tunisian efforts to build their country. You have progressed not only in industrial and cordial relations that have existed between our two countries have been strengthened by the signing of Indo-Tunisian Trade Agreement and the establishment of a

Joint Commission. The Indo-Tunisian Cultural Exchange Programme signed in November, 1978 has brought the people of the two countries culturally closer still.

Tunisia and India share a common political outlook and ideal and both are devoted to peace and the principles of Non-Alignment. Our support for the Arab Cause, comes from the principles and values dear to us and has been firm and consistent. We are confident that Indo-Arab friendship, based on shared ideals will promote mutual interests and continue to thrive in the years to come.

Your Excellency, we hope that your visit will lead to a better understanding between our peoples and will be an important step in consolidating the already warm relations we share with each other.

Excellencies, Ladies and Gentlemen, may I now request you to join me in raising your glasses in a toast for the health and happiness of His Excellency Mr. Habib Bourguiba. Her Excellency Madame Wassila Bourguiba, to the progress and prosperity of the Tunisian people and to the continued strengthening of the ties of friendship that bind us together.

### **TEXT OF MRS. BOURGUIBA'S SPEECH**

The first lady of Tunisia, Mrs. Wassila Bourguiba said:

Mr. Vice President, your generous hospitality, your words of welcome, the tribute you have just paid President Bourguiba, and through him the Tunisian people honour us greatly and go straight to our hearts. It strengthens our conviction, that distance means little when esteem and friendship are as strong and constant as they are between our two peoples and when the foundations of the bonds, which unite our countries, are as solid and unalterable, as was the wish of the founders of our two Nations, Pandit Nehru and President Habib Bourguiba.

The thoughts and actions of these two men who were not only leaders and liberators but also founders of modern States have left their imprint on the course of the Century and continue to guide us and illuminate the pathway to the future.

President Bourguiba, as Nehru, built a modern State which was the culmination of a long and bitter struggle.

### **PEACE AND SECURITY**

The vision of these two men and their choice of Socialism, based on the advancement of man, as a model for development which does not restrict independence and a strategy which does not hinder the vital interests of peace and international security are living proof of a profoundly fraternal and conciliatory vision of human destiny.

The historical bonds woven between them by a common struggle grew stronger with the passage of time, through the choice of Non-Alignment, one of the cornerstones of Tunisian and Indian Policy.

This choice, which assumes its significance through the trails to which the Third World are constantly subjected, has allowed us to conceive and maintain a wide open co-operation based on a common interest with all nations of the globe.

India and Tunisia have at all times defended just causes advocating dialogue and negotiation for the settlement of conflicts. This principle has served as a common denominator in their support for the Palestinian cause which is at the heart of the Middle East problem and which constitutes a major concern of the international Community and more particularly of the Non-Aligned Movement.

### **PALESTINE PROBLEM**

The Palestinian problem which President Bourguiba has dubbed the 'greatest injustice of the 20th Century' has matured today. Indeed, at the height of a most cruel and abominable ordeal, President Yasser Arafat never ceased to proclaim his willingness to bring about peace through negotiation and in accordance with the United Nations Resolutions. Today more than ever, he appeals for the recognition of the legitimate rights of the Palestinian People within the framework of a solution which takes into account the dignity of all concerned parties.

This is what had been advocated all along by the Non-aligned movement. Beyond substance, this approach is vivid proof of the greatness of Mahatma Gandhi's eternal teachings. We, in Africa have not forgotten this path, either. The drama which afflicts millions of Africans in the Southern part of our continent had always been a great preoccupation for us as well as for India. Indeed, it was Mahatma Gandhi himself who was the first to denounce the legality of the racial discrimination which was instituted as a State supported system in South Africa and Namibia. This case for the defense of a flouted Right clearly demonstrates the common stand of our two countries and the community of struggles which unites India and Africa.

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**NON-ALIGNMENT**

Your Excellency, one of the founders of the Non-Aligned Movement, Tunisia like India had not ceased to strive for its development and integrity which inspire our action, it is a common vision of our own destiny and that of humanity which we strive to express. We in Tunisia are, therefore, particularly pleased that the next Non-Aligned Summit will be held in New Delhi. This return to grassroots will no doubt contribute, under the clairvoyant guidance of Mrs. Indira Gandhi, instilling our movement with renewed strength.

Your Excellency, Ladies and Gentlemen, I invite you to raise your glasses to His Excellency Mr. Mohammad Hidayatullah and Mrs. Hidayatullah, to the health of Mrs. Indira Gandhi, to the well-being of the great Indian nation and to the friendship between the Indian and Tunisian peoples.

The following is the text of press release issued in New Delhi on February 22, 1990 on Indo-Tunisian Joint Commission meeting.

The third meeting of the Indo-Tunisian Joint Commission on Trade, which opened here yesterday, is scheduled to conclude tomorrow, with the signing of the agreed minutes of the deliberations in the presence of the Commerce and Tourism Minister, Mr. Arun Nehru and the Minister of National Economy of the Republic of Tunisia, Mr. Moncef Belaid. The three-day deliberations will cover all aspects of bilateral trade including joint ventures and co-operation in tourism. During his discussion with Mr. Arun Nehru last evening, Mr. Belaid urged India to explore the possibilities of availing the preferential arrangements which Tunisia enjoys with EEC for enlarging its exports to that region. EEC accounts for the bulk of Tunisia's external trade, with most of its goods enjoying duty free access to West Europe.

The Joint Commission between the two countries was that of the Prime Minister Smt. Indira Gandhi in April 1984, followed by that of PM Narasimha Rao in 1992. The former Prime Minister paid a visit to Tunisia in 1999.

The government of Tunisia recognises that fundamentalism is a threat to democracy and has been a participant in joint international efforts to check the menace of fundamentalism and terrorism. In October 1995, the two countries issued a 'joint declaration on Combating International Terrorism, Drug Trafficking and Organised Crime.' The two countries have taken a similar stand on this issue in the international fora.

Tunisian leaders have always expressed admiration for India's democracy and its leaders and openly acknowledged the strong support India extended to Tunisia in its freedom struggle. The two countries share a respect for secularism and moderation as an avowed hallmark of Tunisian foreign policy.

The institutional framework between Tunisia and India is strong. In fact, the two countries, have signed several agreements while covering various sectors of economic activities. There is a Joint Commission at the Ministerial level. A mechanism for Foreign Office Bilateral Consultation also exists between the two countries. In addition, there are several joint working groups which have been meeting regularly (Bio-technology, Science and Technology, Information and Communication Technology, SMEs, Pharmaceuticals, Textiles).

In April 2012, the eleventh session of the Tunisian-Indian Joint Commission was held in New Delhi and was co-chaired by Tunisia's secretary for state for Americas and Asia Hedi Ben Abbes and Vice Foreign Minister of India E. Ahmed. This session was an occasion to emphasise the Tunisian Commitment to strengthen bilateral co-operation, particularly in the area of Information Technology, Communication, Science, Investment and Tourism.

His Excellency Mr. E. Ahmed paid an official visit to Tunisia at the invitation of the Government of the Republic of Tunisia from 5th to 7th November 2012. During his visit, Mr. Ahmed conveyed the greetings of the Indian leadership and the good wishes and felicitations of the people of India to the government and the people of Tunisia on the successful non-violent revolution for dignity and freedom led by the Tunisian people followed by an orderly transition process.

Tunisia has been a reliable supplier of phosphates for decades, it constitutes the main Tunisian product exported to the Indian market. Olive oil, dates, leather and wiring harnesses are also exported from Tunisia to India. Efforts are made for further diversifying of the range of these products.

India exports a wider range of products. Significant among them being, rice, tea, tobacco, finished leather, fine chemicals, polyethylene, machinery, articles of iron and steel, electronic goods and yarn.

A Tunisian-Indian joint venture in Tunisia launched in 2006 for manufacturing Phosphoric Acid will be commissioned soon. The Total Annual production of the plant will be 360,000 tons of phosphoric acid.

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The promising areas of co-operation between the Indian and Tunisian business circle exist in many sectors such as auto-industries, information technology, business processing outsource, biotechnology, pharmaceutical and textile etc..

Thus we see that India and Tunisia have had cordial relations since Tunisia achieved Independence in March 1956. Even today both the countries have cultural and economic exchanges. The new Tunisia is keen in further developing its relations with India in all fields. The new environment will have a positive impact on business and will offer new opportunities for investments & development with a stronger basis of transparency and equality.

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**COMPANIES ACT 2013: AN EMPHASIS ON BETTER BOARDROOM MANAGEMENT**

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**ABSTRACT**

*Companies around the globe are under sheer pressure both inside and outside the organisational peripheries to run and manage the corporate activities in a transparent and fruitful manner. Several loopholes in the corporate laws have long been making the corporate management a fiasco in performing the basic obligations cast on them. Shareholders' value creation, protection of the investors' interests, efficient as well as optimal utilisation of scarce resources of the society including the protection of environmental pollution, employees' welfare, other social obligations like conservation of natural resources, judicious contribution into the central exchequer in the form of tax payment and other fees payment etc. have ushered wide animadversion and severe criticism about the growing tendencies of the corporate bodies not to perform in a socially responsible manner. The management teams of various corporate bodies with the help of laxity in corporate laws and in bad nexus with others have undertaken various corrupt and unethical practices as a part of their boardroom management to the detriment of the common stakeholders in particular and the public in general. They have devastated the overall corporate ambience and have rocked the investors' credence in many cases leading to corporate failure and loss of public support and social patronage. Keeping in view all these over years, a magnificent change in the corporate law has been made by implementing the New Companies Act, 2013 with the noble mission to instill a new outlook on overall corporate management giving emphasis on better boardroom management. This paper highlights the impact of changes in corporate laws as regards number of directors, independent directors and woman directors as the most vital pillars of board room management.*

*Keywords: Companies Act 2013, Board of Directors, Independent Directors, Women Directors.*

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**INTRODUCTION**

The long awaited amendments in the Companies Act have been performed by adopting the New Companies Act, 2013 in the Parliament in the Sixty-fourth Year of Republic of India. The basic intention of the legislation behind the changes incorporated in the New Companies Act is to consolidate and amend the laws relating to companies in India such that the companies can be managed and monitored in a fruitful and transparent manner. The corporate management teams of several corporate houses in consultation with other counterparts in the management cadre positions of different corporate bodies have undertaken manipulative practices leading to corporate failures that have devastated the investors' loyalty and credence. The directors by dint of their specific positions, administrative powers and controls in the overall boardroom management are found to have taken many unethical practices disregarding the noble duty cast on them to protect the stakeholders' interests. As a sequel to their unusual and unethical practices, many rich and even prosperous companies have lost their popularity and existence too. These have prompted over years to amend the corporate laws abruptly such that the boardroom management of corporate bodies can be leashed into and checked by making deliberate infusion into the boardroom structure with members like independent directors, woman directors, nominee directors, by making changes in the qualifications of directors, by making rigorous implementation of audit committees, inserting stringent check on insider trading etc. so as to make the boardroom management more strategically efficient to protect the diversified interests of the different stakeholders of corporate bodies.

**DIRECTORS: THE PILLARS OF BOARDROOM MANAGEMENT**

The directors occupy some unique and fiduciary positions in the management of a company. They are the key players in the overall management of a corporate body and they enjoy some specific powers and control aspects. The magnum opus of corporate management lie with them and much of the corporate success or failure is contributed by them. By virtue of their specific positions and control over the companies under their threshold, they dominate over others and very often they smack of a manipulative management practice to concentrate on their own well-being disregarding the noble duty cast on them. To tackle these, the New Companies Act 2013 has incorporated some major changes in the extant corporate law as follows:

**❖ Number of Directors**

- A public company shall have at least three directors, a private company shall have at least two directors and a OPC (One Person Company) shall have one director.



- The maximum number of directors in a public company has been raised from its earlier limit of twelve directors to fifteen directors. However, by passing a special resolution, a company can appoint more than 15 directors if the situation so warrants.
- A director cannot have directorship in more than 20 companies.
- **Residential Status**- By enacting a new provision in the Companies Act 2013, it has been propounded that every company shall have at least one director who has stayed in India for at least 182 days in the previous calendar year.

The requirement to have a resident director on the board of companies has been viewed as a move to ensure that boards of Indian companies do not comprise entirely of non-resident directors. This provision has caused significant difficulties to companies, since it has been brought into force with immediate effect, requiring companies to restructure their boards immediately to ensure compliance with Companies Act 2013.

#### ❖ **Woman Director**

The New Companies Act 2013 has also enacted that every listed company and every other company having paid-up share capital of one hundred crore rupees or more or having turnover of three hundred crore rupees or more, shall have at least one woman director. It is clarified in this respect that the paid-up share capital or turnover, as the case may be, shall be reckoned as on the last date of latest audited financial statement of the relevant company.

While the mandatory requirement for appointment of women directors is expected to bring diversity on to the boards, companies may find it difficult to be in compliance with Companies Act 2013 unless they have already identified or internally groomed women candidates that are qualified to be appointed to the board.

#### ❖ **Independent Director**

One of the significant aspects of the 2013 Companies Act is the effort made towards incorporating some of the salient requirements mandated by the SEBI in clause 49 of the listing agreement in the 2013 Companies Act itself. To this effect, the 2013 Companies Act requires every listed public company to have at least one-third of the total number of directors as independent directors. Further, the central government in the draft rules has prescribed the minimum number of independent directors in case of the following classes of public companies [section 149(4) of 2013 Companies Act].

- Public companies having paid up share capital of Rs.100 crore or more; or
- Public companies having turnover of Rs.300 crore or more
- Public companies which have, in aggregate, outstanding loans or borrowings or debentures or deposits, exceeding Rs.200 crore.

The 2013 Act also states that companies will have a period of one year to ensure compliance with the 2013 Act and the Rules that are framed.

It is evident from the provisions of the Companies Act 2013 that much emphasis has been placed on ensuring greater independence of independent directors. The overall intent behind these provisions is to ensure that an independent director has no pecuniary relationship with, nor is he provided any incentives (other than the sitting fee for board meetings) by it in any manner, which may compromise his / her independence. In view of the additional criteria prescribed in Companies Act 2013, many listed companies may need to revisit the criteria used in appointing their independent directors.

Companies Act 2013 proposes to empower independent directors with a view to increase accountability and transparency. Further, it seeks to hold independent directors liable for acts or omissions or commission by a company that occurred with their knowledge and attributable through board processes. While Companies Act 2013 introduces these provisions with a view of increase accountability in the board this may discourage a lot of persons who could potentially have been appointed as independent directors from accepting such a position as they would be exposed to greater liabilities while having very limited control over the board.

#### **STUDY ON SOME SELECTED COMPANIES**

For analytical study on boardroom management in terms of the new Companies Act, 2013, total 10 companies have been selected on the basis of some availability of relevant information for the study. These 10 companies represent 4 banking companies like State Bank of India, Bank of India, Axis Bank Limited, Yes Bank Limited, 2 power sector companies like NHPC, Reliance Power Limited, 2 Oil and gas companies like BPCL and Essar Oil Limited and 2 mining companies like MOIL and Rohit Ferrow-tech India Limited.

Table - 1 : Showing Average of Total Number of Board of Directors before and after introduction of New Companies Act 2013 in some selected Public and Private sector companies during the period from 2008-09 to 2016-17.

Name Of the Companies	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Total Number of Directors from 2008-09 to 2013-14	Average Number of Directors from 2008-09 to 2013-14	2014-15	2015-16	2016-17	Total Number of Directors from 2014-15 to 2016-17	Average Number of Directors from 2014-15 to 2016-17
State Bank of India	12	8	8	10	14	13	65	10.83	12	14	16	42	14.00
Bank of India	18	13	15	15	14	18	93	15.50	18	17	11	46	15.33
AXIS Bank Limited	10	12	14	11	14	14	75	12.50	13	13	15	41	13.67
YES Bank Limited	12	9	8	7	8	8	52	8.67	10	11	7	28	9.33
NHPC	11	14	13	12	13	14	77	12.83	14	14	10	38	12.67
Reliance Power Ltd	6	6	5	5	4	6	32	5.33	7	6	7	20	6.67
BPCL	11	12	10	10	9	8	60	10.00	9	10	11	30	10.00
Essar Oil Ltd	15	10	11	10	10	12	68	11.33	12	9	10	31	10.33
MOIL	11	10	14	14	12	10	71	11.83	10	10	7	27	9.00
Rohit Ferrow-Tech India Ltd	8	8	8	8	7	7	46	7.67	7	7	8	22	7.33

Source: Annual Reports from 2008-09 to 2016-17 of selected companies.

### • Strength of Directors in the Board

Table- 1 highlights the average composition of total directors in the Board of selected public and private companies from different sectors in India from 2008-09 to 2016-17. Table – 1 shows that out of 10 companies under study 4 companies have positive effect of New Companies Act 2013 i.e. the average number of total directors in the Board of these selected companies has been increased after 2013 such as State Bank of India, Axis Bank Limited, Yes Bank Limited, Reliance Power Limited. Bharat Petroleum Limited did not have any effect of Companies Act 2013 on the strength of their Board of directors and other companies have negative effect on the strength of the Board of directors.

### • Strength of Independent Directors in the Board of Directors

Table - 2 : Showing Average of Number of Independent Directors in the Board before and after introduction of New Companies Act 2013 in some selected Public and Private sector companies during the period from 2008-09 to 2016-17.

Name Of the Companies	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Total Number of Independent Directors from 2008-09 to 2013-14	Average Number of Independent Directors from 2008-09 to 2013-14	2014-15	2015-16	2016-17	Total Number of Independent Directors from 2014-15 to 2016-17	Average Number of Independent Directors from 2014-15 to 2016-17
State Bank of India	6	5	3	4	5	4	27	4.50	4	4	3	11	3.67
Bank of India	2	4	4	4	5	6	25	4.17	5	8	2	15	5.00
AXIS Bank Limited	6	7	8	6	7	7	41	6.83	6	8	9	23	7.67
YES Bank Limited	6	7	6	5	5	3	32	5.33	7	6	4	17	5.67
NHPC	6	7	7	6	7	7	40	6.67	7	7	3	17	5.67
Reliance Power Ltd	3	3	3	3	2	3	17	2.83	4	3	3	10	3.33
BPCL	4	5	4	4	2	2	21	3.50	2	3	4	9	3.00
Essar Oil Ltd	2	3	3	3	5	7	23	3.83	6	2	1	9	3.00
MOIL	7	6	7	7	7	4	38	6.33	4	5	2	11	3.67
Rohit Ferrow-Tech India Ltd	4	4	4	4	4	4	24	4.00	4	4	4	12	4.00

Source: Annual Reports from 2008-09 to 2016-17 of selected companies.

Table – 2 reveals the average composition of independent directors in the Board of selected companies from different sectors in India for the period from 2008-09 to 2016-17. The Table shows that out of 10 Companies under study only 4 Companies (Bank of India, Axis Bank Limited, Yes Bank Limited, Reliance Power Limited) have positive impact of Companies Act 2013 regarding composition of independent director. One company (Rohit Ferrow-Tech India Limited) have no impact of Companies Act 2013 And others 5 Companies under study have negative impact of composition of independent director in Board however all Companies have maintained the rules regarding composition of independent directors i.e.  $\frac{1}{3}^{\text{rd}}$  of total Director should be independent director.

### • Strength of Woman Directors in the Board of Directors

Table - 3 : Showing Average of Number Woman Directors in the Board before and after introduction of New Companies Act 2013 in some selected Public and Private sector companies during the period from 2008-09 to 2016-17.

Name Of the Companies	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Total Number of Woman Directors from 2008-09 to 2013-14	Average Number of Woman Directors from 2008-09 to 2013-14	2014-15	2015-16	2016-17	Total Number of Woman Directors from 2014-15 to 2016-17	Average Number of Woman Directors from 2014-15 to 2016-17
State Bank of India	1	1	2	1	0	1	6	1.00	1	2	2	5	1.67
Bank of India	2	1	1	0	1	1	6	1.00	1	2	2	5	1.67
AXIS Bank Limited	1	1	2	2	2	3	11	1.83	3	3	3	9	3.00
YES Bank Limited	0	1	0	2	1	1	5	0.83	1	1	0	2	0.67
NHPC	1	1	1	0	0	0	3	0.50	0	2	1	3	1.00
Reliance Power Ltd	0	0	0	0	0	0	0	0.00	1	1	1	3	1.00
BPCL	0	1	1	1	0	0	3	0.50	1	1	0	2	0.67
Essar Oil Ltd	0	0	0	0	0	0	0	0.00	1	1	1	3	1.00
MOIL	0	0	1	1	1	1	4	0.67	2	3	3	8	2.67
Rohit Ferrow-Tech India Ltd	0	0	0	0	0	0	0	0.00	1	1	1	3	1.00

Source: Annual Reports from 2008-09 to 2016-17 of selected companies.

Table – 3 shows the average number of woman director in the Board of selected Companies from different sectors in India for the period from 2008-09 to 2016-17. Table – 3 highlights that out of 10 Companies under study 9 Companies have positive impact on composition of woman director in Board. It is clear from the Table – 3 that 3 Companies (Reliance Power Limited, Essar Oil Limited, Rohit Ferrow-Tech India Limited) out of 10 Companies did not have any woman director before 2013. Most of the Companies have at least one woman director after 2013 in every year except Yes Bank Limited and Bharat Petroleum Corporation Limited who did not have any woman director in the year 2016-17. So, it may be opined from the Table-3 that Companies Act 2013 has very positive impact on composition of woman directors in the Board of Directors of selected companies.

It may be concluded that Companies Act 2013 which have aimed to establish better, transparent and strategically changed boardroom management, have achieved success to some extent especially in the composition of woman director. In case of increasing strength of Board of directors and independent directors in the Board private companies have more positive impact of Companies Act 2013 than public Companies during the study period.

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**IMPACT OF SOCIAL MEDIA ADVERTISING ON CONSUMER BUYING BEHAVIOUR AT  
VELACHERY, CHENNAI CITY****B. Vidhya<sup>1</sup> and Dr. M. Ramesh<sup>2</sup>**Research Scholar<sup>1</sup> and Professor<sup>2</sup>, Annamalai University, Annamalai Nagar, Chidambaram

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**ABSTRACT**

*Aim: The purpose of the study is to find out the impact of social media advertising on consumer buying behavior at Velachery, Chennai city.*

*Research Design: Quantitative research design has been adopted for the study.*

*Data Collection: The primary data has been collected through structured questionnaire with open and closed ended questions. Books, magazines, journals, thesis and websites were referred to collect secondary data.*

*Sampling technique: The data was collected by adopting purposive sampling technique from 100 consumers.*

*Statistical Analysis: Analysis namely reliability test, descriptives, multivariate ANOVA (MANOVA) and linear regression were used to identify the impact of social media advertising on consumer buying behavior at Velachery, Chennai city.*

*Findings: The study found that there is a significant impact of social media advertising on consumer buying behavior. It also found that facebook plays a major role in social media advertising and mobile phone and laptop is the highly preferred product by the consumers based on social media advertising. Possible suggestions and conclusions were discussed.*

*Keywords: Social Media Advertising, Consumer Buying Behaviour, Velachery, Chennai City*

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**I. INTRODUCTION**

In this modern era, social media earn the highest attention of both companies and individuals as it is considered as an innovative mode for connecting people with company in a simple manner. Social media provides a huge platform for the marketers to advertise their products to attract wide range of customers. By the use of hi-tech social network, the marketers provide relevant lively and interactive advertisement which insists the customers to buy the products immediately. Social media advertising provide huge increases in conversions and sales with lower cost of acquisition. The different social media used by the marketer to advertise their products are Facebook, Twitter, Instagram, Google+, LinkedIn, Snapshot, Skype, Pinterest, Watsapp, Youtube etc., which have grown exponentially over the past decade These media allows global accessibility of marketing activities to yield efficient return on investment with low effort and in short time. Through social media advertising, the marketer can provide vast information about their products with features, usage, sometimes provides comparison too. Companies can keep in touch with customers and address a range of stakeholders through social media marketing, including current and potential customers, current and potential employees and the general public.

Social media advertising gives power to customers to investigate the products, post online comments, product reviews, etc. which help the marketer to modify its prices, descriptions, promotional tools according to the feedback provided by the customers. It also allows individuals, businesses and other organizations to interact with one another and build relationships and communities online. Due to 24\*7 advertising made by the marketers through social media, the buying behavior and buying decision of consumer has been changed rapidly. Apart from direct marketing made by marketers, the social media advertising offers an overview of products live chat, retweet and repost comments on the products which influences the customers to change their buying pattern and decision on goods and services. It often repeats the message, recalls the products viewed while connecting to the social media sites and therefore forces many customers to purchase the products. Therefore, the study has been undertaken to investigate the impact of social media advertising on consumer buying behavior of various products at Velachery, Chennai city.

**II. PROBLEM DEFINITION**

In recent years, many companies have pages on social media to provide information about their products which insist the customers to take purchase decision. Through their web pages, it remains, forces and tempts the consumer 24\*7 to buy the goods and services by each and every stage of click made by consumers in social media. However the buying behavior of consumers are largely influenced by geographic, demographic, social, cultural, psychosocial and economic factors; social media are increasingly influence and change the buying

decision of consumers through their repeated and attractive advertisement, lively interaction, well-equipped information about products and services by comparing it with other products and by applying various promotional tools. Thus, social media advertising offers a new and efficient channel for the marketers to reach the wide range of customers rapidly and economically. It links wide range of companies and customers all over the world. But sometimes the consumer gets frustrated and irritated with the repeated disturbances of product advertising in social media. At one point of time, it forces the consumers to buy without planning and decision making. Thus, the study has been chosen to find out whether social media advertising is a boom or ban for the consumers and its effect on their buying behavior at Velachery, Chennai city. It also finds out the major social media which influences the consumers to take purchase decision and chief and foremost products purchased by the consumers based on social media advertising.

### III. LITERATURE REVIEW

**Ioană, E., and Stoica, I (2014)** examined the social media and its impact on consumers' behavior on purchase of products and services. The study is quantitative in nature. The sample counted 116 respondents and from the statistical perspective, the conclusions were established in terms of the univariate and bivariate analysis. The study concluded the fact that most consumers who buy online are indeed young, between 25-29 years. The consumers that usually buy from online are young, working in a company and most of them are females and has at least an account on social network. Before purchasing a product on online they usually inform themselves from forums, company's websites, Facebook accounts or peer reviews.

**Nufazil Altaf (2014)** has made an attempt to identify their role and describe their impact on consumer buying decision. This research gives explanation on how individuals are attending, processing, and selecting the information on social media before a purchase. To satisfy the research data has been collected from both the primary and the secondary sources. Secondary sources of data have been collected through use of internet, consulting past studies on the subject and also books have been used, primary data has been collected from 100 respondents through questionnaire by direct survey method. The findings indicated that individuals pursue an active role in information search on social media comparing to mass media. The study concluded that social media plays an important role in influencing the consumer's buying decisions. Consumer's regularly read the blogs on internet to view online advertisements. They use social media to provide feedback about the products/services they use. Some of the respondents use social media to view online advertisements to keep themselves aware of the new products/services.

**Jashari, F., and Rrustemi, V (2017)** have an overview on how the consumers use social media in the stages of decision making process and the psychographic variables that influence their behavior. A survey of 120 consumers selected randomly in the capital city of Pristina was conducted, to find out to what extent they are impacted by the use of social media, and what role it plays in their decision making process. Around 59% of the respondents reported to have made unplanned buying decisions based on the information obtained in the Internet, and 61.5% of them declared to be motivated for buying by social media reviews of their friends. The study concluded that the social media do impact the consumer behavior, and that this is also comes at the benefit of businesses through communication channels to offer better products and services, and make them easier available to the consumers.

**Ertemel, A.V., and Ammoura, A (2016)** investigated about the role of social media advertising on consumer buying behavior in very active field which is fashion retail industry, then determine the differences if existed in this relation regarding to the name of the brands and consumer demographics factors. By electronic questionnaires conducted for consumers live in Istanbul-Turkey, findings showed weak relation between social media advertising and consumer need recognition, no relation at all with search for information, strong relation with evaluate the alternatives, and moderate relation for both buying decision and post-purchase behavior, as those steps represent the five steps need recognition model in consumer buying behavior. Moreover, findings showed no changes in this relation regarding to consumer's age, and education level. However, there were changes between Females and males in the relation with consumer need recognition, and search for information. In addition, another changes regarding to income between social media advertising and evaluate the alternatives especially for consumers earn more than 5.000TL among other income groups.

