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# **PREFACE**

Global Business School & Research Centre, constituent institute of Dr. D. Y. Patil Vidyapeeth. Pune (Deemed University) is glad to present to you this issue of “The VICHAYAN - a peer-reviewed International Journal of Multidisciplinary Research.”

Started in the year 2021 the journal provides a platform for researchers, practitioners, academicians and professionals to publish original research articles in the form of conceptual papers, theoretical and empirical research across the different disciplines/domains of management. Since it's a Multidisciplinary Research Journal, innovative contributions that do not fit into the management discipline but fall under the related functional areas of management could also be considered as they may benefit the researching community at large.

Dr. D. Y. Patil Vidyapeeth is a Category-I Deemed to be University, Raccruited (3rd Cycle) by the National Assessment and Accreditation Council (NAAC) with 'A++' Grade. The Vidyapeeth has also been placed at 3rd rank in Dental, 17th in Medical, 41th in University Category in the National Institutional Ranking Framework (NIRF) 2022 by Ministry of Human Resource Development (MHRD, now Ministry of Education), Government of India.

Global Business School & Research Centre was awarded the Best B School Award of the Year by Asia Education Summit 2020 at Vigyan Bhavan, New Delhi. We were also awarded the “Top Institute of India” for the year 2021 by Competition Success Review. It is our vision ‘to be a globally recognized management institution that continually responds to changing business paradigms through research and academic excellence to nurture responsible business leaders.’

Lastly we would like to acknowledge the efforts taken by the faculty members and the editorial team in publishing The VICHAYAN - a peer-reviewed International Journal of Multidisciplinary Research.

Thank you.

**Dr. Chetan Chaudhari**

**Editor-in-Chief**

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# CORPORATE SOCIAL RESPONSIBILITY AND CORPORATE GOVERNANCE : SPECIAL REFERENCE TO STATE OF ODISHA'S SELECTED CORPORATE SECTORS

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**Abstract- Background:** This study looks at the theoretical foundations of CSR and potential effects on the firm's competitiveness in terms of social acceptability in the community and society. **Methodology:** The study contains the data and text information that represents both quantitative and qualitative information. The proposed study is exploratory and analytical in nature. In the first phase different theoretical facts are explored by reviewing different related literatures. The analytical method is adopted in the second phase with an empirical approach of facts based upon the evidence of existing facts and material. In the preparation of the presentation both kinds of approaches have been adopted. **Sampling Design:** It includes the target population, sampling frame, the basis of selection of sample and sample companies. **Result and Findings:** The CSR and resultant reputation for the company in terms of increased trust has improved the brand identity as we can verify from the positive reputation enjoyed by many. **Conclusion:** This study further examines the studies relating to the contribution of CSR activities to the competitive advantage of the company. An organization's CSR goals can be greatly aided by human resource specialists and Corporate Governance. Employee engagement is a key success element for CSR performance, and as such, it has been taken into account while analysing the relevance and study's scope.

**Key words-** Social Acceptability, Community, Corporate Social Responsibility, Corporate Governance

## Objective of the Research

### Introduction:

Ever since the beginning of the concept, the Corporate Social Responsibility amongst the corporate sector, mostly the large sector has been pace up some issues on the matter of management. During the period 1970-80, it has been established the concept of the corporate social responsibility revolves to new horizon. This new concept found interest that has come to evolve in the recent times has its roots in the decade of 1990s. Over the time, the crux of that debate underwent a transition, and became an emphasis on the corporate social responsibility. The rise in the recent years and the form that the corporate have taken over the time for responsibility for the society. These include one, where the corporations tend to make efforts so as to re-establish their image before the public. The public tends to have some minimum expectations from the corporate business entities these expectations can take several forms, such as ethical, legal and commercial perspectives. much better, in quite contrast with its past. CSR is chiefly constituted by the contributions that any corporate entity makes as a result of its core business activities that it is performing.

1. To analyse, explore and understand different aspects of CSR practices as the primary legal responsibility of the public and private corporate sectors in Odisha before and after the commencement of Indian Companies Act, 1956.
2. To analyse, explore and understand the judicial trends and legal aspects of CSR practised by the public and private corporate sectors in Odisha.
3. To study the common CSR practices in public and private corporate sectors of Odisha from employees' perspective.
4. To examine and compare the most significant attention for Governance by the public and private corporate sectors from employees' perspective.

### Need of The Study

- To understand the idea, meaning and significance of CSR in the present times.
- To understand the origin and the various phases of evolution and advancement of CSR, both, in India and internationally.

- To extensively analyze the legislative framework pertaining to CSR in India.
- To illustrate the amendments made in the legislative framework of CSR.
- To understand the mechanism for adoption and implementation of CSR by corporates.
- To study the CSR strategies and practices implemented by the corporates.

### Hypothesis of the Study

The following hypotheses were framed relating to different objectives.

1. Hypothesis-1-The beneficiaries are equally satisfied by the CSR activities of both public and private corporate sectors. (Objective-1)
2. Hypothesis-2- The beneficiaries of both public and private corporate sectors have perceived the legal aspects of CSR in the same way. (Objective-2)
3. Hypothesis-3- The perception of beneficiaries about legal aspects of CSR of both both public and private corporate sectors remain same irrespective of their demographic profile. (Objective-2)
4. Hypothesis-4- The respondents have perceived the common CSR practices of public and private corporate sectors in the similar manner (Objective-3)

### Result and Analysis:

The research study is based on all corporate sectors in Odisha and so it is taken as the population of the study. A total of 21 public sectors (PSU) and 241 private corporate sectors are operating in the state (<https://csr.odisha.gov.in>) .Keeping in mind the vastness of the research and limited time period, it is not possible to include all the sectors in the research and so the number of sectors to be included in the study is further decided based on the following rule.

$$n = \frac{(z^2 p (1-p))/e^2}{1 + (z^2 p (1-p))/(N e^2)} = 4$$

N = Total number of corporate sectors = Population size = 261

P = Proportion of companies = 0.5

e = Margin error = 50%

Margin error is the percentage expectation of the research results to generalize. Here, comparatively more percentage (50%) margin error is considered purposefully as the complete data about 261 corporate sectors could not be collected successfully. Some of the companies have also not updated their information in websites and it was not possible on the part of the researcher to visit 262 companies within the period of research.

Z = Critical value for large sample at 95% confidence level = 1.96

Finally, it is decided to include 4 sample companies for the study. Further two companies each from public and private corporate sectors are decided to include in the research in order to bring the uniformity in the selection process. The sample companies were selected based on easy availability of data and their past CSR activities in Odisha. At first the researcher collected the total number of corporate sectors operating in Odisha and then the requisite numbers of corporate sectors were selected for the study by using stratified random sampling method. The detail of sample size is given in next section. Two different samples have been used for the research.

### Sample-1 (Beneficiaries)

The first sample comprises of 600 beneficiaries. The sample includes both community people in peripheral area and the employees of four sample companies.

The sample size decision is tested as follows.

$$n = \frac{(z^2 p (1-p))/e^2}{1 + (z^2 p (1-p))/(N e^2)} = 600 \text{ (Approx.)}$$

N = Total number of people in four districts = Population size = 213086

P = Proportion of beneficiaries = 0.5

e = Margin error = 4%

Z = Critical value for large sample at 95% confidence level = 1.96

Finally, it is decided to include 600 sample beneficiaries in the study. Stratified sampling technique has been used to select the appropriate number of beneficiaries from the community areas of each district by using the following rule.  $n_i = n/N$   $N_i$  n =Total Sample size = 600 N = Population size = 213086

The total population of each of four districts constitutes the sub-population size ( $N_i$ ) of each district. **Table No: 1.2 Sample Beneficiaries**

Type of Sectors	Corporate sectors	Districts	$N_i =$ Total population	$n_i = \frac{n}{N} N_i$	Total Sample Size
Public	Nalco Nagar	Anugul	18038	51	

Sector	Mahanadi Coalfield	Talcher	40841	115	166
Private Sector	Hindalco	Hirakud	30207	85	434
	Vedant	Jharsuguda	124,000	349	
		Total	N = 213086	n = 600	n=600

Source: Computed from collected data

Thus it is decided to include 166 community people of public sectors and 434 community people of private sectors that is a total of 600 beneficiaries in the study. It is further decided to include equal percentage of employees and beneficiaries in the sample.

= 4% Z = Critical value for large sample at 95% confidence level = 1.96

Finally, it is decided to include 583 non-beneficiaries in the study. Further, stratified sampling techniques have been used to select the appropriate number of non-beneficiaries from each company by using the following rule.

$n_i = n/N N_i$  n = Total Sample size = 600 N = Population size = 19193

The total number of employees working in the sample companies' constitutes the sub-population size ( $N_i$ ) of each district

**Table No: 1.2 -Sample non-beneficiaries**

Type of Sectors	Corporate sectors	Districts	$N_i =$ Total population	$n_i = \frac{n}{N} N_i$	Total Sample Size
Public Sector	Nalco Nagar	Angul	6496	197	295
	Mahana di Coalfield	Talcher	3230	98	

**Sample-2 (Non-beneficiaries)**

The second sample comprises of 583 non-beneficiaries.

The sample size decision is tested as follows.

$n = ((z^2 p (1-p))/e^2) / (1 + (z^2 p (1-p))/(N e^2)) = 583$  (Approx.) N = Total number of employees in four companies = 19193 P = Proportion of employees = 0.5 e = Margin error

		Total	N = 19193	n=583	n=583
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Source: Computed from collected data

Thus it is decided include 295 non-beneficiaries of public sectors and 288 non-beneficiaries of private sectors that is a total of 583 employees in the study. The following sample companies have been included in the study.

A. Public Sectors

**NALCO**

Private Sector	Hindalco	Hirakud	5231	158	288
	Vedant	Jharsuguda	4236	130	

National Aluminum Company Limited is a Government Enterprise located at Anugul and also a Navaratna Company. Ministry of Mines have extensive administrative control over this company, and operates a large integrated part of mines and aluminum in India. And it was predicted by the experts and the Prescribed CSR fund by NALCO is approximately 27.95 Crore in this financial year of 2018-19 in state of Odisha. It was observed that this Company is dedicated towards its CSR commitments and in the last three years they have spent more than the prescribed funds. NALCO is currently also working to help people who were affected by the Cyclone in Odisha. They get engaged in providing relief to the cyclone-hit slum dwellers in the area of Bhubaneswar, Puri and Khurda. They have included this work of providing aid for people affected by natural calamities under their CSR projects as prescribed by their CSR committee. Before making the CSR as a mandatory requirement by the companies NALCO is among those Public Sector

Undertakings who were indulging in activities for social welfare. They were also adjudged as the Best Public Sector Undertaking in the year 2008 for its CSR initiatives by the Think Odisha Leadership. This shows how much they were



committed towards their social obligation as it is evident from this that they were fulfilling their obligation even before this thing became a mandate in India. At the time of NALCOs inception, there was no nomenclature of Corporate Social Responsibility but still they fulfilled their Moral Responsibility which they have as a business entity.

**Table No-1.3:CSR expenditure of NALCO**

Year	2019-2020	2018-2019	2017-2018	2016-2017
Actual CSR	<b>Estimated Budget</b> 38.39 Crore	30.35 Crore	29.01 Crore	30.01 Crore
Prescribed CSR		27.38 Crore	27.88 Crore	27.56 Crore

(Source – NALCOs Annual Report )

In the present Era Corporate Social Responsibility have become a buzzword and every Corporate entity is eager to fulfill this obligation because it makes the corporate image of any business. For becoming a strong foundation one’s Business must have a good CSR Policy. NALCOs Mission is to achieve sustainable growth with a competitive edge in all fields of mining and also to provide satisfaction to all the stakeholders. The company believes that their ultimate reward is welfare of the society. They have adopted a policy in which they mainly focus on improving the life standards of Individuals.

### Mahanadi Coal Limited

Mahanadi Coals Limited, a unit of Coal India Limited, MCL is located in 4 districts of Odisha. Mahanadi Coal Field Limited located in Talcher is selected as the sample company for the study. All the Head Quarters were in such region that link or contact with outside society is almost null or very little. People’s life was affected both directly and indirectly by this activity of Coal Mining. Thus the objectives of Mines of Mahanadi Coal limited were framed in such a manner that it is benefiting the society at large. They were acting as support for the government to enhance and encourage social welfare in Odisha State.

The company was awarded as the Top CSR contributor in 2018 and also proved to be the top contributor in three consecutive preceding years. As they have prescribed 11 sector to spend their CSR funding but only able to do so in 9

sectors. These 9 sectors were, health, education, gender equality, rural development and protection of heritage.

MCL in the last year also signed an MOU with Bhartiya Argo Industries Foundation of Rs. 20 Crore to uplift the rural household of Odisha. This project will provide them sustainable livelihood and help them to enhance their socio-economic status. They named this project as “Utthaan.” Some Important Projects of MCL were, Project on Promoting Sports Activities, Environmental Activities and Protection of National Heritage, Art and Culture. These are some important CSR projects of MCL.

Mahanadi Coal Limited has targeted districts namely, Jharsuguda, Sundargarh, Angul and Sambalpur district and Talcher for fulfillment of their Corporate Social Responsibility. In the initial year of CSR Mandate 2014-15 they have spent 6130.19 lakh in these abovementioned villages as CSR funds.

**Table-1.4: CSR Expenditure of MCL**

Year	2019-2020	2018-2019	2017-2018	2016-2017
Actual CSR	<b>Estimated Budget</b> 156.81 Crore	166.60 Crore	267.52 Crore	166.60 Crore
Prescribed CSR		113.36 Crore	112.85 Crore	113.36 Crore

(Source – CSRBOX )

From the view of abovementioned data it is observed that in the initial year although they have made the highest contribution in Odisha State but they failed to meet up with their prescribed limit. Still afterwards they have made remarkable CSR funding by every time spending more than the prescribed limit.

### B. Private Sectors

#### Vedanta Aluminum Limited

Vedanta Aluminum Limited takes care for all the people who live near the site of Vedanta. They were acting as a facilitator which helps in socio-economic transformation of the rural public of Odisha. It aims at providing development opportunities especially for local public. They act in consultation and co-ordination with the local government

and primary beneficiaries as well as other stakeholders. The areas triggered by Vedanta in Odisha were Sports, Health & Safety, and Poverty. It conducts upliftment program especially for rural people to integrate them with the other section of the society. This will impact the socio-economic development of the Odisha State. The CSR committee of Vedanta has also stated that the activities of CSR of this company will be changed from time to time on the bases of recommendations of the CSR committee.

They spent an amount of 805.11 lakhs as CSR fund in district Jharsuguda, Kalahandi, Raygada and Kesinga district of Odisha as fulfillment of their Corporate Social Responsibility. The major portion of their funding was made for reducing poverty in Odisha. They also promote education through which rural development can be done and the inequality in the society can be reduced. Vedanta's CSR policy is to operate in a socially acceptable and ethical manner along with environmental friendly activities. The company wanted to provide a good quality life for individuals who were associated with the Company.

**Table-1.5: CSR Expenditure of Vedanta**

Year	2018-2019	2017-2018	2016-2017
Actual CSR	51.72 Crore	45.19 Crore	48.48 Crore
Prescribed CSR	13.00 Crore	9.42 Crore	

(Source : [https://csrbox.org/India\\_Company\\_Vedanta-Limited](https://csrbox.org/India_Company_Vedanta-Limited))

### Hindalco

"Hindalco Industries Limited, metals Flagship Company of the Aditya Birla Group, is the industry leader in aluminum and copper. With a consolidated turnover of US\$18.7 billion, Hindalco is the world's largest aluminum rolling company and one of Asia's biggest producers of primary aluminum" . (www.hindalco.com) . The company has created the mark in 10 other countries and ranks among the "global aluminum integrated producer". To enhance the social welfare measures Hindalco has analyzed the long term effect of their activities on society as well as environment. Therefore the company has also kept in mind the sustainable development goals while drafting the CSR policy.

**Table-1.6: CSR Expenditure of Hindalco**

Year	2018-2019	2017-2018	2016-2017
Actual CSR	34.14 Crore	31.09 Crore	28.30 Crore
Prescribed CSR	29.97 Crore	26.70 Crore	21.00 Crores

(Source: www.hindalco.com. (n.d).)

### Method of Secondary Data Collection

Sample data gleaned from secondary sources is mostly found on the websites of various company sectors. In addition to these, the research has taken into detail different journals, brochures, articles, books, published and unpublished records, annual reports of the corporations, and theses. The vast majority of the time, surveys and articles about CSR efforts and governance mechanisms inside firms have been referred to for the secondary obtaining data.

### Method of Primary Data Collection

The information about the various CSR activities conducted by the sample companies in their community area, the responses of the employees of the sample companies about different aspects of CSR and the corporate governance constitute the primary data of this research.

Primary data have been collected by using a well-designed questionnaire. The respondents were requested to provide the information on each dimension of CSR and CG as experienced by them on 5-point liker scale in the questionnaire. Where, 5 –indicates strongly agree and 1- indicates strongly disagree attitude to that particular statement. The data were also collected by direct interview method in case of less qualified respondents in the community area. In some cases the researcher also collected the data through mails particularly from those employees who could not spare their time with the researcher due to some pre- occupied work even after repeated calls. A total of 650 questionnaires were prepared and distributed in hard copies amongst the beneficiaries, but only 630 of them responded and 500 respondents returned the filled questionnaire within due time period. Again 100 questionnaires were filled up by the researcher himself in direct interview method. Similarly, 600 questionnaires have been distributed and mailed wherever necessary, to the employees of four corporate sectors and the data could be collected from 583 respondents after neglecting a few incomplete questionnaires.

## Development of the Questionnaire

A well designed questionnaire has been developed by the researcher to collect the data relevant to research. The study undertakes two questionnaire-one for beneficiaries and another for employees of the sample companies. Each questionnaire again consists of two parts. The first part for the beneficiaries includes demographic information of the respondents and the second part covers all aspects of CSR activities in the community area.

Similarly, the first part of the questionnaire for the employees includes the demographic profile of the employees and the second part includes the questions connecting to the satisfaction level with general and legal aspects of CSR, Corporate governance management mechanism and the relation of CG with CSR. The demographic profiles- age, gender, marital status, qualification and work experience of the sample respondents have been considered in the study. The number of statements to be included in each category is decided through Cronbach's reliability test using SPSS-23. The statements with Cronbach's Alpha less than 0.60 were subsequently removed from the questionnaire. The validity of the questionnaire was also tested by reviewing different literatures and by using correlation analysis. The primary data have been collected during eight months period of 2019-2020. Four districts- Angul (Nalco), Talcher (MCL), Hirakud (Hindalco), Jharsuguda (Vedant) are selected for the study area. Data have been analyzed on the basis of following indicators for achieving various objectives of the study. The demographic information of the sample respondents are first tabulated and the percentage is calculated. The percentage analysis is usually done to have a bird's eye view of the collected data. The research is particularly based on primary data collected from respondents through questionnaire method. So the test of reliability and validity of the questionnaire is essential before proceeding to data collection. The reliability of the scale was measured using the Cronbach's Alpha and the validity is tested through correlation analysis by using SPSS-23. Factor Analysis is used with a purpose to make out the dimensions that explain the correlations among the set of variables to define the different aspects of CSR activities and corporate governance mechanism of sample public and private corporate sectors. As described below, several statistical methods are used to further examine the hypotheses that were formulated in connection to the various objectives:

1. "One-way ANOVA" is used to test the significance of difference in the responses about –legal aspect of CSR with respect to gender, marital status, qualification, age and work experience of the employees of selected corporate sectors over the study period.

2. "Two-sample –t-test" is used to compare the responses of sample participants about "legal aspect" and "general aspect" of CSR. It is further used to have the comparison study of CSR activities undertaken by public and private corporate sectors in their community areas.

## Statistical tools and techniques used

Analysis is carried out with the help of statistical techniques like, Karl Pearson's correlation analysis, two sample 't'-Statistics, One-way ANOVA, Factor analysis. The data have been analyzed through SPSS-23.

## Two-sample t-test

It is used to compare the averages of two samples.

The following rule is used for the testing.

$$t = \frac{(\bar{x}_1 - \bar{x}_2)}{\sqrt{S^2 (1/n_1 + 1/n_2)}}, S^2 = \frac{1}{(n_1 + n_2 - 2)} \sum \{(x - \bar{x})^2 + (y - \bar{y})^2\}$$

$$d.f = [n_1 + n_2 - 2]$$

**One-way ANOVA:** "One-way ANOVA" is performed to test if two or more groups differ from each other significantly in one or more characteristics or not. Here, "One-way ANOVA" is used to determine the extent to which the perception of the respondents about legal aspect of CSR varies with respect to gender, marital status, qualification, age and work experience of the employees of selected corporate sectors over the study period.

## Major Findings of the Study

Reliability and Validity of the Questionnaire

a) The overall reliability scale of the questionnaire was tested by using "Cronbach's Alpha" and it revealed a fairly good level of internal consistency valued more than 0.05.

b) The correlation coefficient between the individual score and the total score for all the items of different questions set in the questionnaire are significant at 1% level

of significance. As such the items included in all aspect are valid.

### Demographic Analysis

a) The study includes 80% male and 20% female, 60% married and 40% un-married sample respondents. A majority of sample respondents (45%) of the respondents belongs to the age group (30-50). A majority of sample respondents (38%) of the respondents are post graduate, 28% are professionally qualified, 16% have technical qualification and only 1% are under graduate.

b) The study includes 70% male and 30% female, 72% married and 28% unmarried sample respondents. A majority (45%) of the respondents belongs to the age group (30-50), 22% are below 30 years and 33% are of age more than 50 years. A majority (48%) of the respondents are technically qualified, 23% have are professionally qualified, 19% are and 5% each are graduate and have other qualifications.

c) A majority (80%) of the employees have more than 5 years of work experience.

### Results of testing of Hypothesis

Sl. No	Hypothesis& Objective	Test	Decision
1	(Objective-1)	Factor Analysis	Factor analysis identified a number of groups of interrelated variables for each aspect.
2	H2-The respondents are equally	Two sample – t– test	Ho is rejected and H1 is accepted for all aspects.

	satisfied by the CSR activities of both public and private corporate sectors. (Objective-1)		
3	H3- The beneficiaries of both public and private corporate sectors have perceived the legal aspects of CSR in the same way (Objective-2)	Two sample – t– test	Ho is accepted and H1 is rejected for the statement – “CSR is practiced by the business beyond the legal boundaries”
	H3- The perception of beneficiaries about legal aspects of CSR of both		Ho is accepted and H1 is rejected for the statements – “CSR is perceived as the process of brand building”; “CSR makes

			“The Company produces an annual report on the various CSR activities undertaken”.
	H4- (Age wise Analysis)	One-way ANOVA	Ho is accepted and H1 is rejected for the statements-“CSR policies are placed on the company’s official website”.
	H4- (Qualification wise Analysis)	One-way ANOVA	Ho is accepted and H1 is rejected for the statements – “CSR is perceived as a policy and philosophy of the organization”; “CSR policies is placed on the company’s official website”.