**Nick Hajli, M (2013)** assessed the impact of social media on consumers. The results of the study showed that trust has a significant direct effect on intention to buy. The perceived usefulness (PU) of a site is also identified as a contributory factor. In addition, it showed that trust, encouraged by social media, significantly affects intention to buy. It also found that social media empower participants to generate content through online communities, reviews and recommendations. Consumers, facilitated by social media, generate online social support for their peers. Consequently, these interactions establish trust in the networks used.



**Kyule, M. Maryanne (2017)** identified the influence of social media marketing on consumer behavior. The study found that there is no significant relationship between social media factors influencing consumer behavior. There is a lack of significant relationship between social media channels and social media targeting.

**Ethel Lee (2013)** explained why, when, and how social media has impacted on consumer decision process. Quantitative research method is adapted for the purpose of this research. The empirical data was gathered by sending out questionnaire to individuals in Turku. The findings indicated that individuals pursue an active role in information search on social media comparing to mass media, yet information exposure is selective and subjective during the course of information search. Moreover, the empirical part of the research strives to provide insights to any companies that are trying to shift to or are currently participating in the new marketing trend.

**Voramontri, D., and Klieb, L (2018)** researched empirically the role of social media in consumers' decision-making process for complex purchases – those characterised by significant brand differences, high consumer involvement and risk, and which are expensive and infrequent. The research was done among internet-savvy consumers in South-East Asia, and only considered purchases that were actually made by consumers, not including searches that were abandoned. The model uses the information search, alternative evaluation, and purchase decision stages from the classical EBM model. A quantitative survey investigates up to what degree experiences are altered by the use of social media. Results show that social media usage influences consumer satisfaction in the stages of information search and alternative evaluation, with satisfaction getting amplified as the consumer moves along the process towards the final purchase decision and post-purchase evaluation.

#### IV. CONCEPTUAL FRAMEWORK



#### V. OBJECTIVES OF THE STUDY

Based on the literature review and theoretical framework, the following objectives have been framed for the study:

- 1) To study the socio- economic factors affecting consumer buying behavior.
- 2) To measure the effectiveness of social media advertising.
- 3) To find out the level of consumers buying behavior based on social media advertising.
- 4) To ascertain the impact of social media advertising on buying behavior of consumers.
- 5) To identify the consumer preferences among social media sites and goods and services purchased based on it

#### VI. SIGNIFICANCE OF THE STUDY

The study is highly significant for the marketers those who intended to advertise their products in social media. It aids the marketers to ascertain the social media which majorly influences the consumers to take buying decision of goods and services. It also significant for the marketers to understand the type of products purchased by the consumers based on social media advertising. The study measures the impact of social media advertising on consumer buying behavior which assists the marketer to recognize the effectiveness of social media advertising and to modify their advertisement to enhance the buying behavior of consumers on goods and services.

#### VII. SCOPE OF THE STUDY

The study is restricted to impact of social media advertising towards online buying behavior of consumers at Velachery, Chennai city. The social media sites included for the study is Facebook, Twitter, Instagram, Google+, LinkedIn, Snapshot, Skype and Youtube. The goods and services considered to find out the consumer buying behavior are electronics, home and kitchen, apparels, grocery, mobile and laptops, baby and kids' items, car and bike, beauty and grooming, books and stationery, sports and fitness, entertainment, health and wellness. The findings, suggestions and conclusions are confined to consumers at Velachery, Chennai city.

#### VIII. RESEARCH METHODOLOGY

The research design is quantitative in nature. Both primary and secondary data has been collected for the study. The primary data is collected through structured questionnaire with open and closed ended questions. Books, magazines, journals, thesis and websites were referred to collect secondary data. The data was collected by

adopting purposive sampling technique from 100 consumers. Analysis namely reliability test, descriptives, multivariate ANOVA (MANOVA) and linear regression were used to identify the impact of social media advertising on consumer buying behavior at Velachery, Chennai city.

### IX. HYPOTHESIS SETTING

H<sub>11</sub>: There is a significant difference between consumers' socio-economic factors, social media effectiveness and their buying behavior.

H<sub>12</sub>: There is a significant impact of social media advertising on consumer buying behavior based on social media advertising.

H<sub>13</sub>: There is a significant difference in the mean rank of consumer preferences among social media sites and goods and services purchased based on it.

### X. ANALYSIS AND INTERPRETATION

#### a. Cronbach's Alpha Reliability Test

Table - 10.1

Sl. No.	Scale	No. of Items	Cronbach's Alpha ( $\alpha$ )
1.	Effectiveness of Social Media Advertising	15	0.854
2.	Consumer Buying Behavior based on Social Media Advertising	15	0.817

Source: Primary data

From the table 10.1, it is inferred that the Cornbach's Alpha value for the two variables are above 80% which means that the items in the variables are closely related to each other and have excellent internal consistency within them in a group.

#### b. Descriptive Statistics

In order to measure the level of social media advertising effectiveness and consumer buying behavior based on it, descriptive statistics is applied.

Table - 10.2

Sl. No.	Scale	Mean	Standard Deviation
1.	Effectiveness of Social Media Advertising	3.95	1.203
2.	Consumer Buying Behavior based on Social Media Advertising	4.31	1.004

Source: Primary data

It is inferred from the above table that the mean value of effectiveness of social media advertising is 3.95, which means that the effectiveness of social media advertising is above the average level. The mean value of consumer buying behavior based on social media advertising is 4.31, which indicates that majority of the consumer are intended to purchase goods based on social media advertising.

#### c. Multivariate Analysis Of Variance (MANOVA)

In order to identify the significant difference between consumers' socio-economic factors, social media advertising effectiveness and their buying behavior based on social media advertising, MANOVA is applied.

H<sub>01</sub>: There is no significant difference between consumers' socio-economic factors, social media advertising effectiveness and their buying behavior.

H<sub>11</sub>: There is a significant difference between consumers' socio-economic factors, social media advertising effectiveness and their buying behavior.

Table 10.3

#### Demographic and Economic Factors with Social Media Advertising Effectiveness and Consumer Buying Behavior

Socio-economic Factors	Variables	F	P value
Gender	Effectiveness of Social Media Advertising	9.145	0.002**
	Consumer Buying Behavior based on Social Media Advertising	8.812	<0.001**
	Effectiveness of Social Media Advertising	23.311	<0.002**

Age	Consumer Buying Behavior based on Social Media Advertising	21.140	<0.001**
Educational Qualification	Effectiveness of Social Media Advertising	25.164	<0.003**
	Consumer Buying Behavior based on Social Media Advertising	22.170	<0.004**
Occupation	Effectiveness of Social Media Advertising	19.284	<0.001**
	Consumer Buying Behavior based on Social Media Advertising	20.673	<0.001**
Monthly Income	Effectiveness of Social Media Advertising	24.033	<0.002**
	Consumer Buying Behavior based on Social Media Advertising	21.249	<0.001**

Source: Primary data Note: \*\* Denotes significant at 1% level.

Since P value is less than 0.010, the alternate hypothesis is accepted at 1 percent level of significance. Hence it is concluded that there is a significant difference among consumers' socio-economic factors, social media advertising effectiveness and their buying behavior based on social media advertising.

#### d. Linear Regression

In order to find out the significant impact of social media advertising on consumer buying behavior based on social media advertising, linear regression analysis is applied.

H<sub>02</sub>: There is no significant impact of social media advertising on consumer buying behavior based on social media advertising.

H<sub>12</sub>: There is a significant impact of social media advertising on consumer buying behavior based on social media advertising.

**Table 10.4.a : Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.886 <sup>a</sup>	0.786	0.783	5.17974

Source: Primary data

Note: <sup>a</sup> - Predictors: (Constant), Effectiveness of Social Media Advertising

From the above table, the R value is 0.906 which indicates a high degree of correlation. The R<sup>2</sup> value is 0.786 which indicates how much of the total variation in the consumer buying behavior based on social media advertising can be explained by social media advertising. In this case, 78.6% of the observed variability in consumer buying behavior based on social media advertising can be significantly explained by their opinion towards social media advertising. The remaining 21.4% is not explained which means that the rest 21.4% of the variation in the consumer buying behavior based on social media advertising is related to other variables which are not depicted in this model.

**Table 10.4.b : ANOVA<sup>a</sup>**

	Sum of Squares	df	Mean Square	F	Sig.
Regression	9630.846	1	9630.846	358.962	<0.001**
Residual	2629.314	98	26.830		
Total	12260.160	99			

Source: Primary data

Note:

a. Predictors: (Constant), Effectiveness of Social Media Advertising

b. Dependent Variable: Consumer Buying Behavior based on Social Media Advertising

\*\*Denotes correlation is significant at 1% level.

From the above table, the linear combination of effectiveness of social media advertising is significantly related to the consumer buying behavior based on social media advertising (F = 358.962 and P = <0.001\*\*) and it is significant at 1% level.



**Table 10.4.c:**  
**Co-efficients between Effectiveness of Social Media Advertising and Consumer Buying Behavior**

Variables	USC	SE	SC	t value	P value
(Constant)	14.879	2.063		7.211	<0.001**
Effectiveness of Social Media Advertising	0.726	0.038	0.886	18.946	<0.001**

Source: Primary data

Note:

1. \*\* Denotes significant at 1% level.
2. USC = Unstandardised Co-efficient, SE = Standard Error, SC = Standardised Co-efficient.

Dependent variable (Y) = Consumer Buying Behavior based on Social Media Advertising.

Independent/predictor variable = Effectiveness of Social Media Advertising ( $X_1$ )

The Ordinary Least Squares (OLS) equation for consumer buying behavior based on social media advertising is:

Consumer Buying Behavior based on Social Media Advertising ( $Y$ ) =  $0.726X_1 + e$

The co-efficient of  $X_1$  is 0.726 which represent the direct relationship between effectiveness of social media advertising and consumer buying behavior based on social media advertising. The estimated positive sign indicates that for each additional unit of opinion of consumer regarding effectiveness of social media advertising, there is a 0.726 unit increase in the consumer buying behavior based on social media advertising and it is significant at 1% level.

#### e. Friedman Test

In order to study the consumer preferences among social media sites and products purchased based on it, Friedman test is applied. Based on mean rank, the most preferable social media site and goods and services preferred based on it is identified.

$H_3$ : There is no significant difference in the mean rank of consumer preferences among social media sites and goods and services purchased based on it.

$H_{13}$ : There is a significant difference in the mean rank of consumer preferences among social media sites and goods and services purchased based on it.

**Table 10.5.a: Consumer Preferences on Social Media Sites**

Social Media	Mean Rank	Chi-square value	P value
Facebook	1.12	551.241	<0.001**
Twitter	4.28		
Instagram	2.32		
Google+	5.14		
LinkedIn	6.57		
Snapshot	8.61		
Skype	7.88		
Youtube	3.46		

Source: Primary data Note: \*\* Denotes significant at 1% level.

Since P value is less than 0.010, the null hypothesis is rejected at 1 percent level of significance. Hence it is concluded that there is a significant difference among the consumer preferences on social media sites to watch product advertisement. Based on mean rank, the most significant social media site preferred by the consumer is Facebook (1.12), followed by Instagram (2.32), Youtube (3.46), Twitter (4.28), Google+ (5.14), LinkedIn (6.57), Skype (7.88) and Snapshot (8.61).

**Table 10.5.b : Consumer Preferences on Goods and Services based on Social Media Advertising**

Products	Mean Rank	Chi-square value	P value
Electronics	5.88	457.642	<0.001**
Home and kitchen	3.77		
Men and women apparels	2.42		

Grocery	4.63		
Mobile and laptops	1.43		
Baby and kids items	6.12		
Car and bike	11.43		
Beauty and grooming	7.26		
Books and stationery	5.18		
Sports and fitness	10.70		
Entertainment	8.88		
Health and wellness	9.77		

Source: Primary data Note: \*\* Denotes significant at 1% level.

Since P value is less than 0.010, the null hypothesis is rejected at 1 percent level of significance. Hence it is concluded that there is a significant difference among the consumer preferences regarding goods and services based on social media advertising. Based on mean rank, the most significant goods and services preferred by the consumer is Mobile and laptop (1.43), followed by Men and women apparels (2.42), Home and kitchen (3.77), Grocery (4.63), Books and stationery (5.18), Baby and kids items (6.12), Beauty and grooming (7.26), Entertainment (8.88) Health and wellness (9.77), Sports and fitness (10.70) and Car and bike (11.43).

## XI. FINDINGS

It is understandable from the descriptive statistics that the effectiveness of social media advertising is above the average level and majority of the consumer are intended to purchase goods based on social media advertising. Based on MANOVA, it is clearly learnt significant difference among consumers' socio-economic factors, social media advertising effectiveness and their buying behavior based on social media advertising. The linear regression analysis has proven that 78.6% consumer buying behavior is affected by social media advertising. Based on the Friedman test, it is clear that Facebook is the vastly preferred social media site by consumers for advertisement and mobile phones and laptop is the highly purchased products based on social media advertising.

## XII. SUGGESTIONS

The study revealed that the opinion of consumers regarding effectiveness of social media advertising is said to be above the average level. Hence, it is suggested to modify their advertisement in social media without disturbing the consumers by while using social media. The study found that Facebook is the highly preferred site for consumers to watch social media advertising. Therefore, it is advised to other social media sites to offer interesting and entertaining information through music and videos to attract increasing consumers towards it. It is also found that mobile phone and laptop is the product majorly preferred by consumers based on social media advertising. Consequently, the marketers of other products should concentrate in their promotional tools to boost up their goods and services.

## XIII. CONCLUSION

Social media plays an important role in influencing the consumer's buying decisions. It has boosted the marketers to promote their products through online and has moved a distant from customary publicizing. Its availability and transparency in advertising has driven changes in consumer buying decision and it is unavoidable and fundamental for the organizations to furnish innovative and promoting advertising. Social media advertising provides a platform for the customers to dissect the feedback and review the products which create a strong positive outlook on the consumers in preferring goods and services. To conclude, due to the development in the technology and heavy users of social media, level of presentation of information, promotional tools applied, assortment of goods and services, repeated 24\*7 advertising made by the marketers influences the consumer to change their buying decision regarding goods and services.

## XIV. LIMITATIONS OF THE STUDY

- 1) The study is limited to impact of social media advertising on consumer buying behavior at Velachery, Chennai city.
- 2) The study is limited to 100 respondents.
- 3) The study does not consider other factors affecting consumer buying behavior namely psychological, cultural factors etc.

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**PRINCIPLES OF SUSTAINABILITY IN CONSTRUCTION PROJECT MANAGEMENT**

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**ABSTRACT**

*Sustainable construction project management is an area that is in its infancy, but with significant potential given the many benefits of projects as drivers of change. Integrating sustainability into construction project management can be used as a lever to achieve all projects in a sustainable manner. Sustainability in building project management means adding value to our future workplaces without compromising the lives and work opportunities of future generations and without interfering with the ecosystem. In order to have theoretical and practical knowledge on how to achieve this ambition, this research will study the principles of sustainability applied to the management of construction projects by examining how the principles of sustainability in this field have been applied and working on the definition. sustainable development. Building construction project management, the author strives to accelerate sustainability ownership in organizations.*

*Keywords: construction project management, sustainability, project management, construction projects, sustainability in project management*

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**1.0 INTRODUCTION**

The Brundtland Report provides a translation based on the meaning of sustainable development which is “to meet the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987, p.41). An analysis of the WCED definition suggests that it is nature, life support systems and community that need to be sustained and people, economy and society that need to be developed (Kates et al., 2005, p.11). Thus the author see congruency in the terms ‘sustainability’ and ‘sustainable development’ thereby allowing the use of these terms synonymously throughout the paper (Marcuse, 1998, p.105; Sartori et al., 2014, p.1).

Another frequently cited definition for sustainable development is the triple-bottom-line also called the ‘Triple-P’ or ‘TBL’ which emphasises the consideration for the environment (planet), social (people) and economic (profit) impact of the business (Elkington, 1997, p.1; Schieg, 2009, p.316). These definitions fed the development of several other interpretations of the concepts in the literature, which have been found to amount to 103 as reported by White (2013, p.215). Sustainable development, an integrative concept (Pintér et al., 2012, p.21), also encompasses intra- and inter- generational equity and stakeholder involvement in the planning and decision making process (Ness et al., 2007. p.498). Furthermore, the temporal and spatial aspects of present vs. future and local vs. global respectively and the uncertainties associated with them are often acknowledged by academics and decision makers (Gasparatos et al., 2009, p.246). With a common consensus on the key elements of sustainable development, the concept is still developing often being adapted to the context of the organisation, their culture and policies (Bell & Morse, 2008, p.12).

Sustainability has been incorporated at numerous dimensions running from large scale or worldwide to smaller scale or venture. At a large scale level, worldwide associations have taken a lead on focusing on basic causes, for example, proceeded with help for human life on earth, long haul support of organic and farming assets, stable human populaces, restricted development economies, little scale, confidence and quality (Brown et al., 1987, p.713-717). The most widely recognized destinations are: social advancement which includes network wellbeing, and incorporation; assurance of the earth, species and their territory; reasonable natural asset utilization and upkeep of monetary development and business (Shearlock et al., 2000, p.81).

about the level of sustainability integration in an organization, Willard (2005, pp. 27-29) developed a model that defines five sustainability phases, namely: compliance, compliance, noncompliance, integrated strategy and final goals and passion ( see Figure 1). On a scale from reactive to proactive thinking, the phase of compliance is perceived as the most reactive and the goal and passion are considered to be the most proactive. The above stages, along with the definition of sustainable development, are aimed at organizing at the same time reducing the badness while taking on a quick effort to do well (Planko & Silvius, 2012, p. 13).

ustainability integration at project or operational level are necessary because traditional project management techniques are a limited basis for sustainable development. If this is realized, it can achieve recognition for the project, reduce financial risks and potential conflicts and develop progress on the competition (Schieg, 2009, p. 318). Based on Willard (2005, p. 27), the author tries to determine the differences between the structures of

sustainability projects and projects for social responsibility (CSR) and project sustainability. Although the execution of CSR projects is a more reactive, short-term solution, organizations where the organization is the amount of bad things that people and the planet are affected most often condemn to compensate is the sustainability of projects a more proactive perspective on the basis of long-term vision where organizations focus their efforts on good practice. and all projects sustainably perform. Instead of the above, the author will examine the integration of sustainable development into building project management processes and practices, and proactively change a faster implementation of the vision, established by Commissioner Brundtland in 1987

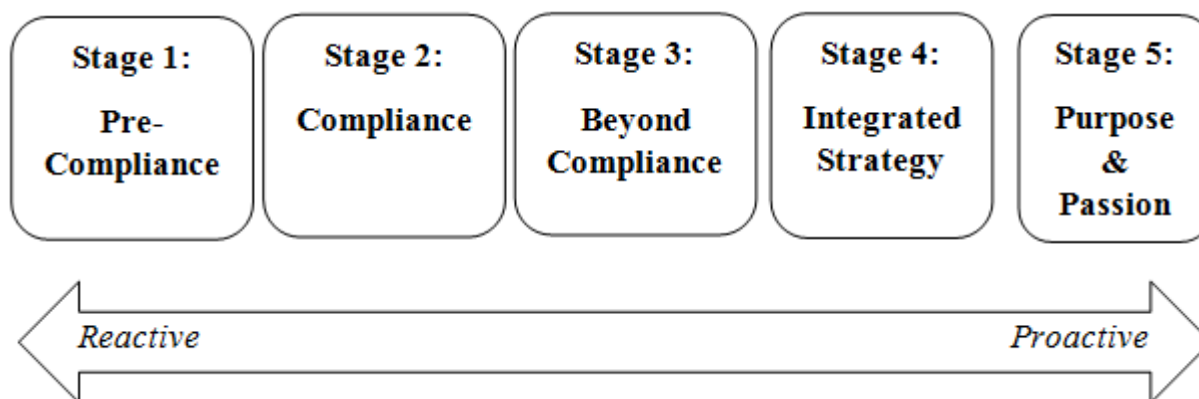


Figure – 1: The five sustainability stages

Adapted from Willard, 2005, p.28

The idea of sustainability has been connected to extend the executives in earlier research (Gareis et al., 2009 and 2013; Silvius et al., 2012 and 2013; Silvius and Schipper, 2010 and 2012; Martens and Cavalho, 2013; Tufinio et al., 2013; Marcelino-Sadaba et al., 2015), with in excess of 200 productions (articles, gathering papers, books, book parts) reviewed to date for the most part dating from the previous five years (Økland, 2015, p.103). This sudden development in intrigue can be clarified regarding the rise of this field and also a move in phrasing from CSR to "sustainability" or varieties of "supportable" as center has moved far from big business and inventory network to ventures (Økland, 2015, p.104). Since development venture the board involves the utilization of information, aptitudes, instruments and systems to extend exercises to meet pre-set prerequisites (PMI, 2013, p.554), sustainability should be connected to every one of these parts.

Before exploring ways to link sustainable development with project management, you need to understand the "natural differences" between the characteristics of the two fields to successfully implement the previous field. Given the universally accepted definition of a project, which is a "temporary endeavor undertaken to create a unique product, service, or result" (PMI, 2013, p.2), The short-term orientation of the project is clear, which contradicts the short-term and long-term orientation related to sustainable development. In addition, the focus of projects on deliveries or results, unlike life cycle orientation, is central to sustainable development. If the two fields coincide, building project management would be system boundaries to extend beyond its entire life cycle (initiation, planning, implementation, control and close-up) by also taking into account the results of the project that the active, product or service mentioned are produced of the active and associated life cycles. Because the three life cycles, the project, the asset and the product life cycle interact and relate to each other, sustainability thinking in the management of building projects requires the involvement of all three considerations with the added benefit of being taken into account at the same time. with a long-term perspective.

A further dissimilarity that needs to be addressed is the emphasis of construction project management on the interests of the sponsors versus the focus of sustainable development on the interest of present and future generations (Silvius & Schipper, 2012, p.30). This difference can be eliminated through project decisions that take into consideration the interest of all stakeholders. Since the effect of a project may outlive the project itself, additional stakeholder groups may be formed during project execution, which were not existent when decisions were made or activities were carried out. Therefore, to adopt sustainable thinking, project managers need to contemplate the interests of both current and future stakeholders (Økland, 2015, p.105). Similarly, projects are built around considerations of scope, time, and budget whereas the building pillars of sustainable development are people, planet, profit (Silvius & Schipper, 2012, p.30; Silvius, 2012, p.6.). To tackle this dissimilarity, project managers need to additionally balance and harmonise the economic, social and environmental interests of each project delivered (Silvius, 2012, p.2; Silvius & Schipper, 2014, p.69; Økland, 2015, p.104). Finally, traditional project management tools and practices intend to reduce complexity through the breakdown of

various deliverables, schedules, processes and responsibilities whereas sustainable development increases complexity by considering the interrelations between multiple projects as well as dimensions (Silvius & Schipper, 2012, p.30). To incorporate sustainability thinking into construction projects, construction project management needs to embrace this complexity and allow for multiple considerations to be made during decision-making.

Writing has endeavored to give a definition to sustainability in development venture the board through a large number of principles proposed and examined by different writers (Gareis, 2009, p.7-8; Gareis, 2013, p.135; Goedknecht and Silvius, 2012, p.3; Lambuschagne and Brent, 2004, p. 107-108, Messikomer et al., 2011, p.18; Økland, 2015, p.104-105; Silvius et al., 2012, p.38-40, Turner, 2010, p.162-163). The eight principles distinguished, additionally alluded to as standards of practical advancement in task the executives, are: (1) balancing or harmonising social, environmental and economic interests; (2) local, regional and global orientation; (3) both short-term and long-term orientation; (4) values and ethics; (5) transparency and accountability; (6) stakeholder participation; (7) risk reduction and (8) consuming income and not capital. In an undertaking to separate their own work and keep on giving further experimental help to it, none of the analysts have considered every one of the eight standards aggregately, therefore calling attention to a current hole. The creator trust that it is imperative to think about each of the eight standards together as its joining will give a comprehensive view on fusing maintainability in venture the board while setting out an exactly tried establishment for further investigations. This displays the fundamental hypothetical commitment of the postulation.

Literature has attempted to provide a definition to sustainability in construction project management through a multitude of dimensions suggested and discussed by various authors (Gareis, 2009, p.7-8; Gareis, 2013, p.135; Goedknecht & Silvius, 2012, p.3; Lambuschagne & Brent, 2004, p. 107-108, Messikomer et al., 2011, p.18; Økland, 2015, p.104-105; Silvius et al., 2012, p.38-40, Turner, 2010, p.162-163). The eight dimensions identified, also referred to as principles of sustainable development in project management, are: (In an endeavour to differentiate their own work and continue to provide further empirical support to it, none of the researchers have considered all eight principles collectively, thus pointing out an existing gap. The author believe that it is important to study all eight principles together as its integration will provide a holistic view on incorporating sustainability in project management whilst laying down an empirically tested foundation for further studies. This presents the main theoretical contribution of the paper.

## **2.0 PRINCIPLES OF SUSTAINABILITY IN CONSTRUCTION PROJECT MANAGEMENT**

### **2.0.1 BALANCED OR HARMONISED CONSIDERATION OF SOCIAL, ENVIRONMENTAL AND ECONOMIC INTERESTS**

A writing audit on sustainability in development venture the executives performed by Silvius and Schipper (2014, p.67) revealed that 86% of 164 productions alluded to the triple primary concern while conceptualizing sustainability, however their thought of the three columns is unique: 96% of the papers examine the monetary measurement, 89% talk about the social measurement and 86% talk about the ecological measurement. Past discoveries further help the intermittent numbness of the social and natural components of sustainability (Labuschagne and Brent, 2004; p.107; Labuschagne et al. 2005, p.378; Silvius et al. 2013, p.10) which can be disclosed by hierarchical undertaking to fundamentally redress and reward speculators' capital (Martens and Carvalho, 2013 p. 3). Furthermore, the dimension of thought of the three columns varies in ventures dependent on the macroeconomic atmosphere of a nation. For example, projects show a bigger emphasis on environmental concerns in Western Europe as compared to a prevalent social consideration in Africa (Silvius & Schipper, 2010, p.2).

Along a similar line, current task the board guides, for example, PMBOK (PMI, 2013, p.141-254), still place an accentuation on the conveyance of activities inside the limitation of time, cost and scope, likewise alluded to as the iron triangle (Silvius et al, 2012, p. 38). Regardless of the way that the accomplishment of ventures has begun to be evaluated utilizing different criteria, extra contemplation are as yet not reflected by and by as the triple imperative drives venture administrators' consideration on the benefit 'P'. Consequently, the social and natural columns get less consideration (Labuschagne and Brent, 2004; p.107; Silvius and Schipper, 2010, p.3).

Nevertheless, the economic, environmental and social dimensions of sustainability need to be seen as interrelated as they are influencing each other in different ways Their balance and harmonious relationship can be perceived either as a reactive or proactive approach to sustainability. Whilst the former intends to compensate for negative effects of doing business, the latter focusses on creating good effects from the start.

Examples are compensating unhealthy working conditions by higher salaries and moving to more sustainable business processes that eliminate the cause of unsustainability, respectively (Silvius, 2012, p. 3).

While indications of an undertaking towards adjusting individuals, planet and benefit contemplations when arranging and conveying ventures are as of now present, proof proposes that the financial column still wins in development venture the executives choices and practices. The creators trust that a proactive methodology towards agreeably consolidating the three columns is required and thus might want to investigate the utilization of it in development venture the board in this way prompting the hypothesis:

HYP1: The principle of balanced or harmonised social, environmental and economic interests is not applied in construction project management.

### **2.0.2 LOCAL, REGIONAL AND GLOBAL ORIENTATION**

Globalization has picked up organizations access to worldwide markets and at the same time expanded their impact over various geographic regions. Therefore, their exercises are affected by universal partners paying little respect to their national or worldwide introduction (Silvius et al., 2012, p.38-39; Silvius and Schipper, 2014, p.69). Alike perpetual associations, ventures, which are transitory associations, are likewise part of and affect the financial, ecological and social procedures at different spatial dimensions (Hollin, 2001, p.402). For example, an organization re-appropriating some portion of the inventory network of its undertaking to different nations should mull over the working states of that explicit nation, which can be viewed as a worldwide introduction. On the other hand, counsel with partners from the nearby network about externalities of a task that can influence their living conditions can be viewed as a neighbourhood approach (Silvius et al., 2012, p.50).

To handle the difficulties introduced by these exceptionally interrelated systems of procedures and associations and to guarantee intra-generational value (Labuschagne and Brent, 2004; p.104) economical advancement must be composed over all dimensions going from worldwide to provincial and nearby and institutional reactions need to address relating issues.

Since projects are part of a global system of interrelated organisations, the consideration of the triple-bottom-line at local, regional and global levels has been agreed to be essential in order to deliver sustainable projects. Nevertheless, evidence of its considerations in practice is limited, hence the author aim to assess how this principle has been adopted by project management processes thereby leading to the hypothesis:

HYP2: The principle of having a local, regional and global orientation is not applied in construction project management.

### **2.0.3 SHORT-TERM AND LONG-TERM ORIENTATION**

Sustainability is often studied as prudent resource utilisation and points out the need for movement from rapid improvement events (RIE) to sustainable improvement events (SIE) in construction project management processes (Badiru, 2010, p.31) by giving equal consideration to both short and long-term consequences (Silvius & Schipper, 2014, p.69). Sustainability in the short-term provides solutions to a limited problem and in the long-term present's solution pertaining to a wider set of challenges (Okland, 2015, p.107). Von Carlowitz, in the eighteenth century, viewed forest management from a long-term intergenerational perspective to balance wood consumption and reproduction, which can be seen as the earliest consideration of the temporal aspects of sustainability (Eskerod & Huemann, 2013, p. 38). Since then, sustainable development literature has emphasised the importance of aligning long-term strategic management with short-term project management needs (Herazo et al., 2012, p. 86), which subsequently may build reputation for project-based organisations (Schieg, 2009, p. 318). While strategic plans can be executed using project management tools, incorporating sustainability in projects requires the adoption of systems such as Environmental and Social Management Systems that equally concentrate on the long and short-term consequences (Sánchez & Vanclay, 2012, p.1). Case studies on construction, built environment and technology industries have shown the adoption of sustainable project management practices to build long-term value (Brent et al., 2005, p.631; Eid, 2002, p.1; Herazo et al., 2012, p.84; Al-Saleh & Taleb, 2010, p.52). However, firms listed on the stock market still tend to focus on short-term gains rather than a long-term vision.

With only a handful of industries seen to practice sustainability through this dimension and with minimal studies over the barriers, the authors aim to examine if the dimension is integrated in project management practices thereby leading to the hypothesis:

HYP3: The principle of having short-term and long-term orientation is not applied in construction project management.

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**2.0.4 VALUES AND ETHICS CONSIDERATION**

A unified value driven, ethical approach practiced by the organisation and its stakeholders is found to be an important consideration for integrating sustainable development in construction project management practices (Mishra et al., 2011, p.338). Sustainable development, a normative concept, reflects the values and ethical considerations of the project managers, the organisation they belong to and the client (Silvius & Schipper, 2014, p.69; Gareis et al., 2009, p.6; Goedknecht & Silvius, 2012, p.3). 'Values' underpin the attitudes and behaviours of project managers and team members. 'Ethics' are imbibed in the organisational culture as norms and rules that focus on imparting fairness and solidarity both inter and intra-generations, to strive for inclusion, participation, traceability and trust (Eskerod & Huemann, 2013, p.39-41) and/or to set up practices of integrity, credibility and reputation (Schieg, 2009, p.315). While the two concepts of 'values' and 'ethics' are rather broad, multiple authors consider it to be the way we view things rather than do things (Silvius, 2013, p. 58).

Although this dimension of sustainable development has been addressed in literature, its practice seems utopic, requiring a mutual agreement amongst organisations, project managers and stakeholders on the required business trade-offs to deliver all projects sustainably. Thus the authors aim to map the ethical and value considerations made by organisations, the subsequent business trade-offs and respective benefits that are achieved, which ensure the successful practical application of this dimension. The resulting hypothesis to be tested is:

HYP4: The principle of integrating values and ethics consideration is not applied in construction project management.

**2.0.5 TRANSPARENCY AND ACCOUNTABILITY CONSIDERATION**

Another dimension of sustainability considered for construction project management practices is transparency and accountability. Transparency refers to the avoidance of a black-box methodology and disclosure of the policies, decisions, activities and the subsequent environmental and societal impact of these. It also involves a "clear, accurate and complete portrayal, to a reasonable and sufficient degree", of all the above (Hemphill, 2011, p.307). This allows stakeholders to evaluate and address any arising potential issues thereby contributing to an adherence to sustainable practices (Silvius & Schipper, 2014, p.69).

The author of the study consider the transparency and accountability dimension of sustainability to be a subset of the values and ethics dimension. Nevertheless, the author does not consider the practice of one dimension to imply the practice of another and vice versa. Thus it is interesting to see how project managers practice accountability and transparency in conjunction with the values and ethics dimension thereby leading to the hypothesis:

HYP5: The principle of integrating transparency and accountability consideration is not applied in construction project management.

**2.0.6 RISK REDUCTION**

Risk in construction project management is often referred to either as an opportunity or a challenge (Caron, 2013, p.51). Given this, risk reduction refers to the minimisation of the negative impacts of project management interactions and decisions on the environment, society and income required to assure financial sustainability (Turner, 2010, p.169; Okland, 2015, p.106). The Deepwater Horizon oil-spill is one such example where societal and environmental risks were high and due to inappropriate management led to a disaster (Silvius & Schipper, 2014, p.70). The indeterminacy, complexity, nonlinearity and irreversibility of the society - environment interactions, make it easier to prevent rather than ameliorate adverse impacts leading to the formulation of the precautionary principle (Gareis et al. 2009, p.10; Goedknecht & Silvius, 2012, p.3).

Project managers, when dealing with sustainability, future scenarios and evolutionary trends, face an unavoidable degree of uncertainty, ambiguity and ignorance thereby posing a significant challenge on how knowledge is produced, distributed and used (Giampetro & Ramos, 2005, p.123; Gareis et al., 2009, p.6). Given this and the success criteria of projects, which is mainly defined by the iron triangle, project managers are solely accustomed to considering risks pertaining to the unfulfilment of the financial success criteria. Hence there is a need for the consideration and evaluation of risks associated to society and environment that can arise from the project.

The aim of the author is to understand how project Risk Registers incorporate societal, environmental and financial threats and the corresponding precautionary procedures and response actions developed for the same thereby leading to the hypothesis:

HYP6: The principle of risk reduction is not applied in construction project management.



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**2.0.7 STAKEHOLDER PARTICIPATION**

PMI (2013, p.30) defines stakeholders as “an individual, group, or organisation who may affect, be affected by, or perceive itself to be affected by a decision or activity”. With this definition in mind, stakeholder participation is needed to reach a consensus over the meaning of a sustainable product or process within the context of a specific project (Achterkamp & Vos, 2006, p.540) as well as over the indicators used to assess its sustainability (Singh et al., 2007, p.574). Stakeholder participation studies focus on various themes, each highlighting the need to implement this principle in project management practices (Marcelino-Sadaba et al., 2015, p.9) as it may encourage social and individual learning leading to an enhanced society, augmented citizens as well as a reduction of uncertainty resulted from imperfect information (Gareis et al., 2009, p.8).

Achterkamp & Vos (2006, p.525) propose a framework for stakeholder participation in sustainable projects that aids in determining which stakeholders should be involved in a particular phase of the project and the contribution they can make to it. To complement the triple P sustainability criteria used by many organisations, they introduce an additional consideration focused on the undesired effects of projects, which in their view should be equally distributed amongst all stakeholders without overburdening any group in particular.

Studies on stakeholder engagement are multiple and diverse, rooted in the realisation that adequate consideration needs to be given to every group of stakeholders that can affect the successful delivery of projects. Thus, it's important to study how this principle is implemented in practice in order to establish the existence of possible barriers and the need to develop corresponding response action that could eliminate them. The hypothesis formulated with the above argumentation is:

HYP7: The principle of stakeholder participation is not applied in construction project management.

**2.0.8 CONSUMPTION OF INCOME AND NOT CAPITAL**

On an environmental level the incorporation of this principle implies undertaking project activities that won't degrade nature's ability to produce or generate resources or energy, hence maintaining the source and sink function of the environment (Silvius & Schipper, 2014, p.70). This means that renewable resources should be extracted within the environment's capacity to regenerate and waste produced should not exceed the rate at which it can be assimilated (Gilbert et al., 1996, p.11). On a social level, this principle implies that firms should not exhaust an individual's ability to produce or generate knowledge or labour by mentally or physically overworking them (Silvius et al., 2012, p.51). On an economic level, this principle implies using income obtained from clients or generated from previous projects rather than the company's own capital (Silvius, 2012, p.91). This is vital for ensuring an organisation's financial health, as covering costs by continuously using capital may lead to insolvency. While from an economic perspective, using income rather than capital is immediately apparent through the financial statement of the company, the environmental and social impacts of projects are not evident in the short-term, resulting in a degradation of resources in the long-term (Silvius & Schipper, 2010, p.2). Therefore sustainability in project management implies managing the economic, environmental and human capital concurrently.

Given the author's understanding over the importance of delivering projects within the boundaries of the ecosystem, and without the exploitation of human or financial capital, the incorporation of this principle in project management is seen as crucial. Thus, exploring the ways in which a project's financial, social and environmental capital is managed will help assess whether this principle has been employed in practice whilst clarifying the path towards a better integration of it thereby leading to the hypothesis:

HYP8: The principle of consuming income and not capital is not applied in construction project management.

**3.0 CONCLUSION**

Literature up to date has suggested eight principles of sustainable development in project management which multiple authors have perceived as necessary to assure that future generations will equally benefit of the resources currently available. Despite a growing interest in establishing the fundamentals of sustainable development, researchers have not yet reached an agreement over the core sustainable considerations to be made. Therefore, the author found it important to bring the varying contributions of multiple researchers in the field of construction project management and sustainability under one discussion to examine how these principles are applied in construction project management and strengthen the grounds for future research.

Balancing and harmonising social, environmental and economic interests of projects is a significant consideration to be made as business objectives are inseparable from the society and the ecosystem in which organisations operate. Therefore sustainable development can solely be achieved through building on the three pillars concurrently. The study of the temporal and spatial dimensions have been highlighted by all key authors

identified (Gareis, 2009, p.7; Gareis, 2013, p.135; Goedknecht & Silvius, 2012, p.3; Lambuschagne & Brent, 2004, p. 107, Messikomer et al., 2011, p.18; Økland, 2015, p.105; Silvius et al., 2012, p.38-39, Turner, 2010, p.162-163) and it's important to the study given the high geographical interconnectedness of projects organisations as well as the need to prevent any negative impact over the quality of life of future generations. Incorporating sustainability considerations in construction project management implies a unified, value driven, ethical approach over decisions that affect stakeholders and organisations thereby exploring ways of implementing this principle is central to bettering future business relations amongst organisations. Transparency and accountability are important to ensuring sustainable development through projects as it builds trust amongst stakeholders while ensuring that occurred risks and errors are dealt with adequately by responsible parties. To prevent harm to the people, planet and profit pillar of an organisation and to implicitly assure sustainable development, a thorough risk evaluation that addresses all three pillars is needed and therefore the study of this principle is also necessary. The principle of stakeholder participation stresses the need of consulting and engaging with stakeholders to best use the variety of knowledge they possess as well as to maintain their commitment to 3P project goals throughout the whole project lifecycle. Therefore, sustainable development depends on their participation, highlighting the need to explore ways of achieving it. Finally, using income and not capital is perceived as a core principle to sustain people's, planet's and businesses' ability to produce or generate knowledge, labour, resources and profit as much for present as for future generations.

Based on the theoretical framework developed above, the author was able to develop a model (see Figure 2) that illustrates the principles of sustainable development that construction project management practices need to build on thus serving as basis for the present study. The rationale behind emphasising on the people, planet and profit pillars around project management practices is that triple P considerations need to be made throughout all eight fundamentals proposed by literature. Hence the suggested model aims to guide the research throughout the whole process which will be culminating with practical and theoretical contributions provided to literature.

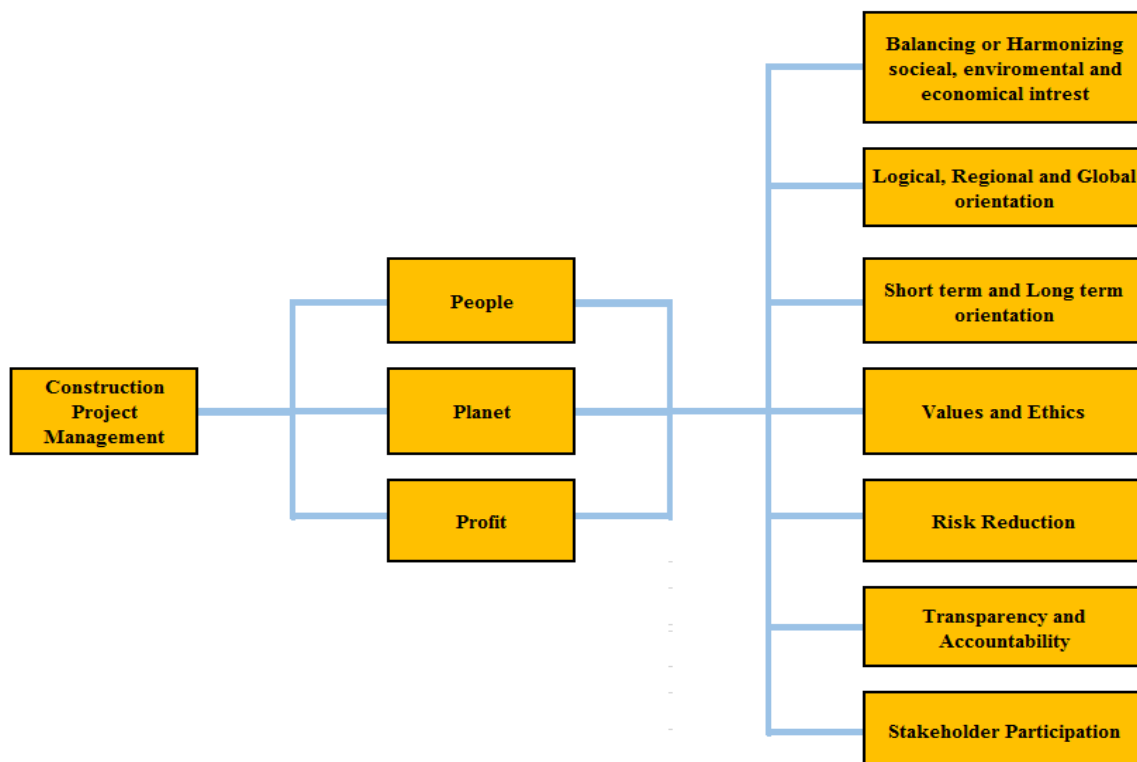


Figure -2: Theoretical model for principles of sustainability in construction project management

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**SUSTAINABLE AND RESPONSIBLE INVESTMENT – EMERGING TREND IN PORTFOLIO MANAGEMENT**

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**ABSTRACT**

*In the recent years, the concept of Environmental, Social and Governance criteria has gained considerable importance among the investors' community in stock market and portfolio managers. The stock of companies meeting the parameters of ESG criteria have been in demand and continued the attraction of fund managers. Such investment strategies are classified as Sustainable, Responsible and impact (SRI) investments. According to the US SIF Foundation's 2018 Report on US Sustainable, Responsible and Impact Investing Trends, by the end of year 2017, more than twelve trillion dollars have been invested according to SRI strategies. The present study aims to study its emergence in India using securities from FMCG sector. This sector has been chosen for the study because the impact of changes in macro economic variables over stock prices of this sector is not as significant as it is in the case of other sectors. Various statistical tests such as Kolmogorov Smirnov, Levene's test, t-test, etc. have been employed on the data for the period 2014 to 2018 to arrive at meaningful conclusion.*

*Keywords: Portfolio Management, ESG, Socially responsible investing (SRI), K-S test, Levene's Statistic, t-test, FMCG, Corporate Social responsibility, Tata Ethical Fund.*

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**INTRODUCTION**

The movement in share price of any company in the stock market is driven by several factors which can be grouped under factors specific to the company and factors governing the entire market. In technical terms, the former constitute unsystematic risk and the latter forms systematic risk. The fund managers prefer to constitute the portfolios of stocks in such a manner that the risk arising from unsystematic component gets minimized and also tries to protect the gradual portfolio return arising with time against possible downside risk. With so many objectives at the background, one needs to identify the stocks which are likely to be the preferred choice among large section of investors constituted of FIIs, Domestic financial institutions, Mutual Funds, etc. In such a scenario, one needs to focus on the aspect of sustainable investment strategy which implies the company whose business is going to witness stable and sustainable growth in business over long period of time. The portfolio managers not only view the performance of the company for the purpose of buying its stock rather the changes in external environment which can have bearing on the growth prospects of the company. Over the last few years, the concern of the society towards role of corporate in improvement in environment, accountability and responsibility of corporate towards society and the sincerity of corporate in taking judicious decision for the welfare of their shareholders have been seriously discussed at different platforms. A gradual shift in the expectations of the society from the corporate has been observed. The fund managers accordingly constituted new portfolios and tried to capture the transition in the external environment. The portfolio constituted of stocks of companies which fulfill the criteria of environmental benefits, discharge their responsibility towards society and comply with regulations governing their operations is known as ESG Portfolio. The purpose of investing in such portfolios is to earn reasonable rate of return besides contributing to enhancement of social, environmental and governance practices.

**REVIEW OF EXISTING LITERATURE**

As the concept of Socially Responsible investing in India is just emerging, therefore, there is limited literature available on the subject. However, the contribution of some of the researchers in the areas related to it such as Corporate Social Responsibility, ESG portfolio, etc. are very informative and provides scope for further research. Roger Schillerstrom, in the editorial section of Pension and Investment dated September 18, 2017, explained need for including environment, social and governance issues in investment decision making process. In his research, he highlighted that inclusion of such issues does affect the returns rather helps in minimizing the risk of investment in portfolio constituted of such securities. Emiel, Auke and Bert (2016) observed that many conventional managers are moving towards integration of responsible investing in their investment process. Capelle-Blancard and Monjon (2012) observed that most of the Socially responsible investing literature have finally arrived at conclusion that the impact on financial performance is limited and not statistically significant. Later on, Humphrey and Tan (2014), confirm this conclusion with the latest data. Sandra A Waddock, Samuel B. Graves and Renée Gorski (2000) observed that Socially responsible investment is a growing movement and attempted to measure social performance.

**OBJECTIVES OF THE STUDY**

The shift towards ESG portfolio is gradually picking up and the concept is at its initial stages in India. The market participants and portfolio managers still have a long time to factorize these issues in the stock prices of the companies complying with these parameters. With this observation at the background, the study aims to test the difference in return offered by a stock from FMCG in Tata Ethical fund which is a portfolio of funds based on ESG ,i.e. Hindustan Lever Ltd and another stock of the same sector but not included in the fund , i.e. ITC Ltd. Both the companies are comparable in many ways so far their historical perspective in the stock market and their popularity among investors' community is considered.

**RESEARCH METHODOLOGY**

The returns generated by the stock of Hindustan Unilever Ltd and ITC Ltd over last four years i.e. July, 2014 to June, 2018 have been calculated on quarterly basis and the values so arrived have been examined for statistical significance difference, if any.

$$H_0 : \text{Mean Return on HUL} = \text{Mean Return on ITC} \quad (\text{Null Hypothesis})$$

$$H_a : \text{Mean Return on HUL} \neq \text{Mean Return on ITC} \quad (\text{Alternative Hypothesis})$$

The statistical test , namely t-test , has been employed for the study using SPSS after ensuring compliance of necessary conditions. The sample data relates to two different stocks, out of which, one is included in Tata Ethical fund whereas the other is not part of the fund therefore the returns generated by the stock are independent of each other. The other conditions such as normality of the data and homogeneity of variance have been examined using Kolmogorov Smirnov test and Levene's test respectively. Finally, t –test has been conducted on the sample and meaningful interpretations were made.

**ANALYSIS AND INTERPRETATION OF DATA UNDER STUDY**

The data used for the study has been collected from the website of the National Stock Exchange and it is summarized below in table 1.

S. No.	Time period	HUL	ITC	Difference in return of HUL over ITC
1	July,2014 to Sept,2014	19.36	14.01	5.35
2	Oct,2014 to Dec,2014	1.6	-11.47	13.07
3	Jan,2015 to Mar,2015	20.31	0.46	19.85
4	April,2015 to June,2015	1.31	12.9	-11.59
5	July,2015 to Sept,2015	-12.54	-10.61	-1.93
6	Oct,2015 to Dec,2015	6.18	-4.56	10.74
7	Jan,2016 to Mar,2016	1.28	1.43	-0.15
8	April,2016 to June,2016	2.64	12.73	-10.09
9	July,2016 to Sept,2016	-4.25	1.25	-5.5
10	Oct,2016 to Dec,2016	-3.97	-6.19	2.22
11	Jan,2017 to Mar,2017	10.96	23.34	-12.38
12	April,2017 to June,2017	19.86	15.35	4.51
13	July,2017 to Sept,2017	7.41	-20.14	27.55
14	Oct,2017 to Dec,2017	15.26	1.93	13.33
15	Jan,2018 to Mar,2018	-1.4	-2.6	1.2
16	April,2018 to June,2018	20.7	3.125	17.575

**Table - 1: Quarterly return on stocks of HUL and ITC during the period July,2014 to July,2017**

It can be observed from the above data that the return offered by stocks have been different in most of the periods. Though the return offered by stock of HUL has exceeded the return offered by ITC in eleven quarters out of sixteen quarters under study. However, to examine if the difference in returns are statistically significant or not , t –test has been applied using SPSS. In order execute , t – test , on the above data , the condition of normality of the data was examined using Kolmogorov Smirnov test with the help of SPSS , and the output of the same is given below in table 2:

One-Sample Kolmogorov-Smirnov Test

		Return (HUL)	Return (ITC)
N		16	16
Normal Parameters <sup>a,b</sup>	Mean	6.5444	1.9347
	Std. Deviation	10.25333	11.48380
Most Extreme Differences	Absolute	.148	.146
	Positive	.148	.146
	Negative	-.144	-.139
Kolmogorov-Smirnov Z		.593	.585
Asymp. Sig. (2-tailed)		.873	.884

a. Test distribution is Normal.

b. Calculated from data.

Table - 2: Normality test for the sample under study

It can be observed from the output of the KS test that p-value is greater than 0.05 (level of significance used for the study) for both the samples, therefore it implies that the given data complies with the condition of normality. The output regarding group statistics of the data under study is shown below in table 3:

Group Statistics

	Stock	N	Mean	Std. Deviation	Std. Error Mean
Return	HUL	16	6.5444	10.25333	2.56333
	ITC	16	1.9347	11.48380	2.87095

Table - 3: SPSS output for Group Statistic of the samples under study

The group statistics of the output highlight the mean return of the return offered by the stocks under study along with the standard deviation of their returns. As against average quarterly return of 6.54% percent offered by HUL, the stock of ITC offered return of 1.93% which reflects significant underperformance of the stock in comparison to stock of HUL. Further, the standard deviation of returns of ITC stock is higher than standard deviation of HUL stock which further makes the stock unattractive against HUL stock. Thus, through preliminary analysis of data reflects that stock of HUL, which is included, in Tata Ethical Fund (ESG portfolio) has proved to be better investment strategy than investment in stock of ITC Ltd for an investor having desire to remain invested FMCG sector. However, to examine if the difference is statistically significant or not, t – test has been employed using SPSS, whose output is shown below in table 4

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Return	Equal variances assumed	.010	.920	1.198	30	.240	4.60969	3.84877	-3.25055	12.46992
	Equal variances not assumed			1.198	29.623	.241	4.60969	3.84877	-3.25475	12.47412

Table - 4: SPSS output for t-test

The t-test output (as shown in table 4) generated using SPSS contains Levene's statistic which is used for examining if the independent samples under study have equal variances or not. The p-value of the Levene's test in the above case is 0.920 which is higher than 0.05 which implies the variability in of the two samples under study is same. In technical terms, it means that the variability in the two conditions is not significantly different. The p-value in the top row is 0.240 which is greater than 0.05. As the p value is greater than 0.05, it *cannot be* concluded that a significant difference exists (at 5% level of significance). Therefore, we accept the null hypothesis that there is no significant difference between the average return offered by stock of HUL and ITC.

## CONCLUSION OF THE STUDY

The transition in society in terms of awareness and concern for environment is gradually getting ingrained in every facet of life including investing strategy. The asset class particularly equity shares of the companies

complying with the criteria of Environment, Social and Governance are being preferred against those companies which lack in meeting these parameters. Investment in securities would not be made solely for the purpose of earning financial return rather one would also like to fulfill environmental and social causes and, therefore, the concept of Sustainable and Responsible investment though may not be making statistically significant difference in terms of returns at present, but over a long period of time, such differences would be observed.

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**MAKE IN INDIA – APPRAISAL OF CAMPAIGN AND OPPORTUNITIES FOR ECONOMIC DEVELOPMENT**

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**ABSTRACT**

*The 'Make in India' programme which has been devised to transform India, initiative has been taken under the Department of Industrial Policy and Promotion, Ministry of Commerce and Industries. The Aim is to develop a global design and facilitate foreign investment by making India as a manufacturing hub. The idea behind "Make in India" is to work on skill development, support innovation, protect intellectual property and build infrastructures to invite Foreign Direct Investment (FDI). It has been planned to create and simplify existing rules so that there is ease of doing business in India. This paper on 'Make in India' will critically examine the policy made by the government about its clarity and to develop atmosphere to invite multinationals to visit the country and 'Make in India'. The paper will also look into the various schemes offered by the government in various sectors. The paper will analyze the ways to make this programme successful and initiatives taken by the government to enable the implementation of policies. The study basically covers conceptual framework, the policies of the government, various facilities given by the Government of India to facilitate the international investments in various sectors, issues and challenges in its implementation and suggestions for smooth implementation of Make in India programme. It is an attempt to do objective appraisal of campaign of the initiatives and opportunities available for economic development of the country.*

*Keywords: Make in India, Challenges, Policy initiative. Skill Development*

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**OBJECTIVES OF THE STUDY**

The primary objective of this study is to study the perspective, impact and opportunities of Make in India initiative on Indian economy. Besides this, other objectives of the study are as below:

1. To study the concept of Make in India.
2. To assess Make in India progress so far, to do appraisal of the campaign.
3. To identify challenges at launch and in Implementation of Make in India.
4. To suggest ways to overcome challenges in its implementation, to use it as gateway for development with global perspective.

**RESEARCH METHODOLOGY**

This paper is mainly descriptive in nature. For the purpose of information on Make in India concept, issues, challenges, and progress of Make in India various sources such as government of India websites, published information in news, and research articles have been referred and due recognition has been given in the end of this paper. Reviews of various programmes, initiatives, schemes have been studied from various sources and referred to various study material, articles written by different authors and researchers in this field. The Government of India website, the websites of concerned Ministries were visited to get the information concerning various parameters, areas, sectors, programmes and policies pertaining to Make in India initiative and has reproduced to make it authentic and attempts have been made to give the brief description of the Government of India's efforts to boost the manufacturing sector through this programme of 'Make in India'.

**OBJECTIVES OF MAKE IN INDIA**

As an important national program, 'Make in India' was launched with certain objectives. The mission is to transform India into a global design and manufacturing hub. Following are some of the key objectives:

1. To give a major fillip to manufacturing activities in India and make India a global design and manufacturing hub.
  2. Inspire confidence in India's capabilities amongst potential partners abroad, the Indian business community and citizens at large
  3. With Make in India programme, the government hopes to create 100 million new jobs by 2022 giving manufacturing sector a strong role in domestic job creation.
  4. 25 key sectors and industries are identified to be part of Make in India. To Provide a framework for a vast amount of technical information about these key sectors and industries. To create opportunities for Skill development in rural area to make poor people employable and that results in poverty alleviation.
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5. People between the age group of 15 to 35 years will be targeted and to be provided high quality training in the key areas such as welding, painting, masonries, etc. In this regard 1000 Training Centres will be opened in India
6. To maintain high quality and standards with no adverse impact on environment.
7. To ensure significant contributions to GDP of the country from Make in India initiative.