4	both public and private corporate sectors remain same irrespective of their demographic profile. <b>(Objective-2)</b>  H4-( Gender wise Analysis)	One-way ANOVA	information more transparent in institutional environment”; CSR policies are placed on the company’s official website”; “The Company produces an annual report on the various CSR activities undertaken”. In case of gender wise analysis.
	H4- (Marital status wise Analysis)	One-way ANOVA	Ho is accepted and H1 is rejected for the statements– “CSR is perceived as the process of brand building”;“CSR makes information more transparent in institutional environment”; CSR policies are placed on the company’s official website”;

6	<b>(Objective-4)</b>	Factor Analysis	The hypothesis is accepted. Factor analysis identified a number of groups of interrelated variables for public and private corporate sectors.
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**Limitations of the Study:**

Each social research is subject to certain limitation. So this piece of work is not an exception. The limitations of this study include:

	H4- (Work experience wise Analysis)	One-way ANOVA	Ho is accepted and H1 is rejected for the statements–CSR is perceived as a policy and philosophy of the organization”; statement “CSR committee allocates money properly for different CSR purposes”; “CSR policies is placed on the company’s official website”.
5	H4- The respondents have perceived the common CSR practices of public and private corporate sectors in the similar manner. <b>(Objective-3)</b>	Two sample – t– test	Ho is rejected and H1 is accepted for the statement– “CSR looks at employee welfare activities”; “CSR increases profit potential in the long run” ; “CSR looks at Employee welfare activities”

4. The role of public and private corporate sector can be more expansive in the sanitation area that has been today’s government agenda. Corporate houses should also play an active role in ensuring that people use and maintain proper sanitization and can help the government as well as the society. This can only be achieved when these sectors starts working at the grassroots level.

5. The corporate giants these days tend to assess the client profiles with which they tend to indulge in business relations and thereafter, they devise the appropriate CSR programmes and plan their CSR activities accordingly so as to ensure that these activities tend to support their brand value effectively.

1) The use of four companies restricted in four districts has its own limitation in the results.



- 2) Limited sample may not represent the 100 percent accuracy.
- 3) Most of the questions were asked in Local languages and converted to English and that created the problem in understanding the results properly.
- 4) Level of satisfaction' is a relative term and in this regard the views of the beneficiaries' and employees are not accepted whole-heartedly.
- 5) Due to limitation of time and resources a full-length survey can't be made possible with a wider representation of data. In spite of these limitations attempts, have been made to make the study a scientific and reliable one.

### Recommendations and Suggestions:

The following suggestions are recommended for the study.

1. In Indian scenario CSR is increasing rapidly as companies had realized that, only enhancing the business and maximizing profit is not enough. Companies must do something to develop and build a healthy trustworthy relation with the community.
2. CSR is the evolution of the concept of social responsibilities of an individual running a business that impacts the society. Public corporate sectors should be more careful about their livelihood promotion activities and sports activities and the private corporate sectors should take care of the rural development activities as resulted from the study.
3. The companies should think beyond the sole purpose of profit maximization and should grow their conscious about their responsibility towards the society.
6. Private corporate sectors need to prioritize women and the minority group in the board of directors and should maintain transparency in financial reporting as identified by Factor analysis on different aspects of Corporate governance. Similarly, the public sectors need to emphasize on committee structure with the adjustments in light of changing conditions.
7. CSR can be simplified and defined as a corporate social obligation which is an automatic plan of action that enables an organization to be socially responsible to itself, its partners, and general society.
8. By rehearsing corporate social obligation, additionally called corporate citizenship, organizations can be aware of the sort of effect they are having on all parts of society including monetary, social, and ecological. As well a corporate entity must have a strong corporate governance policy for sustaining in the market and also to take part in CSR. It implies that, in the typical course of business, an organization is working in manners that upgrade society and nature, rather than contributing contrarily to them.

### Scope for Further Study

The present study is confined to cover CSR and corporate governance practices of selected manufacturing units of Odisha. The study is conducted at employees and non-employees to present comprehensive picture of CSR practices and developmental environment with respect to selected unit. Thus the selected unit that CSR practices which is in the sample units is to arrive at actionable recommendation. The scope of CSR is very wide. Research in behavioral sciences and the new trends of making knowledge between the employees and communities in the field of CSR activities has expanded the scope of CSR functions in the industries. The researcher has tried a lot to comply the legal consequence and the present practices with the satisfaction of beneficiaries at the bottom level implementation of the projects along with the governance system in practice followed by the employees. Any further study can be initiated with keeping the side of other expected activities by more strengthening the core committee at bottom level. hence the scope is more wide to study in the aspect of CSR relating to the activities in more changing environment not by marinating the traditional practices in all companies and can be included more number of companies in their studies by keeping governance stronger for better implementation effective actuation.

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# IMPACT OF BUSINESS ANALYTICS ON E-COMMERCE BUSINESS WITH REFERENCE TO RETAIL INDUSTRY

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**Abstract-** Business Analytics has been one of the most popular subjects in Marketing Management. The primary drivers of business analytics are the increase volumes of data, increased globalization & business complexity and increased speed of decision making for marketing managers & executives. Extensive data, statistical and quantitative analysis, explanatory and predictive models are used in business analytics to produce business decisions and subsequent actions. Telecommunication, financial services, and retail are just a few of the industries that have put the theoretical notion of business analytics to use in the past decade. This research reviewed the literature to examine how business analytics in customer-specific prediction algorithms, the use of a big data environment to analyze structured and unstructured data, and the implementation of cutting-edge recommendation systems and other cutting-edge IT tools in retail and e-commerce have impacted the speed and accuracy with which management can make decisions. Finally, it stated that only when the E-commerce firm engaged business analytics in their business strategy and built the core competences, could they realize the sustainable development in the data science era. It is beneficial for consumer experience without actual shopping. In general, recommender system is used to contact clients online and aid locating the correct items at right time at right location. Predictive analytics is a technique used in the field of marketing to foresee the actions of potential customers. Marketers may anticipate client needs and capitalize on opportunities for upselling and customer loyalty as well as early detection of market movements by analyzing demographic and psychographic data. The study is related to the assessment of use and usability of retail analytics to analyze the marketing mixes and their gaps to determine the right mix that can result to optimum sales. This model/framework would enable new researcher to do further research by using advance analytics in multiple domain/areas.

**Key words-** Business Analytics, E-Commerce, Big Data, Marketing Mix, Structure and Unstructured Data

## Introduction:

Data, statistical and quantitative analysis, models for explanation and prediction, and management based on hard evidence; these are all components of analytics. E-commerce companies and academic institutions have been racing to publicize their business strategies and models, and to provide analytics-based tools for supporting them, since since the industry's start. Effective marketing campaigns, revenue forecasting, sales and service automation, etc. are all made possible as a result.

The customers who shop at online stores browse for items, put them in their virtual shopping carts, and finally complete their purchases using an electronic commerce channel. Business analytics monitors the full customer experience,

from the moment a visitor lands on a website to the moment they make a purchase (including any payments made online). Also, it helps online marketing analytics where team works on bidding for ads on google or other websites. Product team generally work on satisfaction rate of a product for a customer, forecast of a sale of a product. The characteristics of business analytics are having an undeniable impact on several sectors, with e-commerce being a prime example. As new technologies emerge, e-commerce has the potential to boost economic growth, expand company prospects, higher level, and provide easier, more profitable entry into the market. Business analytics aids the e-commerce sector in managing the seven P's of marketing: people, process, place, price, and physical evidence. All these marketing forces to act in a balance way to provide maximum ROI to the firm. Following are the tangible benefits using analytics tool 1. Traffic - How many are visiting your Web site and their demographic data 2. Bounce Rate – How much time an user spend in visiting your site and which product page. 3. Source – Reference of Campaign/Promotion

using iPad, Mobile, Desktop or Laptop, 4. Purchasing Behavior and Pricing Mix etc.

**Marketing Mix:** The marketing mix is the collection of methods used by a business to increase awareness of its services or products in the marketplace. Price, product, promotion, and location are the four components of a standard marketing mix.

A product's price is the monetary worth that has been assigned to it. There are several direct and indirect elements that play a role, including manufacturing costs, the market segment targeted, the market's willingness to pay, supply and demand, and so on. There are a variety of pricing methods that may be used, and they all contribute to the larger goals of a company. One further way that pricing may be utilized to set a product apart and boost its reputation is as a boundary. What is being sold is called the "product." If the product doesn't function at least sufficiently, then no amount of effort put into the other parts of the marketing mix will assist.

**Place:** refers to the point of sale. The primary goal of any successful distribution or "place" strategy, regardless of industry, is to attract the attention of consumers and facilitate their ability to purchase the product. The ideal location is worth a lot to retailers. Actually, "location, location, location" is the holy grail of a successful retail enterprise.

The term "promotion" encompasses any and all efforts made to increase consumer and business awareness of a product or service. Promotional activities might take the form of online ads, recommendations from friends and family, newspaper coverage, trade incentives, commissions, and prizes, and so on. Consumer programs may also involve direct marketing, competitions with prizes, coupons, and sales.

Interactions between the marketing mix's constituent parts are inevitable. As a whole, they constitute the company's business strategy and, if executed properly, may lead to phenomenal success. It might take years for the company to recover if the situation is handled poorly. There has to be a great deal of knowledge and market research put into the marketing mix, as well as consultation with a wide range of parties, including consumers, business owners, manufacturers, and others.

Customer experience is the key to success for any business. Using business analytics through use of prediction algorithm, the online retail store display customer related

products and make suggestions based on consumer preferences using their interest and history.

## **Literature Review:**

With a predicted CAGR of 17.8 percent between 2019 and 2023, India will outpace all other countries in terms of e-commerce growth. When it comes to spending time online, shopping is a common pastime, and certain types of items are more popular than others. Given that the paper's focus is on how business analytics affects e-commerce, a sound basis of the effects of business analytics must be built in tandem with the ideas behind the marketing mix.

Business analytics has been around for a while, and several texts have examined its effects on the marketing mix since then. The potential of business analytics lies in its ability to provide real-time insights at the management and executive levels of a company, allowing for more effective corporate planning and decision-making. Consumers nowadays are always on the lookout for new and exciting offerings. Product, market, advertising, and pricing innovations are all possible. It's simpler to get into a new market, and business owners can assess how well their products are doing. Inadequate staffing and training of specialists is the primary barrier to corporate analytics, followed by difficulties with data amount and quality, such as market competition. Due to widespread consumer anxiety about the dissemination and misuse of their personal data, ensuring the safety of this data is a significant obstacle. To analyze data by collecting data from multiple sources is also a big challenge. Fraud detection during hawking e-commerce website is a major challenge again.

## **Research Methodology**

Quantitative Analysis to be used. To examine the connections between a dependent variable and a set of potential predictors, statisticians use regression analysis. Unknown parameters ( $\beta$ ), independent variables ( $X$ ), and a dependent variable ( $Y$ ) make up the bare bones of every regression model ( $Y$ ). This study allows for A/B testing and the use of the Regression Methodology. Quantitative analysis may make use of heat maps and cluster analysis. Cluster analysis is a useful data-mining method for businesses that need to segment their clientele, sales data, or any other set of variables into manageable pieces. Heatmap is effective because it can extract information from a website. It uses a dark-to-light color spectrum to show which elements of a web page get the most clicks or focus. The

hypothesis is tested by assigning a dark hue to the region where the user clicks the most and a bright hue to the region where the user clicks the least.

It is common practice in quantitative research to use regression analysis whenever there is a need to model and analyze a number of variables in relation to one another, where the model contains a dependent variable and one or more independent variables. Regression analysis, in its simplest form, is a statistical technique for investigating the links between a dependent variable and a set of potential predictors.

### Influences on E-Commerce through Big Data:

E-commerce business intelligence tools are helpful since they enable you to learn more about your purchase cycles, brand performances by category, effective supply chain management, analysis, and consumer habits. At the moment, Amazon.com, Alibaba, and eBay are the three biggest online marketplaces in terms of Big Data. Amazon.com first sold just books online, but it quickly expanded into other product categories including consumer electronics and household products. Amazon's product recommenders help the online retailer cater to the individual needs of each customer. Personalized products are made to order for each and every buyer (on a real time basis). With millions of customers and their data, this is a Big Data problem. Amazon use clustering algorithms and collaborative filtering to categorize consumers according to their preferences.

Over the past few years, the volumes of data generated by the internet have been increasing at a massive rate – this is the most significant example of big data. Big data is a generic term for datasets whose size exceeds the capacity of typical computer systems and therefore very different technical solutions are required in order to access, manage and analyze these sources. Looking beyond the internet, big data are continuously being generated in every industry where sensors, embedded microprocessors and other devices are being used to monitor behavior. Some instances of online and offline sources of big data are given in below table together with examples of their business applications. Bill Franks (2012) discusses the many opportunities that advanced analytics of big data can bring. This plan will achieve improvements in identified areas of marketing performance and establish confidence with stakeholders by generating real business results.

Source	Example application
Telematics – capturing vehicle journey information	Understanding driver risk; setting insurance premiums
Geolocated Twitter data	Measuring mobility
Online product searches and browsing	Targeting online advertising
Online abandoned shopping baskets	Targeting offers to complete purchases
Postings on social media websites	Early identification of product problems/faults
Text data from consumer comments	Measuring consumer sentiment about a company or product
Text data from insurance claims	Insurance fraud detection
Prices on supermarket web sites	Collecting prices for calculating consumer price indices
Time and location data from mobile phones	Location-based targeting
RFID <sup>[a]</sup> data in retail and manufacturing	Tracking items through the retail supply chain; stock control
Social network data in mobile phone industry	Identifying influential customers with high numbers of connections
Sensor data in engines and equipment	Fault diagnosis and correction

For example, big data could identify the customer's interest in a product, internal sources could quantify their ability to purchase, and geodemographics could describe their circumstances. Then a more tailored offer could be made to the prospective buyer. This will require an integration of big-data systems with conventional database technology, which the solution providers are well placed to provide.

### Influences on E-Commerce through Predictive Analysis

A predictive model is designed with a particular outcome in

### Examples of big-data sources and their business applications

Source	Example application
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Utility company smart reader readings	Network management; control of consumer consumption
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mind, in order to predict that target variable for each customer. This type of model is sometimes also known as directed. The campaign response model is one example of a predictive model. The following examples or situations where predictive model can be implemented.

### Marketing application

#### Business question

Customer recruitment from a prospect database Which prospects are most likely to purchase a product/service ? Cross-sell/up-sell campaign Who among Product X's buyers is most likely to also buy Product Y? Which existing Product Z buyers are most likely to make additional purchases of Product Z?

#### Next-best offer

When will each consumer most likely make a purchase of the following product/service?

#### Customer retention

Which customers are most likely to lapse or attrite? Customer lifecycle management How long before each customer becomes likely to lapse or attrite? **Win-back campaign**

Among your former customers, which ones would be most receptive to a win-back offer?

Customer future value or lifetime value When it comes to future purchases and profits, how much do you anticipate each client will be worth?

Figure 1.1 illustrates how a predictive model works, in the context of a model to identify which customers are most likely to purchase a product or service. There are three main steps in this example, which are described in turn below.

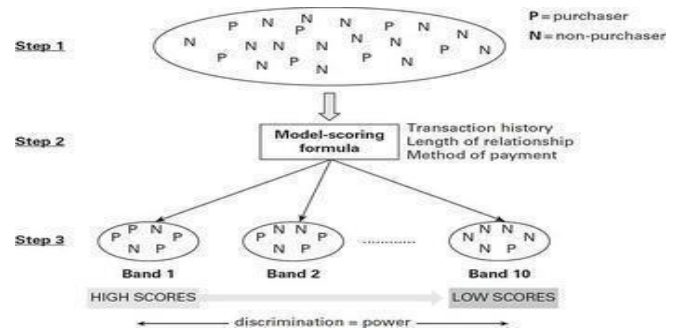


Figure 1.1: The role of a predictive model

**Step 1** Suppose that the company has carried out a marketing trial on a sample of its customers. For this group of people, the company knows whether each customer was a purchaser (P) or non-purchaser (N). In addition, a number of attributes are known for every customer, e.g. their length of relationship, previous transaction history, usual method of payment, and so on. These are the available predictor variables.

**Step 2** These pieces of information are examined by your analyst to produce a scorecard or scoring formula; the scorecard weights and combines the most useful variables to calculate a model score for each customer, such that purchasers are assigned high scores and non-purchasers receive low scores.

**Step 3** The list of customers is sorted from highest down to lowest model scores and is typically divided into 10 score bands based on this ranking. Your analyst then looks at band 1 (highest scores) and finds that it contains a high number of purchasers. Not everyone has purchased, but the purchase rate is perhaps three or four times the overall average. In band 2, the purchase rate is also well above average, but not quite as high as for band 1. Similarly, the purchase rate continues to decrease in subsequent bands – by band 10, the rate is very low; however, band 10 still contains a small number of people who made a purchase for some unknown reason.

To maximize the chances of reaching a goal, such increasing sales and revenue, marketing mix modeling use regression analysis and optimization to establish a "sweet spot" for marketing strategy implementation. The estimation of variable associations and the investigation of the impacts of particular variables on a target are two primary goals of regression analysis, which is a kind of statistical modeling. The goal of marketing mix modeling is to maximize the retailer's top line via strategic allocation of marketing resources (the variables).



The use of analytics allows stores to anticipate which consumers will depart and which will remain, allowing them to better serve both groups. When a store is aware of a customer's propensity to leave, they may either reduce their lifetime value (LTV) or increase it. The business can determine which customers are actually committed for the long run and how much value they will bring in. Spending on advertisements is mostly motivated by a company's most valued clients. If stores can identify their most important consumers, they may allocate their marketing resources more wisely. Alternatively, the store may take more of an active role in retaining this demographic. To encourage a longer-term commitment from a customer who often buys diapers, for instance, the store may provide discounts on children's clothes and other necessities.

Even if a store has little information on a new client, analytics may help them learn more about their preferences and shopping habits after a few interactions. Online and mobile site A/B testing provides valuable insight for shops looking to better understand their consumers and target certain demographics. Customers' clicks on information presented as a special offer or highlighted product category are recorded. The possibility that a new client will fall into a specific segment is calculated by collecting statistics linked to the customers who click on the material from both known and new customers. A site campaign may advertise an extra 20% off clearance, while another may feature a designer's newest collection. Visitors who take advantage of the 20% off clearance on their first visit are indicative of a subset of shoppers who are more inclined to respond favorably to discounts and sales than the general population.

## Evaluating Effects of an Online Promotion

An e-retailer analyzed its basket data to measure promotional buying behavior and evaluate one of its seasonal promotions. Each year, the Amazon, eBay ran various promotion across its range of products and evaluated the results in terms of meeting top-line financial targets. However, these results gave little insight into the types of customers who had taken part and contributed to a successful outcome. To achieve greater insights, the retailer developed a customer segmentation of its product shoppers, which identified few major shopper segments. The purchasing behaviors of these segments were then tracked before, during and after the promotion, to see how their buying patterns changed. The analysis demonstrated the benefits of taking a customer-centric approach to promotion evaluation. The results caused

the retailer to change their advertising strategy for future campaigns in these product categories. Business analytics helps to calculate the campaign investment and maximum ROI and top product categories.

## Measuring Availability of Products in Supermarkets

An e-retailer wished to develop a measure of product availability using its stock keeping units as a part transaction data. The classic problem with tracking sales of a specific product in a particular using online store is that zero sales will occur naturally and do not necessarily imply a problem with availability. A probability model was created in order to flag periods where zero sales were unlikely to have occurred by chance. This formed the basis for a credible measure of product availability and for deriving estimates of the sales that were lost during periods of non-availability.

MATLAB, R, SAS ANALYTICS PRO are the statistical package used for advance analytics area of study.

The American retail giant Walmart (or ASDA in the UK) is a household name across the world (The Center for Media Justice, 2013). E-commerce social networking startup Kosmix was acquired by Walmart in April 2011. Kosmix designed a program that monitors and analyzes social media platforms (including Twitter, Facebook, and Blog spots) in real time and reports back customized data to its users. Kosmix was also working on a knowledge base application dubbed "Social Genome," which would store and organize data pertaining to individuals, groups, organizations, places, things, and more. After Walmart's acquisition, the business became known as @Walmart Labs. The program known as Walmart Shopycat (or the "Social Genome") is constantly monitoring customer activity in the store. Through the use of business analytics, we were able to improve our sales figures by observing patterns in our clientele and adjusting our pricing structure accordingly. Management can make educated decisions about which promotions to run, how to promote to certain geographic areas, and how to efficiently distribute products to online stores, all thanks to the insights provided by predictive analytics. Avoiding stock-outs of high-demand items through the use of data-driven prediction.

## Influences on E-Commerce through New Technology and tool

Many e-commerce companies have branched out into analytics since the advent of business intelligence. Several well-known e-commerce platforms, like Amazon, Flipkart,

and e-Bay, have incorporated analytics into their long-term plans. Google Analytics is a tool inside the Google Marketing Platform brand that collects and reports website traffic data[1]. In November of 2005, Google introduced the feature to the world. Through the use of AI and Machine Learning, Pattern recognition and Neural Network, Amazon is able to take online quality decision in a quickest time. The approach is to innovate and automate is the key to success in the Industry which major fortune 500 companies are adopting now a days. This makes customer and retailer life easy. In 2011, Amazon.com revealed that Kindle books sold nearly hardcover books for the first time. Amazon has sold 115 Kindle books for each 100 paperbacks. As part of its "Buy Once, Read Anywhere" pitch, Amazon has made Kindle applications accessible for use on Apple iOS, Android, and PCs.