## **INTRODUCTION**

Make in India is an initiative which has been launched by Government of India under the leadership of Prime Minister Narendra Modi in 2014 with the objective of transforming India into a global design and a manufacturing hub by encouraging both multinational as well as domestic companies to manufacture their products within the country. The initiative aims to raise the contribution of the manufacturing sector to 25% of the Gross Domestic Product (GDP) by the year 2025 from its current 16%. Make in India has introduced multiple new initiatives, promoting foreign direct investment, implementing intellectual property rights and developing the manufacturing sector.

Make in India program aims at job creation and skill enhancement in key sectors. Make in India focuses on 25 sectors of the economy: Automobiles, automobiles components, aviation, biotechnology, chemicals, construction, defense manufacturing, electrical machinery, electronic systems, food processing. It also covers information technology and process management, media and entertainment, leather, mining, pharmaceutical, oil and gas, ports and shipping, railways, renewable energy, roads and highways, space and astronomy, textile and garments, thermal power, tourism and hospitality and wellness sector. The initiative also aims at imposing high quality standards and minimizing the impact on the environment.

The Make in India initiative has been built on layers of collaborative effort. According to experts, it was a positive invitation to potential partners and investors around the world. Top corporate houses from the various parts of the world became the partner in the programme such as Vodafone, Honda, Tata Group, Wipro, Samsung, Beacon and many others. It represents a comprehensive overhaul of processes and policies. It represents a complete change of the Government's mindset - a shift from issuing authority to business partner.

The Ease of doing business index ranks countries against each other based on how the regulatory environment is conducive to business operations. India is ranked 77 among 190 economies in the ease of doing business, according to the latest World Bank annual ratings. The rank of India improved to 77 in 2018 from 100 in 2017. Ease of Doing Business in India averaged 124.82 from 2008 until 2018, reaching an all time high of 139 in 2010 and a record low of 77 in 2018. This is a great news for India which will lead to higher growth in coming years and this will help the government, in terms of inflows of foreign capital and the country will be able to attract more investors and the capital at the global level.

The government is determined to develop an auto response mechanism, procedural clearance will help to create positive industrial environment with the foreign investment coming in the country. Innovative skills and the technical expertise of our country will improve along with the inflow of foreign capital. This campaign of 'Make in India' will unfold enormous opportunities for other countries also as the exports to those countries will increase. This will in the long run improve GDP, employment generation, poverty alleviation and welfare of the people at large.

## **LITERATURE REVIEW**

Review of literature basically summarizes study by different scholars, economists and public policy specialists on Make in India campaign. Sangwan (2015) studied Make in India impact on FDI inflows and industrial growth rate. It was found that there exists high correlation between the industrial production and the FDI inflows. The impact of FDI on economic development activities range from increase in productivity to greater technology transfer. Shettar (2017) studied impact of Make in India campaign on foreign investment. It was found that the percentage of FDI flowing to manufacturing sector, which was in the range of 35-40% for four years, dropped to 23% in 2015-16. Rather than manufacturing, services like e-commerce providers i.e. Amazon, Snapdeal and Flipkart, ride sharing services like Uber and Ola seem to have drawn a greater share of the investment. Agarwal (2017) studied impact of relaxing FDI restrictions on FDI inflow in India. It was found that owing to Make in India initiatives and relaxation of FDI norms, FDI inflow reached at the top in the NDA government in the year 2016-17. It was further suggested that the market forces should decide flow of FDI to a particular sector rather than regulating FDI flow through policies and regulations towards a particular sector. Kalaivani (2015) found significant, positive and meaningful relation between the Make in India campaign and

the HRM practices followed in the Indian corporate sector. It was found that through creative and exciting HRM practices, new culture can be facilitated that will pave the way for smooth implementation of Make in India programme.

### **WHY MAKE IN INDIA: THE OPPORTUNITIES**

'Make in India' project has been launched with the objective of making India an integral part of the global supply chain. The aim is to excel in the globalized work space. India has been trying to open the economy as per the expectations of the international investors community in the field of defense, railways, construction, insurance, automobiles and many other sectors to invite foreign direct investment. India is now a favorite and attractive manufacturing and investment destination in the world. India can reap rich benefits from its demographic dividend and the world business community is looking at India as a huge market with great potential. It is the world's fastest growing economy. India is also first among the 100 countries on the index of innovation growth and leadership. And it is also first among the 110 investment destination globally.

A few important questions in the backdrop of the above are : why should people invest in India, why should they come here to Make in India? The answers to these questions are explained in the form of reasons for investment in India. We may discuss briefly reasons to invest in various sectors:

#### **1. Reasons to invest in automobile industry**

India is the 7<sup>th</sup> largest producer of automobiles in the world and also 4<sup>th</sup> largest automobile market by volume. The automobile sector contributes 7% towards the GDP. The potential of automobile sector is very attractive. It not only has potential for export it also has potential for domestic consumption keeping in view of growing population and rising incomes.

#### **2. Reason to invest in aviation industry**

India being 9<sup>th</sup> largest civil aviation market. The international passengers coming to and going from India are estimated to be more than 16 million in 2018. India has more than 85 international airlines and the flights go around 40 countries in the world. India is going to be the third largest market for civil aviation by the year 2020 and the demand for the aircrafts is going to increase year by year.

#### **3. Reason to invest in Biotechnology industry**

The demand for biotechnology products and services is, to a large extent, being driven by India's growing population, predicted to reach 1.45 billion by 2025. On one hand, changing lifestyles will give rise to lifestyle-related ailments like diabetes, stroke and cancer, on the other, rising economic prosperity and growing consciousness towards physical well-being will accelerate the demand for healthcare services. Huge pool of skilled manpower in this sector and favorable government policies are some of the reasons to invest in this sector.

#### **4. Why invest in chemical industry**

India is the 6<sup>th</sup> largest producer of chemicals in the world and also holds the rank of 6<sup>th</sup> in Asia in terms of output. Due to its proximity to the Middle East petroleum industries for the availability of raw material, India is considered as the ideal place for chemical production.

#### **5. Reasons to invest in construction industry**

The real estate sector of the country is the second-largest sector. India is one of those countries that have an acute shortage of the residential houses. The government has launched a new urban development mission. According to this mission, the government is going to redevelop 500 smart cities. As a developing country, India is making huge investment in the infrastructural projects for high growth and employment generation. Indeed, construction industry is a priority sector for the government.

#### **6. Reasons to invest in defence sector**

India being the major importer of defense material so there is a wide scope for investment in this sector. The government is promoting self-reliance, up-gradation of technology and developing of defense capabilities and export of defense material, so it is a natural choice for the foreign investors to invest in our country and participate in the Make in India programme.

#### **7. Why to invest in electrical machinery sector**

India is trying to be self-reliant and develop effective power systems with the objective of taking power to each household. There is a huge opportunity of foreign investment and Indian manufacturers are trying to be competitive, there is a possibility of pooling of technology and human resource in this sector. India is also seen as a direct exporter of electrical machinery to its neighboring countries.

**8. Reasons to invest in renewable energy sector**

India has the power generation capacity of around 2045 GW and it ranks 5<sup>th</sup> in terms of power generation portfolio across the world. India is growing in terms of prosperity and the need of production of power is increasing. Under the 'Make in India' campaign, the government of India aims to raise the renewable capacity to 175 GW by 2022 from 45 at present. This will include 100GW of solar power and 60GW from Wind power. So, there is a huge opportunity for developing renewable energy sector.

**9. Reasons to invest in food processing sector**

Food processing sector is the most sustainable and growing sector. India is a rich agriculture country. Because of the availability of diversified and abundant resource base, there is a need for the development of technological infrastructure to set up the food processing industries which will help to cater to the world's food crisis.

**MAKE IN INDIA: THE APPRAISAL**

The responses after the Make in India project has been launched, we have seen that lot of people are coming to India for investment. Foreign Direct Investment is not new to the India, liberalization started in the year 1991 and since then the economy has opened to the world. Once again this project of Make in India has been launched by the Prime Minister by saying come and Make in India, it has created a punch globally, and the Government has done so many announcements and has taken initiatives to get the results. Many companies like Fox Con, Mercedes, BMW, Volvo, Honda, Reliance, Airbus, Pride and Richie are contributing in the different sectors in our country.

Increasing the level of FDI, much higher than what was before. Some of the highlights can be described as having done by various corporate giants. In January to June 2015, the Spice Group started a mobile phone manufacturing unit in Uttar Pradesh with investment of US 78 million dollars. The Hitachi began its initiatives in February 2015 followed by Zooming in Andhra Pradesh in July to December 2015, Fox Corn announced its investment in research and development and high techs semiconductor facilities in Maharashtra in 2015 the Nova announced in its manufacturing of Motorola Smart Phone. In December 2015, Qualcomm announced about starting of design in India and focused on hardware companies.

When we can boost of some contribution of Make in India towards a growth of our economy and increase in the GDP at the same time there are certain targets which could not be achieved and the economic situations did not become as good as it was expected and the employed scene in the country is not very good. As we see that the GDP growth rate came down from 9.2 percent in the third quarter of 2016 to 5.7 percent in the third quarter of 2017. It is alleged that the government policy of demonetization and implementation of GST has been the reasons for is reduction of GDP in our country. The rate of unemployment is increased from 3.8 percent in 2011-12 to 5 % in 2015-16. Less jobs had been added .As we see that in 2011-12, 9-3 lakhs jobs were added whereas in the year 2015 only 1.35 lakhs jobs have been added. The job creation in the various major sectors like construction, education, health, transportation, adduction, IT and manufacturing has not been very impressive. We see that only six lakh forty thousand jobs have been created from July 2014 to July 2016. If we compare it with the previous period in July 2011 to December 2013 128 lakh jobs were created .The unemployment rate in the country has increased 3.39 percent in July 2017 to 6.23 percent in March 2018 and it is not going to reverse , it is expected to increase further as per the Centre for Monitoring Indian Economy (CMIE) data. Modi Government has taken lot of initiatives and actions in some of the sectors with the objective of reducing red tapism and bureaucratic delays. India has gain in terms of its position with regard to the ease to do business ranking. But because of certain schemes which were launched and with the better opportunities in the mind such as demonetization or GST, the result has not been as good as it was expected. The manufacturing has seen slump and in its contribution towards the overall GDP of the country .

**MAKE IN INDIA : THE CHALLENGES**

India has many strengths . The country has made rapid economic progress, took many positive and effective economic policy initiatives and endowed with huge human capital . Despite such progress, the Make in India initiative faces certain challenges. These challenges can be discussed in two phases : (1) the challenges perceived at the time when the programme was launched and (2) ongoing challenges.

**THE CHALLENGES PERCEIVED AT THAT TIME OF LAUNCHING THE PROGRAMME:****1. Lack of Trust**

The biggest challenge was broken trust between the industry and the government; there was paralysis of policy implementation and existence of infrastructure bottlenecks, the continuous issues of environmental clearances and bureaucratic hurdles created trust deficit in the minds of the investors.

**2. Scarcity of Skilled Labour**

The demand for highly skilled labour by the manufacturing industry to make the programme a success was a major challenge..

**3. Multiple Tax Regime**

Multiple tax regime is always considered a stumbling block for the industrialization. There were central and state level multiple tax systems considered as an impediment by the industry.

**4. Infrastructural Bottlenecks and ease of doing business.**

Poor infrastructure, improper logistic network for supply of goods and material were creating lot of problem for the manufacturing industry. There were hurdles in getting procedures and regulatory clearances for the new entrepreneurs, the processes were complex. India was ranked much below in the rank in ease of doing business indexes conducted by many international agencies.

**MAKE IN INDIA : CURRENT CHALLENGES****1. Non-availability of skills**

Non-availability of skills is a major hindrance in creating the employment and with out which manufacturing activities can not be carried out. There are jobs. There are people who can be offered good salaries and perks but the matching of skills as required by the job is not forthcoming. The major problem of Make in India is the gap between the requirement of manpower and skill possessed by the people of the country. Less percentage of Indian workers are qualified as far as mastery in the potential skill, as compared to other workers in Asian countries like Japan and South Korea

**2. Quality of human capital**

The quality of human capital is the key challenge for our country. India needs to continue to raise the capabilities and capacities of our young people. The success of campaigns like Make in India greatly depends on the quality of human capital. India is far behind as compared to other nations in imparting skill training to its workers, to improve their capacity and competence. There is mushroom growth of various engineering and non-engineering colleges and institutes. They claim to give industry specific technical skills but when they go and work in the industry, they are not able to produce such results, which are expected out of them. Dearth of vocational education facilities as well as training facilities has affected India's industrial landscape. The problem of non-availability of technical institutes, non-inclusion of curriculum in the education system by the colleges and universities is a major problem. Even if, where they have included, this has not been able to produce result because of non-implementation of standards.

**3. Global Competition**

The Global market is being dominated by the countries like Britain, China, Japan, USA, and Korea as well as by India. However, there is a stiff competition among the companies of various countries. India needs to manufacture qualitative products in the sector of vehicles, electronic goods, and home appliances to compete with the other countries. The technology needs to be upgraded and the design of the new product development is also necessary to stay in the market. We need to do the research in design, technology and engineering fields. In the field of defense, our production is limited to few areas. We need to improve in this sector so that more and more defense related products can be produced in our country. We need to work hard to see that our products are also accepted in the international market so that more and more countries setup their manufacturing facilities here in our country.

**4. Scarcity of Energy Resources**

India also needs to diversify its energy resources and must focus on reducing the ambiguities in the manufacturing sector. India also needs to work on sustainable resources and needs to follow the policy of sustainability.

**5. Other Challenges**

There are other challenges which need to be addressed to Make in India initiative a success. Long term global competitiveness in industry requires huge investments in research and development but R & D has a low priority in India. India is still considered as not a very business friendly country compared to other many developing and developed countries. India has very protective labour laws and organized unions that can prove to be a major hindrance to setup manufacturing setups here. Funding is also considered an issue with not so matured financial markets unlike other developing and developed countries. Lack of infrastructure is a discouraging factor for those who want to open manufacturing facilities.

## SUGGESTIONS FOR SMOOTH IMPLEMENTATION

1. **Creation of and sustenance of jobs.** India is heading for more manufacturing, and it is expected that it will create jobs. The question before us is that whether those jobs will stay or it will be taken away by mechanization and work to be done by the robots. The technology and the various support systems are replacing the human being because of which the jobs will not be there. The human employment may become a challenge and the question here will be whether the human will be competitive as far as the cost is concerned.
2. **Industrial relations.** Industrial relations in our country has always been a challenge. The strike, protest in the manufacturing plants have always been hampering the working of the industries and has not allowed it to grow smoothly. It is not that easy to change the laws of the country, so the challenge is how to handle the stiff and adamant trade unions and bring them on the negotiation tables to work for the benefit of the industries. Culture of not working and not working hard is a big challenge in our country.
3. **Challenges of research:** India has reached to a different level of economic development with the help of public sector companies following a protected regime of rules and regulations. The competitiveness is global, we need to compete with global players, and we need to do huge investment in research and development. India is a home for the research and development facilities for various countries but still India is very slow to embrace the research and development. Some of the corporate giants, like Tata and Mahindra are coming forward but still more is needed to be done. The State run councils of scientific industrial research need to create infrastructure and hire more people. Bureaucratic delays and red tapism need to be handled .
4. **Academia Roll:** The academic world should study what the industry needs in the coming twenty years. There is need of coordination in planning and execution between the Universities , thinkers, government and the people who are seeking the job. All should know what is needed and they must work together to improve the various facilities for the availability of those skills, knowledge and competence. The training programmes need to be designed and should be IT based. The manpower needs to be trained through ITIs as well as other specialized institutes.
5. **Digital Competence :** Digital India should be the focus of the corporate as well as industrial world. Without emphasizing and developing Digital India, India can not think of achieving the objectives of Make in India because it is necessary to compete with the world as far as the competence of other people working in other country viz-a-viz digital way of doing the thing is concerned. The information base need to be developed, we need to develop I-biz high-ways, so we need to work to ensure that optical fiber networks are developed. We can only dream of a developed India through digital network. It is not the question of employment, it is a question of employability. We need to combine skill India and make in India to make a significant impact on the industry and the economy. Digital India can also make significant contribution to promoting skills of the people The skill development is very important. It is necessary to connect Skill India, Make in India and Digital India. Various specialized training centres in the country, i.e., engineering colleges, science colleges, poly-techniques should be motivated ,Manpower development programme should be designed, and system of facilitating the skill development should be created. Unless this gap between the institutional training and the actual requirement of the industry is filled, it will not be possible for the country to reach to that level which it desires to.
6. **Network :** It has been seen that the network of roads, rail and airport connectivity with the various ports is not as promising as it should be. We need to develop them as a clustered so that the development of different factors for the logistic movement and storage is proper and industrialists are able to get the benefit of that. The imbalance of export-import and the current account deficit can only be met through the activities for the export promotion. The export promotion is the way of creating a balance between that. The partnerships of different kinds are needed at all levels. The states, Centre, corporates, universities all need to work together and enter into memorandum of understanding to develop the India as a place as a manufacturing hub inviting other countries to come to our countries.

We need to create an echo system in which the manufacturers as well as other people from outside, feel comfortable and are willing to come to our country to transform Indian manufacturing sector and to create employment, generate investment and innovation. It will lead to be making of a vibrant economy and we will be able to get the objectives of higher level of GDP and other infrastructural support.

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**CONCLUSION**

While concluding the discussions on 'Make in India', one would like to acknowledge that the manufacturing and the growth in the manufacturing sector is very essential in case country wants to go to the higher level of income and this cannot be achieved unless and until we all join and focus on how to make it successful. Policy and the vision stated by the Government of India through 'Make in India' initiative can benefit immensely and in a better way if the inter-relationship with other departments and stakeholders is better. Though, the Indian government is working towards finding solutions to these challenges, the state governments also need to be equally pro active in attracting business in their respective states. Government needs to focus on its policies of merger and acquisition. The SME owners need to think of expansion of their businesses in India so that there is a participation of local industrialists also in the campaign of Make in India. Startup India programme also needs to be strengthened and made as an inter-linked programme with Make in India

It is further felt that this initiative should not be a simple initiative by DIPP but a separate department or ministry should be created to initiate and manage such programmes and projects which can attract investments from abroad. All necessary organizational structure should be revised to see to it that plan of moving from vision to implementation becomes successful and we are able to achieve the target of contribution of manufacturing sector to the GDP from the 16 percent to 25 percent by the year 2022.

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**CONSUMERS AWARENESS AND ATTITUDE TOWARDS GREEN PRODUCTS**

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**ABSTRACT**

*Awareness and attitude of consumers about any perspective of a product is a vital element of marketing because if customers are unaware of the objectives, pros and cons of the products they are buying, it would be hard to attain the objective of marketing. In this paper the researchers have tried to learn in depth the customers' knowledge and level of awareness about the green products. It also analyses the attitude of consumers towards green products and their willingness to change their lifestyle to adopt them in their daily life. The present paper also displays the findings showing the positive attitude of consumers towards accepting green products in their lifestyle. Results of the study will also help the companies in segmenting and targeting their consumers based on their awareness level and attitude towards green products. Marketers can also frame strategies to focus on improving the level of awareness among consumers based on the results of the study.*

*Keywords: Attitude of Consumers, Awareness Level, Environment Protection, Green Marketing, Green Products.*

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**1. INTRODUCTION**

With the fast development of economies across the world, threat on global environment is aggravating. Environment preservation has now become the topmost priority of governments and residents of countries. Companies are also contributing in creating safe environment through their efforts of Green marketing. Green marketing is the production, promotion and selling of products/services that are environmentally safe. Green product basically means either the product itself is environment friendly or the process of production is environmentally safe and releases lesser toxic waste or both are sustainable. Thus, green products are such which perform its utility function as well as cause least harm to the environment, are less toxic and less detrimental to human health. These products are recyclable and/or biodegradable as well. It is important to note that no product is 100% green and has some impact on the surrounding environment. In October 2018, Supreme Court of India had given the verdict for the use of green crackers on the festival of Diwali seeing to the rising pollution and deteriorating quality of air in Delhi (India today article, 24 October, 2018). Green crackers are less polluting and less noisy and do not contain harmful chemicals and fall within the permissible decibel limits and emission norms.

With the rising issues of environment and increasing pressure of environmentalists, promotion by media and governments, companies are shifting more towards green marketing and green products. With the increase in production and promotion of green products by companies, people are gaining awareness about green products available in the market over non-green ones. Moreover, due to increasing concern towards environment protection and maintaining healthy environment for their life people are also getting more inclined towards green initiatives. Thus, seeing to the huge tides of environment concern in India and all over the world, big corporates are using green marketing as a tool to change consumer's point of view and their attitude towards their products. This is also helping them to reposition their companies in the markets and gaining them a good chunk of share in the overall market sales.

**2. PROBLEM STATEMENT**

Green marketing is a concept which has been actively practiced by corporate since several decades all over the world. In some countries it has been widely spread and in some nations it is still gaining momentum. India is a country where green marketing is still struggling to expand its roots among the consumers. Though a good percentage of consumers have already shifted to green products to fulfill their responsibilities to save their surrounding environment and also due to change in their lifestyles, but still a major chunk of people is still not fully aware or has little information about green products. With the growing need of the country to rely more and more on green and sustainable products to save our future and coming generations, it is needed to make more and more people aware about the availability of green substitutes and harmful effects of non-green products on their health, environment and future. Though many studies have been conducted in the past in different countries and different cities of India to study about the awareness and purchase behavior of consumers towards green marketing and green products, but with the constantly aggravating environment situation, depleting natural resources and rising efforts of media, corporate houses and governments to promote

green products, it is required to study about the awareness level and change in attitude of consumers over the passage of time. Thus, the selected subject has been undertaken for the purpose of study by the researcher.

### **3. LITERATURE REVIEW**

Saxena and Khandewal (2008) in their study elucidated that preference of Indian consumers had shifted from grey products to green products and their awareness for protecting the environment and nature was high as well. Results also highlighted that consumers were positive about buying more and more green products in future. Consumers in different cities of India also believed that green image companies will have a competitive advantage over non-green companies in the market in the future. Overall consumers showed a strong positive attitude towards green marketing.

Kumar et al., (2012) undertook a survey of youngsters' awareness about green products in India and found that majority of the youngsters perceived that green products are safe for environment. Awareness towards green products was found more in males and they give high consideration to green products over non-green ones while buying as compared to females. Consumers also showed their readiness to pay even 11-20 percent high prices for green products than prices of non-green ones. The major concern revealed from the results of the study was that even though consumers were found to be concerned towards environment safety but they were found to have vague idea about green products and did not have complete knowledge about green products in its real sense.

Morel and Kwakye (2012) investigated the influence of 4P's of marketing mix, satisfaction and word-of-mouth on consumers' attitudes and their purchase intentions of fast moving consumer goods. Results of the study concluded that existing buyers of green products who were satisfied with their purchase were willing to do repetitive purchase of eco-friendly products. It was also observed that consumers with positive attitude towards sustainable products do not always end up purchasing the product. Consumer's positive attitude towards paying high price for green products also reflected correlation with purchase intention.

Saha (2017) carried out a study to understand intention of consumers towards green product awareness and considered three parameters namely social value, age group and environmental awareness to study the overall consumer awareness. Analysis of the study revealed that social values of consumers had positive relation with consumer's awareness about green products whereas environmental concern reflected no relation. Although variable of age group showed that the awareness among consumers might vary or may be equal between the two age groups of younger and older ones.

Siddique and Hossain (2018) conducted a survey in Bangladesh to know about the sources of awareness level of consumers about green products and its influence on their purchase decision. The results highlighted that among the six variables studied namely environmental concern, knowledge, eco-friendly product, promotional activities, social media and reference groups; promotional activities and information from reference groups were found to be majorly influencing factors on consumer's awareness of green products. Consumer's awareness of green products was also found to be the vital factor which significantly affected their purchase decision.

After an in-depth study of previous researches, it has been observed that consumers over the different countries carry positive attitude towards green marketing and green products and these waves of sustainable products is still on rise.

### **4. RESEARCH OBJECTIVES**

- 1) To know the awareness level and perception of consumers about Green Products.
- 2) To analyze the attitude of consumers towards Green Products.
- 3) To elucidate the association between demographic factors of consumers and the awareness level of consumers about Green Products.

### **5. METHODOLOGY**

The design of the study is analytical in nature. Data has been collected through primary sources with the help of a questionnaire. A pilot study has been undertaken on a sample of 20 respondents and suggested changes were incorporated to revise the questionnaire. Questionnaire consists of two sections: Section-I includes questions about demographic profile of respondents and Section-II incorporate questions to know about the awareness and attitude of consumers towards green products. The questions in both the sections are close-ended which are either based on multiple choices or five point Likert's scale. Questionnaire has been distributed to a total of 180 respondents, out of which 150 returned. In scrutiny of 150 filled questionnaires, 12 were rejected due to errors



and incomplete responses. Thus, data collected from a total of 138 respondents within Surat City has been taken over for further analysis. Consumers above 18 years of age who have some awareness and knowledge about green products are selected as sample units. To select the samples Purposive sampling method is used as the researcher is targeting the sample units who have some clue about green products ignoring the fact whether the respondent has purchased any green product anytime in the past as the main purpose is to know about the awareness not the consumption. Frequency distribution, chi-square test of relatedness and chi-square of goodness-of-fit tests have been carried out to analyze the data.

## 6. DATA ANALYSIS AND INTERPRETATION

The respondents of different age groups, gender, education level, and occupation are covered for the study. Demographic distribution of respondents is presented in Table 1.

**Table - 1: Demographic Factors of Respondents**

Variables	Number	Percent (%)	Variables	Number	Percent (%)
<b>Gender</b>			<b>Occupation</b>		
Male	61	44.2	Student	30	21.7
Female	77	55.8	Salaried	58	42.0
<b>Total</b>	<b>138</b>	<b>100.0</b>	Business	22	15.9
<b>Age (in years)</b>			Professional	19	13.8
18-29	73	52.9	Retired	1	0.7
30-45	51	37.0	Housewife	8	5.8
46-60	11	8.0	Agricultural Occupation	0	0.0
>60	3	2.2	Not currently employed	0	0.0
<b>Total</b>	<b>138</b>	<b>100.0</b>	<b>Total</b>	<b>138</b>	<b>100.0</b>
<b>Qualification</b>					
Secondary	2	1.4			
Higher Secondary	16	11.6			
Graduate	38	27.5			
Post-Graduate	66	47.8			
Other	16	11.6			
<b>Total</b>	<b>138</b>	<b>100.0</b>			

In table 1, most of the respondents are females and majority of the respondents are of the 18-29 age group followed by 30-45 age group. As the age increases the researcher found less respondents who have some information and knowledge on green products. Under the categories of qualification, most of the respondents are post-graduate followed by graduates. Others include respondents holding Doctorate, M.phil and Engineering degrees. It can be interpreted that people with good education level have little or more awareness about green products. Under occupation category, most of the respondents are salaried and doing a govt. or private job. The second highest in the same category are students followed by businessmen.

### 6.1 AWARENESS LEVEL AND PERCEPTION OF CONSUMERS ABOUT GREEN PRODUCTS

An attempt has been made to find out the awareness level of consumers which may differ from consumer to consumer from high range of knowledge to being unaware. A complete picture of consumers' awareness and what they perceive about green products is presented in table 2 and table 3.

**Table – 2: Awareness Level of Consumers Towards Green Products**

Level of Awareness	Frequency	Percent (%)
I know everything about Green Products	12	8.7
I am fairly aware of what are Green Products	72	52.2
I have heard the term Green Products but do not know much about it	54	39.1
<b>Total</b>	<b>138</b>	<b>100.0</b>

**Table – 3: Consumer's Perception About Green Products**

Consumer's Perception About Green Products	Frequency	Percent (%)
Environment friendly	119	85.6
Bio-degradable	71	51.1
Energy saving	53	38.1
Better quality product	34	24.5
Recyclable	71	51.1
Good for health	73	52.5
Optimum use of scarce natural resources	35	25.2
Green in color	4	2.9
Less Toxic	32	23.2

In table 2-, findings of consumers opinion reveals that majority of the consumers i.e. 52.2% have moderate level of awareness about green products followed by those who have just heard the term and have very little information about it. Minority is the percentage of consumers who know everything and have all round knowledge about green products. Figures in table 3 highlight that 85.6% consumers perceive green products as environment friendly and ecologically safe products followed by 52.5% as good for health with second highest frequency. Also, a good section of consumers i.e. 51.1% and 51.1% respectively understand it as recyclable and bio-degradable. Least number of consumers i.e. only 2.9% has misconception that green product means green color products. Thus, it can be interpreted that consumers are fairly aware about green products and their perception towards green products is moderately correct.