The use of analytics into E-commerce initiatives has been accelerated by many factors, including: 1) Consumer demand. Services in the realm of electronic commerce (e-commerce) are always evolving to keep up with the ever-increasing demands placed upon them by consumers and businesses alike. The largest online retailer, Amazon, for instance, has amassed a \$135 billion annual revenue thanks in large part to this strategy. Amazon has developed greatly since its inception in 1995. When looking at income per visitor, Amazon has done quite well. In terms of income gained from new customers, Amazon has surpassed even eBay. Kindle e-readers, Fire tablets, smartphones, and televisions, Echo (with the Alexa AI voice-assistant), food delivery, Amazon Fashion, and growth to the business-oriented Amazon Web Services are all examples of recent hardware- and service-focused business model improvements (AWS). Amazon Prime is a yearly membership program that provides free two-day delivery on all purchases and, more recently, has expanded into a media service providing unrestricted instant streaming of thousands of movies and TV episodes.

Cloud computing can also benefit organizations, industries, and economies by:

- a) Helping businesses better meet the needs of their customers by facilitating the effective collaboration of software engineers all over the world who have access to the same robust computing resources that the business relies on.
- b) Providing businesses with the data-analytics tools they need to keep up with their consumers' ever-shifting wants and demands in a ruthlessly competitive market.

- c) Making it so that businesses of all sizes may get a competitive advantage from data that was previously available only to the largest of businesses.

- d) Assisting economies to evolve to greater levels of technical development by providing quick and affordable access to infrastructure, tools, and applications.

With the technology adoption the Campaign & Lead Management, Product Management and Pricing Changes, Forecasting of Revenue, Knowledge Management, Collaboration among various Communities (Buyer and Seller) are becoming easy to achieve the sales and service goals.

## Conclusions

There has been a tremendous expansion in online trade over the last two decades. Because of the Internet, businesses can reach a wider variety of consumers than ever before. Furthermore, consumers have discovered that e-commerce is a convenient channel for learning about and buying goods and services. Since the advent of e-commerce, there has been continuous change, and this trend will only continue. If businesses do not recognize the significance of these shifts or make the necessary adjustments, they will miss out on the benefits of e-business. Since its introduction in 1990, the World Wide Web has been around for over 30 years. The world of e-commerce has presented us with a series of unexpected opportunities. There is little question that we are staring down another another wave of cutting-edge technology and the accompanying enterprise software and services. To manage, incorporate, leverage, and reap the benefits of them, new norms, rules, regulations, and laws will be drafted.

By keeping abreast of these developments in e-commerce, company owners may better position themselves for success, while consumers can anticipate improved ease, satisfaction, and safety when making purchases over the Internet. Big data's abundance of quantitative information is useful not only for marketing and sales, but also for gaining insight into customers' online purchasing habits; for instance, it may reveal which devices consumers like for online shopping and whether they use corporate applications or web browsers. Companies' ability to generate sales via mobile devices has become more essential in recent years. A seller's ability to offer engaging, enjoyable experiences for mobile shoppers is directly correlated with their mastery of mobile purchasing. Most often, recommendation algorithms may be found on e-

commerce websites, where they are used to compile a personalized list of products for a user based on their browsing history and stated preferences. Despite the fact that many apps only employ products purchased and openly rated by customers to reflect their interests, additional qualities such as items seen, demographic data, topic interests, and favorite musicians may also be used.

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# **FREELANCING: AN OPPORTUNITY FOR HOUSEWIVES IN INDIA**

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**Abstract-** India has a large youth population. Many educated women work as housewife for full time. Many of them want earn money to help the family. Due to various constraints, it is not possible to do an office job for most housewives. Freelancing is a good opportunity for the housewives in India. Freelancing can be done by any educated housewife as per her convenient time. Freelancing pays well and the revenue can be increased or decreased as per work load. This paper highlights various freelancing opportunities available in India which can be utilized by housewives.

**Key words-** Freelancing in India, Freelancing Opportunities for Indian Housewives

India has a huge population. Approximately 717 million are male and 663 million are female (1). The share of working women is 36% and share of working men in 64% in total working people (2). India has unemployment rate of 6.9% in 2021 (3). There is significant unemployment among youth. The unemployment rate is increased among female in India as compare to male (4). Females are getting education. Due to unemployment in job market, family responsibilities, time constraint etc. reasons many females are not doing jobs. This is leading to educated unemployment problem in society. Many women who are working as housewives are willing to work in a job but they don't find any suitable opportunity.

This problem can be solved by providing work from home opportunities, freelancing opportunities etc. to housewives. Work from home jobs can be done from home but it requires dedicated time for it. Freelancing can be done from home and at the convenient time. It also pays decent money. So, freelancing opportunity is most suitable for housewives.

This research paper focuses on finding and analyzing various freelancing opportunities which can be useful and suitable for Housewives in India.

## **Literature Review**

- A. Valliami, D. Savithri (2020) have studied the unemployment problem faced by educated women in Nagapattinam area. The unemployment problem is in the society due to non-availability of jobs, tough competition for jobs, availability of temporary jobs, lack of future scope etc.

Self-employment opportunity should be considered to fight with unemployment (4).

- Galpaya, Helani; Senanayake, Laleema (2018) discussed about potential of freelancing opportunity at developing countries like India, Sri Lanka, Myanmar. The developed countries are exporting their work to developing countries to take advantage of lower prices. Technological development is medium for this. The study focuses on various freelancing opportunities like data entry, professional services, creative, sales support, marketing support, software development, writing jobs etc. and the expected remuneration from it. (5)

- Fabian Stephany, Otto Kässi, Uma Rani, Vili Lehdonvirta (2021) discussed about the new ways which can be used for measuring freelancing market. India, Bangladesh and Pakistan are popular outsourcing destinations because the workforce in these countries has strong technical and English communication skill. 39% of the freelancing work is done by female freelancers in world. (6)

## **Objectives**

- To understand the concept of Freelancing
- To understand benefits of Freelancing & suitability for housewives
- To identify & study various freelancing opportunities available for Indian housewives

## **Research Methodology**



This is a secondary research where researchers have collected the knowledge about the subject from various secondary sources like research papers, websites and videos etc. Researchers tried to explore the various methods of freelancing through the research.

## Freelancing

Freelancing is a working opportunity where people work as an individual or individual company instead of working as an employee of a company.

Freelancers are people who are hired by companies on short term basis. Freelancers are hired by companies for particular projects whenever needed (7).

The freelancing opportunities are continuously growing as it is beneficial for companies and freelancers both. People are attracted to freelancing because of happy lifestyle, work satisfaction, freedom etc. (8)

Freelancing can be done in the area which is known to the person. If a woman has got education, work experience in any field or specialization then she can work as a freelancer in that area. If a woman has no formal education or work experience then she can learn some simple skills which are in demand and start working as a freelancer. **Advantages of Freelancing**

Freelancing has various advantages like freedom of work time, freedom of being own boss, freedom of choosing work etc. Following are various advantages of freelancing for Indian housewives.

- 1) The freelancing has extensive range of jobs which Indian women can do. It ranges from various non-technical tasks which anyone can do to high tech jobs.
- 2) Freelancing provides flexibility. Women can do the freelancing job as per their convenience.
- 3) Freelancing brings the joy of work. The main advantage of freelancing is that the freelancers do the only task which is liked by them.
- 4) Freelancing give good income opportunities to Indian women. Freelancing gigs generally provide the remuneration in dollar or other international currency. This gives a good chance to Indian women to earn decent money to help their family.

5) Freelancers can dedicate proper time for their family. The time flexibility will help women to fulfill their personal and family responsibilities properly. (9)

6) Freelancing gives an opportunity of becoming the own boss (10).

7) Educational qualification, work experience etc. are mostly not required to work as a freelancer. Knowledge or skill is sufficient.

## Platforms for Freelancing

Various freelancing platforms are available. Freelancers can join on these platforms and start working on freelancing gigs. Following are few important freelancing platforms today.

- 1) Upwork.com
- 2) Fiverr.com
- 3) Freelancer.com
- 4) Toptal.com
- 5) Guru.com (11)
- 6) Flexjobs.com
- 7) Simplyhired.com
- 8) PeoplePerHour.com (12)

## Freelancing Opportunities

Various categories of freelancing opportunities are available on platforms discussed earlier. Following are categories of freelancing opportunities generally available on any platform.

- 1) Graphics & Design – This includes designing work like logo design, illustrations, packaging design, brochure design, flyer design, book design, app design, website design, social media design, email design invitation design etc.
- 2) Digital Marketing – This includes search engine optimization (SEO), content writing, social media marketing (SMM), email marketing, podcast marketing, website development, app marketing, affiliate marketing, eBook marketing etc.
- 3) Writing & Translation – This category includes blogs writing, article writing, translation work, website content writing, profile writing, social media copy writing, ad copy writing, email copy writing, speech writing, transcripts etc.

4) Video & Animation – This category includes video editing, animation video making, white board video making, intros & Outros making, unboxing videos, eLearning videos, Slideshow videos etc.

5) Music & Audio - This includes voice over for videos, audio editing, podcast editing, audio ads production, intros, audiobook creation, jingles, music transcription etc.

6) Technology & Programming - This category includes website building, wordpress, game development, app development, online coding lessons, Chabot development, support etc.

7) Business - This category includes virtual assistance, e-commerce, customer care, market research, business plan writing, HR consulting, legal consulting, lead generation, career counseling, project management etc.

8) Lifestyle - This category includes fitness training, life coaching, modeling, personal styling, modeling, acting, etc.

9) Data - This category includes database management, data analytics, data processing, data entry, data visualization etc.

(13)

Every freelancing platform generally has these categories with same or similar names. It is not necessary to know each and everything about the categories.

Housewives can select any one category and particular work in that category. The work should be related to their area of education, experience, interest etc. It is necessary to register on the freelancing platforms. Registration is free on most of the platforms. After successful registration on the platform, profile needs to be created. Profile should have basic information with some evidences of earlier work.

People/companies wanting to outsource their work will come on the freelancing platforms; they will analyze various profiles of freelancers and outsource the work to a suitable freelancer.

It can be initially difficult to get first few orders/freelancing jobs as most of the outsourcing companies look for experience freelancers. Freelancers can work at minimum wage, give more than expected work, provide free additional services etc. to attract more freelancing opportunities in the initial days. Once the freelancer become experience & get

the good reviews on the platform then the work will come automatically.

## Conclusion

Freelancing is an ongoing & raising opportunity. Freelancing has a bright future. Housewives can grab this opportunity as it has various advantages like time convenience, flexibility, good income opportunity etc. Freelancing provides an opportunity to housewives to earn income while focusing on the family responsibilities and working as per their convenience. So, freelancing is a really good opportunity for housewives.

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operation control to the suppliers (Parsa & Lankford, 1999). This method of operation becomes imperative when an organisation/company seeks to reduce cost and specialise only in core areas (McIvor, 2010). The responsibility of services is passed onto a company called the 'service provider' or a 'third-party (3P)'. The 3P controls hiring and training the staff and the logistics involved. Usually, tasks such as legal, technological, human resource, and customer care, among others, are outsourced.

The hotel has internal staff. These are those staff that are hired and trained by the hotel. They take care of the internal (rooms, lobby, etc.) and external (public areas) cleanliness. The responsibility of this department is mammoth as it involves the cleanliness and maintenances of the entire hotel. Therefore, hiring staff and maintaining them is an additional responsibility.

Furthermore, the training of the staff is a steady job as either

## POST-PANDEMIC BUSINESS STRATEGIES: OUTSOURCING SERVICES IN HOTELS WITH A FOCUS ON THE HOUSEKEEPING DEPARTMENT

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**Abstract-** The hotel industry experienced a setback during the pandemic. This created a demand for innovative strategies to combat business loss and intensify profit. Outsourcing or third-party partner is a common strategy employed in the hotel industry for specific departments like outdoor cleaning, catering, etc. The following research aims to understand the trajectory of outsourcing in India while considering the new requirements of the industry. Through a combination of survey and secondary source reading, the paper establishes the trend of outsourcing as a business strategy in the post pandemic hotel industry. The paper takes into account the transactional cost economics and the emergence of innovative hotel ventures like Airbnb. Furthermore, it accounts for the feasibility of the same by looking at the merits and demerits of the model. Lastly, through a specialised focus on the housekeeping department the research aims at understanding outsourcing as a means to meet the ends in the hotel industry. The research opens up scope to explore the differential trends in business models and how outsourcing is used by alternative hotel ventures like spa resorts and small-scale hotels.

**Key words-** Outsourcing, post pandemic strategies, housekeeping

### Introduction

**Definitions** Outsourcing refers to how a company/organisation hires another company/organisation to perform its services. This method usually involves transferring

the trends change or situational pressure forces changes. Therefore, the internal staff may also be hired on a contract basis, but this does not account for outsourcing as outsourcing requires the presence of a service provider or 3P.

### Literature Review

Outsourcing is a usual practice in hotels. Departments like laundry and catering are often outsourced to increase efficiency and ensure cost balance. Besides this, some studies have emphasised the need to achieve "best practice" by looking at the competencies of the service provider (Kakabadse & Kakabadse, 2002). Additionally, a resource-based view (R.B.V.) where outsourced services need to be put through a formal resource requirement analysis (Barney, 2001). This would allow the hotel to focus on its core competencies (Snell & Lepak, 1999).

However, outsourcing is a more complex phenomenon in the hotel industry as it influences the perceived image of a hotel (King & Hemmington, 2000).

Lamminmaki (2011) explored this aspect in the "An examination of factors motivating hotel outsourcing" paper. By taking the help of the Transaction cost economics theory (T.C.E. theory), agency theory, and general outsourcing literature, they tried to draw important motivators that push for outsourcing (Lamminmaki, 2011). Rob Williamson proposed the T.C.E. theory. He stated that the best model for an organisation would be a structure that achieves economic efficiency by minimising the cost of exchange (Young, 2013). Here transaction meant the transfer of goods and services. According to this model, internalising the transaction should be optimal if the transaction cost is high. If the transaction cost is low, buying the goods and services from the market is the optimal option (Argote & Greve, 2015). The agency theory, on the other hand, deals with an analysis of problems and solutions that can arise between agents (managers) and principles (shareholders) (Foss & Linder, 2015). By combining these theories with literature on outsourcing, the author came up with twenty motives for/against outsourcing.

The motives are as follows (Lamminmaki, 2011)- the three motives for insourcing included- timing and coordination, reputation, and core activities. The three motives for outsourcing include- flexibility, savings, and capital outlay avoidance.

Hemmington and King (2000) conducted semi-structured interviews to determine the elements or dimensions that influence the outsourcing within the food and beverage industry (F & B). The study bases its background on the obsolete nature of food and beverage products within the hotel because there has been a rapid rise in independent restaurants (Hensdill, 1996). Based on this background, they

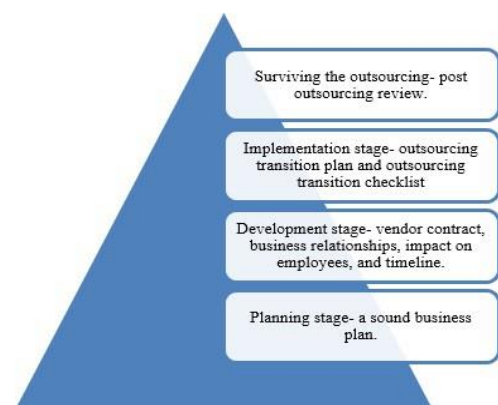
aimed to understand the dimensions that influenced outsourcing in the F & B industry.

The critical dimensions included- core competencies, brand compatibility, organisational culture, operational tension, review systems, evaluation and control (King & Hemmington, 2000). Based on the interviews, they found that problems in hotels can be linked to managing core competencies, and therefore, many hotels have moved away from insourcing these competencies (King & Hemmington, 2000). The expansion of hotels also challenges co-branding; outsourcing is an effective solution (Strate & Rappole, 1997). Another dimension that acts as a problematic issue is the work culture of the hotel and the hotelier (King & Hemmington, 2000; Strate & Rappole, 1997). This is often difficult to change and poses a challenge during outsourcing. The lack of a proper system in place and the influence of workplace tension were seen as additional risk dimensions (Boone, 1997). The last dimension that King and Hemmington pointed out was evaluation and control. This included the need to create a shared understanding of quality between the service provider and the hotel (King & Hemmington, 2000).

One factor often repeated by researchers is the ambiguity in the process of outsourcing. Therefore, Zhu et al. (2001) developed a structure for outsourcing based on four stages of outsourcing. These stages included- planning, developing, implementing and evaluation (Zhu et al., 2001).

Figure 1

Stages involved in Outsourcing (Zhu et al., 2001)



The authors included the "blue money" or transactions made within a company during the construction of a business plan. The other variables that need to be accounted for include- customer service, the impact on the community, employee

benefits, and potential political consequences (Zhu et al., 2001).

The contract is an important part which is accounted for in the development stage (Deckelman, 1998). The agreement should include the specification and agree upon by both parties. The business relationship between the two parties- the service provider and the hotel should be clear of any ambiguities. The outsourcing would also involve downsizing employees. One way to make this transaction smooth is to create an "employee separation" plan (Zhu et al., 2001; Kemery et al., 1989). Lastly, during this stage, the communication or the means/way in which information would be transmitted is also decided upon. Based on all these factors, the timeline is decided.

According to Zhu et al., the outsourcing transition plan and checklist are created during the implementation stage. Moreover, for the last step, an evaluation is done of the effectiveness of the outsourcing. The process of outsourcing is elaborated upon by other authors as well. Woodall et al. (2009) included other essential variables, such as the skill set required for the specific work. They focused on the variables other than cost benefits, such as the workplace culture and the management decisions (Woodall et al., 2009).

## Methodology

### Area of Selection

The study will focus on the impact of outsourcing on the housekeeping industry. Through the study, we aim to understand the trends regarding outsourcing. Additionally, it looks to evaluate outsourcing in contrast to internal staff. The focus of the study would be the housekeeping department. This study area is growing in utility as hotels look to minimise their cost and increase efficiency. The research aims to understand the process of outsourcing, assess the risk-benefit of the same, and focus on the question of a shift in trend. The emphasis is on the housekeeping department. In order to achieve these aims, the research employs a mixed methodology where the qualitative and quantitative approaches are used.

### Sample Selection for the Opinion Survey

The sample focuses on the hotelier community as the study aims to understand the outsourcing process or prevalence of outsourcing in Hotels. Therefore, the sample would include people who are hotel management professionals, professors, and students. This will provide additional insight into the process from the community's perspective. These criteria

allow an understanding of the opinion of individuals who have either witnessed outsourcing or have studied it. Additionally, this will help trace whether there has been a change in trend.

### Data Collection

The study will include primary and secondary data. The primary data will be collected through a questionnaire (google form) (appendix 1). The sample description includes individuals studying hotel management or has worked in hotels. The secondary data would involve a review of outsourcing literature. This will help understand the risk-benefit analysis, variables involved in the process, and the difference between outsourcing and insourcing. Through the case study methodology, the housekeeping department would form the focus of the research.

### Sample Size

The sample size will for the primary data include 20 responses. As it will focus on the housekeeping hoteliers. The data will be filtered to ensure only those who fit the criteria fill the questionnaire.

### Analysis and Interpretation

The primary data collected would be analysed through narrative analysis. Participants who do not fall within the criteria would be filtered out in the initial steps. The other participants would take the questionnaire voluntarily, their identities will not be recorded, and the researcher will only handle the data. The secondary data will be incorporated through case study methodology, thematic analysis, and critical analysis.

### Result and Discussion

#### Areas Where Outsourcing Can Take Place

Outsourcing in hotels is usually used in the aligning departments. This is usually because it allows the hotel to focus on its core competencies (Gonzalez et al., 2010). We found that most hoteliers recommend laundry/cleaning, horticulture, pest control, specialised cuisines/bar, and housekeeping for outsourcing through a survey conducted. This further drives the point that outsourcing allows for an additional focus on core competencies. According to Lamminmaki (2001), the three critical motivating factors for outsourcing are- flexibility, savings and capital, and outlay



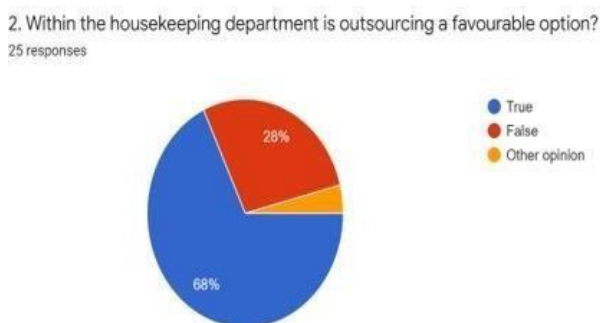
advantage. The departments mentioned fulfilling all of these motivating factors.

Besides capital and saving, it also allows the hotel to use a specific skill set required for the work to be done efficiently. This is an additional criteria/motivating factor considered when departments are selected for outsourcing (Hodari et al., 2014; Lamminmaki, Why do hotels outsource? An investigation using asset specificity, 2005). Therefore, as indicated in the questionnaire, departments like specialised cuisines (ex.- Korean, Japanese, etc.) and horticulture, among others, require asset specificity, which makes them more efficient when outsourced. This does not mean that a linear, positive relationship exists between asset specificity and outsourcing. Instead, asset specificity acts as a variable that moderates the relationship between outsourcing and using a competitive strategy (Espino-Rodríguez & Lai, 2014; Vita et al., 2011).

## Outsourcing in the Housekeeping Department

As observed in the survey collected, housekeeping is one of the departments suggested by hoteliers for outsourcing. When the participants were asked if housekeeping is a favourable department for outsourcing, the data was as follows (fig 2).

Figure 2 Survey result of outsourced housekeeping



This reflects that a significant majority believes that it is a favourable option. Some of the reasons for this include (Carbone, n.d.)-

- The process of recruiting individuals is simplified. It also reduces training costs (Tyagi & Zagade, 2015).
- It can help reduce organisational risk as the third party is responsible for the staff. It can also extract the

potential present in the local population, which the hotels might be oblivious towards.

- Cost-benefit is an additional benefit as the staff can be hired on a contractual basis.

Besides the positive, there is a minority who believe that it is not a preferable option to outsource the housekeeping department. The reasons for this could include-

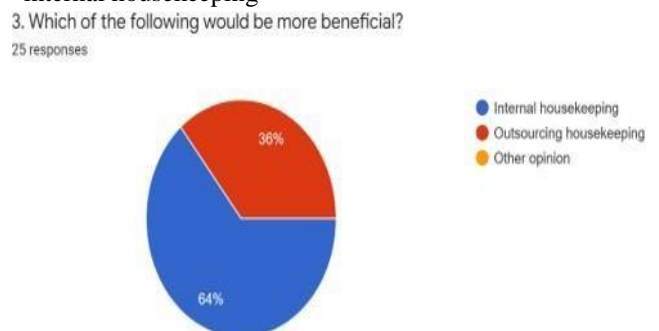
- There needs to be clear communication between the hotel and the third party (Hemington & King, 2000). In the absence of this, there could be misunderstandings and shortcomings in the work done.
- The hotel would lose control over the quality of work and other details.
- The brand image of the third party will influence that of the hotel.

These reasons are some that have been mentioned in the outsourcing literature as primary considerations while outsourcing the housekeeping department.

## Outsourcing and Insourcing

Although outsourcing is a popular trend, most prefer insourcing over outsourcing (figure 3).

Figure 3 Survey results on outsourced housekeeping and internal housekeeping



Insourcing refers to using internal staff, which lies in contrast to outsourcing. Within hotels, insourcing involves the internal housekeeping staff. Insourcing is generally used when the delivery of the venture is asset-specific and more challenging to manage (Warner & Hefetz, 2012; Vita et al., 2011; Espino- Rodríguez & Lai, 2014). Additionally, contract monitoring in the case of outsourcing services

should be kept in mind, which often proves to be a difficult task (Marvel & Marvel, 2007). Internal housekeeping is often a matter of pride for the hotel. It also allows the hotel to retain complete control over the process. Therefore, "consistent quality service, dedication, sincerity, honesty" can be achieved when internal housekeeping is used (Pesonen, 2015).

In contrast, outsourcing is often used in the case of tasks that the hotel's core competencies. It allows the hotel to provide excellent guest satisfaction by focusing on its strengths. Therefore, certain hotels like Holiday Club Saimaa, Imatra Spa, and Original Sokos hotel Lapee, among others, use outsourcing in the housekeeping department to focus on their core competencies like a spa. Therefore, outsourcing is used in luxury hotels and hotels busy during a specific period (Pesonen, 2015).

**Risks and Benefits of Outsourcing Based on Secondary Data Analysis**

The risks and benefits data analysis are given below (figure 4).

Figure 4 Risks and benefits of outsourcing

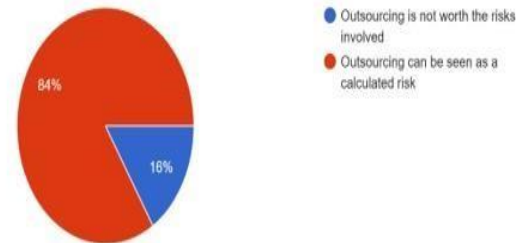


**Trend of Outsourcing**

The survey found that outsourcing is increasingly seen as a calculable risk by the hoteliers (figure 5). This means they are looking to opt for outsourcing if their motivations and needs align.

Figure 5 Survey results on the risks of outsourcing

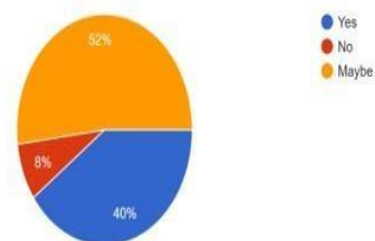
5. Which of the following would you say is true?  
25 responses



However, at the same time, there is an increasing hesitation to suggest outsourcing in the working of hotels in India (figure 6). This could hint toward the risk/benefit analysis. India increasingly has small budget hotels that focus on only a few competencies. In such cases, outsourcing is often too much of a risk. On the other hand, large hotel ventures like luxury hotel chains engage in outsourcing (Vora, 2012; Philip, 2006). This shows no relationship between the benefits of outsourcing and opts for outsourcing in hotels. Therefore, the null hypothesis stands true.

Figure 6 Survey results on the trend of outsourcing in India  
**Conclusion**

6. If you were the part of a Hotel management team then would you suggest using a service provider?  
25 responses



The study aimed to understand the trend of outsourcing in India. The null hypothesis is established through data analysis as there is no relationship between the benefits of outsourcing and opting for outsourcing within the hotel industry. The data collected found that the trend is still on the down low, but luxury hotel brands like Taj are engaging in outsourcing. This further drives the point that outsourcing can be seen as a calculable risk, especially in cases where the hotel can afford to shed their aligning tasks for their core competencies. The study also focused on the housekeeping department, where outsourcing was seen unfavourably as

housekeeping is a core competency by the hoteliers. Lastly, through a risk/benefit analysis, the study aimed to portray a complete picture of outsourcing in the hotel industry.

## Recommendations and Suggestions

The study gives scope for further research, especially in the Indian context. With the advent of low budget hotels like Airbnb and Oyo, outsourcing can be effectively utilised as these hotels often lack asset specificity. Therefore, the study allows further research and data collection in outsourcing within the hotel industry.

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content marketing, chat bots, Search engine optimization, progressive web apps, predicted and augmented analytics, geo fencing technology, block chain technology, quantum computing, big data, Google Ads, 5G Technology, IOT (Internet of things), neuromarketing, micro moments, data analytics etc. have come up with flying colors. There is tremendous change in the marketing processes due to this digital disruption. New technologies have come up which help in marketing and advertising of the products. New communication technologies have made it easy to do communication and to contact the customers.

### Objectives:

To study new trends of Digital Marketing

To study digital marketing disruption To find the benefits and losses of digital disruption.

Research Methodology:

Type of Research used is Descriptive Research

## DIGITAL DISRUPTION IN MARKETING A KEY TO ECONOMIC PROGRESS

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**Abstract-** Digital Disruption has led the world to economic progress. Economic agents like time, resources and invention help in the process of economic progress. The internet technology is flexible enough and its form is not fixed. Use of internet is done in order to create value where internet can be used with some communication technologies, TCP/IP protocols and networking standards between computers. There is change in organizational processes along with the use of these technologies. Economic policy will be derived to help use of internet by commercial users. Use of internet by commercial firms will help internet in increasing its impact on the economic policy. New mobile apps, various software packages and social media platforms are available in this new era which has made tremendous change in the technology.

**Key words-** Digital, disruption, internet, technology, software, economic progress

### Introduction

New digital devices, apps and technologies are changing the face of communication as well as marketing. Organizations should be ready enough to face this disruption. Organizational employees should be trained for this disruption. New technologies like Artificial Intelligence,

Data Collection Method Used: Secondary data collection method is used. The data is obtained from internet, books, research papers and journals.

### Literature Review

According to Ray Wang digital disruption is not much technology driven but it helps in transforming business models. For surviving in the competition one has to update with the new trends. Inability to do so will lead to failure.

Various trends which are shaping the world are – 1) analytics 2) paid digital advertising 3) personalization 4) marketing automation 5) big data 6) marketing etc.[1]

Online reviews are important for the customers. Positive reviews help customer in choosing that product. Good reviews help us know the product is accepted socially. Word of mouth helps in building better image of the product. The companies like Uber, Amazon and Airbnb are impacted the most due to this word of mouth. Positive reviews of BrightLocal, a marketing platform has helped 68% customers to choose the product. Industries like Travel industry has changed due to client opinions. This has impacted the most on B2B firms. A study carried out in 2014 revealed that online reviews are making the whole change in B2B procurement. Online reviews are trusted the most. Rich travellers trust the reviews of the same class of people. [2]

Customers nowadays search for new products information online, use social and digital media for the same and use the same information for final purchasing of the product. Owing to this consumer behavior marketers should also be there for selling their product online on social media. Communication has become easy due to social media, mobile apps and web technologies. New types of marketing have come up like content marketing, video marketing, email marketing, affiliate marketing, social media marketing, search engine optimization. Digital marketing helps in reaching and informing the customers. Technological advances have changed totally the consumer behavior. Use of hand held device like mobile has changed the total interaction of the customers, relatives and friends. Social media is used to make decisions and for shopping online. Digital marketing and social media has increased consumers online shopping interests with the increase in the e-commerce organizations. With the increase in the online shopping channels consumer is getting used to the online shopping experience. Growing use of mobile has increased with the use of mobile apps and wallets, shopping apps and location based services. Organizations are using various tools to collect online data using social media and various channels for communication with the use of Machine learning analytical tools. These technologies will help the organizations to improve their brand image and to find enhanced sales promotion targets. At the same time users will be getting personalized incentives and will be able to find appropriate EWOM communications.

[3]

Digital marketing trends have been described by Dr. Madhu

Bala, Assistant Professor, DAV College of Girls, Yamuna Nagar, Haryana and Mr. Deepak Verma, Senior Manager, ISGEC Heavy Engineering Limited, Yamuna Nagar, Haryana in their research paper. They have also explained advertising and marketing techniques which are based on digital marketing in their research paper has described various trends of digital marketing in their research paper titled “A critical Review of Digital Marketing in the international journal of Management, IT and Engineering. Digital marketing has given rise to new opportunities for the government & corporate world. For getting success in the digital world one should have characteristics like navigation, speed and accessibility. Communication and active participation on the social media is required to be successful in the digital world. Website popularity is important to be successful in the digital world. Blog writing can increase sales revenue. New technologies like analytics, Internet of Things, big data, 3-D printing, artificial intelligence, cloud computing, Consumer Neuroscience (Neuro marketing) are the areas which make digital marketing powerful. In this research paper they have also explained how powerful is internet. Internet has made it possible to achieve the following -1) Cashless biggest bank (Bitcoins) 2) most popular media owner without creating any content (Facebook) 3) Real estate company without any inventory (Amazon, AliBaba) 4) accommodation provider without any real estate (airbnb, booking.com) 4) taxi company without owning any vehicle (Uber).[4]

Technological advances have changed the process of marketing. Digital tools such as mobile, laptop has changed consumer behavior as well as marketing processes. This research paper discusses the technologies responsible for this disruption. Marketers should use new technologies in order to be successful in the digital world.

**Digital marketing** is a set of marketing processes which uses all available digital channels to promote a product or service. It has replaced traditional marketing. It has changed transition from paper and newspaper ads to Facebook and PPC campaigns.



[5]The channels that make up digital marketing include Website marketing, Social media platforms, Banner placement, email marketing, mobile marketing, SEO, pay per click campaigns, Web TV, SMS, billboards and anything else with a digital foundation

**Digital disruption is possible due to technologies such as –**

### Artificial Intelligence

The use of artificial intelligence is done in large outdoor areas and patrol parking for preventing crime. Consumer behavior patterns can be detected with the use of AI technology. It will also help you gather data from blogs and social media platforms for getting the customers and to advertise the products and services. AI helps influencer marketers to get good return on investment. AI can also be used for -1) sending personalized Emails 2) Basic Communication 3) E- commerce transactions 4) creation of contents 5) recommendations of products AI is also used for automation to retain the customers. AI can also help in improving voice search queries, to find the leads, for reducing rate of cart cancellation, finding problems in sales & measure marketing campaign performance. AI has changed the face of total marketing campaigns and has speed up the work by saving cost.

### Programmatic Advertising

Specific class of audience can be targeted to obtain higher conversion rates and to save cost. These ads can be changed depending upon life style, location and habits and also can be converted into personalized ads.

### Chat bots

This is an instant messaging technology for chatting with the customers at any time anywhere. Most of the customer service is done by chat bots. Customers prefer to use chat bots for inquiry to the businesses. For example Lyft is a

rideshare brand which uses chat bots for requesting and choosing type of ride and to know the location of the car. This technology has provided comfort and has raised life style of the customers.[6]

### Search Engine Optimization:

Marketers can change the web contents for best response of the search engine. This web contents respond well to the customer search. Web content may contain educational material, images and videos. Various strategies are used for SEO by changing SEO algorithm. [7] Analysis & testing can help find keywords which will be searched by the customer. Clickflow Software will help in setting CTR value and will suggest new keywords which may be searched by the customer. SEO categorizes the data to convert it into structured format will be used for searching the information. This type of data can display images, pricing and review status and for generating Rich Snippet used for driving clicks for mobiles and is reach in business information. For search engines like Google, Bing the optimization can be done for improving the website visitors.

### Progressive Web Apps (PWAs)

These apps are nothing but websites which can be operated using multiple platforms like Android or iOS. They provide the user with facilities like push notifications, fast loading, use of device hardware and working offline. This helps in developing web apps similar to mobile apps. There is growth in PWA use with the use of mobile. These web apps can be used for visual search. Two websites are mainly used for this search – 1) Pinterest Lens 2) Google Lens

### Voice search

This new technology which is also known as “SERP position zero” has made the search even easier. Just by speaking some words on the mobile speaker instead of typing search can be carried out. Alexa is voice search software which is used for user commands and queries. Brand awareness can be used for optimizing voice search. It helps marketers for optimization of web pages. For high level of commitment and intimacy voice marketing funnels are used. Funnels convert listeners to email list. Funnel can be used at the individual level. Funnel directly interacts with the customer. Marketers should create funnel which changes according to customer requirement.

## **Analytics**

This is a data mining method for pattern identification and for future prediction. It is popular and widely accepted. This new trend provides reporting along with planning, collecting, predicting and analysis of internet data. Web analytics can be done to know the website users with their contents. User's behavior can be analyzed by internet professionals with the use of this in order to meet visitors demand and by providing measurable results. Two types of analytics are used by the marketers – 1) Predictive 2) augmented analysis. Predictive analysis helps in knowing future. Augmented analysis uses machine intelligence and helps human being to work fast on large data sets. 40% data is possible to be automated which helps in fast analysis and decision making. Tools such as Clicky, Chartbeat and Spring Metrics can be used for web analytics. [8]

## **Big data**

In order to use big data one should know the tools for it. Organizations are developing customer data platform for management, analysis and leverage data. Managing huge data was the challenge for data scientists. Use of big data has made it possible to manage tremendous amount of data within no time. AI applications work fast with the use of big data.

## **Quantum Computing**

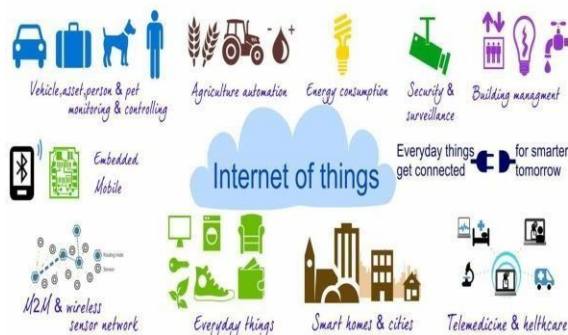
This technology is based on quantum physics which enhances the computational power of the computer. This technology can do multiple works at a time. If normal computer can read books in linear fashion, quantum computer can read all the books at a time. Quantum computer can help in -1) improving mobile data coverage 2) AI develops quantum algorithm which in turn improves machine learning 3) in less cost you can give more number of advertisements.

## **IoT Advertising**

Internet of things devices can be used for the comfort of the humans. One can use these devices for house hold appliances, laptops and even for mobiles and wearable devices.

Information related to contacts, purchases, travelling, sharing, eating habits, working details and beliefs. These devices slowly gather the information over time. This

information can be obtained by marketers to use it for business and advertising purposes.



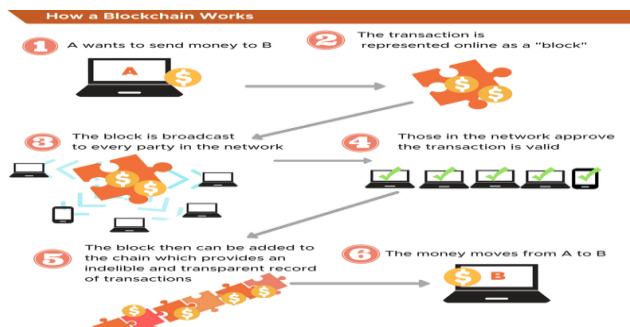
## **5G Technology**

This trend has made the society fully mobile. It provides unprecedented data to telecom companies by lowering use of Facebook and Google. Marketers can use it to know the requirements of the rural consumers. It also can be used to provide rare data to Telcom companies and any other industry. Use of this technology can give advantage to even cyclist to get the backside views for his own safety. Various devices can be connected using this technology. For e.g. Johnnie Walker Company manufactures a bottle with sensors to know whether it has been opened and where it is in the supply chain.

## **Block Chain Technology**

This technology of absolute data records is using cluster of computers which are owned by different people. Data is in the form of blocks, connected in a chain using cryptographic principles. It is used for digital marketing and financial transactions. Intermediate offers can be eliminated with the use of this technology by gaining public accountability and trust.

**Various New trends used in block chain are –** 1) verification of online identity 2) tracking media buys 3) elevating transparency 4) handling social impressions 5) authentication and provenance 6) personal data protection 7) pinpoint targeting.



## Geo Fencing Technology

This is the technology which is used by marketing people for targeting people at their location. Area of 1 mile is targeted, when user comes in this area he is provided with push notification, text message or similar communication. It is observed that 54% get converted due to push notifications and only 15% are converted due to broadcast messages. For e.g. American Gas company from California used an app known as Waze app which used to give notification of the nearby gas station owned by the company while travelling to the driver.

Apart from this, various types of marketing are used which can boost marketing efforts. The types of marketing trends used can be –

- 1) **Neuro marketing** – Use of this technology can help marketers to analyze the brains of the customer to find which type of content they find engaging. This information can be used by the marketers to design email, campaigns, ads and website contents which customer finds attractive.
- 2) **Viral Marketing** – In this electronic form of marketing shared old contents are liked and approved which can be used for increasing website visitors.
- 3) **Conventional Marketing** – It is used for one to one communication between marketers & customers to know their requirements. Chatbots can be used for the same purpose.
- 4) **Privacy Marketing** – This type of marketing aims at targeting only the required customers. These messages are not sent to customers for whom they are irrelevant.
- 5) **Omnichannel Marketing** – This marketing is done using multiple channels such as email, blog, social media and apps to contact the customers.

6) **Video marketing** – It is done using video on the mobile.

7) **Social media Marketing** - This marketing is done by the social networking sites like YouTube, Facebook, Twitter, and Digg. [9]

## Findings:

- 1) AI is used for automation to retain the customers. 2) Programming ads can be changed depending upon life style, location and habits and can be converted into personalized ads.
- 3) Chatbots is an instant messaging technology for chatting with the customers at any time anywhere.
- 4) Search engine optimization is necessary for the best response to the search engine.

Progressive web apps are the websites used for developing web apps which can be used for visual search.

Voice Search technology which is also known as “SERP position zero” has made the search even easier.

Data analytics is a data mining method for pattern identification and for future prediction.

Use of big data helps to manage tremendous amount of data within no time.

Quantum computing technology enhances the computational power and can do multiple works at a time.

IoT technology provides comfort to the human being by collecting personal information.

5G technology provides unprecedented data to telecom companies by lowering use of Facebook and Google.

Block chain technology is used for financial transactions and digital marketing.

Geo fencing technology is used by marketers to target people in one mile by giving push notifications or messages

## Conclusion:

Digital disruption has changed the face of marketing totally. With introduction of new technologies the marketing processes have become fast. People find it easy to



communicate with the marketers. Marketers also can find it easily what the need of the customer is & where they should improve. Understanding and learning new technologies have become must for marketers. Marketers should be present to advertise at the location where the customer is. In order to overcome the competition and survive in the race marketers should update his skills and knowledge of digital marketing tools and processes. Digital marketing has improved life style and comfort of the customers. Marketers are benefited due to increase in return on investment. Marketing research and analysis has become easy. Technology has made the task easy and speed up the processes, saving cost & time. In short, Digital disruption has benefited a lot to the marketers as well as customers. To avail the benefits one has to update with the technology innovations. Not updating can make great loss to the organization.

### Suggestions:

In order to survive in the race one has to be updated with the new advanced technologies.

Marketers have to arrange training for the employees to learn new ways of digital marketing.

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## **A SYSTEMATIC STUDY ON E-COMMERCE AND CYBER SECURITY**

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**Abstract-** India is one of the largest user of E-Commerce services in the world. India may be the largest market for E-Commerce, digital technology and digital marketing. While using the E-Commerce platform in growing country like India, it becomes very important to safeguard the database and provide protection to E-Commerce services. In traditional method of trade and commerce maximum money, related transactions are happened through banks, cash, or credit. However, in E-Commerce monetary transactions are carried out on fingertips. For such transactions, faith in the E-Transaction is required. Many times, it has been seen that such faith in E-Transaction is breached and money loss can be seen. This may happen due to improper data handling and website hijacking. E-Transaction security is major issue in all over the world. India is no exception for this. India is now providing legal framework for the E-Commerce, trade and related transactions. The Information Technology Act, 2000 gives proper guidance and directions for use of digital tools safely. This research paper will focus on aspects of E-Commerce, Stages of Transactions (Major types), cyber security issues..

**Key words-** E-commerce, Cyber security, Information Technology.

### **Introduction**

E-Commerce and Cyber Security are very important in this century. Due to revolution in the industries, digital platform has risen up drastically in upward direction. From children to senior citizens are using E-Commerce frequently. Most of the people are dependent on E-Commerce and E-Transactions directly or indirectly. Almost all the office work is carried out through computer system only. Maximum data get stored in the digital form. Identity, personal information, valuable documents, digital signatures etc. are stored in the digital format. Hence, the need of strong cyber security in every possible way must be undertaken for the safety.

The major threat to cyber security and E-Commerce is through website hack, virus attack, worms etc. This happens in the process of authentication and approval mechanism system. Hackers or viruses become dominant in these processes or E-Commerce stages. In very simple manner such frauds or digital attack is possible. For example, hackers or viruses access the computer system of the client remotely and start threatening with stolen of personal information.

### **Objectives:**

- 1) To study the measures to protect E-Transactions.
- 2) The suggest possible improvements to avoid the loss and to enhance the cyber security.

### **Research Methodology:**

The authors for this study use secondary data. Data was collected and analyzed based on written articles and research papers on this issue of E-Commerce and Cyber Security.

### **Cyber Security:**

Cyberspace is that virtual place where no boundaries exist, no law is concrete but which has become omnipotent & inevitable for humans. E-commerce as we know it today was started in year 1979 when Michael Aldrich has created this idea turning into reality. The initial aspects only involve a medium for interaction but today it has grown to a level that it is a giant intermediary, which is regulating all of us in one or the other way. Cyberspace is now the most important way to do business, and to show the presence of one at Global level. It plays a very pivotal role in fulfilling all the essentials of an easy market. Looking to the facts, India is one of largest growing e-market of the world. If we compare that with size the e-commerce market in India has shown sharp growth rate in 2014. With the advent of the smart phones, and apps on them have actually made the entire e-commerce a different thing. If we go by the data it was found that persons of young age in India are the maximum buyers online where the sale

was done on the apps through mobile phones. Year 2014 has also seen a raise of more than 30% in total e-commerce done in India and it was projected that year 2016 will further set new heights for the ease of sale & purchase.