## 6.2 ATTITUDE OF CONSUMERS TOWARDS GREEN PRODUCTS

To find about the attitude of consumers, first normality of data has been checked using Kolmogorov-Smirnov Normality test and the results proved data to be not normal as the significant value for all statements comes out to be less than 0.05. Thus, hypothesis has been framed and chi-square goodness-of-fit which is a non-parametric test of one sample t-test is used to know about the consumers' attitude towards green products.

$H_0$ : There is no significant difference between observed and expected frequency of attitudes of consumers towards Green Products.

$H_1$ : There is a significant difference between observed and expected frequency of attitudes of consumers towards Green Products.

**Table - 4: Frequency Distribution and Chi-Square Goodness-of-Fit for Attitude of Consumers**

Variables of Attitude of Consumers		SD	D	N	A	SA	Total
Green products are of better quality than non-green ones.	Observed Frequency	2	4	43	56	33	138
	Chi-Square Statistics	82.797 (0.000)					
Green products make a great difference in protecting the environment than non-green ones.	Observed Frequency	0	4	20	59	55	138
	Chi-Square Statistics	62.638 (0.000)					
Readiness to make changes in my lifestyle to adopt green products and save the environment.	Observed Frequency	0	2	36	67	33	138
	Chi-Square Statistics	61.632 (0.000)					
Manufacturing of green products is totally environment friendly.	Observed Frequency	2	4	41	68	23	138
	Chi-Square Statistics	110.333 (0.000)					
Promotion of products by the companies as green is just a publicity stunt.	Observed Frequency	1	23	68	33	13	138
	Chi-Square Statistics	94.319 (0.000)					
Green products are true to their claims of being environment friendly and healthy.	Observed Frequency	0	8	48	63	19	138
	Chi-Square Statistics	56.145 (0.000)					
Always give preference to green	Observed Frequency	1	5	48	54	30	138

products over non-green products.	Chi-Square Statistics	84.681 (0.000)					
Readiness to pay high price for green products than non-green ones.	Observed Frequency	1	14	53	57	13	138
	Chi-Square Statistics	94.754 (0.000)					

In table 4, results of observed frequency shows that majority of the consumers agree with the different statements asked to them except promotion of products by companies as green is just a publicity stunt in which most of the respondents are neutral and undecided about it. As the figure reveals, there is found to be difference in observed and expected frequency and the results of chi-square statistics confirms it as the probability value is less than significance level of 0.05. Thus, null hypothesis is rejected and it can be interpreted that the difference in observed and expected frequency is significant. In other words, it can be concluded the attitude of consumers towards green products is found to be positive.

### 6.3 ASSOCIATION BETWEEN DEMOGRAPHIC FACTORS AND THE AWARENESS LEVEL OF CONSUMERS ABOUT GREEN PRODUCTS

To trace the association between demographic factors (gender, age, qualification and occupation) of consumers and their awareness level about green products hypothesis is framed and tested using chi-square test.

H<sub>0</sub>: There is no association between demographic factors (gender, age, qualification and occupation) of consumers and the awareness level of consumers about Green Products.

H<sub>1</sub>: There is an association between demographic factors (gender, age, qualification and occupation) of consumers and the awareness level of consumers about Green Products.

**Table - 5: Cross-Tabulation of Gender and Awareness Level of Consumers**

Gender		Awareness Level of Consumers			Total
		I know everything about green products	I am fairly aware of what are green products	I have heard the term green products but do not know much about it	
Male	Frequency	5	32	24	61
	%	8.2	52.5	39.3	100.0
Female	Frequency	7	40	30	77
	%	9.1	51.9	39.0	100.0
Total	Frequency	12	72	54	138
	%	8.7	52.2	39.1	100.0

**Table - 6: Cross-Tabulation of Age and Awareness Level of Consumers**

Age (in years)		Awareness Level of Consumers			Total
		I know everything about green products	I am fairly aware of what are green products	I have heard the term green products but do not know much about it	
18-29	Frequency	4	38	31	73
	%	5.5	52.1	42.5	100.0
30-45	Frequency	8	28	15	51
	%	15.7	54.9	29.4	100.0
46-60	Frequency	0	5	6	11
	%	0.0	45.5	54.5	100.0
>60	Frequency	0	1	2	3
	%	0.0	33.3	66.7	100.0
Total	Frequency	12	72	54	138
	%	8.7	52.2	39.1	100.0

**Table - 7: Cross-Tabulation of Qualification and Awareness Level of Consumers**

Qualification		Awareness Level of Consumers			Total
		I know everything about green products	I am fairly aware of what are green products	I have heard the term green products but do not know much about it	
Secondary	Frequency	0	0	2	2
	%	0.0	0.0	100.0	100.0
Higher Secondary	Frequency	0	9	7	16
	%	0.0	56.3	43.8	100.0
Graduate	Frequency	1	21	16	38
	%	2.6	55.3	42.1	100.0
Post-graduate	Frequency	6	33	27	66
	%	9.1	50.0	40.9	100.0
Others	Frequency	5	9	2	16
	%	31.3	56.3	12.5	100.0
Total	Frequency	12	72	54	138
	%	8.7	52.2	39.1	100.0

**Table 8: Cross-Tabulation of Occupation and Awareness Level of Consumers**

Qualification		Awareness Level of Consumers			Total
		I know everything about green products	I am fairly aware of what are green products	I have heard the term green products but do not know much about it	
Student	Frequency	1	14	15	30
	%	3.3	46.7	50.0	100.0
Salaried	Frequency	8	35	15	58
	%	13.8	60.3	25.9	100.0
Business	Frequency	0	10	12	22
	%	0.0	45.5	54.5	100.0
Professional	Frequency	3	10	6	19
	%	15.8	52.6	31.6	100.0
Retired	Frequency	0	0	1	1
	%	0.0	0.0	100.0	100.0
Housewife	Frequency	0	3	5	8
	%	0.0	37.5	62.5	100.0
Agricultural Occupation	Frequency	0	0	0	0
	%	0.0	0.0	0.0	100.0
Not Currently Employed	Frequency	0	0	0	0
	%	0.0	0.0	0.0	100.0
Total	Frequency	12	72	54	138
	%	8.7	52.2	39.1	100.0

Table - 9: Chi-Square Test

	Value	df	Asymp. Sig. (2-sided)	Inference
Pearson Chi-Square (Gender and Awareness Level)	.034	2	.983	Null hypothesis retained
Pearson Chi-Square (Age and Awareness Level)	8.012	6	.237	Null hypothesis retained
Pearson Chi-Square (Qualification and Awareness Level)	18.839	8	.016	Null hypothesis retained
Pearson Chi-Square (Occupation and Awareness Level)	15.671	10	.109	Null hypothesis retained

Table 9 exposes consolidated results between different demographic variables and awareness level of consumers towards green products. The probability value of none of the demographic variables and consumer's awareness level is less than 0.05 which indicates that the null hypothesis is retained and there exists no significant association between demographic variables and awareness level of consumers towards green products. Thus, chi-square test results do not confirm the difference in frequencies of cross-tabulation of different demographic variables and awareness level as a significant difference.

## 7. CONCLUSIONS AND SUGGESTIONS

Western countries are already apprehensive towards Environmental issues, thus green marketing is at its epitome in such countries; whereas in India green marketing is still in its dawn. Results of the present study also confirms that least percentage of consumers have profound knowledge about green products and still a big chunk of consumers need to be equipped with a little more information about it. This clearly shows the vague picture of green marketing and green products which exists in the mind of many consumers and needs to be cleared off to take Indian consumers on the environment friendly path of using green products and adoption of sustainable lifestyle. The result of perception of consumers about green products reveals that Indian consumers are not familiar with each and every facet of green products and for them green products mainly stands for eco-safe and healthy products which can be recyclable and/or bio-degradable. For many consumers, other dimensions of green products have still not come to surface. To unveil the significance of green products and create more awareness and spread knowledge about the same; companies, media and government have to channelize their efforts in common direction. They must make strategies to inspire people to shift towards sustainable lifestyle for the betterment of not only of the individual but also of environment and each living creature. Results on attitude of consumers towards green products highlights that they are ready to make changes in their lifestyle and pay premium prices to buy environment friendly green products which shows their positive attitude and willingness to save their planet's and their own future. Results also reveal no association of demographic variables with awareness level of customers. Looking at the current situation it requires a knight who can guide individuals and lead them on the path from going 'Grey to Green' and 'Shadow to Light'.

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## MARKETING STRATEGY OF TAGORE SONGS: TOOLS AND TECHNIQUE TO PROMOTE IN MODERN GLOBALIZED ERA WITH THE ROLE OF MUSIC MANAGEMENT- A STUDY

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### ABSTRACT

*Rabindra Sangeet has been an integral part of Bengal culture for over a century. For Bengalis, this songs' appeal, stemming from the combination of emotive strength and beauty described and also cover topics from humanism, structuralism, introspection, psychology, romance, yearning, nostalgia, reflection, modernism which has to take it's part everywhere even in our domestic lives with different colours. The feeling of this songs touch our heart with every moments of reality such as sorrows, happiness, romance, peace as well as the feeling of eternal imagination along with the essence of spiritualism. But apart from that after post independence era this music zone influenced the Indian socio economic platform as a business item and granted elaborately. Tagore songs has been expanded by its roots through different ways like such All India Radio, Gramophone records, Television, cassetts and after that CD and DVD along with different kind of social and cultural programmes on Rabindrasangeet and also set up a market and business segment gradually among our Bengali society. It is known that the music industry is highly competitive in which Tagore songs take place as a particular music zone and established as a autonomous industry not only in our Bengal but also at present it has been outreached in other states of Indian along with it's application in different languages as well as in different international countries.*

*This is a globalised era where we are enriched by booming IT sector and involved in digital economy system. The adaptation of E-Commerce and social media and network is bringing about a major changes in the way of conducting business to sustain in the global market. If we consider rabindrasangeet as particular music industry at present we will see this song has created an independent entity with major prospect of different kind of source of income depends on different marketing tools and marketing channels i.e advertisement, product promotion, digital marketing etc. Not only but apart from modern education system from young artist or performer to young students of music and scholars, most are trying to take these songs as a career oriented subject for their future sources of income and employment in different path. Tagore Songs has also initiated alternative employment in various aspects. So in this article we will try to find the various techniques and scope of marketing strategy to promote Tagore songs in our society to expand its roots along with competitive market strategy of others songs.*

### PURPOSE

*The purpose of this paper as follows:*

- 1) To show the growth of Tagore songs in post liberalized era.*
- 2) To explore the role and different ways of promoting Tagore songs by using different marketing tools, channels and technique from the aspect of marketing strategy and E-Commerce.*

### METHODOLOGY

*For this research article all data are collected from various secondary sources including books, articles, journal and relevant URL's and websites. The Tagore Songs has been expanded profusely within inter and intra state level as well as abroad due to its popularity among the listeners which is driven by the richness' uniqueness of the music and the easy understandable lyrics which easily reach out to all classes of people.*

### KEY WORDS

*[ Music Marketing, Marketing strategy for outreach of Tagore songs, music marketing techniques and tools using in Rabindrasangeet, marketing and money related to Tagore songs, music management of Rabindrasangeet, developing of music publicity business of Tagore songs, , Role of Advertisement and its impact on Tagore songs, future prospect and possibility of Tagore songs with strategic market planning ]*

### DISCUSSION, FINDINGS AND IMPLICATION

A music marketing strategy is a marketing plan designed to increase knowledge and sales of an artist's music. Usually an artist has many marketing strategies over the course of his career because various trends of music evolve. But a common question arises that how to make an music artist or performer? A music performer can establish him or her as an artist by creating his or her publicity and popularity in a society along with different marketing promotion through publishing of his or her own CD or DVD's, creating his or her branding and image, perform as a competitor in various reality music shows, playback singer in a channel or television,

Radio. At present in hi-tech globalised era the other source to increase artistic value is internet and social media like face book, twitter and different musical app where a performer can be reached to the public or audience directly and upload his/her voice or music to get popularity on demand through the negative or positive comments from public. In the context of the emergence of a music artist or a performer, the evolution and effectiveness of commercial and marketing management is reflected in its surroundings. The most important factor for a good music artist or performer which work as a catalysts are proper music education; in-borne sense of music; his or her passion for music and ; love for the Tagore songs; ability to connect to the spirituality that the Songs bear ‘ proper music education will help the individual to grow into a exponent of Tagore Songs and will also help him or her to gain popularity in the society.

### STRATEGIC GROWTH OF TAGORE SONGS FROM DIFFERENT ASPECT IN POST LIBARISED ERA

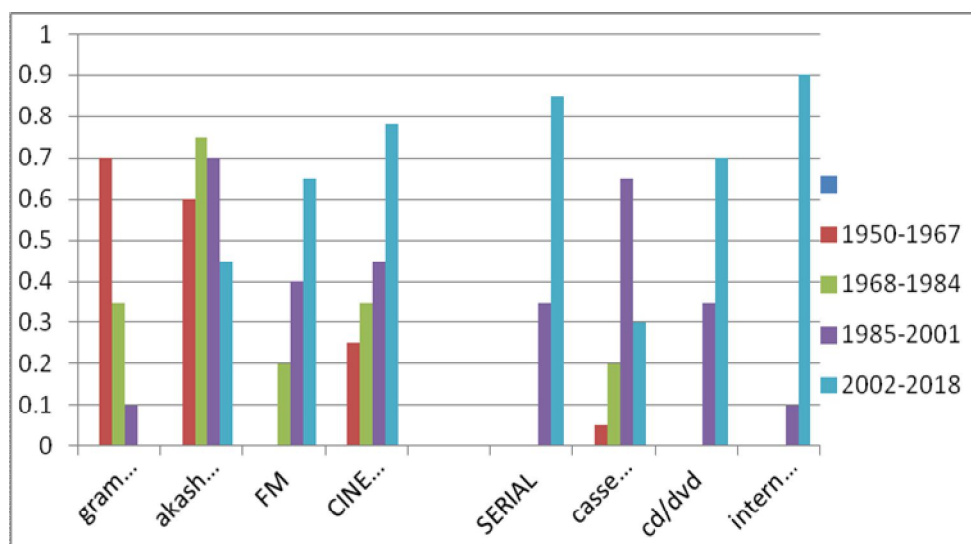
Growth strategy of marketing takes into account that everyone’s path is going to look different. Every company, artist, or individual is going to have a unique way of growing their brands in the society. Therefore, instead of approaching marketing with “one size fits all” methods, growth marketing uses experiments and tests to gauge growth and hammer out a unique plan.

(source: GROWTH: essential growth strategies for artist part-1 [www.tunecore.com](http://www.tunecore.com))

strategic growth of Tagore songs in post libarised era can be explained from different views along with graphical representation. After independence Tagore songs has been expanded in different ways like gramophone records, radio, cassettes, CD/DVD , and at present in internet era like social media youtube, face book, twitter etc.This graph represents different way of expansion tagore songs in our society which influence the market penetration and development of this music.

#### Pic – 1: GROWTH STRATEGY OF TAGORE SONGS ACCORDING TO E-MEDIA

From the following graph of pic.1 we can see that Tagore songs has been expanded gradually through different media. The graph shows that in the year of 1950 to 1968 Tagore songs mostly broadcasting in Akashvani radio and also expanded through Gramophone records. In 1968 to 1985 rabindrasangeet was outreached through cinema and television along with radio and also partly outreached through audio cassettes. In 1986 to 2001 rabindrasangeet mostly came to us with cinema Telefilm , FM radio along with AIR broad casting and very much with audio cassettes of different music company like HMV, Sagarika, Prime Music, Bhavna records etc and also with audio CD and slightly expanded in internet because internet was launched just few years ago i.e in 1995. In the year 2002 to 2018 the graph is clearly shows that it is tech savvy era where Tagore songs has been mostly expanded through internet and different social media like YouTube, face book, twitter and rabindrasangeet mostly expanded through television and Bengali cinema, mega serial, reality shows along with broad casting in many FM Radio channel like 92.7 Big FM, 106.2 FM, 93.5 radio Mirchi etc. In this period people has been influenced by social media and maximum music companies published their rabindrasangeet album with complete album in YouTube and others android apps before releasing as a CD format and selling in music shop through physical or traditional market. So the demand from music lovers and from the perspective of commercial market, the selling trends of rabindrasangeet CD has been decreased because today most of people can get a full music album in social media without paying any cost.

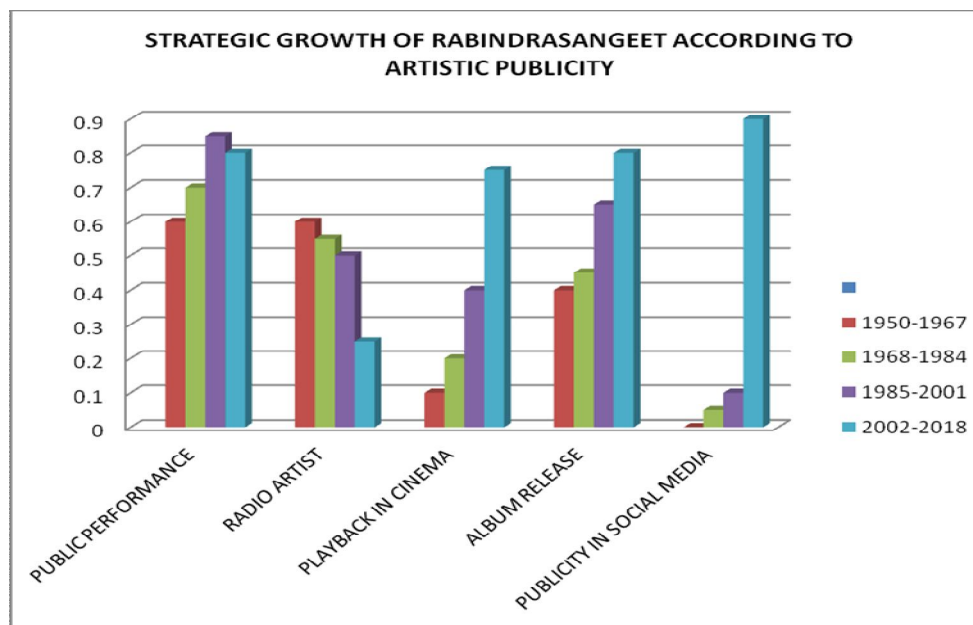


Pic-1



### PIC – 2: GROWTH STRATEGY OF TAGORE SONGS ACCORDING TO ARTISTIC PUBLICITY:

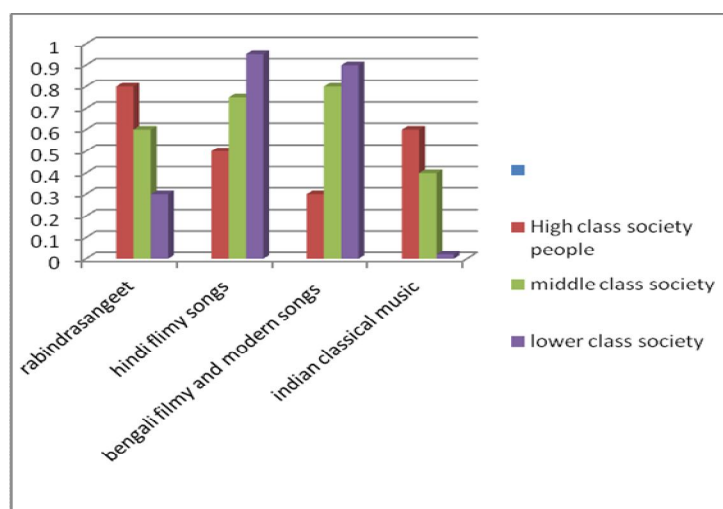
Publicity of various affluent artists influence the growth strategy of tagore songs from the different view. The following graph(pic.2) represents that in the year 1950 to 1967 many rabindrasangeet performer established their identity through public performance and Akashvani radio along with published their album in gramophone records simultaneously. Besides this in that time some rabindrasangeet artist started to perform as playback singers in Bengali film like MUKTI, KABULIWALA etc.in the trend of year 1968 to 1984 besides the above field artists were created their platform completely in Bengali films like Satyajit Roy's CHARULATA, Rittwik Ghatak's MEGHE DHAKA TARA, Tapan Sinha's CHHUTI, KHUDITO PASHAN etc.that very time technological revolution was came to take place in media.many arists and performer started to record their album in audio cassettes.in 1985 to 2001 artists was involved fully to creat their publicity in cultural programme ralted to tagore songs along with one by one publishing their audio cassttes album from different music company.after 2002 to at present music industrty



PIC - 2

### Pic – 3: MARKET STRATEGY OF RABINDRASANGEET ACCORDING TO POPULARITY ON DIFFERENT CLASS OF PEOPLE IN OUR SOCIETY

The Given Graph as per Pic-3 represents that Rabindrasangeet is most popular among high or affluent or more precisely among the cultured class of people; whereas Hindi Filmy songs, Bengali Filmy songs modern songs are more listened or practiced among the other classes of people. The Indian Classical music also has popularity among the high or affluent or more precisely cultured section of the society. This graph clearly depicts to the fact that the spread of Ranbindrasangeet songs is required to be more spread among all classes of people including the lower or ignorant class of people.

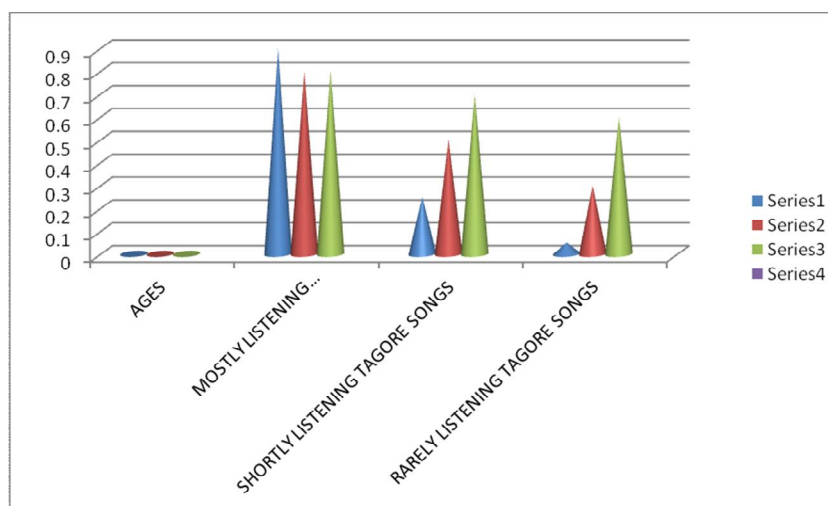


PIC - 3

**PIC – 4 : MARKET GROWTH OF TAGORE SONGS ACCORDING TO AGE ON CLASS AND PUBLIC DEMAND ON POPULARITY OF DIFFERENT TYPES SONGS**

The Graph as per Pic 4 denotes that the most popularly listened Tagore Songs are mostly cultured among the Young Generation i.e. within age range of 18 to 25 years due to the initiative taken from media i.e. cultural programmes in television; tagore songs are included in the movies; soaps & serials; various affluent modern artists have arisen who have taken tagore songs to a meaningful direction. The Shortly listened Tagore Songs are more practiced among the Middle aged people i.e. within age range of 40 to 60 years who are more inclined towards traditional zonal songs.

Some of the Tagore Songs are rarely listened nowadays due to the lack of publicity by present artists which has rendered these range of songs to be completely unknown to the current generation of people. Hence these songs are more listened by past generation.

**PIC - 4**

■ Age Range 18 to 30 yrs

■ Age Range 40 to 60 yrs

■ Age Range 60 yrs onwards

**STRATEGY FOR OUTREACH OF TAGORE SONGS**

At first we should know what is marketing strategy. In a one sentence we can say that marketing strategy is a long term plan of action and forward looking approach to planning with the fundamental goal by achieving a sustainable competitive advantage and also designed to promote and sell a product or service. Marketing strategy includes various components like marketing mix and 4 p's of marketing principal (product, place, price, promotion), online marketing or E-commerce, selling and retailing etc. anyhow if we considered Tagore songs as a marketing product at present life then we can easily evaluate the fact because after post death of Tagore, Rabindrasangeet has been gradually expanded and outreached with the help of different marketing distribution channel and communication like electronic and social media, with the help of different modern technological music instrument and arrangement and also with the help of internet in present globalised era.

**MARKETING STRATEGY OF TAGORE SONGS VS REGULAR MARKETING STRATEGY**

From natural view we can see that in a regular marketing strategy, a person or a business both search that what a particular type of services customer wants and the figures out what products or services satisfy the customer's need as per their demand and requirements. In this regard, it is the customer that determines what is to be sold. From the another side with the music marketing of Tagore songs, just the opposite is true- the artist already has a product ready to go. Music marketing strategy of Tagore songs thus must match a musician's music with an audience. But the fact i.e. musicians are not guaranteed a large matching audience is one of the challenges of music marketing of Rabindrasangeet.

**Various Music marketing techniques and process to promote Tagore songs**

At there are so many marketing techniques involved to promote Rabindrasangeet specially in globalised era. for an example it can say include giving free promotional singles or other paraphernalia, telling an audience and public specific reasons to buy the music product i.e. CD/DVD of tagore songs with a particular track, putting

advertisement of different kind of market communication channels like advertisement of Tagore songs related programmes, for upcoming cd release of an artist(old and new both), advertisement in media,(E-media like Television, radio,internet, facebook, twitter etc and in newspapers to know the society and people about different kind of public programmes of rabindrasangeet etc that link to the musician's online store on social networking sites and setting up sales tables at every steps. Another good marketing techniques can be used for establish a market promotion that is sending consistent newsletter, and getting e-mail addresses at rabindrasangeet concert so audience and public can get updates about the rabindrasangeet artists. But in this strategy it will not be helpful if two musicians or rabindrasangeet artist use the techniques.

### **Relation of Marketing and money and its impact on Tagore songs**

For surviving of human life a man need only three elements i.e food, cloth and shelter and to deserve these three elements, man needs money which comes from different sources like service, business, any kind of employment etc and others. so without money life is blind at present it has been seen that in many sector of earnings, Tagore songs has created an independent source of income in our society with different aspect among others performing arts industries like dance, drama, vocal or classical music from this view it can be said that in many cases music marketing strategy of tagore songs are limited by the artists or performers funds. At the time of creation of publicity and identity as a rabindrasangeet performer many beginning artists don't have the money to promote their work heavily and have to rely on techniques that are free or low cost. A performer or an artist who are rich and wants to establish his name in our society as an Rabindrasangeet artist and have money with source or lobby can get chance easily in any music reality show or in music show in media or television channel or in public cultural programme organizers related with Tagore songs through audition which is a just a formalities but there main criteria is money. So without money there is no value of talent of a performer. This is why most beginning artists dream of being discovered by an agencies talent scout-once the agency gets behind the artist, the musicians has access to the agency's resources for marketing purpose. Agencies are more than willing to provide these resources and develop a marketing strategy. As technology increases in present globalised era, it's becoming cheaper and more easier to promote their work and publicity like in social media (facebook, youtube, twitter etc), e-commerce online shopping site by releasing Rabindrasangeet album for B2B selling with big discounts and offer by which public or customer are attracted and also can verify their demand before purchasing through viewers or others customers review who are already purchased that particular album.

### **Planning of Marketing strategy for Music Management of Tagore songs**

Like other business there is no difference between music business about Tagore songs in some respect. however every business maintain a strategic planning for his growth and profit maximization for the same, business of Tagore songs requires a market plan and market communication channel to consistently sale music as well as expand to business growth, outreach and publicity and gain opportunities for their Rabindrasangeet artists. The success of the business and the artists of Tagore songs is contingent and dependent on the number of units of Rabindrasangeet album (CD's and DVD's) sold through renowned and popular music company like HMV SAREGAMA, HINDUSTHAN RECORDS, ASHA AUDIO, BHABNA RECORDS etc and also newly set up companies like GOLDEN VOICE, PURPLE MUSIC, MUSIC ZONE etc whose are tried to join in the perfect and monopoly market competition with existing branding music companies. Besides this moneys also come from ticket sold and sponsorship at events of public programmes about Rabindrasangeet organized by various association, organization and music institutions. But the more events an rabindrasangeet artist does the more likely fans or new fans purchase the artist's music. So we can discuss the different music management way of tagore songs as following-

- **Live public programme and Concerts of Rabindrasangeet:** live rabindrasangeet programme and concerts can be a opportunity for a new and upcoming rabindrasangeet artist or a performer who want to establish his career in this music profession because they allow music lovers to connect and close with the rabindrasangeet artist and their music for promote to sale. if any new rabindrasangeet artist's budget allows, they can create their identity among the society through their own solo performance opportunities in local area and invite artist that share the same target audience to attend and increase ticket sale.
- **Website and apps :** at present in globalised era which can be said as a internet era the, main marketing promotion tool is website. For an new Rabindrasangeet artist, a website can promote the artist's music by using different process in Google like such as music videos (YOUTUBE), Audio downloads from different and various URL's and apps (youtube, geetabitan.com, webmusic.in, bengalimp3.com, gaana.com, last.fm, saavan.com, Jio Music etc), even some music company has own websites (TIMES MUSIC, SAREGAMA, ASHA AUDIO, BHAVNA RECORDS, INRECO etc) which uploads rabindrasangeet of their

rabindrasangeet artists whose publish their new album form the concerened music company.besides this artist's professional pictures that can attract music listeners and lovers to create demand on market for making purchase the particular rabindrasangeet album along with music videos related viewers like and comments and blog spots from the artist.