The elements of e-commerce not only include the sale & purchase only, but it also include the bank transactions done by us & by banks in day to day life. The e-transactions done for the sake of doing business also amounts to e-commerce. Recently we have seen that e-payment companies like Paytm has also operating as virtual banks, similarly there are all major banks offering portals for net –banking which again means the actions in ecommerce.

### Reasons for growth of e-commerce in India:

1. Easy availability of Goods and Services: Today everyone wants to save time, because of the multitasking one is forced to do. Which means that curtailment of some time for some activities. The e-commerce is a medium or big market where the things are available at your disposal. So there is preference for this.

2. Increasing the number of youth population: Today India is supporting largest young population of the globe, which is energetic & ready to take risks. Hence they prefer the excitement of the e-purchase. Also they have a connectivity through internet, which propels them to do things at par with their counterparts in western countries.

3. Online market with fair rates: Many Indians prefer goods online due to the cheap price with no compromise with standards. The offers which the offline markets are providing is very less as compared to online markets, and their ingress is also more due to increase use of Internet, hence they are most preferred.

4. Limited size of family and increase in income: Increase in pocket power & small size of families is also a major reason behind hype in e-retailing. On an average India have witnessed a steep fall in the size of families with increase in pocket powers, which means more of trade possibilities. This has also promoted many of us to do transactions online.

**What is cyber security:** As it could be easily understood that cyberspace is very vulnerable in itself, it has been seen that there is threat to everything kept in cyberspace, be it data or network or any other thing available at online medium. The threat is not only limited to the financial information, but even the stored data on computer can also be subject to attack

by people who are only interested to damage the property. The threats at cyberspace are huge, from financial losses to the loosing data, loss of privacy & of course the social image loss. The e transactions at this place makes it more vulnerable. The persons having their presence online has to see both the business to be carried out at e-media & to save the data or privacy of their customers as well.



### Analysis:

Over the last few years there has been a noticeable boom in the E-Commerce market. Here the transactions as done over the internet are sensitive to breach of information. The laws prevalent in India and for that matter in the world are not standard to save the online retailers from a breach and customers of the retailers from getting their data stolen. As the time progresses the attackers of the Internet world are also progressing with their methods, the concept of finding a loop in the system is very tempting to these attackers. Whether unencrypted data is at rest with the online retailer or is being used in transactions, the ways to manipulate that data has been sophisticatedly brought into existence by creating certain malwares by these online attackers.

After a well-known retailer has been compromised, it's agile for distinct attackers to put to use the alike tools and techniques to distinct retailers. It doesn't uphold that attacker comprehend where unencrypted payment disclosure might fit within a retailer, whether at glut or transmitted. Attackers have therefore adapted disparate techniques for harvesting disclosure by the agency of increasingly perfected malware.

The unassailable point of intervention in display breaches hasn't been by way of explanation sophisticated anyhow the malware is and attackers are relying on standard position vulnerabilities, misconfigurations, as amply as bomb phishing for their champion entry point. Another as outlook is that attackers have compromised trusted trade partners and



trade providers by befriending them, they are targeting in term to win directed toward networks.

Cyber criminals urgently design malware by way of explanation for POS infiltration. BlackPOS is soon available in a proven source format on the blind as a bat web. So at the same time hackers' tools and techniques are escalating, E-Commerce defences are not up.

### **The Dark Web & Cyber Security:**

Now we shall explore a dark land of the dark web where security doesn't reach but e-commerce still flourishes. The dark web gives shelter to the underground market places which generally are into the business of dealing with goods and services which are mostly illegal. So when you access the dark web the chances of having your data stolen gets higher and beyond the threshold which a normal online consumer takes into consideration.

As per the report of Global Commission on Internet, 0.03% Deep Web is available on different search engines.

As per the article of Ken Westin on Cyber Security, The Dark Web is "a part of the Deep Web that has been intentionally hidden and is inaccessible through standard Web browsers." Powered by networks such as I2P and TOR.

Now the question is whether there is cyber security possible to this environment? In the near future it shall be possible as there are steps being taken in order to deal with this situation but the free movement of the virtually dark place is going to be hampered.

As per the Global Commission on Internet Governance Report, the inculcation of cyber security in this kind of illegal E-Commerce shall be done by different ways as below:

- 1) Hidden Service Mapping: Strategic development of nodes monitors and map the network.
- 2) Monitoring the Customer Data: Destination requests to track the top domain.
- 3) Social media website monitor: Keeping track of certain websites for hidden services.
- 4) Semantic Analysis: A shared database of hidden site activities and history should be built.

- 5) Market profiling: All the components of E-trade or E-commerce who are indulged in fishing or illegal trade practices must be tracked.

Thus this is how one part of the E-Commerce shall be dealt with in the near future. The focus on the dark web has been made primarily because the dark web has more roots than the standard e-commerce retailers. The concept of Cyber Security contrary to the popular opinion has reached to a very low margin of the internet. If we analyse the situation we can find that there are innumerable changes to be made in the way Cyber Security is used to protect E-Commerce.

### **Findings:**

Currently use of social media for E-commerce or digital marketing become very essential. It gives more money than expected. It may be through online games, open gambling with different names etc. are more vulnerable to be attacked.

At present more than 64% population is using social media for e-commerce and e-transactions. Such social media website developers may not have proper set-up to prevent from cyber-attack. Like jacking, phishing, social spam, misleading advertisement, attractive but not real product promotion, illiteracy about the cyber-crime in users, less popularity of the cyber secured products due to difficulty in use etc. are the reasons for easy cyber-attack.

These findings very well establish that there is a need for Cyber Security in E-Commerce and the most important part of it is to spread awareness to the web accessing world. Thus these findings only take us to a stand of disparity amongst people willing to take up an initiative thinking that something might be or is wrong & people willing to overlook the hazards that the world might face when there is a complete developing change in the E-commerce arena.

### **Conclusion:**

The prime way to avert the risks in the market of E Commerce and building up Cyber Security is to make the consumers of the E Commerce market aware about the situation. There is no secondary alternative to that. Therefore the burden of having the consumer and customer secure shall be on the E Commerce business provider.

From the Ecommerce Side E-commerce sites prefer to do as Romans did to their security architecture to equal the demands of ensuring consumer data hideaway and that mix resources are not second hand to attack distinctive Internet

sites. A service can certainly survive the commendation generated if their join is hand me down to attack another site. It most definitely wouldn't bear the brunt of if word gets on the wrong track that customer ace up sleeve, buy, or personal data is stolen or copied without their lifestyle or permission. Software developers require to develop the software that is engineered for shelter and security. It is still vacant to add ease-of-use features nonetheless they should be initially turned off. Automated warranty updates are another feature that could be hand me down to help oblige the degree of these attacks.

The application of firewalls at the institution is very valid means to protect data losses. It is also advisable to have segregation of the data at the website. This ensures that the losses can be prevented in certain heads of the storage.

The users of E-Commerce platform must improve the remote access to avoid the cyber loss. For this reason, a strong solution is provided i.e. use of VPN (Virtual Private Network) for remote access. VPN is well known concept which is encrypted data channel. It gives secure access for receiving and sending the data via internet. E-Commerce users will be able to access their files, database, hardware, websites etc. through VPN more securely.

Training for employees could also be a good option as a remedy for the prevention of the losses from lapses in cyber security. Many e-commerce companies are keeping it as an essential part of apprenticeship, but even with help of hackers this training can be given.

The team at the organization should also be able to tackle the incidents of cyber security by formation of team looking for the cyber security measures. This should be ready well in advance to the incidents or with the probable incidents that may affect companies in toto. 5 Ibid. 6 Ibid. 7 Ibid.

From the Consumers/Customers side The consumer on the E-commerce market shall be aware and also should have own protection against such attacks, the valuable insight on how it shall hamper your transactions whatever scale they may be also are important as in the longer run it is important to notice that the attacker can wait longer and steal momentarily over a long period of time. Thus the basic gimmicks of the internet world shall be paid attention to if not understood by the consumer or customer on the E Commerce market.

The customers should keep very strong & inaccessible password to protect hacking or any unwarranted ingress into their details.

This requires a lot of awareness work on the part of the people who are using internet for e-commerce. The training can be given in formal as well as informal means. May be it can be inducted as part of study by students.

Going through a large number of articles and subject monographs by scholars, we have come to a conclusion that there is still a long way to go for our Country as well as globally to comprehend and make aware the subjects of the respective nations about the pros & cons of the E Commerce market access without security. This when done shall result in a more conducive environment virtually.

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## AN ANALYTICAL STUDY OF IMPORT AND EXPORT TREND IN PHARMACEUTICALS INDUSTRY BEFORE PRE COVID-19 OUTBREAK AND AFTER POST COVID-19 OUTBREAK

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**Abstract-** The Indian pharmaceutical sector is well-known across the world for its generic medications and low-cost vaccinations. Indian Pharma has evolved into a thriving industry over the years, and it now ranks third in the global nation in forms of pharmaceutical manufacturing production. Import & export of medicines are part of the Indian pharmaceuticals business. The Indian pharmaceutical sector is the major participant in terms of import and export to various countries.

**Key words-** Indian pharmaceutical sector, Import Trend, Export Trend.

### Introduction

The Indian pharmaceutical sector is well-known across the world for its generic medications and low-cost vaccinations. Indian Pharma has evolved into a thriving industry over the years, and it now ranks third in the world in terms of pharmaceutical manufacturing volume. The Indian pharmaceutical industry has risen at a CAGR of 9.43 percent during the previous nine years. The pharmaceutical industry has continuously generated a trade surplus. Total pharma exports were 180555 crore (USD 24.35 billion) in 2020-21, vs global pharmaceutical imports of 49436 (crore), resulting in a trade surplus of USD 17.68 billion. Total pharma exports were 87864 crore (USD 11.88 billion) as of September 30, 2021, compared to total imports of 33636 (crore), resulting in a 54228-billion-dollar trade surplus. Generic medications, nonprescription medications, bulk medications, contract research, vaccinations and manufacture, The Indian pharmaceutical sector has several important segments, including biologics and biosimilars.

On a global basis, the Indian pharmaceutical industry is very significant. Outside of the United States, India has the most US Food and Drug Administration (USFDA) compliant pharmaceutical factories. In the worldwide API industry, there are roughly 500 API producers who contribute about 8%. India supplies 20% of the world's supply of generic drugs, making it the largest producer in the world and producing 60000 generic products across 60 therapeutic

categories. The availability of affordable HIV treatment in India is one of the greatest medical success stories. One of the biggest international producers of inexpensive vaccines is India. Due to their low price and high quality, Indian drugs are well-liked across the world, earning the nation the moniker "global pharmacy."

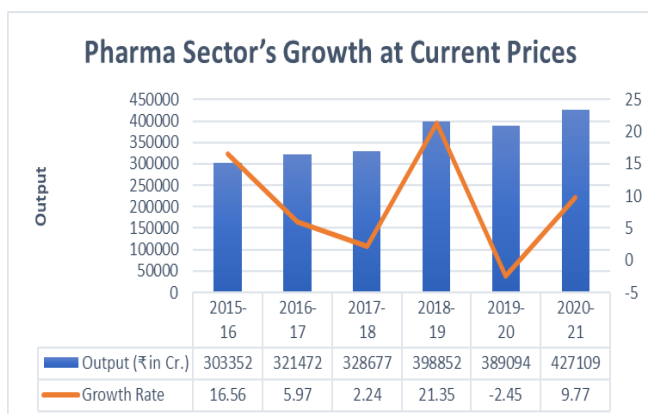
The COVID epidemic's concerns with infection control have also been addressed in a significant way by the Indian pharmaceutical industry. The pharmaceutical sector collaborated closely with the government, research institutions, and others to create and enhance manufacturing techniques that helped maintain a continuous supply of COVID-19 Pandemic drugs. During the COVID-19 outbreak, Indian medication supplies gave assistance to approximately 120 nations in need of hydroxychloroquine (HCQ), 20 countries in need of paracetamol, and 96 countries in need of vaccines.

Table 1. Growth of the Pharma Sector at Current Prices

Years	Growth Rate	Production/Output (in Cr.)
2015-16	16.56 %	3,03,352 Crore
2016-17	5.97 %	3,21,472 Crore
2017-18	2.24 %	3,28,677 Crore
2018-19	21.35 %	3,98,852 Crore
2019-20	-2.45 %	3,89,094 Crore

2020-21	9.77 %	4,27,109 Crore
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Sources \* based on an estimate of the output's trend growth rate (CAGR), which was 9.77% from 2013–14 to 2019–20. Source: Ministry of Statistics and Program Implementation, National Accounts Statistics 2021.



Graph 1. Pharma Sector's Growth at Current Prices

## Credentials of the Pharmaceutical Sector

- Over 200 nations receive generic medicines from India.
- Eight of the twenty Global Generic firms are Indian.
- More than 55% of exports go to heavily regulated markets.
- India is the supplier of 90% of WHO Pre-Qualified APIs.
- WHO purchases 65-70% of its vaccination needs from India.
- Number of USFDA-approved locations: 741 (as of August 2021)
- There are 4,346 ANDA Market Authorizations that Indian firms have obtained (by December 2020)

## REVIEW OF LITERATURE

The researcher completed a literature study on Import and Export Pre Covid-19 Outbreak and Post Covid-19 Outbreak, as well as Import and Export Pre Covid-19 Outbreak and Post Covid-19 Outbreak within the Pharmaceutical Sector. The following is a review of the literature.

### Import and Export Pre Covid-19 Outbreak and Post Covid-19 Outbreak

Zahraee, S. M., Shiwakoti, N., & Stasinopoulos, P. (2022). stated that the robustness of the agro biomass distribution network is investigated. The Covid-19 Outbreak economic, environmental, and social implications are examined. The

Covid-19's influence on the uncertainty of woody and palm oil biomass production and supply is examined. Results are provided to solve the problems the pandemic caused in the biomass energy sector. There are suggested methods and concepts for resilience in the biomass industry. Park, Y., Choi, J. H., Kwon, O. K., and Shamohammadi, M. (2022). Examining International Airport Performance Before and After COVID-19. VelayuthamA., PavadaisamyV., & NandruP. (2022). study's findings reveal that exports and imports have plummeted as a result of India's worldwide epidemic and economic lockdown. It is progressively recovering, but not to pre-pandemic levels. During the COVID-19 epidemic, the study discovered bidirectional correlation between India's GDP and imports. NAA Rahman, Ahmi, A., Dr.Lui Jraisat, L., & Upadhyay, (2022) stated that Practitioners may use multi-perspective results from the Pre covid 19 outbreak and post covid 19 outbreak challenges mentioned to get new insight and awareness in this investigation of the issue, which will help them with their current and future operations and strategies.

## Import and Export Pre COVID-19 and Post COVID-19

Kolte, A., Festa, G., Rossi, M., Thrassou, A., Vrontis, D., & Christofi, M. (2022) As a sort of institutional business strategy in the pharmaceutical sector, investigate ambidexterity appears to have emerged in the academic arena, providing possibilities for a "third" way beyond the two primary alternatives of generic pharmaceuticals and copyrighted treatments. This appears to be even more true for developing nations like India, which might attain monetary stability by leveraging current operations (in terms of economies of scale, experience, and breadth) and seeking new possibilities abroad as local competition and medical costs rise. Horner, R. (2022). Explain The essay has wider significance for comprehending and dealing with the current deindustrialization problem. Even those state development and industrialization strategies that claim to serve domestic markets—arguably the most prevalent and pertinent strategy in many manufacturing contexts outside of major Asian production locations—are constrained by the current liberalised trade context and the presence of Global value chain. To evaluate the potential for growth under import-oriented forms of interactions with Global value chain, which have not yet received enough research, more research is required in other countries and industries. Volgina, N. A. (2022). Two interrelated elements will have an impact on how international pharmaceutical companies sell their products in the Russian market: the foreign strategy and

geographic goals of Big Pharma, as well as Russia's involvement in this strategy, which is dictated by the peculiarities of the Russian pharmaceutical industry

However, no one researchers have gone into the Import and Export Pre Covid-19 Outbreak and Post Covid-19 Outbreak in Pharmaceutical Industry. Even those who have gone into the Import and Export have highlighted 19's economic, environmental, and social implications, International Airport Performance Before and After COVID-19, COVID-19 epidemic and India's GDP, institutional business model in the pharmaceutical industry etc. But the research gap can be found out in the area of ground-level problems faced by Indian Pharmaceutical Industry.

## DATA AND METHODOLOGY

This paper aims at investigating the effect of Import and Pre Covid-19 Outbreak and Post Covid-19 Outbreak analysis of Indian pharmaceutical sector. The researcher is studied Pre Covid-19 Outbreak and Post Covid-19 Outbreak is Import and Export of Indian pharmaceutical sector. Researcher is compared Pre Covid-19 Outbreak and Post Covid-19 Outbreak analysis of Indian pharmaceutical sector. This study is mainly based on secondary data that have been collected from the database on Engineering Export Promotion Council of India. This research is based on descriptive inferential Research Design nature Pre and post COVID-19 analysis

### Research Methodology

The type of this study is descriptive inferential research design. For every researcher to be in the least risky position, proper research methodology selection is critical. The structure for decision-making will be provided by research methodology, which will include implicit questions, explicit answers, data collecting, analysis, and interpretation. The Analytical Research Method is used in this study, and the researcher is seeking for conclusions.

#### A) Data collection

This study is supported by secondary data. We'll gather secondary data from websites, newspapers, articles, and magazines.

#### B) Hypothesis

Hypothesis Number-1

Null Hypothesis-H0:

The Covid-19 Outbreak has no impact on imports.

Alternative Hypothesis-H1:

The Covid-19 Outbreak has an impact on imports.

Hypothesis Number-2

Null Hypothesis-H0:

The Covid-19 Outbreak has no impact on exports.

Alternative Hypothesis-H1:

The Covid-19 Outbreak has an impact on exports.

## DATA ANALYSIS AND INTEPRITATION

Researcher collected Indian pharmaceutical sector Pre Covid-19 Outbreak and Post Covid-19 Outbreak Import data and studied effect of import on Pre Covid-19 Outbreak and Post Covid-19 Outbreak.

Import of Indian Pharmaceutical Sector USD Million Pre Covid-19 Outbreak and Post Covid-19 Outbreak

Table 2. Import of Indian Pharmaceutical Sector USD Million

Pre Covid-19 Outbreak and Post Covid-19 Outbreak

Sr. No.	Component	2019-2020 Imports (Pre Covid-19 Outbreak)	2020-2021 Imports (Post Covid-19 Outbreak)	Percentage of Share 2019-2020 (Pre Covid-19 Outbreak)	Percentage of Share 2020-2021 (Post Covid-19 Outbreak)
1	Electronics Equipment Component	3646.53 USD Million	3568.64 USD Million	62.38 %	57.18 %



2	Surgical Instruments Component	180.10 USD Million	103.62 USD Million	3.08 %	1.66 %
3	Consumables & Disposables Component	1076.23 USD Million	1470.77 USD Million	18.4 %	23.57 %
4	IVD Reagent Component	527.20 USD Million	871.89 USD Million	9.02 %	13.97 %
5	Implants Component	415.35 USD Million	225.63 USD Million	7.11 %	3.62 %
	<b>TOTAL</b>	<b>5845.41 USD Million</b>	<b>6240.55 USD Million</b>		

Source: Engineering Export Promotion Council (EEPC)

Researcher compared Import of Indian pharmaceutical Sector

USD Million Pre Covid-19 Outbreak and Post Covid-19 Outbreak. Researcher is used dependent samples t-test or Paired sample t test to determine the impact of Indian pharmaceutical imports USD Million Pre COVID-19 and Post COVID-19. Researcher is used SPSS (Statistical Package for Social Sciences) for data Analysis.

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	2019-20 (Pre Covid-19 Outbreak)	1169.0820	5	1423.42719	636.57599

2020-21 (Post Covid-19 Outbreak)	1248.1100	5	1408.12829	629.73412
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		N	Correlation	Sig.
Pair 1	2019-20 (Pre Covid-19 Outbreak) & 2020-21 Post Covid-19 Outbreak)	5	.982	.003

Pair		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	2019-20 (Pre Covid-19 Outbreak) & 2020-21 Post Covid-	-269.02800	269.79418	120.65563	-414.02172	255.96572	-.6255	4	.548



19 Outbreak)								
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More usual, probabilities greater than .05 indicate that the null hypothesis should be accepted against alternative hypothesis. In this case, the interpretation would be means There is no effect of COVID-19 on Import,  $t(4) = .655, p = .548$ .

### Interpretation

SPSS generated a Dependent samples t-test or Paired Sample t test p value of 0.548, researcher could conclude that the p value is greater than 0.05 ( $P=0.548 > 0.05$ ). (In statistical terms, the null hypothesis is accepted against the alternative hypothesis if the p value is larger than 0.05, and the alternative hypothesis is accepted against the null hypothesis if the p value is less than 0.05.)

Export of Indian Pharmaceutical Sector USD Million Pre Covid-19 Outbreak and Post Covid-19 Outbreak

Table 3. Export of Indian Pharmaceutical Sector USD Million Pre Covid-19 Outbreak and Post Covid-19 Outbreak

Paired Samples Statistics/ Dependent samples t-test					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	2019-20 (Pre Covid-19 Outbreak)	458.5740	5	532.46234	238.12440
	2020-21 (Post Covid-19 Outbreak)	506.3240	5	586.54459	262.31071

COVID-19. Researcher is used SPSS (Statistical Package for Social Sciences) for data Analysis.

Sr. No	Component	2019-2020 Exports (Pre Covid-19 Outbreak)	2020-2021 Exports (Post Covid-19 Outbreak)	Percentage of Share 2019-2020 (Pre Covid-19 Outbreak)	Percentage of Share 2020-2021 (Post Covid-19 Outbreak)
1	Electronics Equipment Component	998.87 USD Million	984.73 USD Million	43.56 %	38.9 %
2	Surgical Instruments Component	49.77 USD Million	53.64 USD Million	2.17 %	2.12 %
3	Consumables & Disposables Component	1082.53 USD Million	1290.26 USD Million	47.21 %	50.97 %
4	IVD Reagent Component	67.58 USD Million	104.18 USD Million	2.95 %	4.12 %
5	Implants Component	94.12 USD Million	98.81 USD Million	4.1 %	3.9 %
	<b>TOTAL</b>	<b>2292.87 USD Million</b>	<b>2531.62 USD Million</b>		

Source: Engineering Export Promotion Council (EEPC)

Researcher compared Export of Indian pharmaceutical Sector USD Million Pre Covid-19 Outbreak and Post Covid-19 Outbreak. Researcher is used dependent samples t-test or Paired sample t test to determine the impact of Indian pharmaceutical exports USD Million Pre COVID-19 and Post

Paired Samples Correlations									
		N	Correlation	Sig.					
Pair 1	2019-20 (Pre Covid-19 Outbreak) & 2020-21 Post Covid-19 Outbreak)	5	.991	.001					

Paired Samples Statistics/Dependent samples t-test									
Pair		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	2019-20 (Pre Covid-19 Outbreak) & 2020-21 Post Covid-19 Outbreak)	-47.7500	91.27967	40.8215	-161.08868	65.58868	-1.170	4	.307

**Interpretation**

SPSS generated a Dependent samples t-test or Paired Sample t test p value of 0.307, researcher could conclude that the p value is greater than 0.05(P=0.307>0.05). (In statistical terms, the null hypothesis is accepted against the alternative hypothesis if the p value is larger than 0.05, and the alternative hypothesis is accepted against the null hypothesis if the p value is less than 0.05.)

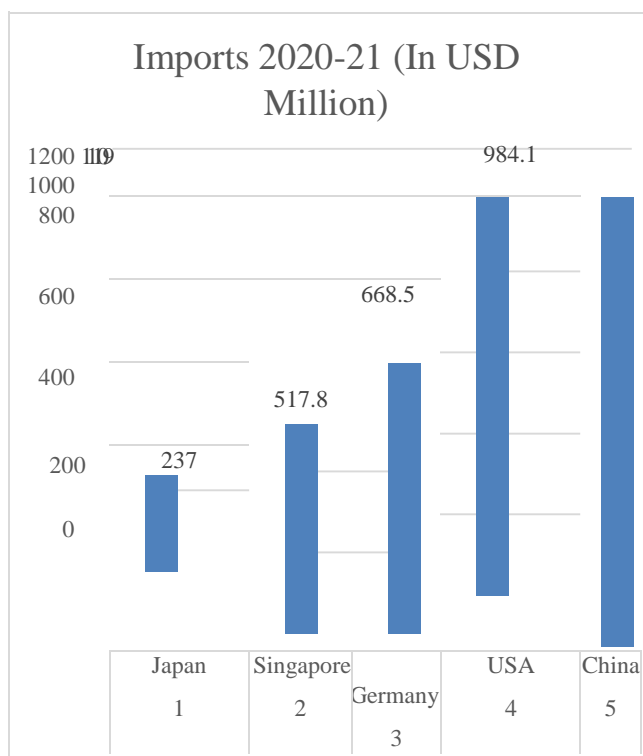
More usual, probabilities greater than .05 indicate that the null hypothesis should be accepted against alternative hypothesis. In this case, the interpretation would be There is **Top Export Destinations of Indian Pharmaceutical** no effect of COVID-19 on Export, t (4) = -1.170, p = .307. **Sectors**

**Top Import Destinations of Indian Pharmaceutical Sectors**

Table 5. Top Export Destinations of Indian Pharmaceutical Sectors

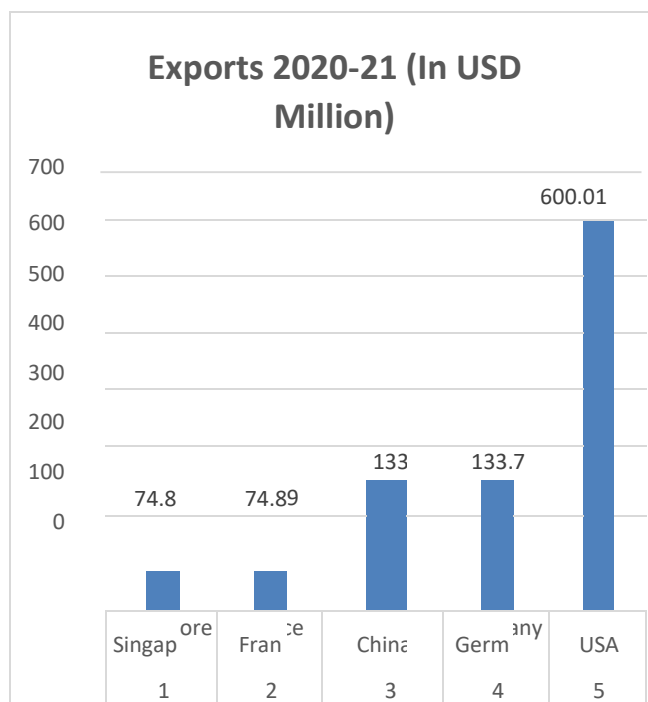
Table 4. Top Import Destinations of Indian Pharmaceutical Sectors

Sr. No.	Country/ Nation	2020-21 Imports (USD Million)	Percentage of Share
1	Japan	237 USD Million	3.8 %
2	Singapore	517.8 USD Million	8.3 %
3	Germany	668.5 USD Million	10.7 %
4	USA	984.1 USD Million	15.8 %
5	China	1110.9 USD Million	17.8 %
	<b>Sub Total</b>	<b>3518.26 USD Million</b>	<b>56.38 %</b>



Sr. No.	Country /Nation	2020-21 Exports (USD Million)	Percentage of Share
1	Singapore	74.8	3
2	France	74.89	3
3	China	133	5.3
4	Germany	133.7	5.3
5	USA	600.01	23.7
	<b>Sub Total</b>	<b>1016.4</b>	<b>40.15</b>

Source: Engineering Export Promotion Council (EEPC)



Source: Engineering Export Promotion Council (EEPC)

Graph 3. 2020-21 Exports (In USD Million)

## Interpretation

It has been discovered that the top five import destinations for Indian pharmaceutical sectors are Japan, Singapore, Germany, the United States, and China, while the top five export destinations are Singapore, France, China, Germany, Graph 2. 2020-21 Imports (In USD Million) and the United States.

## CONCLUSION

Means, Standard Deviation and Standard Error is approximately same Pre Covid-19 Outbreak and Post Covid-19 Outbreak on Pharmaceutical Industry Import and Export. It means Pharmaceutical Industry Import and Export is same before and after Pre Covid-19 Outbreak and Post Covid-19 Outbreak

SPSS outcome probabilities (p) greater than .05 indicate that the null hypothesis should be accepted against alternative hypothesis. In this case, the interpretation would be means There is no effect of COVID-19 on Import,  $t(4) = .655$ ,  $p = .548$ .

SPSS outcome probabilities (p) greater than .05 indicate that the null hypothesis should be accepted against alternative hypothesis. In this case, the interpretation would be There is no effect of COVID-19 on Export,  $t(4) = -1.170$ ,  $p = .307$ .

It is observed that the top five import destinations for Indian pharmaceutical sectors are Japan, Singapore, Germany, the United States, and China, while the top five export destinations are Singapore, France, China, Germany, and the United States

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## **A STUDY OF FINANCIAL INCLUSION THROUGH PRADHAN MANTRI JAN DHAN YOJANA IN BANKING SECTOR**

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**Abstract-** The goal of this research is to perform a review of the literature on financial inclusion and to critically evaluate the financial inclusion policy, Pradhan Mantri Jan Dhan Yojna [PMJDY], that the Indian government implemented in 2014. This research tries to fill gap for contributing existing literature & motivates us to strive towards our goals of greater financial inclusion inaction. The study's focus is on financial inclusion in general not particular products like financial advice, insurance or credit. It will assist Indian government to identify need for Monetary Education programmes in different areas, assist policymakers and government to build financially inclusive system that reduces income disparity and poverty to prioritize consumer safety and create quality sustainable financial services.

**Key words-** Financial Inclusion, Economic Development, Financial Access

businesses, loan dealers, mahajans, and other entities that give loans are all included in the institutional sector, along with all banks and microfinance organisations.

### **Introduction**

“Financial Inclusion” has been distinguished as a powerful methodology by business analysts all around the world for tending to destitution.

Access and utilisation are the two pillars on which financial inclusion is based. The potential of supply-side policies must be fully realised, which calls for a stronger emphasis on requirement restrictions. Financial inclusion must thus concentrate on the issues and constraints brought up by participants.

To help financially excluded populations improve their future financial situations and contribute to development, several countries throughout the globe are pursuing financial inclusion policies. From the perspective of India, the government and the RBI's main objective is to provide financial services to a sizable population. The United Nations Millennium Growth Goals include financial inclusion because of how crucial it is for a country's development. Due to a need of funds, people without credit sometimes borrow money from unorganised players at high rates. Urban, rural, and poor populations continue to lack access to financial services despite the fact that India's banking sector is constantly evolving. In India, there are only two sorts of finance: formal and informal, or institutional and non-institutional. The unofficial sector's money lending

This research was conducted to evaluate the PMJDY programme with a focus on customer satisfaction with banking services, financial inclusion, and factors that contribute to poor financial inclusion. The literature on financial inclusion will be reviewed as part of this study.

### **SCOPE OF THE STUDY**

This study will look into the efficiency of PMJDY in a few banks in Pune, Maharashtra. It will also look into the reasons for low financial inclusion and people's satisfaction with banking services, as well as provide solutions and recommendations for effective implementation of PMJDY nationwide.

### **OBJECTIVES OF STUDY**

- a) To look at how the Micro Finance programme is doing right now.
- b) To investigate the demand-side (low literacy levels, products, income irregularity, unawareness about financial, reliance on informal sources of credit and institutions, and an insecurity in traditional banking institutions) and supply-side.
- c) To evaluate public and private bank efforts in promoting government financial inclusion programmes.



- d) To investigate people's degree of knowledge offered under the PMJDY financial inclusion programme.
- e) To investigate the necessity for and significance of financial inclusion for societal economic development, to foresee the difficulties and obstacles faced by banks and beneficiaries of the PMJDY programme, and to offer the best feasible suggestions for making financial inclusion a huge success.

## STATEMENT OF THE PROBLEM

- a) Around 2.7 billion individuals worldwide are financially excluded. According to the Rangarajan Commission for India, just 59% of the population is banked, leaving 41% unbanked. Despite the Government of India's attempts, this study's research issue is a lack of impact (about 50% rate of financial exclusion).
- b) A comprehensive literature study reveals that reaching a billion-person population with financial services is a huge task. For universal financial inclusion, both supply and demand side obstacles must be addressed.
- c) Banks and other financial organizations should relax supply-side constraints.
- d) On the demand side, there is illiteracy, lack of confidence in conventional banking institutions, and income irregularity.
- e) Banking organization's must regularly change their marketing mixes and combinations based on consumer feedback. This leads in a service quality disparity in financial inclusion, affecting the expected production in India.
- f) This research tries to fill the gap and contribute to the existing literature.

## RESEARCH METHODOLOGY AND TECHNIQUES

This study is descriptive in nature. Descriptive research is focused with characterizing a person, situation, or group. It uses secondary data analysis, observations, surveys, panels, and interviews. The study uses both qualitative and quantitative techniques. We have utilized secondary data. On-line sources of secondary data include publications such as review reports and articles. The secondary data is collected from various published sources like books, journals, magazines, blogs, reviews reports, articles, banking journals,

and other pertinent resources available in the Government Social Welfare Departments. Financial institutions have a diverse client base with existing big and small businesses as well as emerging sectors and start-ups. These new businesses are in both urban and rural areas. This requires planning and strategizing to offer enough financial services to communities. So these organization's may design their strategies and goods. To properly serve these groups, a deeper knowledge of their requirements and availability is needed.

## LITERATURE REVIEW

To prevent 'financial exclusion', it is crucial to use technology properly and to build confidence among the people living outside the city and remote places (Vaid et al ,2020).

Women's financial emancipation requires financial knowledge and awareness (Kaur and Kapuria, 2020).

Deaf or low-literate individuals should comprehend the programmes since banks should offer basic and straightforward instructions. In order to offer banking services to rural families, business associates should be supplied with relevant technology. Rather than just establishing bank accounts, the focus should be on generating new product designs, distribution methods, and ongoing use (Singh, 2021).

Education, age, yearly income, category, process complexity, and family structure all affect financial activity, awareness, and agility. All financial authorities must take these realities into account and use their resources effectively to raise public financial literacy (Vijayvargy and Bakhshi ,2018).

The loan sanctioning/disbursement procedure should be made as easy as feasible. (Agarwal) In distant regions, public sector banks should focus on expanding branch networks and using online banking technologies (Inoue, 2018).

It is suggested that banks boost their financial literacy campaigns to attract more individuals to use banking services (Shylaja, 2021).

It is critical to improve technological efficiency to further increase financial inclusion (Maity and Sahu, 2020).

Women in urban slums may obtain financial services, however they face the following risks:

Economic risks such as irregular income, financial risks such as informal credit, and social hazards. To promote financial inclusion, the government should strengthen the financial system, boost the use of digital payments and online banking, and lower transaction costs (Bhatia and Singh, 2019).

The PMJDY system must handle problems such as telecom connection, account “liveness”, brand awareness, sensitization, and duplicate PMJDY accounts. Also, a large population remains financially excluded. Delays should be addressed by the government. (Bannigol et al 2001).

Entrepreneurs are often unaware of business insurance, its value, and the long business bank loan procedure. Thus, providing financial access to entrepreneurs is critical to their integration into the organized economy. (Baruah et al., 2020)

The acceptance rate of debit cards among impoverished customers should be increased to boost consumption and per capita GDP. Banks should offer short term financing to increase GDP by boosting service and product production. (Abraham, 2021). Banks should concentrate on online payment systems and Fin-Tech apps to achieve a cashless economy. Improved social and economic circumstances need financial literacy campaigns as well as easy and accessible (Nandru et al, 2021).

Personal or institutional financial exclusion may occur as a result of negative personal experiences or distorted views of financial institutions. For financial integrity and inclusiveness in certain European nations, institutional policy intervention is required. (Corrado, 2019). City expansion is simpler than village expansion. (Lopez et al., 2018)

Financial inclusion boosts domestic savings and financial stability (Celerier & Matray, 2019). Growing digital financial inclusion may boost the economy. (James et al.)

Reduced participation costs, loosened borrowing restrictions, simplified bank account creation processes, financial literacy, improved consumer protection, collateral use, and credit understanding will all assist expand financial inclusion. (Karpowicz, 2016).

Even today, a significant population depends on informal finance sources, posing major obstacles to poverty alleviation. So enhancing institutional quality and publicising

institutional improvements must be prioritised (Aracil et al, 2021).

Services like E-banking, mobile banking and credit cards are hardly known (Patnaik et al, 2013). Hiring employees proficient in local languages is critical here. The employees must then be educated and urged to be patient with the bank's clients. Poverty and illiteracy are major factors for non-banking (Sandhu & Singh, 2011).

For the effort to cover the “excluded segment” to be effective, business sector and public participation is needed (Raval, 2010). There are numerous situations when an individual has opened several accounts with different banks. Insurance companies should establish a minimum premium to compensate account holders' risk in order to shield state-owned LIC from financial losses. Support governments and legislators to broaden financial literacy programmes for the underprivileged, since this will have an immediate impact on their commercial interests. (Goyal, 2011).

## RELEVANCE OF RESEARCH

Western Maharashtra has not been investigated. Banks listed in Pune have been surveyed to review the PMJDY initiative, with a focus on customer happiness and the reasons for poor financial inclusion. Conducting a comprehensive literature review is the goal of this study. In order to reduce poverty and economic disparity, governments and policymakers will benefit from the results of this study. Policymakers and lenders may use the study's suggestions to help minimize financial exclusion in India. It will also help with ongoing research on financial inclusion.

## EXPECTED BENEFITS, CONTRIBUTION & IMPLICATIONS OF THE PROPOSED RESEARCH

1. The findings of this research will be useful to the Indian government in determining the specific locations in which Financial Literacy programmes are required. Financial Literacy in various regions of the nation may be measured and correlated with Financial Inclusion.
2. Results of the research will assist policymakers and financial institution managers to develop comprehensive financial policies by encouraging financial literacy among society's most vulnerable segments.
3. The research will assist policymakers and the government builds a financially inclusive system that

reduces income disparity and poverty. Prioritize consumer safety and quality sustainable financial services.

4. The research is meant to assist policymakers and administrators in educating people about various financial products. The study also aims to assist researchers improve their research banks using the study's data.

5. This research will also add to the existing literature since the present literature has many shortcomings.

## LIMITATIONS OF THE STUDY

The study doesn't concentrate on certain topics like credit, insurance, or financial counselling. Academics may do similar research on credit, insurance, and financial consulting services. Due to the study's concentration on Maharashtra, there is a chance that its findings won't be relevant to other regions of India. Banks are the only ones that assess financial inclusion, disregarding the cultural differences of the beneficiaries. The investigation is conducted in Pune, Maharashtra. Although the majority of the issues mentioned here may be generalised as a result of pertinent study, it's conceivable that local issues were missed. To learn more about the samples' changing dynamic properties over time, further research may use a longitudinal research methodology. The study ignores the rest of the population and only gathers data from underprivileged households in Maharashtra, India. Future studies may look at this other sector of society, which utilises private banks all across the globe.

## FINDINGS AND DISCUSSION

Banks and financial institutions should ease supply restrictions. On demand side, there is illiteracy lack of confidence in conventional banking institutions, income irregularity. Banking organization's must change their marketing mixes and combinations based on consumer feedback. This leads in service quality disparity in financial inclusion, affecting expected production in India.

It is important to increase respondents' satisfaction and knowledge of the PMJDY banking products, services, and benefits. Stringent measures need to be taken to overcome infrastructural issues and educate customers about E-transactions (mobile banking/internet banking/rupay debit card/ATMs). To close existing duplicate bank accounts and prevent future duplicate bank accounts, corrective changes should be made to the current mechanism. Steps to end the

financial and social isolation of the poor and bring them into the official financial system to promote the country's socio-economic development need to be taken along with increasing financial inclusion to empower women and achieving gender equality. Currently, public sector banks outperform private sector banks in terms of performance, implementation, and use of PMJDY programmes, new mechanisms need to be developed to increase private sector bank involvement in PMJDY for financial inclusion?

After the COVID-19, a research may be performed to evaluate how the pandemic affected bank efficiency in financial inclusion and compare pre- and post-pandemic conditions

PMJDY plan must improve banking infrastructure, ATMs, dependable BCs, and monitoring to achieve successful financial inclusion. Given India's vast postal network, the Postal Department should be fully licensed. Post offices outnumber bank branches by 1.55 lacs. So a systematic network usage is required. Financial literacy, internet banking, and banking services (UBS) are three drivers of financial inclusion.

The RBI and banks must communicate more effectively. To actively engage in the government's financial inclusion programmes, private sector banks should be assigned objectives with more regular and detailed monitoring. Business correspondents should be equipped with appropriate technologies to bring banks to rural households. Banks and authorities should monitor the PMJDY programme account for illicit deposits. Customers may be educated about E- Transactions by bankers and regulators.

Simplifying the account opening, account maintenance, and loan distribution processes would help alleviate the anxiety of individuals with complicated banking paperwork (most PMJDY account holders live in rural regions). So banks should target more clients from suburban and urban regions. Financial enclosure is a process, not a goal. All parties (banks, businesses, governments, and regulators) must work together. Banks should depend more on technology to minimize transaction costs and gather and analyze huge amounts of data that may assist the nation achieve its financial inclusion goals.

## CONCLUSION

In order to evaluate the PMJDY programme, this research focuses on financial inclusion, the factors that contribute to poor financial inclusion, and customer experience with

banking services, along with many other things. In order to provide recommendations, the authors of this study want to evaluate the existing research on financial inclusion. Governments and politicians will be able to expand financial inclusion systems thanks to the study's results, which will help eradicate poverty and income inequality. The study's suggestions, in the opinion of the researchers, will aid policymakers and lenders in their attempts to lessen financial exclusion in India. The information will also help with ongoing research on financial inclusion. A careful assessment of the literature indicates that reaching a billion people with financial services would be a Herculean task. To attain universal financial inclusion, both supply and demand side constraints must be eliminated. Banks and financial organizations must ease supply limits.

Banking organizations' marketing mixes and combinations must be adjusted on a regular basis in response to client feedback. As a consequence, there is a disparity in the quality of financial inclusion services, which has an effect on India's expected production.

Rather than concentrating on particular products such as financial counseling, insurance, or credit, the study evaluates financial inclusion broadly. While the bulk of the barriers listed here are likely to have been generalized as a consequence of relevant research, it is possible that localized hurdles were overlooked in the process. Financial inclusion is measured only by banks, with little regard for the cultural diversity of individuals receiving aid. Similarly, academics may study credit, insurance and financial advice products in the same manner that industry does. Future research may include data from the other part of society that use private banks on a global scale. This study topic motivates us to strive even harder toward the country's long-term goal of expanded financial inclusion.

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## **A STUDY OF EMPLOYEE RETENTION FOR DIGITAL HUMAN RESOURCES**

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**Abstract-** The digital technology usage all across the globe has enhanced during the last decade due to rapid development of IT infrastructure & internet access. These factors are giving push to the growth & development in different nations including India. The usage of different models of digital products like Face book, LinkedIn, Instagram, PC, Tablets, etc. have given boost for “A STUDY OF EMPLOYEE RETENTION FOR DIGITAL HUMAN RESOURCES”. With a view to understand the digital changes in HR in the technological changing context, it has become necessary for research scholars to study the challenges to retain human element. In order to understand these factors, this research paper aims to study the digital impact on business & on HR element, approach to digital HR, change in HR mindset, employee life cycle, etc. On the basis of outcomes, the researchers also made an attempt to explain why a digital strategy is required for HR.

**Key words-** Digital, Retain, Human Resource, Digital speed, Technology

### **OBJETIVES:**

- 1) To understand the factors of employee retention in different phases of industrial revolution
- 2) To understand need, challenges, approach & suggest the organization to retain employees in Digital Era.

### **INTRODUCTION:**

In today's era, development of technology has helped the people for innovation, to create a new level for competency development & multi skilling. It also had a profound impact on organization & in Human Resource Management. It has changed the way organizations select, recruit, motivate and retain employees. The combination of digital technology with human qualities has made human resource management more responsive, more acquainted and flexible. Earlier most of the processes were manual and person oriented. To bring effectiveness in HRM, technology has supported various tools such as talent acquisition, employee engagement, reward & recognition, succession planning, change management etc. Amongst all, digital technology is expected to improve the performance of organisation by shifting its focus from personnel management to strategic HRM to retain human element. The role of HRM is to add value to HR Functions and lead the essence of HR domain to ensure transformation. Digital Technology has played a significant role in HRM today.