- **Social Media :** recently in our internet era social media has been taken a big role to promote any kind of product or service through facebook, whatsapp, twitter, instagram etc. it has been observed that people of all age group and classes i.e lower to high and 18's to mid 50's maximum people has been accustomed to use Smartphone. People and organization can share their every moments and every incidents in social media for the publicity and upgraded their status to create attention and attraction among another people or friends in their profile or page in this media. If we want to see that how marketing promotion technique of Tagore songs influence the social media then we see that a Rabindrasangeet artist or a music company can use social media like facebook and whatsapp to share and upload their musical album tracks (even before coming in physical and competitive market)audio -videos and images on location and behind the scenes to their facebook , whatsapp and instagram friends not only but also an artist or music company can let to know the public or their friend circle about any kind of rabindrasangeet events or their upcoming performance or others tagore songs related information like such programme venue time , place or album release date and place etc. Rabindrasangeet artist can create online events by participating in real time chats with another existing artists where their fan base can engage with them. The initiative of the rising artists to develop intimacy likings among the fans will help to grow their publicity level in the society especially among the young generation. . So it can easily said that social upbringing of the Tagore Songs can replicate itself if an rabindrasangeet artist is consistently connecting to the Rabindrasangeet followers.In one word it can said that social media is a place where any kind of music artist , music company can communicate and publicity by exposing their ideas about different aspect of music for creating customers as well as followers and listeners.
- **Online audio and Videos:** Online audio and videos have been considered as an effective marketing strategies or selling music since 1980 onwards. These marketing tools are a great way to promote and sell Tagore songs in our Bengal as well as in India and also in abroad. Videos and audios related to tagore songs in various websites and URL's can articulate an rabindrasangeet performer's brand, message and the meaning behind their music in an intimate and engaging way. Listeners can find out their choice based songs easily by searching that websites and after listening those songs the listeners review the comments and view the number of likes and shares on those songs to confirm the popularity on demand and after that the listeners become consumers and determine to purchase or downloading that songs. Video contents of tagore songs can feature behind the scenes interviews with the video or music production teams for videos which can give a clear picture about the "making of" that video or songs perceptively.

### **Role of Advertisement as a Marketing product promotion techniques of Tagore songs**

In one word Advertisement can be explained as a "telling and selling" about the product or services. Through advertisement the advertiser has communicated with his target audience. Audience must see the advertisement with attention and tries to understand what it conveys and finally the purchase behavior of the target audience should be influenced in favor of the advertised offer. When the consumer's requirements and needs are being fulfilled, then they determine to purchase the concerned product. Advertisement process can be done with different process of communication channels like mass media i.e advertisement in newspaper, magazines etc,E-media including television, radio, internet, advertisement in public place i.e on road, shops and in any public place with the help of banner, festoon, posters where public can see the present and upcoming launching product descriptions with attractive message and visualize the matter at a glance to give their ultimate intension which influence them to create attitude and purchase behavior.

### **Area where advertising objectives have to be set for promote Rabindrasangeet**

**Introduction of new products:** music company can lauch CD's or DVD's which are exclusively different from others existing and already launched rabindrasangeet album of the same company i.e different types of new and uncommon Tagore songs which may be popular by the people and the quality of singing of a artist and music arrangement should be good by which listeners can be impressed by the song to take his p mind for that album.

**Expansion of the market for exsisting or new products on brand selection:** at present market is highly competitive. in one area same product has been sold by different company. From the marketing view of Tagore songs it is observed that two or more music company release the rabindrasangeet album of same artist from different aspect(for eg suppose X music company release a album of jayati chakrborty with ten Tagore songs

with a high price cost. Simultaneously Y music company release a rabindrasangeet album of ten songs of same artist at a same time with a low price cost. Now a question is arise t that which CD's or DVD's audience or music lovers will purchase?.answer is depend on quality, price and brand image of both album. People first prefer X company's album because X company is more older and existing music company in our society with a big brand image and goodwill than Y company. Even price is high where Y company has built up their market newly from few years ago. So in this case music lovers first evaluate the difference between both album of both companies i.e what is new and what is different among those album and price. because consumer also demand always want a new choice and test i.e better and innovative new product with low cost. Now it is seen that the album of Y company is more attractive because though same artist but song selection, recording quality is better even comparatively cost of album is more cheap than album of X company though X company is a highly popular branded company but here the negative point of X company is the quality of songs, and sound of X company is creating a monotony mind to the music lovers not only but price is also high. So they prefer to purchase the album of Y company with least price with good quality. often time vice verse of the above example has been observed that if a branded company release a low quality rabindrasangeet album(X company )with high price of a new or popular exsisting rabindrasangeet artist whatever, side by side Y music company which want to started their business market in our society and release far better quality rabindrasangeet album by the new or old or good artist with low selling price, good songs selection, good sound quality, good music arrangement but in this case some music lovers attract and prefer brand name because they think that existing company compete and stay in the market for their quality and goodwill and for that reason they are interested to purchase the music album of X company even they are interested to bare high price for purchasing of X company's album where not for Y company because they cannot see the quality of the product. they see only the brand and trust that brand create the quality.

#### **Advertising promotion tools of Tagore songs on the social media and in others different media**

At present globalised era modern record level is built on social media and digital music sales. In 2011 digital downloads achieve the success point of CD sales for the first time .Since the early 2000 the internet has consistently strengthened as a wheeler for selling music. Internet can be a cost effective venue for advertising Tagore songs in different websites. At present it is observed and studied that as a social media face book is a big popular communication zone of million and billion people who are connected with it in every moment for a whole day because social media has become a direct path to reach fans and followers for all categories of public marketing not for just music but also for artist merchandise from calendars to car each and everything .At present is has been seen that most of the present rabindrasangeet artist as well as music companies post and advertise their pre launching upcoming rabindrasangeet albums with a sample track in their page or in public or friends wall along with detailed information of the album like name and image of concerned artist, complete name of songs, price of album, place of availability, name of music arrangers and also name of music company from where it will be published. Besides this public can see and listen audio visual track of that particular album and artist and the companies both are also can get the brand image from the direct fan attention to central storefronts where entire artist repertoires and merchandise can be purchased. various cultural public programme organizers has been post their rabindrasangeet event with detailed information like venue and time of programme, prices of ticket( often time entry may be free for all or by invitation)and also the name of the artist or artists who will perform in that programme.so easily people or public can get all information about musical events from any end of the world and show their interest to join that programme and purchase ticket.so from this field it is more favourable to gain a big profit of music company, programme organizers an also for an artist from the aspect of public advertisement in social media.

In the television it is observed that mainly in Bengali channels programme like music reality show, different type of music show( AJ SOKALER AMONTRONE of Tara Muzik channel, AJI E PROBHATE of Rupashi Bangla channel, GOOD MORNING AKASH of akash aat channel etc, various mega serial. In Bengali cinemas at the time of break or interval often rabindrasangeet based advertisement is used like upcoming new release of rabindrasangeet CD'S of new artist, Rabindrasangeet related programme schedule. Even in some advertisement of others product where rabindrasangeet take place for product promotion.For an example it can say that in the advertisement of CYCLE BRAND AGARBATI where tune of tagore song "aguner parashmani" has been used by instrumental music", in the advertisement of BISK FARM CREAM CRACKER where tune of tagore song "ami chini go chini" used partly by instrument etc. In those advertisement of rabindrasangeet or related to rabindrasangeet has been reached to people and audience by attracting view which more effective for promote songs and that product both in business mode.

Now popularity of radio slightly decreased at present because in this internet era we most of us are addicted in social media like face book and whatsapp. Though many of us still listen Akashvani radio and FM channels .It

is observed that in tea stall, stationary shop, paper shop rabindrasangeet is playing through different FM channels and Yubabani, Akashbani Moitree etc. Most of FM channels broadcast rabindrasangeet programme in the daily morning like BIG FM(7 a.m to 9 a.m), 106.2 AMAR FM(7 a.m to 8 a.m), FEVER 104 etc and also AIR broadcast 15 minutes rabindrasangeet programme from 7.45 a.m to 8 a.m. In those programme most of FM channels tell us about new release of the forthcoming new Tagore songs album of various Rabindra Sangeet artists by given advertisement and inform us about upcoming public programme of Tagore songs with detailed information like name of artist who will perform, process of ticket selling, price of ticket, venue and time, name of sponsorship partners etc during the interval between their shows. So from this process, programme organizers and programme sponsors both are gain advantage to promote and publicity their business and services.

From the perspective of music video it can say that at present one of the most popular music video site is YouTube and other similar sharing site like vimeo, etc which can help to promote Tagore songs. Generally YouTube is one of the most prominent websites where all world's released and unreleased movies and any kind of songs are being released all over the world in every moment, which is easily becoming available to the audience the wishes of the audience. It is not a matter of saying that Tagore songs are being widely spread through YouTube. Since the 50's even before the 20th century and till now maximum album of RabindraSangeet singer's are available at Youtube. Even before market release, most of present music companies have released their music album in soft mode and in manually in YouTube which are already reached to the audience with a complete set. Those albums which are unreleased in physical or traditional market are easily accessible in the different site of internet and through this strategy those music companies participate and enjoy in corporate market competition, depending on the comments and rating of similar albums or audiences. Most of the popular music companies such as Asha audio, HMV saregama, Inreco Hindusthan records etc have been uploaded their album of both old and new, existing or upcoming to YouTube till date. Among them, the number of jukebox and new album released by BHAVNA RECORDS, ASHA AUDIO and HMV SAREGAMA is the maximum. Not only that, along with other zone of Rabindrasangeet, music videos and Tagore dance dramas have become easily accessible in YouTube. For an example it can say that if the first two lines of any Tagore songs are written by typing in the search box of YouTube, It is possible to find the specific song in YouTube of different artists. The listener then chooses the artist according to his liking and listening to the song, along with also the lyrics and albums are about audience or common man's thinking. Opinions are being expressed through like, share, and comments. as a result, the music company predicts the possible tastes of such Tagore songs which listeners are wanted and who will can purchase the album by their preferences and needs to the music company's customer demand, according to the rabindrasangeet artists, songs and albums by revealing the competitive market, market expansion, aiming the commercial market for the survival and the company's album than a company to maximize and seeking their business profit. Besides this some music company has been offered at present free downloads of their rabindrasangeet track or songs for promoting sales of produced studio versions of songs like TIMES MUSIC, ASHA AUDIO, GATHANI RECORDS, HMV SAREGAMA, INRECO HINDUSTHAN RECORDS, BHAVNA RECORDS etc whose songs of popular r non popular artist of the particular album release free minute-long medleys that promote artists album to sale. Not only that but also such music company uploaded their songs as a free live albums through websites and social media channels for getting the most active fan followers to share the content.

## CONCLUSION

From the above discussion we can hereby conclude & get a fair picture of marketing strategic analysis of Rabindrasangeet that we had so far on the various aspects of this particular song that society should put more emphasis in influencing people especially young generation towards acceptance, development of passion as well as career and also employment scope towards Rabindrasangeet. This shall be successful through enrichment of culture of rabindrasangeet in the society through frequent arrangement of cultural programmes focusing Tagore songs sung by effluent potential artists( already celebrity and upcoming newcomer) proper advertisement through varied mass and electronic media like newspaper, cds dvd, social media and internet etc ; educating young generation about the depth of meaning of the songs; inclusion of rabindrasangeet as other extra curricular activities in school college and university, reviving of old and rare Tagore songs. It can say that in present globalized era, Tagore songs can be a good entrepreneurship development opportunity for the present generation like music lovers, music students, and also for the instrumental accompanists and music arrangers to take a new challenge for their career prospective and advancement and also they can set up a business in our competitive market through this path of music industry where this way of approach shall result in publicity and increase in the popularity of Tagore songs which shall further help the commercialization of Rabindrasangeet & may act as a source of alternative income to the society.

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**EXPLORING DRIVING FORCES FOR THE PROSPECTS OF FMCG BRANDS**

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**ABSTRACT**

**Purpose:** FMCG Industry is one of the fastest emergent sectors in Indian economy. The FMCG sector contributes around 15% to the overall GDP in India. Owing to rapid changing customer profile, tough competition, erratic brand loyalty and the rising expectation of the customers, marketing of FMCGs has become a high hill task. To survive in such a competitive environment, the understanding of relevant factors which influence the customer most need to be assessed. So the present study intends to assess the factors which persuade the prospective customers more towards the FMCG factors.

**Methodology:** For this research, an empirical study was carried out on pan West Bengal with 500 respondents. For this study we had selected only cosmetics and toiletries segment of FMCG products. Four product categories (Fairness Cream, Shampoo, Deodorant and Soap) were identified under this segment. Convenience sampling technique was resorted to for selecting the respondents of different areas.

**Findings:** This study would help to provide empirical evidence and extract several useful findings on the factors that prospect of FMCG brands is always on a look out for. This study has extracted four influencing factors: Retailers and Shop Display, Advertisement & Celebrity Endorsement, Pack Size and Availability. These promotional tools need to employ diligently considering the customers' insight to reap rich dividend in the business.

**Practical Implication:** By utilizing these factors, promotional tools can be developed by the marketers craftily to persuade the customers more towards the specific FMCG products. It is also an option for the marketers to make the potential customers knowledgeable about the product. This study will definitely help the marketers to survive in such a competitive atmosphere since it provides the opportunity to grab a definite knowledge of customers' insight which is always worthy to frame an immaculate promotional strategy.

**Keywords:** Promotional strategies, Driving factors, Prospects, Competitive advantage, Marketing Communication

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**INTRODUCTION**

Fast moving consumer goods (FMCG) are also regarded as consumer packaged goods and these goods are generally purchased in quick succession and cover a major portion of the customer's budget. The FMCG market is highly concentrated in the urban areas. The increase in the income of the middle-income group is one of the major factors for the growth of the Indian FMCG market. In spite of its immense demand, consumers do not pay heed on the matter like technical specification of the product. This study intends to assess the motivating factors which have a positive influence over the prospective customers. So to get the success in Indian market, companies engaged in FMCG products have to set favourable promotional strategies depending on those factors which have an inert contribution to the psychology of buyers of FMCG products. Besides getting an edge over the competitor, these factors would give a definite option to grow, stabilize and excel in business performance.

**LITERATURE REVIEW**

The literature review establishes how marketing communication establishes a strong bond between potential customers and the product. Moreover, it relates how marketing communication by disseminating messages helps to evolve as brand.

Ying Zhao (1994) argued that retailers also play a key role behind the selection of FMCG product. He emphasized that retailers influence the customers in obtaining the FMCG product by highlighting them about the same.

Mariotti (1999) considered a few factors that help to evolve as a brand. The respondents pay heed to both price and quality of the product. The buyers even regarded convenience and ease of availability are the two determining factors for the FMCG product. He also even stressed the factor like satisfaction, service and guarantee and warranty.

Nagaraja (2004) investigated there is a definite impact of socio-economic influences on FMCG products. The respondents give emphasis on value for money while selecting FMCG products. The buyers also give emphasis to easy availability, Price and Quality while making a choice for the product.



Madhavi (2006) asserted that most of the consumers preferred quality along with price. They also considered that consumers have greater acceptance for Value for money. They even recommended for intensive advertisement campaigns to attract non-users of the FMCG product.

Anandan et al. (2007) observed that the quality is the major driving force to prefer a particular brand. Customers also pay heed to the availability of the product. They also identified that high price and non-availability are the key reason behind the dissatisfaction of the consumer.

Krishnamoorthy (2008) stated that influencing factors need to be assessed before considering FMCG products. Price, promotion, packaging, quality, brand name etc play a significant role behind the choice of purchasing the FMCG product.

Garga et al. (2009) observed that the majority of the respondent's preferred FMCG products in medium package sizes items. According to them, the respondents prefer the items at medium price range as they give more value for money products.

Ranu and Rishu (2012) analyzed that to establish a FMCG brand a careful planning must be carried out to influence the buyers. They also asserted to keep a look on how buyers assess the brand based on the quality. They also urged to consider the client's observation to each one brand before planning. The study also indicated to think of the individual relationship of the buyers with FMCG Brand.

Jayswal and Shah (2012) examined that there is a definite impact of promotion through TV on FMCG item. The study revealed the fact that representation is more important than the message conveyed. The distinctive advertisement influences a buyer on the basis of individual observation.

Anandarajan and Manikandan (2016) shed light on the consumer behavior. They appeared with the observation that consumer behavior of FMCG products is primarily affected by place, product and price. They also established that people are influenced by promotional and psychological attributes.

### **OBJECTIVE OF THE STUDY**

Throughout the last decades it has been a challenging task for FMCG companies to gain a competitive advantage over others. For framing a marketing strategy, FMCG companies have to develop a vivid knowledge regarding the factors that entice customers the most. In this backdrop we feel an inner urge to understand the factors that have an intense influence over the prospects of FMCG brand. The present study explores those definite factors that have a definite influence over the customers of FMCG Brands.

### **RESEARCH METHODOLOGY**

In this research work, an empirical study has been conducted on the basis of a pre-structured questionnaire relating to 5-point Likert Scale for primary data collection. The questionnaire has been administered with 20 variables with an objective to identify the latent factors instigating the sales of FMCG products particularly the cosmetics and toiletries segment.

The questionnaire was carried out on the different parts of West Bengal with 500 respondents who are consumers. For this research work we have selected only cosmetics and toiletries segment of FMCG products. Four product categories (Fairness Cream, Shampoo, Deodorant and Soap) were identified under this segment to be more specific about the research work. Convenience sampling technique was resorted to for selecting consumers of different areas. The structured questionnaire which was prepared to extract the information required was collected through personal interview of customers of different age-groups, consisting of housewives, students, Govt. employees, private employees, businessmen, professionals and others. For analysis purpose we administered EFA and CFA and it was performed taking the assistance of SPSS 20 and AMOS.

### **DATA ANALYSIS AND INTERPRETATION**

Exploratory Factor Analysis (EFA):

At the outset it needs to be clarified that the reliability of the scale needs to be ascertained before making a sustainable progress with EFA, since the collection of data were based on a questionnaire consisting of 5-point Likert scale. This reliability test was done with the help of Cronbach's Alpha measure. The Cronbach's Alpha measure that evolved out was 0.713 which ensures the fact that the items have relatively high internal consistency. Social research science generally considers any value more than 0.70 is quite satisfactory.

Again the adequacy of the data is revealed through Kaiser-Meyer-Olkin(KMO) Measure and the suitability of the data can be established through Bartlette's Test of Sphericity. High value of KMO nearing 1 indicates that factor analysis is probably in the right track to progress further with the collected data. In Table 1 it has been found that the value of KMO is 0.797 which gives the option to proceed with factor analysis. On the contrary, it

has been expounded in the Bartlett's Test of Sphericity that the significance level is 0 which is less than 0.05 which again indicates that factor analysis is useful with the data collected. The maximum Likelihood method has been employed for extracting the factors where Pattern Matrix (Table 4) clearly indicates four factors.

**Table 1: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.797
Bartlett's Test of Sphericity	Approx. Chi-Square	5979.144
	DF	91
	Sig.	.000

The Table 2 reflects the statements/variables or important criteria which have worthwhile contribution to pay heed while considering the FMCG products. In this study the customers were given the freedom to select their option on the basis of 5-point scale to the following statements.

**Table - 2: Statements related to the reasons for buying FMCG products**

Label	Statements
S01	Advertisement helps to make choice among the available Brands.
S02	Pack sizes of FMCG Brand increase the affordability of customers
S03	Advertisement helps to identify hidden needs with the available Brand
S04	Reduced pack sizes help to exceeding sales of traditional pack sizes
S05	FMCG Brands are available in your locality
S06	Shop display affects consumers' buying decision
S07	FMCG Brands offer a wide variety of products
S08	Visibility of FMCG brand in self influence prospective customers
S09	Recommendation of satisfied customers is important for FMCG brand
S10	FMCG companies have come up with reduced pack size to boost consumption of consumers
S11	Celebrity endorsement makes you more passionate about the FMCG Brand
S12	FMCG Brands offer a wide variety of products
S13	Customers are often keen to listen to the advice of the retailers
S14	Advertisement helps to develop strong attachment with the FMCG brand
S15	FMCG Brand is generally brought by listening to others advice
S16	Words of Mouth makes the customer passionate about the FMCG Brand
S17	Sometimes retailers influence customers to buy a particular brand of FMCG
S18	Words of Mouth improves the self belief of the customers about the FMCG Brand
S19	Brand ensures the quality of the product
S20	FMCG Brands fulfill the aspiration of all categories of consumers' requirement

**Note: The red coloured statements were removed later on from this study**

The Table 3 indicates the total variance of around 79%. The factors having eigen values greater than 1.0 are retained, the other factors are not included in the model. The maximum Likelihood method has been employed for extracting the factors where Pattern Matrix (Table 4) clearly indicates four factors.

**Table - 3: Total Variance Explained**

Factor	Initial EigenValues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings <sup>a</sup>
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	4.459	31.853	31.853	2.615	18.679	18.679	3.587
2	3.379	24.135	55.988	3.797	27.123	45.802	3.346
3	2.266	16.183	72.171	2.725	19.466	65.268	2.789
4	1.744	12.460	84.631	1.913	13.664	78.932	2.671
5	.411	2.935	87.566				
6	.292	2.087	89.653				
7	.278	1.984	91.637				
8	.237	1.693	93.330				
9	.223	1.595	94.925				
10	.183	1.307	96.233				
11	.162	1.157	97.389				
12	.140	1.003	98.393				
13	.125	.893	99.285				
14	.100	.715	100.000				

Extraction Method: Maximum Likelihood.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

**Table 4: Pattern Matrix<sup>a</sup>**

	Factors			
	1	2	3	4
S1		.871		
S2			.938	
S3		.907		
S4			.865	
S5				.725
S6	.884			
S7				1.007
S8	.856			
S10			.914	
S11		.863		
S13	.903			
S14		.899		
S17	.924			
S20				.837

Extraction Method: Maximum Likelihood.

Rotation Method: Promax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

**Confirmatory Factor Analysis**

To validate the findings of EFA the researchers have administered CFA. To evolve out the following summary, AMOS has been used extensively for this study to explore various indices to show the model fit summary. Finally, the table 5 represents the final model fit summary of CFA and it can be concluded that the default model fits in all respect.

Table - 5: CFA Model Fit for Four Factors

Parameters/Fitness Indices	Recommended level of good model fit values	Values of indices obtained (Default Model)
Chi-square		79.443
DF		62
CMIN/DF	Should be near to 1	1.281
P	>.05	.067
GFI	>.90	.978
AGFI	>0.90	.963
NFI	>0.90	.987
TLI	>0.90	.996
CFI	>0.95	.997
RMR	<1	.038
RMSEA	< 0.05	.024
PCLOSE	>0.5	1.000
PGFI	>0.5	0.577
ECVI	Default model < saturated & independence model	.332 < .421 & 12.172
FMIN	Should Be Closer To Zero	0.159
HOELTER	$75 \leq \text{value} < 200$ ; acceptable	512 at .05 571 at 0.01

**CMIN, DF, CMIN/DF:** The chi square variable is expected to be equal to its degrees of freedom. In other words, CMIN is considered to be close to DF for a good model. However, many fit measures keep faith on the ratio CMIN/DF as well, which should be close to 1 for a correct model. In the present study the value of CMIN/DF (Table 5) is slightly higher than 1 so this indicates a good measure.

**RMSEA & PCLOSE:** RMSEA is expected to be a mediocre fit if it varies between 0.08 and 0.10 and anything below 0.08 shows a good fit. In our study the value which has evolved out is .024 (Table 5) which can easily be regarded as excellent fit. On the contrary PCLOSE or closeness of fit value is desired to be more than 0.5 and our default model is 1.000 which is by far acceptable.

**GFI, AGFI, PGFI, & RMR:** GFI and AGFI are expected to be between 0 and 1. (Table 5) It generally represents well-fitting models if the accepted values of 0.90 or more. The PGFI is also estimated to be more than 0.5 and in this study the value 0.577 is thus regarded as the acceptable one. Any value of less than .05 is well accepted as RMR (Table5). In this study the value is .038 and it thus a quite satisfactory output as well.

**Baseline Comparisons(CFI,NFI,TLI):** The value of CFI is a worthy index to consider since it synchronizes very well with smaller sample size and it is desirable also that its expected value should be greater or equal to 0.95. The present analysis gives a satisfying result for CFI. From the study, the default value of CFI, NFI, and TLI present a good fit of the model.

**ECVI:** ECVI is generally administered to check the validity of the proposed model. ECVI accepts anything which has a minimum difference between fitted covariance matrix of actual sample and expected covariance matrix of hold out sample for best fit result. From the (Table 13), it can be easily evaluated that the value of ECVI of default model is less than the independent model and saturated model so it can be acceptable as good model fit.

**FMIN:** FMIN is closely related to CMIN but it is dependent on the sample size. For a large sample size, the model is not considered worthy if it is substantially away from zero. In this case we have the FMIN value .159 which is by far quite acceptable.

The path diagram (Figure 1) always establishes a model and brings forth the relationship that exists between the variables. It also gives the option to compare and contrast the alternative or competitive model visually. In this very path diagram we can depict the theoretical relationship among the variables intuitively. Even we can display the theoretical model and statistical results concisely through this path diagram.

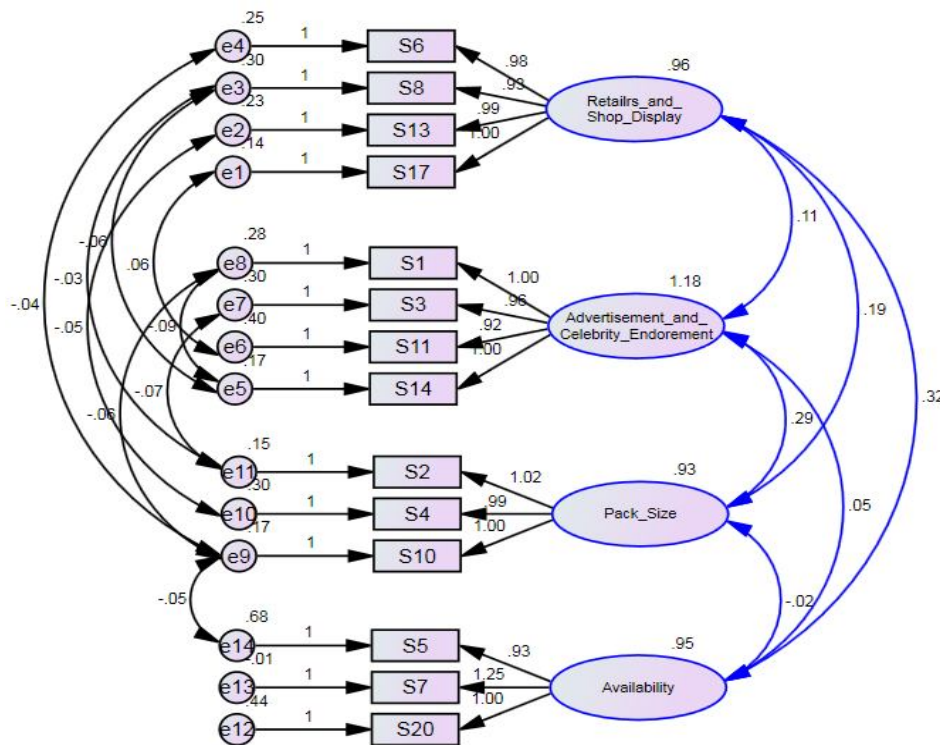


Figure 1: Path Diagram

In this following study we have also made a comparative analysis as well. This very comparative analysis helps us to explore the fact that we are rather compelled to omit out six variables to achieve the output which is expected to be model fit in terms of absolute fit measures like CMIN, FMIN, RMSR, RMSEA & ECVI, parsimonious fit measure like PGFI, PNFI & AIC and Incremental fit measures like TLI, NFI, AGFI & CFI

Table - 6: Comparative Statement of Initial and final Model

Models	Chi Square	Df	P	RMR	GFI	AGFI	PGFI	NFI	CFI	TLI
Initial Model (EFA)	209.323	71	.000	0.039	.948	.923	.641	.965	.977	.970
Final Model (CFA)	79.443	62	.067	0.038	.978	.963	.571	.987	.997	.996

Table - 6(Continued) Comparative Statement of Initial and final Model

Models	PGFI	FMIN	FO	RMSEA	AIC	ECVI	Hoetler (.05)
Initial Model (EFA)	.641	.419	.277	.062	277.323	.556	219
Final Model (CFA)	.577	.159	.035	.024	165.443	.332	.512

## MANAGERIAL IMPLICATIONS

This study provides empirical evidence that there is a significant influence of definite factors that persuade the customers more towards the FMCG Brand. This study has pinpointed four factors: Retailers and Shop Display, Advertisement & Celebrity Endorsement, Pack Size and Availability that play a convincing role to entice the customers towards FMCG products. All these four factors play a big role to weave an effective marketing strategy to get a definite edge over the competitors. Thus, to be sustainable in the market with flourishing growth, the marketers need to play all those four factors to gain a psychological influence over the customers and to gain competitive momentum over a longer period of time. It is also the option not only to sustain in the market but also be the market leaders.