Business executives in the twenty-first century must think about what the digital revolution will entail for their company both now and in the future. New technology is being incorporated into many facets of business, from small startups to major corporations.. Now a day's Digital HR supports HR professionals & business leaders to enhance employee's performance. It helps for digital transformation, to deal with future HR & change digital mindset. Digital HR has proved its important element of business growth & prosperity.

Year 2021 was a quite year. With a major shift in working models like Work from home – Work from anywhere, the employee lifecycle require major changes. Now it's time to bring a remarkable change in HR with digital adoption. Digital adoption must focus on people outcomes. In 2022, it's vital to revisit & refresh the key trends & update in HR digital space to formulate the business & HR transformation strategy. Time has come to decide “Digitise or Die”. No option because SURVIVAL IS NOT COMPULSORY. Everywhere in HR needs to digitize in their functional areas. Today organizations are working in VUCA WORLD. With innovations happening, the talent outlook became the main activity.

Employees were obliged to work remotely during the COVID era. Since 2021, automated workplaces have becoming more commonplace in businesses. With the development of the digital workplace, executives are under increased pressure to provide their staff with a seamless and personalised interface. Today's digital workplace is more

dynamic than ever because to the forced acceleration of the introduction of an infinite range of digital technology. More new platforms and services are available to organisations than they could have ever dreamed.

A Study on Digital Human Resource Management - Its Impact on Employee Turnover Babita A. Kanojia 2020

**DISCUSSION: WHAT IS DIGITAL TECHNOLOGY?**

Electronic tools, systems, equipment, and resources that produce, store, or analyse data are known as digital technologies. e.g Social/Mobile/.Analytics/Cloud, Websites Smart phones, Smart Televisions, ecommerce, eBooks, Digital Music, social media, ATM’s, Cars, geo-tagging/location, robotics, drones, banking and finance.

**IMPACT ON HUMAN ELEMENT IN FOUR INDUSTRIAL REVOLUTIONS**

EVENT	IMPACT ON HUMAN ELEMENT
<p><b>FIRST INDUSTRIAL REVOLUTION</b> -18<sup>TH</sup> CENTURY TO THE BEGINNING OF THE 19<sup>TH</sup> Century</p> <ul style="list-style-type: none"> <li>. Use of powered machines</li> <li>Our focus</li> <li>. Start of factory system</li> </ul>	<ul style="list-style-type: none"> <li>. To formalise Management theory &amp; practice to manage new business model</li> <li>. Basic HR to manage labour</li> <li>. Rise of Unions</li> </ul>
<p><b>SECOND INDUSTRIAL REVOLUTION</b> – 1870 ONWARDS</p> <ul style="list-style-type: none"> <li>. Massive technological advancements in industries</li> <li>. New source of energy- electricity, gas,</li> <li>. Development of steel demand and methods of communication such as the telegraph and the telephone</li> <li>. Inventions of the automobile &amp; the plane.</li> </ul>	<ul style="list-style-type: none"> <li>. Development of HR as a discipline</li> <li>. New theories to motivate &amp; manage people</li> <li>. Productivity &amp; efficiency</li> <li>. Focus on IR &amp; Welfare</li> </ul>

<p><b>FOURTH INDUSTRIAL REVOLUTION 4.0 - NOW</b></p> <ul style="list-style-type: none"> <li>. Started at the dawn of the third millennium with the Internet.</li> <li>. DIGITAL TECHNOLOGIES – Social, Mobile, Analytics &amp; cloud</li> <li>. Virtual reality, Cryptocurrency</li> <li>. Digital payments</li> </ul>	<ul style="list-style-type: none"> <li>. All HR Practices need to be re- invented to handle the new age employee.</li> <li>. Adoption of Digital HR Technology is no longer a choice</li> </ul>
<p><b>THIRD INDUSTRIAL REVOLUTION</b> – 1969 ONWARDS</p> <ul style="list-style-type: none"> <li>. Nuclear energy the new source of energy.</li> <li>. Electronics, telecommunications computers, space expeditions, research, and biotechnology and other new technologies.</li> <li>. Rise to a new era of high-level automation</li> <li>Programmable Logic Controllers (PLCs) and Robots</li> </ul>	<ul style="list-style-type: none"> <li>. Mainstreaming HR with Management</li> <li>. HR Research and new practices</li> <li>. Use of computer systems for basic HR processes</li> <li>. Training and Development</li> </ul>

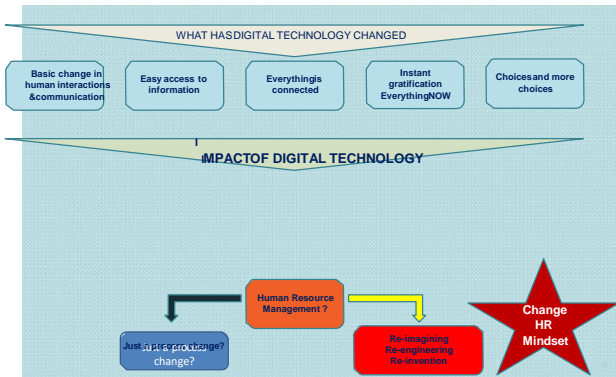
**NEED**

A study of Retaining Human Element for Digital Human Resource at Digital Speed

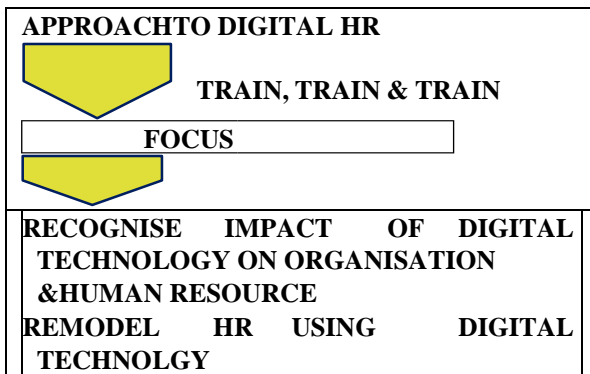
To help the management as well as employees to understand what & how Digital HR with Digital speed will help to retain good talent

Research problem is to study the Digital HR approach, implications, challenges & give appropriate suggestions to retain Human element

**CHANGES IN DIGITAL TECHNOLOGY:**



**APPROACH TO DIGITAL FOR RETAINING HUMAN ELEMENT**



1. Employees are the most important internal customers for HR
2. Basic HR activities are the most important initiatives for internal customers. Need to be designed with good communication approach
3. Communication in the organization, supervisors, HR on organizational policies & processes.
4. Deliver HR initiatives with HR communication channel so employees & ensure they are actively engaged.

**LITRTURE REVIEW:**

**1) A Comprehensive Literature Review of Digital HR Research (2017):** This research study examines the relationship between HR and technology in order to identify current HR technology trends and offer areas for further investigation. With the intrusion of technology, it emphasis shifts. Additionally, it implies that HR must switch from traditional to digital. Future transformation was stressed, including: a new generation of digital workers, new talent management technologies, reengineered performance management, culture, advancements in global development, diversity, gender disparity, and HR reinvention. Research also reveals issues with HR Technology

**2) The Impact of Digitisation on Human Resoure Development** Ardelin LUMI University of Prishtina  
**“Hasan Prishtina”, Faculty of Economic, (September December 2020 :** The study is a synthesis of research on the effects of digitalization on human resource management that was done by a number of writers. The filtering in the paper is carried out by categorising the authors in accordance with the information and findings. It provides a comprehensive overview of the advantages and disadvantages of digitalization in HRM operations, as well as its effects on the hiring process and any adjustments that have been made to the improvement elements. Additionally, it emphasizes how digitization affects training and development procedures and how important it is to include technology into training, specifically for the hotel business. Digitalization is one of the main components of technological development, which has an effect on every HRM activity. Numerous more modifications in HR processes have been sparked and driven by the significant changes made to human resources. It claims that the era of HRM has entirely altered as a result of technological advancements and digitalization. Russian authors talk about the negative aspects of the digitalization trend and how they affect workers. However, all of the experts concur that investment in this area is unquestionably important because of the impending digitalization and technological transformation.

**3) Digitization in Human Resource ( 2021) - Literature Review and Future Research Agenda** Abrar Parkar, Anushka Srivastava, Arshdeep Kaur-

The authors of this study discover that businesses are still looking for ways to become more responsive, adaptable, strategic, and efficient. To support these strategic efforts & retain people, HR managers are being compelled to investigate more creative ways to carry out their HR activities. The continued cultural, societal, and economic changes brought on by the increasing dominance of digital technologies have earned the current era the moniker "digital age." In order to respond to these developments, HRM must modify its strategies and initiatives to fit this new labour market cohort and look for appropriate solutions for both hiring and integrating such "digital employees" with previous generations of workers. In conclusion, digitising HRM has not only made life easier for HR professionals by keeping them in their jobs, but it has also increased organisational productivity and profitability. This study will raise managers' understanding of the organisational benefits of digitalizing HRM, which will speed up and broaden the adoption of various digitalization projects aimed at retaining employees.

**4) Digital Transformation in Managing Employee Retention using Agile and C4.5 Algorithm** Alexen A.

**Elacio<sup>1</sup> ,Francis G. Balazon<sup>2</sup> , Luisito L. Lacatan<sup>3</sup> ,  
1AMA University- Article Info Volume 82 Page Number:  
15217 - 15225 Publication Issue: January-February 2020**

: Employee retention has emerged as a crucial component of an organization's success. The researchers believed that by anticipating the characteristics and trends that will emerge in the future, digital transformation represents a key approach to corporate strategies today. An successful digital strategy will prioritise one or two areas where firms can develop a digitally enabled business model that uses competitive advantages to generate corporate revenues, such as boosting the organization's capacity to retain consumers through collaborative resources. The results of this study demonstrated the necessity for greater consideration for retention in order to accomplish organisational goals for positions that are very complicated and require specialised abilities. The study's overall conclusion is in line with Frederick Herzberg's motivation-hygiene hypothesis when applied. He claimed that a lack of job satisfaction precedes either staff retention or attrition.

## **5) Gauging the Effect of Performance Management and Technology Based Human Resource Management on Employee Retention: The Perspective of Academics in Higher Educational Institutions in Sokoto State**

**Nigeria(2013)** : In this study, academics in higher education institutions in Nigeria are examined to determine the relationship between technology-based human resource management (E-HRM) and staff retention. The results showed that higher educational institutions are capable of achieving the successes and achievements of technologybased HRM in businesses. Because technology-based HRM has the property of decreasing the time, energy, and expense incurred for the human resource procedures occupied in the academic administrative operations, its expediency has been shown to have a substantial association with employee retention.

**6) To learn more about digital human resources, one must first comprehend what it actually means. Sunjar and colleagues (2016)** DHRM is a method that's widely utilised in hiring, selecting, socialising, training, and developing career prospects for participants as well as for the organisation to find the ideal employee.

**7) (Bredin&Söderlund, 2011; KAVANAGH et al., 2009)** DHRM was defined as procedures that deal with how people interact with the organisations in which they work. HRM is also The evolution of DHRM has been significantly influenced by the advancement of information technology. **8) (Maditheti, 2017)** To attract and increase the recruitment of personnel into the organisation, all technologies are

resurfacing in new forms in the business world. By implementing new policies and strategies to draw in organisations, the fundamental change in HRM from conventional HRM to a Digital HRM took place.

**9) According to (Saini, 2018),** DHRM manages all HRM tasks using technology, a number of connected applications, and the internet.

**10) (Iwu, 2016)** The majority of employees, according to a study Iwu (2016) conducted at universities in sub-Saharan Africa, believed that E-HRM will improve their performance. The study also looked at the effects of digitization on talent management, HR development, and job performance. The research's conclusions show that digital transformation has a favourable effect on every variable.

**11) (Tripathi & Kushwaha, 2017)** highly advised firms to advance digitization in the HRM practises because it has grown to be quite important in recent years. **12) (Shah et al., 2017)** have shown that the digitization of HRM processes enables the removal of many repetitive tasks, the decrease in the risk of human error, and the empowerment of experts to solve significant problems, enabling them to use their knowledge and skills more effectively in solving business problems.

## **RESEARCH GAP:**

The study indicates that there are very few studies available on the topic.

There is need to deal with Digital Human Resource for retaining Human element.

Considering the significance researcher has undertaken this study "Retaining Human Element for Digital Human Resource at Digital Speed.

**RESEARCH METHODOLOGY:** This research is based on Secondary data. Secondary data is collected from published materials, seminar presentations, websites, books and journals pertaining to the topic of research.

## **IMPLICATIONS FOR HR:**

- Need for innovative models to manage evolving work associations.
- All HR practices based on the older definition need to be re-invented
- Employment laws will get re-written
- Use of technology in HR delivery-speed-quality-experience
- Analytics to support HR decisions.

## **FEW CHALLENGES**

Digital adoption: While businesses provide the finest possible online experiences, they also need to manage major internal change. Organizations lack the time and resources



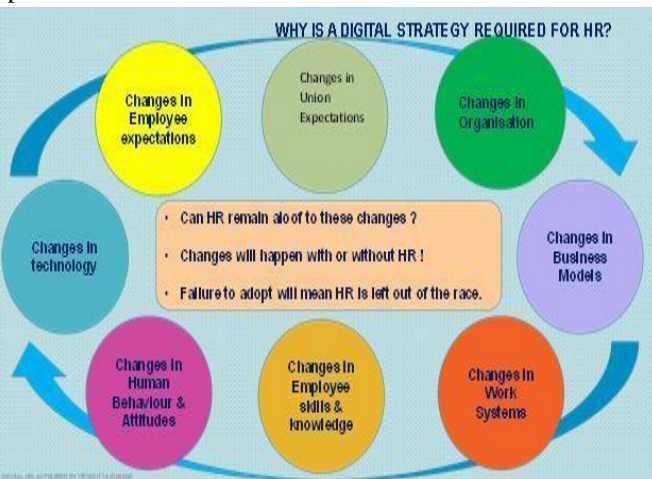
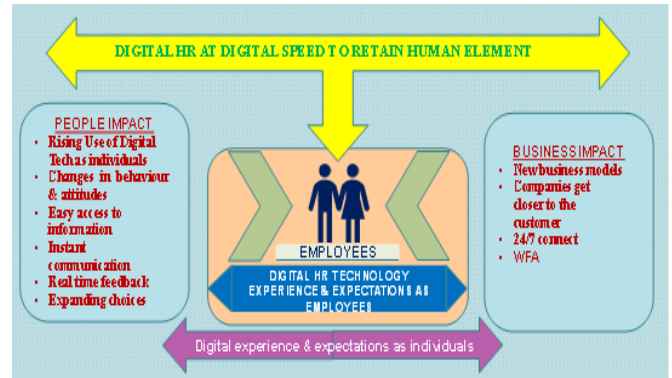
necessary to establish organisational capabilities and



manage change effectively.

Creating a unified culture in a virtual environment: The foundation of organisations is their culture. With fewer opportunities for new hires to experience culture in-person at work and having to rely on digital cultural experiences, culture building becomes challenging in remote working environments. – This makes the initial onboarding process more challenging and necessitates its redesign to satisfy present demands.

**DIGITAL HR PRODUCTS & SERVICES**



**KEY OUTCOMES:**

- Determine the ways that new technologies can lead to the digital transformation of established sectors.
- Analyze corporate strategies for ambitious digital transformation initiatives in the future.
- Create a plan of action for your company to add additional value for its employees.
- Define the digital organisation, including its layout, personnel, and resources.
- Recognize the main obstacles and dangers related to digital transformation.

**CONCLUSION:**

- We are truly living in exciting times when the very way of living and working is undergoing rapid change.
- These changes are connected to past. However, there is no turning back and the only limitation to the use of Digital Technology seems to be our imagination.
- We cannot remain isolated from the Digital Technology at an individual level, organisations too cannot afford the luxury of not leveraging Digital Technologies for redefining their business and operating models.
- HR which is an important stakeholder in the organization. Digital transformation will facilitate a Digital workplace for a new age digital workforce. This can only happen with digital awareness and adoption by the HR Leadership and Teams.
- The Digital HR initiatives need to maintain the momentum with resource cost & credibility.

**DIGITAL HR AT DIGITAL SPEED HAS TO BE THE MANTRA FOR HR**

**SUGESTIONS:**

- 1) The allocation of resources needs to be made for Digital HR implementation.

- 2) Dedicated team is required to design & implement Digital HR.
- 3) Avoid “Double Hatting “ of HR people for Digital HR projects
- 4) Appoint dedicated team with adequate resources, knowledge & commitment to projects
- 5) In order to successfully manage the diverse, remote, and virtual workforce, organisations need a seamless digital-first experience throughout the HR life cycle process from hire to retire (Talent Acquisition, Onboard, Performance Management And Support, Talent Management, Learning and Employee Engagement .)
- 6) Create a user-friendly, feature-rich digital platform to promote change.

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# **CHANGES IN CONSUMER BUYING BEHAVIOR TOWARDS WELLNESS PRODUCTS – A WAITING A DIGITAL DISRUPTION: A LITERATURE REVIEW**

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**Abstract-** The COVID-19 pandemic brought a perceptible change in consumer buying behavior towards wellness products. A buying behavior, which was characterized with infrequent purchases, turned towards becoming habitual and even variety-seeking behavior. The pandemic had a profound impact on the perception of people towards healthcare. Levels of health consciousness and wellbeing have seen a significant rise due to the pandemic. This paper reviews literature on consumer buying behavior towards wellness products prior to the pandemic and during the period of pandemic so as to assess the changes that have taken place in recent times. Papers from 2018 to 2021 have been included in the review to showcase the position of consumer buying behavior pre and post-COVID. It is expected that the review will be able to point out how a major external variable can bring about significant changes in consumer buying behavior. This information would be of use to marketing executives as an input in their strategy formulation. The market is a great opportunity for digital disruption to exploit the increased demand for the wellness products.

**Key words-** Consumer buying behavior, Wellness products, COVID-19, Social media, Digital disruption

## **Introduction**

The COVID-19 pandemic has shaken nearly every consumer category, influencing new consumer behaviors, stifling entire industries, and inspiring growth in others, including healthcare. The health and wellness industry, already a thriving \$4.5 trillion industry, has seen particularly significant changes as home consumers adjust to living without gyms, fitness studios or easily accessible doctor's offices, and overall rethink what it means to age well flight. pandemic. These new behaviors rely on the power of the Internet to sustain human connection and interaction. As consumers follow social distancing recommendations, the home has become the center stage for everything from eating and socializing to working and exercising. To keep patients without COVID-19 from going to hospitals and doctor's offices, doctor visits have moved online. In fact, telemedicine and home fitness have clearly benefited from two of these changes, with companies from the Doctor on Demand to Peloton well positioned during the crisis. Meanwhile, companies once running high-touch operations have found creative ways to bring business online and into customers' homes. Health has become a key focus for consumers as they adjust to their 'new normal'. And after months of social

distancing, consumers' attitudes toward fitness and overall well-being may be permanently altered, experts said. While “the wellness industry will lose billions in 2020 due to months of brick-and-mortar closures,” said Beth McGroarty, vice president of research at the Global Wellness Institute, “on an aggregate and long-term basis, the case for the concept of wellness and wellness markets after the pandemic looks very optimistic” (Chiquione, 2021).

## **A study was undertaken with the following objectives:**

- 1) To carry an analysis of the wellness products market in India,
- 2) To find out factors which influence buying decisions of consumers for wellness products in Pune City, and
- 3) To evaluate the consumer buying behavior during Covid-19 pandemic period for wellness products in Pune city.

This paper reviews literature on consumer buying behavior towards wellness products prior to the pandemic and during the period of pandemic so as to assess the changes that have taken place in recent times. Papers from 2018 to 2021 have been included in the review to showcase the position of consumer buying behavior pre and post-COVID. It is

expected that the review will be able to point out how a major external variable can bring about significant changes in consumer buying behavior. This information would be of use to marketing executives as an input in their strategy formulation.

## Literature review

Kramer and Kalka (2017) state that digital disruption causes change in consumer behavior as more information is available to the consumers, there are search engines to facilitate more investigation, and price robots help to find the best offers. The digitization of the economy is leading to significant changes in the way companies determine their prices. Technological changes (internet availability, digitization of production, product innovation) fundamentally affect the business environment, as the basis for pricing can be improved. Companies can collect and analyze more relevant information to optimize their prices. However, these causes accelerate competitive reactions. On the one hand, consumer behavior is changing (more information is available online, search engines and price bots help to find the best deals); on the other hand, market structures become fragile (barriers to market entry for new competitors are reduced, traditional products are cannibalized by digital products). Due to these factors, the pricing strategy must undergo a complete rethinking. In addition, this has implications for the types of pricing models applied in the digital age.

Gillpatrick et al. (2019) have stated that the technologies and business practices of Industry 4.0 are expected to radically change the competitive landscape and society. These changes will mainly affect the retail sector, which accounts for approximately one third of global GDP. Guided by the literature on the wave of digital disruption caused by new technology, changes in consumer demand and new forms of competition, this article is discussed. The drivers of innovation in marketing and the critical role of understanding the consumer value chain. The consumer value model and impact of digital disruption are discussed and how the impact on retail can be better understood. Implications for industry and macroeconomic policymakers and calls for further research based on this research are discussed. Shrivastava (2017) states that digital disruption has changed the customer's digital world. It includes the co-occurrence and co-existence of intensively evolving digital technology, an influx of different digital devices, different digital channels across customer touch points and all the time evolving customer behavior. The communications industry is no exception and is also affected. Digital disorders have triggered huge changes in technological advancements,

intensified service experiences by digital native companies, and on and on changing customer expectations and pushing communications service providers (CSPs) to embrace constant change and offerings personalized seamless customer experience. Digital Disruptions bring an opportunity for CSPs to transform their complete ecosystem and be relevant to digital hungry aspiring customers and maintain your position in the market. CSP must transform into a digital company with digital competencies to handle changing experiences across the board touchpoints and embrace ever-evolving customer expectations through innovative digital products and services. CSP traditional business models continue to decline and have zero effect. They constantly need to innovate a multi-model approach retain or attract today's self-organized customers and improve declining revenues. It creates a better customer experience the perceived value of the customer experience to their customer and leads to customer loyalty that creates lasting business values or revenue streams for the CSP.