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**DISASTER MANAGEMENT IN INDIA: DISASTER PREVENTION & MITIGATION**

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**ABSTRACT**

*India has been traditionally vulnerable to natural disasters on account of its unique geo-climatic conditions. Floods, droughts, cyclones, earthquakes and landslides have been a recurrent phenomenon. About 60% of the landmass is prone to earthquakes of various intensities; over 40 million hectares is prone to floods; about 8% of the total area is prone to cyclones and 68% of the area is susceptible to drought. In the decade 1990-2000, an average of about 4344 people lost their lives and about 30 million people were affected by disasters every year. The loss in terms of private, community and public assets has been astronomical.*

*At the global level, there has been considerable concern over natural disasters. Even as substantial scientific and material progress is made, the loss of lives and property due to disasters has not decreased. In fact, the human toll and economic losses have mounted. It was in this background that the United Nations General Assembly, in 1989, declared the decade 1990-2000 as the International Decade for Natural Disaster Reduction with the objective to reduce loss of lives and property and restrict socio-economic damage through concerted international action, especially in developing countries.*

*The super cyclone in Orissa in October, 1999 and the Bhuj earthquake in Gujarat in January, 2001 underscored the need to adopt a multi dimensional endeavour involving diverse scientific, engineering, financial and social processes; the need to adopt multi-disciplinary and multi sectoral approach and incorporation of risk reduction in the developmental plans and strategies.*

*Keywords: Natural disasters, geo-climatic conditions, landmass, risk reduction*

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**INTRODUCTION**

- i) A holistic and pro-active approach for prevention, mitigation and preparedness will be adopted for disaster management.
- ii) Each Ministry/Department of the Central/State Government will set apart an appropriate quantum of funds under the Plan for specific schemes/projects addressing vulnerability reduction and preparedness.
- iii) Where there is a shelf of projects, projects addressing mitigation will be given priority. Mitigation measures shall be built into the on-going schemes/programmes
- iv) Each project in a hazard prone area will have mitigation as an essential term of reference. The project report will include a statement as to how the project addresses vulnerability reduction.
- v) Community involvement and awareness generation, particularly that of the vulnerable segments of population and women has been emphasized as necessary for sustainable disaster risk reduction. This is a critical component of the policy since communities are the first responders to disasters and, therefore, unless they are empowered and made capable of managing disasters, any amount of external support cannot lead to optimal results.
- vi) There will be close interaction with the corporate sector, non-governmental organisations and the media in the national efforts for disaster prevention/vulnerability reduction.
- vii) Institutional structures/appropriate chain of command will be built up and appropriate training imparted to disaster managers at various levels to ensure coordinated and quick response at all levels; and development of inter-State arrangements for sharing of resources during emergencies.
- viii) A culture of planning and preparedness is to be inculcated at all levels for capacity building measures.

In India, traditionally, relief in the wake of a natural disaster has been treated as the primary responsibility of the States. Successive finance commissions have also reiterated this position. Even though States are primarily responsible for relief activities, the central government associates itself with measures aimed at ameliorating the sufferings of the people on account of natural calamities. Towards this end, the central government does provide help and assistance to buttress relief in the wake of major natural disasters. The dimensions of the response at the level of the central government are determined in accordance with the existing policy of financing relief expenditures

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**DISASTER PREVENTION MITIGATION**

Unlike man-made disasters, natural hazards like floods, earthquakes, and cyclones cannot be avoided. However, with mitigation measures along with proper planning of developmental work in the risk prone area, these hazards can be prevented from turning into disasters. A multi-pronged approach needs to be adopted to undertake mitigation measures:

- Building mitigation measures into all development projects.
- Initiating of National level mitigation projects by the NDMA, in high priority areas, with the help of the Central Ministries and departments concerned and the States.
- Encouraging and assisting State level mitigation projects in accordance with the guidelines.
- Indigenous knowledge on disaster and coping mechanisms adopted by various States will be given due weight age with special focus on protection of heritage structures.

Hazard zones, mapping and vulnerability analysis in a multi – hazard framework will be carried out utilizing Geographic information (GIS) based databases such as the national database for emergency management (NDEM) and national spatial data infrastructure (NSDI). As a first step towards addressing disaster vulnerabilities, Central ministries and departments, national agencies, knowledge – based institutions and DM authorities at the state and district levels need to carry out risk and vulnerability assessment of all disaster prone areas. Hazard zonation mapping and vulnerability analysis based on GIS and remote sensing data, needs to mandatorily include a group check component. Hazard and Consequence mapping on GIS platforms will be prepared for all chemical accident prone districts.

**COMPLIANCE REGIME**

There is a need for putting in place a sound compliance regime, with binding consequences, to ensure the effectiveness of techno – legal and techno-financial provisions. It is important to ensure that monitoring, verification and compliance arrangements are in place both at the national and State level. It will be the responsibility of all stakeholders concerned, to implement these provisions. Adoption of best management practices like self – certification, social audit, and an

external compliance regime including audit by professional agencies, need to be encouraged through development and design of tools such as IT-enabled monitoring software to suit the DM systems in India, in consultation with various stakeholders and knowledge institutions for adoption after due trial and validation.

After having put the techno – legal and compliance system in place, the States/UTs will also ensure their enforcement by establishing an effective their enforcement by establishment an effective mechanism, under the provisions of the Act.

**TECHNO LEGAL FRAMEWORK**

In view of the construction boom and rapid urbanization, municipal regulations such as development control regulations, building bye – laws and structural safety features need to be revisited. These regulations will be reviewed periodically to identify safety gaps from seismic, flood, landslide and other disasters and suitable modification will be made to align them to the revised building codes of the Bureau of Indian Standards (BIS). Undesirable practices compromising safety during disasters, that tend to crop up from time to time, will need to be addressed in the regulations. The utilization of unsuitable areas for construction, without necessary safeguards further enhances vulnerability and needs to be guarded against through appropriate compliance mechanisms. Similarly, the introduction of suitable regulations for rural areas will also be emphasized. Where required, local bodies will be provided with suitable financial incentives for the reparation of appropriate regulations. This process will involve an all inclusive exercise involving due sensitization of governmental organizations at all levels, local authorities and the community at large to accrue maximum results thereof.

**DISASTER MANAGEMENT CODE**

In line with the changed approach, the State Governments have also been advised to convert their Relief Codes into Disaster Management Codes by building into it the process necessary for drawing disaster management and mitigation plans as well as elements of preparedness apart from response and relief. A committee constituted under the Executive Director, national institute of disaster management has drafted a model disaster management code which is being circulated to the states so as to assist them this process. Some states have constituted committees to revise the codes as GOI guidelines. The revised codes will ensure that the process of drawing disaster management plans and mitigation and preparedness measures institutionalized.



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**CENTRAL GOVERNMENT**

In accordance with the provisions of the Act, the central government will take all such measures, as it deems necessary or expedient, for the purpose of DM and will coordinate actions of all agencies. The central ministries and departments will take into consideration the recommendations of the state government departments while deciding upon the various pre – disaster requirements and for deciding upon the measures for prevention and mitigation of disaster. It will ensure that the central ministries and departments integrate measures for the prevention and mitigation of disasters into their developmental plans and projects, make appropriate allocation of funds for pre – disaster requirements and take necessary measures for preparedness and to effectively respond to any disaster situation or disaster. It will have the power to issue directions to NEC, State Governments/SDMAs, SECs or any of their officers or employees, to facilitate or assist in DM, and these bodies and officials shall be bound to comply with such directions. The Central Government will extend cooperation and assistance to the State Governments as required by them or otherwise deemed appropriate by it. It will take measures for the deployment of the Armed Forces for disaster management. The Central Government will also facilitate coordination with the UN Agencies, international organizations and governments of foreign countries in the field of disaster management. The ministry of external affairs in coordination with the ministry of home affairs (MHA) will facilitate external coordination/cooperation. As disaster management is a multi-disciplinary process, all central ministries and departments will have a key role in the field of disaster management. The nodal ministries and departments of the Government of India (i.e., the ministries of Agriculture, Atomic Energy, Civil Aviation, Earth Sciences, Environment & Forests, Home Affairs, Health, Mines, Railways, Space, and Water Resources etc.) will continue to address specific disasters are assigned to them.

The National Crisis Management Committee (NCMC) comprising high level officials of the Government of India headed by the Cabinet Secretary will continue to deal with major crises which have serious of national ramifications. It will be supported by the Crisis Management groups (CMG) of the central nodal ministries and assisted by NEC as may be necessary. The secretary, NDMA may be a member of this Committee. The primary responsibility for disaster management rests with the states. The institutional and district levels will help the states manage disasters in an effective manner.

**CONCLUSION**

Overseeing business or building limit with regards to disaster management cuts over a few basic limits. The HR, financing and promoting for disaster management take after similar rule that oversee business or an undertaking. Be that as it may, the disaster management is yet to be analyzed in light of the guideline of business management in spite of having the squeezing operational requirements, which could be put to utilize all the more viably to spare lives, secure financial and social resources, to make another worldview of improvement accepting disaster as an open door to work, back and better. The present review is an exertion toward this path.<sup>1</sup>

Disaster management is everybody's business – whether it is important global office, government, private, common society association or a person. Unless there is a cooperative energy and amicability among the part players, the undertaking of disaster management can't be accomplished. The present review looks at these interfaces with more concentrate on open private association – which is yet undiscovered completely and furthermore from the perspective of having the systemic effect of disaster management intercessions down the line at group level-which hits hard when a disaster strikes.

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**FUTURE CITIES OF INDIA: ENVISIONING HUMAN DIMENSION IN PLANNING**

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**ABSTRACT**

*Cities are planned and known for their economy. Economic forces are regarded as the dominant influence on urban change. Technological changes which are integral to economic change also influence the pattern of urban growth and change. The changing dimensions of cities and the change in their character make the cities incompatible to live. The big city is an inevitable phenomenon; the only way is to plan well connected smaller settlements to improve the quality of that life. The Human dimension in planning is a fascinating yet neglected field that eagerly awaits scholarly attention.*

*In India the situation is becoming worst and declining day by day. As per The World Happiness Report 2016, published by the Sustainable Development Solutions Network (SDSN), a global initiative of the United Nations, India is ranked 118th in the list, down one slot from the prior year on the index [1]. The study takes into account the GDP per capita, life expectancy, social support and freedom to make life choices as indicators of happiness. It says that India was among the group of 10 countries witnessing the biggest happiness declines, along with Venezuela, Saudi Arabia, Egypt, Yemen and Botswana. This paper will give overview of the planning of Indian cities. An attempt is to reinvent the concept of human dimensions in planning & to realign it with a broader approach that embodies sustainability.*

*Keywords: Future cities, Human dimensions, Sustainability*

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**INTRODUCTION**

In Ancient civilizations settlements were planned with respect to human dimensions. In today's context human dimensions in city planning is missing because of a variety of problems caused by the lack of careful planning. Talking about a successful planning approach from small to large scale, Jan Gehl describes the following scales of urban design and city planning: large scale- a holistic study of the city (quarters, functions, traffic), middle scale- development scale (quarters treated individually, buildings, city space) and small scale- the eyelevel human landscape or the 5 km/h architecture. [2]

In the above-mentioned approach, today's planning needs to focus on the neglected smaller scale. This scale is defined by social distances or human dimensions. Starting at less than 100 meters we can see people moving and under the threshold of 25 meters we can start experiencing each other's emotions. These distances are the result of sociological studies and give the dimensions of stadiums, theatres and public squares but can also be used on a larger scale.

The street and the square can be considered symbols of the public space and urban life. Jane Jacob's "The Death and Life of Great American Cities" raises awareness on the importance of street life as part of a healthy and safe city. The more people are part of the public space, either from inside or outside, the livelier the city is. And not to forget the significance of safety offered by the "street watchers" and by the "eyes on the street" [3] - describing how people can be a part of the street life. Moving on from the street, defined by the linear movement of the feet, towards the square or plaza, we can define the latter as an experience space, a place to stay and spend time. Camillo Sitte's typology of the square, the "enclosed squares" system of the ancient times" [4], is a product of the perceptive viewpoint and can be translated as what we call today the traditional square, with the social distance of 80-90 meters (most common the 100 by 70 meters square).

In the continuous fight between pedestrians and cars, since the cars have lately taken control of most of the transport routes and now even public space, there is a rising need of planning in accordance to the human scale and 5km/h walking pace. Inviting pedestrian walking and staying also has a sustainable component, pedestrian and bicycle traffic taking less space than the personal car. The solution can be found in car-free areas, as the ones seen in Copenhagen, or in people-friendly squares (i.e. Aker Brygge in Oslo, where it was proven that the increase in the number of benches brings also more people). As a common neutral ground for cars and pedestrians, there is the concept of shared space- the urban design approach that seeks to distance itself from the paradigm of segregation between the different means of transport. The shared space or mixed traffic zone works best with pedestrian priority and is proven to lower the risk of accidents, therefore increase overall safety in the public space.

Designing cities around people, increasing pedestrian space, encouraging human interaction, these are the attributes that need to be taken into consideration when planning the future cities with respect to the human dimensions and can be considered as the primary units that start a healthy process of urbanization.

## 2.0 LITERATURE OVERVIEW

Ekistics, or the science of human settlements, gives a holistic perspective to research on the formation of human settlements. The main objective of Ekistics as a science, explained by Dr. Doxiades, is building the city of optimum size (that respects human dimensions) [5]. It points out the necessity of taking into consideration the scale of the studied area as it is influenced differently by various factors, and also the significance the degree of complexity has when talking about quality of human settlements. Moreover, for the further study on the development of human settlements, it is to take into account that the influential agents of urbanization do not act separately, but as part of a synthesis of forces working differently on all scales. Trying to translate quality into quantity, the future city can be seen as the city of optimum size, when size does not necessarily mean the area measured in square meters, but is determined by all possible dimensions. The optimum city has been defined throughout history from different standing points such as income, population, organization of facilities, distance- physical or temporal.

When talking about ideal city, several descriptions come to mind, from the renaissance's superimposition and geometric perfection to the hygienist and functionalist concepts of the modernist CIAM perspective. But this dream actually has deeper roots in human origins- the first internationally known testimony on this matter being that of Hippodamus' city, 4<sup>th</sup> century B.C. The hippodamic ideal city is made for 10.000 people and not more than 50.000, each 4.3-5 persons sharing a household.[6] After this, Plato envisages a smaller 2.000 people city, while Aristotle talks in *Politics* not about the physical size of a city but about the concept of efficiency: a self-sufficient city is not too small nor too big.[7] In a time when human scale dictated the settlement size, this may be one of the first times when building efficiently translates into an optimum, human size city.

Filarete (Antonio di Pietro Averlino) envisaged the ideal city of the Renaissance planned as an eight-point star inscribed in a circular moat, the vision being influenced not only by geometrical perfection but also by astrology. [8] As most of the responses of this age, the Sforzinda city appears in opposition to the congested medieval urban areas which were considered difficult to control.

One of the most important examples of optimum city is the one described by Ebenezer Howard. [9] The concept of growth in the garden city development is based mainly on a threshold of population and self-sufficiency: when a city reaches the threshold, another one would be built nearby to accommodate the next wave of socio-economic overflow. The result is a system of satellites based on a hierarchical structure. It was put into practice with the development of Letchworth and Welwyn garden cities.

An example of definition that is based on the growing state of cities is that of log-normal or rank-size distribution. This mathematical model can be applied on the matter of urbanization and translates into a skewed distribution (in contrast with the symmetrical normal distribution) of the involved units [10], trying to predict a pattern resulting from the life of units whose failure modes are of a fatigue-stress nature. This type of distribution can result in an optimum system of cities.

India appears to have a log-normal distribution, even though it has a plethora of problems ranging from socio-economic to politico-administrative. As seen from an economic-administrative point of view, Toth explains that the optimum size is the result of agglomeration economies interacting with urban diseconomies [11]. When the latter factor surpasses the former one, the urban agglomeration reaching a state of population overflow, the city becomes ineffective. If the optimum size has to be related to people's income, it is very difficult to create a predictable model, the average income variable changing too fast especially in concentrated urban areas.

Getting closer to the Indian context and in connection with the optimum city concept, Kautilya's Arthashastra describes the country using the mandala theory. It should be divided in four provinces, each with a fortified town in the central part acting as the headquarters. The countryside is made of villages surrounded by pasture lands and agriculture lands irrigated with water from rivers or lakes, also by forests. The borders are defined by elephant forests and jungles. On the administrative level, it is encouraged migration to countryside and immigration of foreigners with the purpose of sharing knowledge. Boundaries of the settlements, in general, should be defined by natural environment or artificial buildings. Village management meant grouping them in clusters of 10 to 800, the centres acting as town halls or local governing authorities [12]. To sum up, Kautilya describes a hierarchical structure of rural and urban areas and stresses out the importance of topography as boundary and resource, at the same time taking into consideration the inevitable migration.

Nowadays, the dynamic city is ever changing in terms of socio-economic development; age, sex and educational ratios are modifying and we can no longer talk only about a city but about a system of cities. While we cannot construct an optimum size of the whole, we can divide a city into constant elements, smaller, human scale units of optimum size and consider its growing state (i.e. Walter Christaller Central Place Theory [13]).

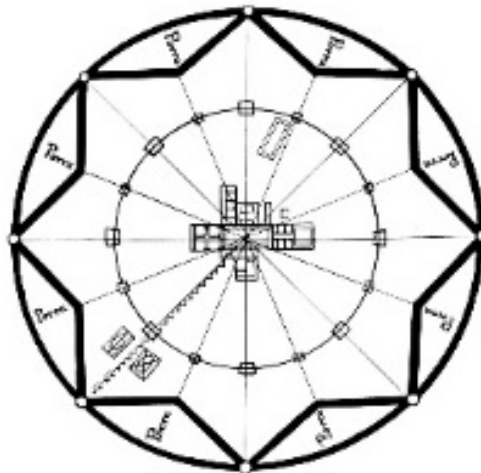


Figure - 1.1: Sforzinda diagram, plan of the city [14]



Figure - 1.2: Ideal Garden city diagram [15]

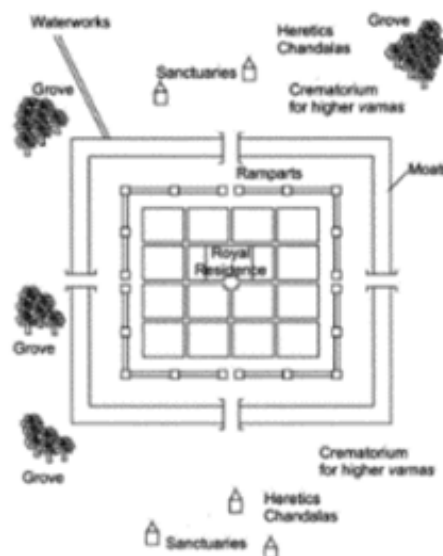


Figure - 1.3: Kautilya's Arthashastra, the city & environs [16]

### 3.0 PROCESSES OF URBANIZATION IN INDIA: AN OVERVIEW

Looking back at what shaped the structure of present cities, Indian urbanization is defined by the multiple invasions, with the great impact of the Muslim and British ones, that led to a mixed culture of local traditional with the Islamic and Western cultures, the legacy being handed over until today. Also, the segregation of society by status into different location in the cities is a trait that can still be seen in all cities. The city-country contrast that escalated through history can now be observed in the shape of the rural-urban fringe, its constant evolution causing major problems.

The development of Indian settlements has been the consequence of a number of various influential factors. These factors, or agents of urbanization, can be grouped in terms of the resulting process which only together, in a holistic understanding, can create the big picture of urban structures. The Socio- Cultural Process is mainly influenced by foreign invasions on rural population, resulting in the latter's servitude towards the new civilization, or invasion of an urban settlement resulting in a merge of new and local culture. The most considerable agents of urbanization are aryanization, persianization and westernization [17], each corresponding to a chronologically ordered time frame. The first major influence is aryanization, with the expansion of janapadas (tribal territories with fortified central capitals) and then mahajanapadas (growing towns). Buddhism and Jainism appeared in order to replace the brahmanical religion that opposed urbanism and glorified the rural. Aryans spreading to the entire India brought with them their culture and introduced the urban culture. Another major influence, persianization mostly took part only in the northern subcontinent and partially in the Deccan plateau. This created a distance or even isolation between the city which was mostly Muslim and the Hindu villages influenced by brahmanical religion. Westernization also played an important part in the socio-cultural process, meaning the decline of traditional values and equality of ethnical and religious background. This process is still on-going and altering the cultural and historical legacy.

The Politico- Administrative Process had and still has a great influence over urban growth. During the British Raj, provincial capitals, district headquarters, tehsil towns grew in importance over earlier urban centres. New urban forms like civil lines and cantonments were introduced under the British rule, as well as the transient capital cities - hill stations. [18] In modern times, new state capitals were built, trying to adapt to the new modern type of city. For example, Chandigarh was built in a western model by a team of mostly foreign urban planners lead by Le Corbusier, with wide avenues and modernist bird eye's view planning principles.

From the standing point of the Economic process, the type of urbanization is influenced by the main level of production: primary, secondary or tertiary.[19] Primary production (consisting of agriculture, fishing, forestry, and mining) is what caused the emergence of a large number of mining towns with distinguishable urban characteristics (Jharia Raniganj, Keonjhar, Asansol), fishing settlements along the coast, forest towns on the edge of forests (Dandeli in Karnataka, Beypore in Kerala) and various agricultural settlements. Furthermore, tea plantations introduced by the British started small settlements with all the necessary urban amenities; and agriculture, now considered an urban occupation, made way for small towns with dominant agricultural activity (Guntur and Vijayawada districts). Secondary production, namely industry and trade, is an urbanization process that resulted in today's major industrial centres like Kolkata, Mumbai, Delhi, Bangalore, Ahmedabad, Hyderabad, and so on. This type of production can be observed at the peripheries of metropolitan cities, along major arterial roads connecting big cities resulting in industrial corridors (Kolkata-Mumbai, Delhi-Madras) and in the form of industrial belts (Delhi). Tertiary production or services lead to rapid urban growth by virtue of educational institutions, hospitals, cinemas, law courts, banks, shops, etc. An example of such growth supported also by the politico-administrative circumstances is the hill station, considered mainly a health resort, but also with educational, administrative and military uses. Tertiary production brought city-village culture closer by providing service stations in the cities for rural areas, being at the same time a strong agent of urbanization.

Overall, the geopolitical process is driven by migration. Macro-urbanization can be defined as migration from rural villages to towns or cities and is influenced by the push factor, or "the increasing pressure of population in total areas and the consequent poverty of people" [20]. Metropolization is the growth of the one-lakh and million cities and is specific to the post-Independence period. It can mean both the rural-urban (short distance) migration as well as long distance migration from small towns to larger cities. A clearly visible socio-cultural consequence of this type of growth is westernization. As a response to the problem of overcrowding that is causing pollution, inadequate amenities, poor housing and an overall low quality of life, satellite towns around existing central cities are used to relieve the city of the population pressure. Afitchenko talks about three types of satellite cities from a geographical point of view: [21] dormitory suburbs (dependent on the central city for employment, utilities, shopping, entertainment), self-contained satellites (with some employment capabilities but still linked to the central city) and independent cities (too far for commuting but can go to cultural and

sports events in the central city). Suburbanization is the process of urbanization of the metropolitan fringe area due to the overflow of population from the main city. As the city expands rapidly into the surrounding village area, the rural way of life goes through a number of changes, creating a transitional urban-rural society. Other than migration, another geopolitical driven process is that of linear development along major topographic or administrative mediums (morphogenesis agents) as rivers, coasts, foothills, mountains and railways, creating axial expansions or corridors (located not on but near the mediums and with a greater width of development).

#### **4.0 SUSTAINABLE DEVELOPMENT**

The concept of 'sustainable development' was initially introduced as part of economic studies concerning the limitations of overall resources, the first elaborate research into testing the sustainability of the world's economic development being "The Limits to Growth" [22]. This controversial research concluded in the need of 'radical changes' to avoid resource crisis: balance of birth/death rate ratio, recycling materials, economic balance and switching consumption from goods to services. Therefore, sustainability first was described as a mainly economic concept, with a respect to the natural environment and resources. Nowadays, there is much to be added and discussed about the social aspect as a major principle holding the complex sustainable development system together.

Social sustainability shares notions such as: public participation in decision-making, accessibility, diversity, cultural identity and respect to cultural practices, empowerment, equity and justice [23]. In more recent attempts to characterise this concept, the idea of community starts having the main role in the stability of a social environment. Also, most notably now is the process described as how positive social traits are passed on through time (for example from one generation to the next one). In order to achieve a balanced socially sustainable environment, the primary structure of the community is what Len Duhl[24] calls 'soft infrastructure' – the sum of formal human services such as health, education, social services, culture and of the informal structure or community relationships.

An impressive example of sustainable development progress is the state of Kerala, with a social organization based on both economic growth and social equity. The small families with low consumption levels resulted in high social development levels- high literacy, longer life expectancy and low infant mortality rates, education and political participation. [25] Moreover, it is estimated the even though Kerala has a low rate of economic development, its citizens are attaining 'wellness'[26], the state's social sustainability being the product of cultural factors and a progressive political reform.

#### **5.0 FIVE YEAR PLAN: AN OVERVIEW**

After Independence, the Indian government started managing the planning for future development by adopting reforms and policies with the foresight of five years, called the Five Year Plans. The time frame since the Independence moment to approximately 2012 can be divided for better understanding into four phases that explain the major planning policies. [27]

The first phase of urban policy takes place in post-Independence India, 1951-1966. After the partition of India, refugees settled mainly in cities, leading to an increase in sub-standard housing (here meaning the over-congested dilapidated housing like Shahjahanabad) in urban areas. As a response, the Government of India started the First Five Year Plan (FYP) which focused on resolving issues created by the mass migration, creating rehabilitation colonies and sub-towns. Another main concern was the industrial and employer housing, which were expected to have more support from the private capital. The 2<sup>nd</sup> FYP (1956-1961) addressed the problem of land prices and increasing slum areas and stated the necessity of Master Plans in regional planning. Moving on, the next plan meant the setting up of para-statal authorities with the role of guiding and enforcing Master Plans, which were unfortunately only an uncritical import from the regulatory practices of Britain and the United States, their regulations contrasting with the usual mixed-land use deeply rooted in the Indian city morphology. On the same note, the plan enforced that new industries should be far away from the city.

The next three FYP focused on the dispersing of population in smaller urban centres, supporting the growth of small and medium towns and their provision with basic services. Even if surplus land was supposed to be equitably distributed in the favour of the poor, the construction of low income housing was not a priority for the contractors and the actual land was used still in favour of the elite. Also, even if the plans were about providing amenities to slums and against evicting or relocating, the biggest slum eviction in India took place in this period.

From 1986 to 2001, the urban policy took its first steps towards liberalization, marking the start of private sector participation in urban development with the main responsibility being housing construction. The 7<sup>th</sup> FYP introduced the first National Housing Policy (NHP), it extended the former Integrated Development of Small

and Medium Towns (IDSMT) with the purpose of balanced regional development centred on town's community participation. A shift in policy happened as a result of the NCU's (National Commission of Urbanisation) research in urban development- investments were to be used in potential urban centres (later identified as GEMs or Generators of Economic Momentum) instead of areas lacking necessary infrastructure. The 8th FYP, following the SAP's (Structural Adjustment Programme) framework, continued the former plan and introduced new schemes on self-employment and eradication of poverty. India Infrastructure Report published in 1994 promotes privatization, which has improved infrastructure services, and a commercial approach based on demand orientation (instead of supply). The IIR marks the necessity of infrastructure which will play an important part in governmental plans starting 1996. The 9th year plan is mainly known for the Swarna Jayanti Shahari Rozgar Yojana (SJSRY), a scheme about urban self-employment and wage employment with the target of resolving the issue of unemployment through community help. The plan put great emphasis on the insufficient housing both in rural and urban areas and the integration of slum areas via providing amenities. On the land and real estate issues, the repeal of Urban Land Ceiling & Regulation Act (ULCRA, first introduced in 1976) was stressed to be implemented with the purpose of re-entering vacant urban land into the land market and the government gave Foreign Direct Investment (FDI) a free hand to undertake different projects.

The 10<sup>th</sup> Five Year Plan (2002-2007) is highly influenced by the 2002-2003 Union Budget. The Plan implies that the urban growth needs support from capital market and investors. The Union Budget encourages the streamlining of converting agricultural land and construction of buildings by applying different schemes and programmes. Other than the Pooled Finance Development Scheme, which purpose was help financing the small and medium towns, it supports market based financing regime and initiates City Challenge Fund for cities with over 500,000 people. The change in urban governance continues with the Model Municipal Law and Jawaharlal Nehru National Urban Renewal Mission, the latter focusing on *Urban Infrastructure and Governance* and *Basic services to the Urban Poor*, the development process also being mainly based on market financing. All the reforms, contrary to what it is stated in them, did not serve the integration of the poor but heightened the gap between them and the elites and gave a boost to the exclusivity of access to land, the biggest and still growing cause being the liberalization of land. Furthermore, the 11<sup>th</sup> FYR encourages liberalization and privatization or urban infrastructure. Because the reforms are aiming for self-sustained ULBs, they will not be able to help the poorer sections of the society which will just be more marginalized.

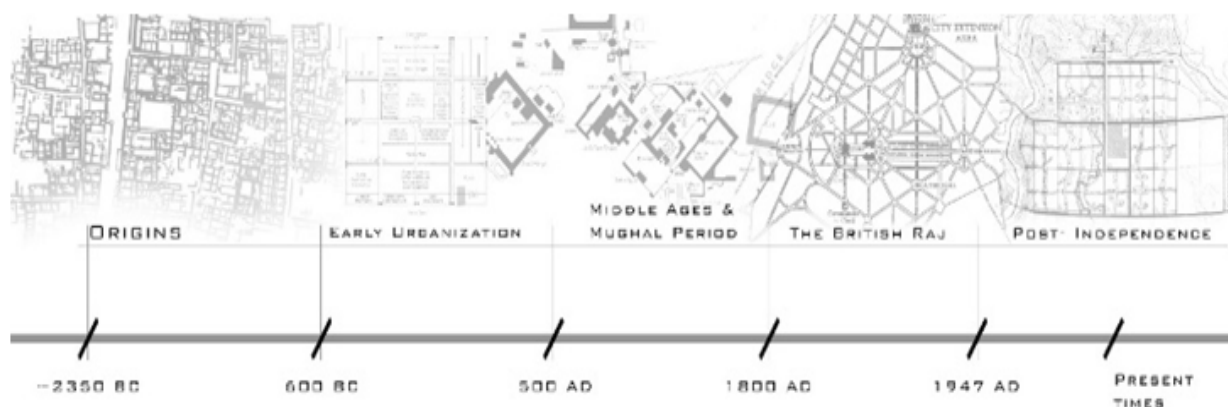


Fig - 2.0: Panoramic view showing planning of settlements in India

### 5.1 IMPLICATIONS OF FYP POLICIES

All of the above reforms and policies have been trying since Independence to focus on the problems that appeared mostly as a consequence to the rapid rise of population in urban areas. Looking comprehensively, the lack of basic amenities in rural and fringe areas, as well as the housing shortage can be considered at the core of present urban problems.

The housing crisis in India started after the overcrowding of cities through mass rural-urban migration and Metropolization, becoming a major problem throughout the entire country. On the matter of low and middle income housing, there is an obvious need for rental housing considering the poor section of the population, the younger generation and even the lower middle income group cannot afford owning a house or flat. And other than the need of subsidized rental housing, even those who are planning to own a house require assistance from some sort of financial and administrative programs. But the most critical outcome of the housing crisis consists in the proliferation of urban slums and squatter settlements. In general, the slums can be classified in dilapidated overcrowded buildings and squatting areas with improvised buildings from scarp materials. As stated also in the



description of contemporary urban policies, the government has attempted various ways to resolve the problem of slums, whose outcome most of the time differed from the initial intention- for example, relocation of slums. There is a better alternative to relocating the slum-dwellers - that is in-situ rehabilitation and upgrade by using land as resource with the help of private participations. This way, the squatters' livelihood is not disturbed, social and physical assets are kept safe and the management problems of relocating (transport, amenities, providing work, the quality of life) can be left aside.

Despite the various efforts to improve the shelters of slum-dwellers and JJ clusters, the outcome was never the expected one because of gaps between planning, design and engineering practice. Providing shelter for the poor is more complex than just building management and financing, and is in need of a holistic approach for all influential factors: the policies on which the programs are based (from finance to type of partnership and services), planning specifications and development schemes, the people (mobilization of the community) and the product. Also, the trend is to shift from provision based to support based approach, seeing that the process of rehabilitation is continuous and participatory. Therefore, the aim is now measured by resourcefulness rather than productivity, the value of the houses being based on its purpose. The main strategy is to support people in housing themselves, basing the building process on participatory and community involvement.

## **6.0 CONCLUSION**

Indian settlements have been through a hectic process of urbanization since early times, adapting to the various influences. Foreign invasions, notably aryanization, persianization and westernization which is still in progress, have shaped the present cities by altering the cultural and historical legacies, the result being a diverse socio-cultural mix of civilization. This diversity has lead most of the time to tension between different ethnical or religious groups and created a gap between city and country. But a multicultural society has, in general, more benefits than disadvantages, encouraging human interaction and broadening the mind to understanding different customs and life-styles. Because some of the problems with segregation of society still persist in current times, there is an increasing need for policies that put a stress on inclusiveness and on decreasing the urban-rural gap, which will play a major part in the sustainability of future cities.

In current urban planning practice there is a visible neglect in the importance of living quality, understandable partially after taking into consideration the shock of the ever-increasing population in urban areas, which points at first sight only to quantity. Therefore, there is a rush in building places for people but not providing the necessary amenities, one consequence being the large number of slums or JJ clusters. Moreover, the population overflow is also causing the sprawl of the developing cities, resulting in a fringe with the nearby rural areas that are exploited by private investors rather than being carefully planned for future development, this being an adequate example where policies giving too much freedom to private groups are not working as initially intended.

In summing up the ideas about working with the human scale in city planning, the future cities of India, especially those that are overgrown, with a stress on metro-cities, have to start taking more care of the pedestrians and urban public space. The concept of shared space can be easily applied in the local context by converting the traditional main street into a pedestrian promenade with low to no car traffic, the benefits being noise reduction, increase in pedestrians and commercial activities, increased security, leading to the development of the surrounding buildings and better maintenance in general. Indian cities have great potential in becoming what Jan Gehl calls "lively cities", considering the ever- going street activities in the public space specific to the traditional outdoor life, kept in motion necessity: street trade, handicrafts, outside kitchens, street exhibitions.

For envisioning the future cities of India as optimum cities, there have to be taken into consideration the quality, as described by ekistics with meeting the standards of complexity (leading to a lively city), and a holistic view of urban planning from small to large scale. Since the beginnings of forming settlements, people had built with regard to their dimensions, the human scale. This unspoken rule has been mainly forgotten after the industrial revolution, when urban areas started to expand more and more, leading towards today's overgrown cities. There is a need for current urban planning to go back to basics, to learn from the old examples of planning and management principles as those from Kautilya's Arthashastra, which describes a hierarchical structure of rural and urban areas with clear boundaries, but flexible enough for city dynamics like migration. Nowadays city of optimum size translates to the generic dynamic city, in a continuous changing state that does not correspond to the traditional view of ideal standards. The future cities, by taking into consideration the decentralization policies, can be managed as composed of separate small scale units that together form the ever-growing flexible city. Therefore, urban areas should be planned from the eyelevel, working with the dimensions of streets and squares, to the largest scale of the Ecumenopolis- as a global structure of metropolitan areas.

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## A STUDY OF RISK & RETURN OF CRYPTO CURRENCIES WITH SPECIAL REFERENCE TO LITECOIN, RIPPLE & ETHEREUM

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### ABSTRACT

*Many virtual currencies (Crypto Currencies or Digital Currencies), have emerged over the last 10 years. Many people were attracted by these currencies as an investment option and many are interested to know more about these currencies. However, certain difficulties are restricting people from having exposure on it, such as Safety features, Regulations, Decentralized structure and Amount of risk involved. The main aim of this research paper is to discuss about the risk involved, return, financial implications, Future Scope, Limitation, Feasibility & Regulation of Litecoin, Ripple and Ethereum.*

*Keywords: Block chain, crypto currency, Virtual Money, Disruption, economic paradigms.*

### INTRODUCTION

In 2012, the European Central Bank defined crypto currency as "a type of unregulated, digital money, which is issued and usually controlled by its developers, and used and accepted among the members of a specific virtual community". Crypto currencies are regulated by math rather than by Governments. Crypto currencies are a digital form of money that run on a totally new monetary system, one that is not regulated by any centralized authority or tracked by a formal institution. Crypto currencies are digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank. Although they can be used as a form of payment if another person is willing to accept them, they are not legal tender. Every transaction is verified for accuracy, and the system is anonymous and totally transparent. At the centre of this infrastructure is the ledger; where all transactions are made public, total visibility is provided. Nobody owns the ledger or the crypto currency blockchain; instead, it's decentralized meaning self-run and self-governed without the interference of outside parties. The value of virtual currency can fluctuate significantly, they may not be accepted in many places and they are not guaranteed by any bank or government. They do not physically exist as coins or notes.



Litecoin (LTC) was released in 2011 via an open-source client on GitHub followed by launching of Bitcoin and is referred to 'silver' to Bitcoin to 'gold'. Litecoin is based on an open source global payment network that is not controlled by any central authority and uses "scrypt" as a proof of work, which can be decoded with the help of CPUs of consumer grade. Litecoin is a peer-to-peer crypto currency and open source software project released under the MIT/X11 license. The Litecoin Network has a faster block generation rate aims to process a block every 2.5 minutes, rather than Bitcoin's 10 minutes and offers a faster transaction communication. Unlike the heavy computer horsepower required for Bitcoin mining, Litecoins can be mined by a normal desktop computer. Litecoin's maximum limit is 84 million – four times Bitcoin's 21-million limit – and it has a transaction processing time of about 2.5 minutes, about one-fourth that of Bitcoin. Litecoin is scrypt dominant it means that it is by far the network using scrypt with a larger hashing power. So even if all the miners from those other coins joined to attack Litecoin, they would not be close to threaten the security of the network. Litecoin, being cheaper, more numerous and permitting faster and quicker transactions, aims to become a standard for smaller transactions.



Ripple (XRP) is a real-time gross settlement system (RTGS), currency exchange and remittance network created by the Ripple company. Also called the Ripple Transaction Protocol (RTXP) or Ripple protocol, it is built upon a distributed open source internet protocol, consensus ledger and native crypto currency abbreviated as XRP (ripples). It supports tokens representing fiat currency, crypto currency, commodity or any other unit of value such as frequent flier miles or mobile minutes. Ripple was launched by Open Coin, a company founded by technology entrepreneur Chris Larsen in 2012. Like Bitcoin, Ripple is both a currency and a payment system. The currency component is XRP, which has a mathematical foundation like Bitcoin. The payment mechanism enables the transfer of funds in any currency to another user on the Ripple

network within seconds, in contrast to Bitcoin transactions, which can take as long as 10 minutes to confirm. The goal of Ripple is to be a global settlement network, a platform to allow anyone to transfer money in any currency to any currency in a matter of seconds. This is an ambitious goal meant to eliminate the use of older systems like Western Union or SWIFT. The Ripple network has been accepted by several banks as a legitimate money transfer system, and the currency (XRP) offers a range of useful features. It's a bit more complicated than most crypto currencies, though. The Ripple protocol is currently used by companies such as UBS, Santander, and Standard Chartered, and increasingly being used by the financial services industry as technology in financial settlements. Compared with other crypto currencies, it has a advantage of greater control over the system as it is not subject to the price volatility of the underlying currencies, and it has a more secure distributed authentication process.



Ethereum is also termed as Ether as this crypto currency is generated on Ethereum platform. It is public platform with open source, block chain based computing. It has a smart scripting facility. It works on the modified version of Nakamoto's cryptocurrency with transaction based payment system. Ethereum was first introduced in 2013 by Vitalik Buterin, who was a computer programmer and researcher in cryptocurrency. Software Development related to Ethereum was funded by an online crowd sale between July and August 2014 and developing a system that went live on 30 July 2015. It initially had 11.9 million coins "premined" for the crowdsale. This circulation was almost 13% of the total circulating currency

### LITERATURE REVIEW

**(Glaser, 2014)** This paper aims at giving empirical insights on whether users' interest regarding digital currencies is driven by its appeal as an asset or as a currency. The paper provides strong indications that especially uninformed users approaching digital currencies are not primarily interested in an alternative transaction system but seek to participate in an alternative investment vehicle. **(Bollen, 2013)** This paper shows that regulation of virtual currencies is at a very early stage. Most regulatory systems are not well designed to cater for this type of payment system

**(Chohan, 2017)** This paper emphasizes that Crypto currencies are an area of heightened pecuniary, numismatic, technological, and investment interest, and yet a comprehensive understanding of their theories and foundations is still left wanting among many practitioners and stakeholders. This discussion paper synthesizes and summarizes the salient literature on crypto currencies with a view to advancing a more general understanding of their order and purpose. **(Ametrano, 2016)** This paper highlights that Bitcoin has enabled competition between digital crypto currencies and traditional legal tender fiat currencies. Despite rapidly increasing acceptance, so far the affirmation of crypto currency as better money has been thwarted by dramatic deflationary price instability.

**(Hayes, 2016)** This paper aims to identify the likely source(s) of value that crypto currencies exhibit in the marketplace using cross sectional empirical data examining 66 of the most used such 'coins'. A regression model was estimated that points to three main drivers of crypto currency value: the difficulty in 'mining' for coins; the rate of unit production; and the cryptologic algorithm employed. Bitcoin-denominated relative prices were used, avoiding much of the price volatility associated with the dollar exchange rate. The resulting model can be used to better understand the drivers of relative value observed in the emergent area of crypto currencies.

### OBJECTIVE OF THE STUDY

- To study the current performance of crypto currencies critically.
- To study whether investing in crypto currency is favourable.
- To study the risk involved and future scope of crypto currency.
- To compare volatility in Litecoin, Ripple and Ethereum.

### RESEARCH METHODOLOGY

This research paper is based on secondary data collected from various newspaper, journals, different publications and websites. Different research papers have been studied, news from different newspapers as well the publications of the RBI, World Bank and different research committees have been studied to gather secondary data.

**Type of research:** Analytical Research

**Period Considered:** Out of all the crypto currencies; I have chosen Ripple, Litecoin and Ethereum are the most traded crypto currencies based on Market Capitalization as per the report published on investing.com on 5.12.18. My research study is on Litecoin, Ripple and Ethereum for three calendar years, starting from 1.1.16 – 5.12.18.

**Data Representation:** Table and Graphs

**Tools used:** Mean, Standard Deviation and Coefficient of Variation.

### **THE RISK OF INVESTING IN LITECOIN, RIPPLE & ETHEREUM**

In general all crypto currencies faces the following risks:

- The first risk involved in crypto currency is its valuation, as it is very difficult to figure out the worth of the investment.
- Digital currencies aren't "liquid" enough and therefore cash back is little difficult.
- Crypto currencies are easy to misplace as there is aren't any license custodians who specialize in ensuring the quality of Digital currency.
- Crypto currencies are susceptible to hacking and other scams as the coding identifies the currency and not the owner; the person who has the encryption code becomes the owner. This built-in anonymity feature means when a coin is stolen, it's *gone*—and the investor has little to no recourse in getting it back. Hacking of payment gateway- risk of total loss due to exchange account getting hacked. Therefore it is recommended to invest in off line cold storage, instead of keeping crypto on the exchange house network.
- Fear of regulation is another thing (the mainstream bankers are already lobbying for regulation against it as we are seeing more and more funds moving from banks to the crypto world). As there is no regulation there is lack of consumer protection and about their hard earned money.
- It is very hard to exit the market as some exchanges don't offer fiat money and some of them accept a few highly mainstream crypto currencies.
- It is not conclusively proved about market manipulation but it is highly assumed that there is too much practice of insider trading and collusion.

### **FUTURE SCOPE OF LITECOIN, RIPPLE AND ETHEREUM**

Investing in crypto coins is highly speculative and the market is largely unregulated. Anyone considering it should be prepared to lose their entire investment.

### **REGULATION AND LEGAL STATUS OF CRYPTO CURRENCY IN INDIA**

Fiat currency issuance is a highly centralized activity supervised by a Nation's Central Bank. While the bank regulates the amount of currency issued in accordance with its monetary policy objectives, there is theoretically no upper limit to the amount of such currency issuance. In addition, local currency deposits are generally insured against bank failures by a government body. Crypto currencies, on the other hand, has no such support mechanisms. The value of a crypto currency is wholly dependent on what investors are willing to pay for it at a point in time. As well, if a crypto currency exchange folds up, clients holding crypto currency balances have no recourse to get them back.

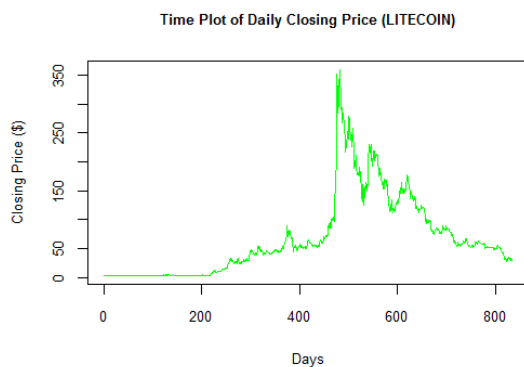
Virtual currencies (VCs) do not have any underlying assets and their price is entirely speculative, which can expose the investors to heightened risk. Now, as no legal status is granted to virtual currencies in India, there are no set rules and guidelines available to the judiciary for resolving disputes related to investments in crypto currencies. So, in case of any fraud/dispute, an investor can't seek legal help and has to bear the brunt of losses solely.

### **DATA ANALYSIS AND INTERPRETATION**

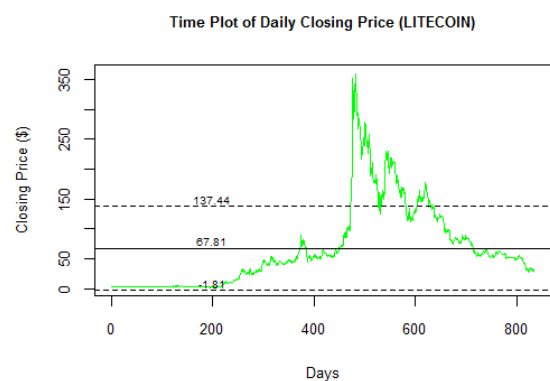
For the purpose of calculating the volatility/risk involved, the data for three calendar years were collected starting from 1.1.16 – 5.12.18 for Litecoin, Ripple & Ethereum. The closing price of each day was taken into consideration to calculate the average price. And using the same data minimum value, maximum value, mean, standard deviation and coefficient of variation was determined.

**Table - 1**  
( 1/1/2016 to 5/12/2018)

Particulars	Litecoin	Ripple	Ethereum
Minimum Price	\$3.5	\$0.00405	\$6.7
Maximum Price	\$359.4	\$2.77	\$1380
Mean	\$67.81	\$0.275265	\$256.34
Standard Deviation	\$69.62	\$0.390977	\$283.28
Coefficient of Variation	102.67%	142.04%	110.51%

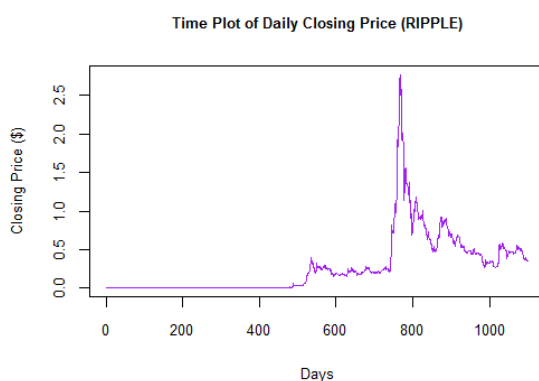


**Figure - 1.1**

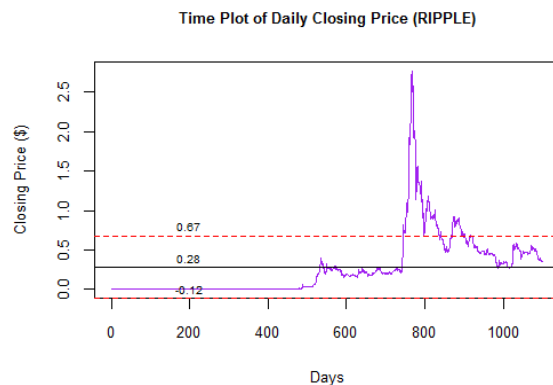


**Figure - 1.2**

It is evident from figure 1.1 that the prices of Litecoin the prices of Litecoin were highest in April 2017. The prices for Litecoin were almost constant for first 200 days and then started showing increasing trend and was at its peak on 482th day and then slowly it started showing decreasing trend. It is been observed in fig 1.2 that it shows the deviation of prices of Litecoin from its average price. It is clear that maximum variation in prices of Litecoin is between \$-1.81 to \$137.44. From table 1 we can interpret that standard deviation associated to Litecoin is \$69.62 which signals the risk associated is high for Litecoin. If we consider coefficient of variation it is 102.67% that means it is risky and highly volatile but not more than Ripple & Ethereum.



**Figure 2.1**



**Figure 2.2**

It is interpreted from the figure 2.1 that prices of ripple were highest in December, 2017. The prices of Ripple were stable for almost 450 days and then it started booming. It is been observed that there was a steep fall in prices of Ripple after January 2018. From figure 2.2 the graph shows the deviation of Ripple prices from its average price. It is clear that maximum variation in prices of Ripple were between \$0.67 – \$0.12. From the above table 1 it is evident that among these three crypto currencies ripple is found to be cheapest. It can be inferred from Table 1 standard deviation associated to Ripple is low, the volatility in investing in ripple is low and ultimately risk involved is low. If we consider coefficient of variation it is the highest amongst the three crypto currencies therefore investing in ripple is also relatively very risky as compared to other crypto currencies.

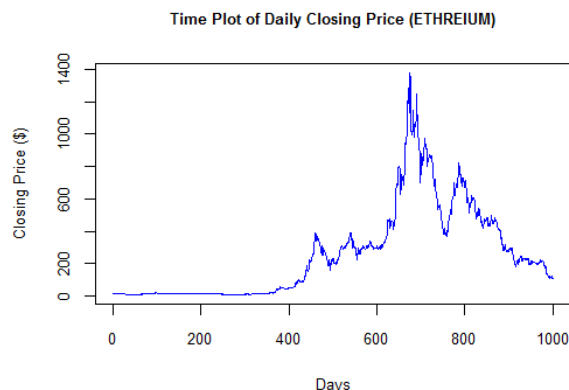


Figure 3.1



Figure 3.2

It is evident from figure 3.1 that the prices of Ethereum were high in the month of October 2017. The prices were constant for almost 370 days and then started showing increasing trend and reached to its peak of \$1380 on 675<sup>th</sup> day and then started to show decrease in prices. Figure 3.2 is showing the deviation in prices of Ethereum from its mean prices which ranged between \$-26.94 to \$539.62. From Table 1 we can say that there is a vast difference between the minimum price and the maximum price of Ethereum. It denotes the highest standard deviation which indicates that investing in Ethereum is highly risky. If we consider coefficient of variation it signifies that it is relatively less risky and less volatile than Ripple.

**Returns 2016 - 2018 by taking 30<sup>th</sup> November closing price as reference value**

Table - 2

Crypto Currency	Value on 30.11.16	Value on 30.11.17	Value on 30.11.18	Percentage change in 2017	Percentage change in 2018
Litecoin	\$3.84	\$85.82	\$31.65	582.000%	-63.12%
Ripple	\$0.00679	\$0.2372\$	\$0.36606\$	3393.37%	54.33%
Ethereum	\$8.62	\$432.21	\$113.68	4914.037%	-73.69%

From the above table 2 it is evident that from 30.11.2016 to 30.11.2017 there was 582% rise in price and there was a decrease in prices from 30.11.2017 to 30.11.2018 by - 63.12% of Litecoin.

It is observed that prices of Ripple increased by 3393.37% from 30.11.2016 to 30.11.2017 and only 54.33% of increase from 30.11.2017 to 30.11.2018.

It is observed that prices for Ethereum has increased by 4914.037% from 30.11.2016 to 30.11.2017 and has significantly shown negative returns of -73.69% from 30.11.2017 to 30.11.2018.

## FINDINGS

- A crypto currency has no intrinsic value apart from what a buyer is willing to pay for it at a point in time. This makes it highly susceptible to huge price swings, which in turn increases the risk of loss for an investor.
- Investment in crypto currencies are highly speculative investment as market prices are highly volatile.
- Investment in crypto currencies is proved to be good for the investors who purchased them at low prices and proven bad to those investors purchase at high prices.
- The latest drop in cryptocurrency rates can be attributed to more traders selling off than buying cryptocurrencies and therefore the law of demand & supply is applied here as when the seller are more in the market the price decreases.
- Ripple's price (in the last week of 2017) surged past \$2.3 since there was news that the South Korean and Japanese banks were testing the viability of crypto currency's usage in cross border payments.

If compared Ethereum has given highest returns of 4914.037% amongst the three cryptocurrency from 30.11.2016 to 30.11.2017 and only Ripple has shown positive returns from 30.11.2017 to 30.11.2018.

- Litecoin & Ethereum has shown negative returns -63.12% & -73.69% respectively that means demand for these cryptocurrency is decreasing.



- There are large regulatory loop holes which is the main reason of price fluctuation, there is no set of range of fluctuating its daily price.
- Speculative bubble is also one of the major reason for price instability.

### **SUGGESTIONS**

- Cryptocurrencies are vulnerable to market fluctuations as any other commodity or stock. It does not mean not to invest but to take a longer big picture view of investment, as opposed to letting a momentary drop in value that leads to panic.
- Those who purchased during all-time highs, it is better for them to sell depending on their risk appetite as the market is highly volatile for crypto currencies.
- Looking at the last three years prices, it is advisable to sell the current holdings as the prices are showing negative returns.

### **CONCLUSIONS**

The emergence of cryptocurrencies has sparked a debate about its future. Despite Bitcoin's recent issues, its success since its 2009 launch has inspired the creation of alternative crypto currencies. A crypto currency that aspires to become part of the mainstream financial system would have to satisfy very divergent criteria. Investment in crypto currencies is not a get-rich-quick scheme, it's a technological revolution with the potential to disrupt the fundamental tenets of global financial systems. The acceptance, legality, regulation and feasibility is still a question mark and in such a situation investment in cryptocurrencies becomes highly risky. Moreover, the volatility is also very high so it is advisable not to invest hard earned money in cryptocurrencies. The investor can take the risk as per his risk appetite. Once the Digital Currencies prices attain some stability and interference of regulatory body the currencies are legalized then trading is advisable.

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