Masebe et al. (2020) have written that online retail has grown significantly over the years both globally and in South Africa. Technology continues to influence, influence and shape how and where consumers shop. South Africa's shopping center industry is the 5th largest in the world and is home to South African retailers representing over R900 billion (\$61 billion) in sales or 15% of GDP. This report examined digital retail disruption, its impact on the shopping center industry in South Africa and the strategies available that can be used to counter any negative impacts. A desktop literature survey followed by a qualitative analysis was used in the implementation of the research. The research found that digital disruption has caused a shift in consumer behavior that is leading to reduced demand for retail space and lower rents and retail property values. Available strategies to counter these negative impacts were found to include a customer-centric retail real estate business model, Shoppertainment, leveraging technology, converting malls for other uses, developing green malls, and agile property management.

Kaur and Kumar (2021) examined the effect of COVID-19 coronavirus on customer buying behavior of wellness products in the areas of awareness level of consumers, online services and enormous price increase of goods. The research was carried out on 152 respondents from various areas of the town of Kolkata by using an online questionnaire using convenience sampling technique by online mode. It is analyzed using multiple regression analysis after data collection via online survey to find out the significance of the individual predictor as mentioned



above. The results show that the independent variable (huge price rises for goods and delayed online services) greatly affects customer purchasing behavior. After assessment, the data shows that the male respondents with monthly income ranged from 0 to 30,000 with the age range varied from 25 to 35 years and strongly affected customer purchasing behavior. Therefore, the higher income of male respondents and the tremendous price increase of goods are closely correlated to the buying behavior of consumers. The overall results have consequences for marketers, distributors and advertisers to incorporate potential strategies in line with current strategies. Kalra et al. (2021) have stated that the coronavirus eruption (COVID-19) is the world's first and foremost human disaster, impacting the lives of millions of people. The global economy has been profoundly influenced by this. The goal of this paper is to provide business leaders with an understanding of the progressing situation. The pandemic affects and influences every region. An optimistic change in the trend of online shopping was generated before lockdown work from home. But for a long period of time, this did not reside. Indian online shopping and marketing patterns were dramatically affected by an abrupt 21-day lockdown. Initially, the effect of Coronavirus on customer purchase behavior, products and online tools was largely unknown. Because of COVID-19, this paper aims to focus on various online marketing concerns and perspectives. There are also many more questions on how to forecast the selling of the global population, both directly and professionally, will be impacted in the next few months. This research examines the effect of the epidemic on many more everyday necessities, from toilet tissue rolls to baby gear, pet food. While some of the businesses continued to function through e-commerce and social media marketing through social commerce. Forty-six percent of consumers have agreed that social networks are important for exchanging information and making product choices. The findings, however, suggest that online marketing and shopping will soon return to normal, but the losses and downshift caused by this pandemic are not negligible.

Deloitte (2020) "Health and Wellness Report 2020" states that, two million workers are active in health and wellness programs, a record number. Companies are responding to growing market demand for consistent product labelling and at least some portion of their product range was reformulated by 98 percent of the survey respondents. Three of the Sustainable Development Goals (SDGs) of the United Nations are sponsored by the CGF Health & Wellness Pillar: zero poverty, good health and well-being, and collaborations to achieve these objectives. The report offers an insight into how well the member companies of the CGF relate to these

priorities and the health and well-being of their clients, workers, and the societies in which they work. It also closely tracks the patterns and challenges that provide corporations with an opportunity to make this progressive change. Further, report also added that, Two million workers are active in health and wellness programs, a record number. Over 98 percent of responding organizations reformulated at least some portion of their product portfolio in compliance with their own health and wellness policies. 79% of businesses indicated that 81% to 100% of their food and beverage items show key nutrient information. About 70 percent of companies offered low-salt or low-sugar versions of their products. 84 percent of respondents said that 81 to 100 percent of their portfolio of personal care and hygiene products specifically indicated product use. Almost 93,000 tons of food was donated to local food banks by 61 percent of the CGF member companies. Member organizations have collaborated on health and wellbeing programs with over 550,000 colleges.

Ali and Ali (2020) analyzed the factors which effects on the willingness to pay for health and wellness food products in India. A structured questionnaire was formulated and data were collected from 218 respondents by using stratified random sampling method. Collected data were analyzed by using The Poisson Count Regression Model (PCRM). The analysis revealed that health consciousness is a prime psychological factor of the consumers influences their willingness to buy wellness products. It is also found that buying behavior is also depending upon the quality, price, packaging, taste and also consumer's looks for convenience in shopping. On the other hand, market offering, sales assistance in the store are the less influenced factors. The purchasing behavior of food products by consumers is becoming inclined over the years, due to changing social demographics, balanced foods the customers' profiles. As a future market sector, health and wellness foods have arisen, which has invited considerable investment from national and multi-national organizations. The outcome of the regression study shows that education and income are essential factors influencing the ability to pay for food items for health and wellbeing out of four socio-demographic variables. Health perception is the main psychological element that influences consumers' willingness to pay for the purchase of food products for health and wellness.

Hossain and Shila (2020), studied that personal care items are part of our daily lives and are a big part of our lives. It is very important for advertisers to know what customers offer relevance to when these items are bought. It will help them



produce, design and market items that concentrate on the needs of customers and attract more consumers. Existing research is a cross sectional survey which concentrate on choice opinions of buyers of Dhaka city. The objective of the present study was to find out whether there is any difference in opinion regarding personal care products among people from different professions. Further, this research also focuses on the education of people and wanted to study the impact of education on people's opinion. Primary data were collected through the structured questionnaire which was having 15 items with 5 points Likert scale. Present study explores that consumers especially, female consumers are more concerned about specialized products. At the end research reveals that, people having different education levels but not having significance difference on opinion regarding personal care products.

Pragalbh Sahrma (2020) studied the preferences and perception of individuals or Patanjali Products in Mathura District. The data collection for the same is done from a well-designed questionnaire and interview schedule. Convenience sampling method is used and 170 respondents were selected for the study. The majority of customers are aware of after getting aware of them, consumers purchase the goods. It is considered to be the highest factor integrated with 3 variables to form a factor. They include youth appeal, competition and knowledge of goods. In the eyes of the clients, this produces a brand image. The attribute is the combination of two variables, i.e., Baba Ramdev and Purity associations. Reputation, product quality and pricing, Competitiveness Pricing policy, natural product supply and popularity, and product selection and visibility were also the key determinants of the results.

Minajigi and Asha (2019) researched the behavior of consumers buying cosmetics. Quality is regarded by people as the most important factor in purchasing cosmetics. Marketers will use the results to devise marketing campaigns for cosmetics. Through this paper, an attempt was made to recognize the various factors affecting and motivating consumers to purchase a product. This research shows that different factors such as consistency, brand, price, advertising and packaging have significant effects on the buying behavior of consumers. This research paper aims to provide cosmetic companies with an additional concept and expertise to learn more about customer buying behaviour. Through this research, it was found that the following variables, product quality, product price, brand name, product packaging, and advertisement have a greater effect on consumer purchase

decisions. Consumers are making their purchasing decisions by thorough thought processing, as there are alternative goods that compete in neighboring regions, comparatively cheaper prices, quality, etc. One of the important competing factors in the decision-making process is brand, quality and price. When buying cosmetics, people often consider consistency as the most important aspect and they also seek the advice of a beautician. People regard cosmetics as an important part of routine life, which is a positive insight for cosmetic product marketers.

Manideep et al., (2019) have thrown a light on the factors which affects purchase decision of consumers as well as the perception of the consumers by framing the hypothesis which state the association between purchase intention and consumer demographic attributes. The present study conducted to study the relation to consumers purchase intention for wellness products and education of the consumers is associated with perception towards purchase wellness program. 670 sample size was determined by using convenience sampling method. Study found that consumer's perception has a dependent association with attributes such as health, safety, environmental conscious towards consumption of wellness products. The study concludes that educational qualifications have an impact on consumer intention to purchase organic products in achievement of wellness in life. Sharma (2019) carried out a descriptive study and explored the factors that influenced that buying of personal care products among the rural consumer. The present research is also focused on demographic factors such as gender and education. The existing research was based on the primary data with the help of a questionnaire. Questionnaire comprised 23 variables which were categorized under four constructs that define rural consumer buying behavior from various aspects. 150 sample size was drawn to conduct the survey and it was analyzed with the help of the t-test and ANOVA. The study concluded that female consumers are putting greater emphasis on their lifestyle, self-image, health and economic consideration while purchasing personal care product. The study recommended that cosmetic dealers should develop deeper understanding on the factors which affects female buying behavior.

According to Lavuri and Sreeramulu (2019), the personal care industry is one of the fastest developing purchaser items segment in India. It was said that, personal care and beauty care products area in India has strong development. The present research focuses on the buying behavior of women consumers regarding personal care products. The survey was carried out by using structured questionnaire.

172 respondents were considered for the research work. The study reveals that demographic factors of respondents have significant mean difference with buying personal care products. The existing study explored that woman every month buys personal care products and it was also found that majority of woman buys national brands towards their personal care products. Further, existing study added that, there is a positive correlation between the education, marital status and buying personal care products. Respondents buying behavior was also influenced by brand ambassadors and family and friends. Researcher has made suggestions to the companies to create awareness and to make a brand image in the mind of customers. Innovation, technology and best features should be added to the products so that customers can be attracted.

Senthilkumar and Gnanaraj (2019) from their research concluded that Amway personal care products are favored by respondents for their high quality, no side effects and bio-organic nature. The only thing that prevents a few respondents from not using all of Amway's goods is price. Regardless of their age, education, income, residential area and occupation, all participants use the Glister Tooth Paste of Amway. Further researcher added that the knowledge of quality is rising in every area of life. Recently, it is seen that people are giving priority to quality in order to prevent potential problems. They are looking for quality education, quality foods that provide protection, products that do not have side effects, organic products, etc. The Amway Company and its products are well-known for quality and healthy use because it says that there is nothing in its products that causes harm to the earth and living beings.

Nirmala and Panchanatham (2019) have stated that in cosmetics, the role of television advertisement is invariable and induces women consumers, in particular, towards cosmetics. Cosmetics play a very important role for women customers in their day-to-day lives. It helps develop one's personality and raises the degree of trust of women consumers. The majority of women work in society and are very specific about their appearance. The increasing awareness of beauty products, changes in patterns of consumption and lifestyles have increased women's buying power. The growth in the use of cosmetics in our daily lives has increased the consumer demand for cosmetic products. The research aims to identify the influence of television advertisement on women's consumer purchase behaviour towards cosmetics. Primary and secondary data were used to collect data, and correlation, independent t-test and ANOVA samples were used to analyze primary data. The data was

collected from 80 women customers in Puducherry via a questionnaire and the study is performed using SPSS software. The study aims to identify the role of television advertisement in the purchasing of cosmetic products and the influence of culture, subculture, attitude and beliefs, social class and learning. The results showed that there is an important relationship between TV ads and the purchasing behavior of women customers towards cosmetics, and it was found that there is a substantial gap between the age-wise classification of women customers and the different factors causing them to purchase cosmetic products. It was found that there was no substantial difference in the study between the form of family and the intention of using cosmetics.

Parmeswari and Poovazhahi (2018) in their study showed that, due to its quality and delivery services, most customers have a favorable attitude towards Amway goods. This research has found that consistency is the key point of choice for a specific toothpaste brand, protein powder, hair oil, Nutrilite Regular, toilet soap. Distributors should not sell

Amway goods in advance to others. But now the manufacturers and customers are the same for a few days. So Amway goods are readily available. This study shows that the cost of available Amway goods on the market is high. Consumers are not happy with the cost-effectiveness of Amway's goods. This study's results will help distributors improve their services.

Kaur and Bhatia (2018) have reviewed many research articles related to awareness towards personal care products. Research states that, 205 of the personal care products contains chemicals which links to harmful diseases like cancer. Whereas no legislation exists for such products, the FDA is the sole regulatory agency, but the ingredients found in all such products are not regulated. Market leaders such as Johnson & Johnson have slammed negligence charges of quite a handful of millions of dollars as women use their talcum. Due to ovarian cancer, powder and shower gel are gone. These non-organic goods are harmful to the body and similarly dangerous to the environment, because these contaminants are washed away after we use them. Since the last decade, green products have shown popularity, US market demand has shown impulsive growth in green laundry detergents, personal care products. The studies revealed that health is the core factor that attracts the organic purchase of products among the large number of motivational factors that bind consumers to buy and use organic products. It is concluded that, the consumer bank on the organic products and so, government should make such arrangements that more marketing should be provided and

producers also try to grab the markets that these are available in plenty. Departmental stores, super specialty stores, drug stores, super markets, malls should be well equipped with the personal care products. It was found that if they are properly certified and supervised, people rely more on natural products, as this boosts their confidence to invest genuinely in them. Brand positioning and branding also play a major role in awareness, so more and more marketing is needed. This research also explains that if they purchase organic products, customers would certainly buy them. More information, timely access, more product choices, and affordable prices are offered.

Suganya and Hamsalakshmi (2018), studied a brand awareness towards ayurvedic healthcare products. The purpose of the research work is to study the brand of the consumer. Knowledge of selected ayurvedic healthcare products and brand loyalty of consumers to selected Ayurvedic healthcare products. Weighted average analysis, one way Anova, basic percentage, and spearman rank correlation are instruments used for the analysis. Respondents are well aware of herbal substances. The majority of participants (66%) did not change the brand. And (34%) of the respondents changed the brand. The suggestions are also given by the researchers such as opening up more Ayurvedic shops in commercial area and door to door canvassing. The existing study concludes that respondents are highly aware about the herbal ingredients.

Renuga and Ramya (2018) have thrown light on buying behavior towards organic products. Study states that, demand for the organic products is increasing and health consciousness among people is also increasing. The present scenario led the investigator to learn more intensively about the purchaser's actions towards organic goods, their evaluation, market knowledge of organic products, and so on. Tamilnadu is one of the potential states for organic goods, with most of the state farms developing the traditional way without the use of composts and plant assurance chemicals or less. A portion of the real food crops grown organically in Tamilnadu and having strong market demand are ginger, jackfruit, fenugreek, mango, tamarind and Amla and so on. Consumers are also preferred to buy numerous items of organic food products, especially in huge cities. In any event, because of the shameful market relation, the lack of people's knowledge of organic products, no product separations between organic and inorganic products, etc., came to the price advantage (premium price) of the organic foods produced in the state. The present paper examined the buyer's behavior towards organic products, including readiness to pay

for the item, inclination for various goods, such as fruits, vegetables, cereals, and so on, to better understand the consumer's perception of organic products. Many buyers of organic food claim that organic food items are healthier and free from pesticides. And there is a substantial connection between factors of buying behavior, such as health benefits & efficiency, across income groups. It was also found that buyers of organic food had a strong effect on the purchase behavior of organic food goods.

Anjana (2018) focuses primarily on understanding consumer purchase habits for cosmetic products. Through this paper, an attempt was made to recognize the various factors affecting and motivating consumers to purchase a product. This research shows that different factors such as consistency, brand, price, advertising and packaging have significant effects on the buying behavior of consumers. This research paper aims to give cosmetic companies an additional idea and information to learn more about customer buying behavior. Consumers make their purchase decisions by thorough thought processing, since there are alternative goods that compete in the fields. Near proximity, comparatively cheaper value, efficiency, etc. One of the strong competing factors in the decision-making process is brand, quality and price.

Donga and Patel (2018) in their paper aim to present and draw roles of various demographical and situational factors influencing use of nutrition label in consumer purchasing decision. It also rationalizes different kinds of label formats that could affect the use of food labels. By searching databases online, a systematic analysis was conducted. Researchers looked for journal papers and conference proceedings in order to classify the articles online. A total of 60 articles were collected, of which 50 were chosen on the basis of the subject specification. One of the most essential sources of nutritional knowledge for products is the nutrition label. Nutrition labels are considered as one of the trustworthy source of knowledge as it is provided by manufacturer and approve by government agencies. Demographic variables such as education and income have a favorable association with nutrition label use. Compared to their peers, females and married customers are more likely to use the nutrition label. Age, product purchase frequency, time availability and household size are adversely correlated with the use of the nutrition mark. The implementation of a plain, easy to understand and cohesive labeling scheme is one of the most effective ways of simplifying the nutrition label. The use of the nutrition label is influenced by demographic factors; it is the duty of the food manufacturer to acquire the label according to the

requirements of potential consumers. If labelling designs take into account demographic and situational factors of the target market, the chances of use of the nutrition label may increase.

Vasan (2018) state that the rise in people's desire for grooming and changing demographics and lifestyles, deeper customer pockets, increased media visibility, higher product range, retail segment growth and wider availability are the reasons for the sharp increase in cosmetic demand among Indian men, particularly young people. In this context, the present study focuses on the inclination of consumers towards items for personal care from Patanjali. The research found that customers are happy with the price, ingredients used, consistency, brand image and quantity of personal care products from Patanjali. This research is carried out on the basis of the survey method among the 120 personal care items of Patanjali's customers. The study found that Patanjali has developed a good public brand image, so more cosmetic, health and food related products are to be launched by Patanjali's management. The researcher has concluded by saying that when it comes to buying cosmetics as well as personal care products, Indian customers are growing more and more brand conscious. In a price-sensitive economy like India, businesses need to concentrate on the type of advertisement that plays the largest role here. Word of mouth promotions are a key factor in economy like India.

Research factoring impact of COVID-19 on the wellness products industry is at a preliminary stage. While there is a unanimous agreement on the fact that the wellness product industry will see a major upsurge in demand due to the pandemic, a holistic study going into the details of the consumer buying behavior is not seen on records. Such a study taking into account aspects like consumer awareness, role of social media, factors influencing buying behavior, impact of COVID-19, and perception of benefits from wellness products is not available.

### Conclusion

The COVID-19 pandemic brought a perceptible change in consumer buying behavior towards wellness products. A buying behavior which was characterized with infrequent purchases turned towards becoming habitual and even variety-seeking behavior. The pandemic had a profound impact on the perception of people towards healthcare. Levels of health consciousness and wellbeing have seen a significant rise due to the pandemic. The review comes across papers on

peculiar Indian healthcare products like Patanjali and Ayurved. Gradually these products are garnering support of the Indian customers and are challenging more established brands like Amway. Overall there is a change in the consumer buying behavior and health consciousness has risen to an all-time high. The willingness to pay for health and wellness food products in India has increased due to pandemic. The wellness product industry has a bright outlook in the years to come and is a lucrative industry for companies to capture the changed perception and sentiment of the consumer towards wellness products. The market is a great opportunity for digital disruption to exploit the increased demand for the wellness products.

### Scope of further study

Scope of further studies includes similar studies to be carried for other products, comparative studies of wellness products in different cities, and comparative studies with other nations to understand their buying behavior changes.

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## DIGITAL TRANSFORMATION AND INNOVATIVE HRM PRACTICES IN RETAIL INDUSTRY

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**Abstract-** A distinctive nature of Human Resource Management (HRM) lies in its assumption that improved performance and organizational goals are attained through the people i.e their employees in the organization. The future of the retail industry is in front of us as digitization transforms the retail industry. Since the outbreak of the pandemic



and subsequent closures, retailers across India have been forced to rethink the way they do business and, in particular, how they serve customers. At present the retail industry has seen drastic change within the last few years and managing its employees has become a great challenge to Human resource management personnel. The function of the HR division has always been changing, striking a balance between the expectations of employees and demand of current business. The present paper aims at entrusting the HR department with innovative practices through digitizing the HR processes so as to attain the desired result from employees. Customers are looking for not only products but better experiences. This may cost a large deal to the organization in terms of planning and executing new procedures for employees but would reap benefits in the long run. A review has been done to extract from the literature how HRM has an impact on various HR and organizational outcomes. Other industries have been studied to adopt best HR practices which have a good-fit in the retail industry. Also, it's been discussed what are some of the digitization that happened in the leading & successful retail firms. The paper concludes with the opinion that there is a sheer need of bringing innovative practices in HRM to achieve the organizational and employees' personal goals.

**Key words-** Digital transformation, Innovative HRM practices, Self-managed teams, digital recruitment, Two-way mentoring, Flexible work arrangements.

## Introduction

India's retail industry has gone through a ton of changes particularly in the manner HR office work. At first HR was viewed as a help work whose significant occupation was to recruit and oversee the operation. Indeed the Key execution mark of HR was absolutely on recruiting numbers. As HR is on the verge of undergoing a digital transformation. People demand a straightforward, quick, and efficient experience, whether they are customers or employees from the businesses with whom they converse with. When staff has access to the appropriate information when they need it, they can treat consumers how they would like to be treated and turn a transaction into a value-added experience. Although digitizing HRM actually streamlines and simplifies HR tasks, the organisation as a whole is unlikely to view it as revolutionary. This is because new HR software can actually encourage a new conversation about employee performance, development, and well-being in addition to being able to "digitally" assist HR responsibilities (Amabile and Kramer, 2011). This transformation leads to Innovative HRM which has been characterized as - the global presentation and utilization of any unused idea, practice, interaction or framework to impact or adjust the conduct of workers with the center being the hierarchical exhibition, distinguished and executed by HR experts (M. Suman Kumar, P. Archana, 2017). The occurrence of new work rehearsed in the United States was attempted by Appelbaum and Batt (1994). The discoveries showed that there have been developing patterns in utilizing Innovative HR rehearses starting around 1980. The extent of firms with somewhere around one representative contribution dynamic interaction is enormous and developing. Since most of reviews are cross-sectional in

nature, the information are lacking to uncover more exact data about the advancement and development of these new work rehearses (Appelbaum and Batt, 1994). Critical headway has been made connecting creative HR rehearses like High- execution work framework to authoritative execution. As indicated by a review led by Empxtrack, 2015 there are sure most recent patterns in retail industry, coming about unexpected blast in the Indian Retail industry, they are displayed in Fig. 1.1:

Fig 1.1- HR Trends in Retail



Source: <https://empxtrack.com/blog/category/case-study- white-papers>

## Research Objectives:

- 1) To understand the concept of digitization of HRM practices and its relevance to organization.
- 2) To review the literature with preliminary focus on describing digital transformation of HRM leading innovative practices and outcomes.
- 3) To suggest the retail industry few innovative HRM practices for boosting the bottom line.

## Literature Review:

Employees have more power nowadays, thanks to digitization, when it comes to strategy, decision-making, and even leadership. By imitating social media, learning and engagement technology is brought into line with the standards and methods of work of the millennial generation. Expecting to see a sharp rise in plug-and-play digital talent and recruitment solutions (Larkin, 2017). Past research has shown a relationship between HRM and firm performance.

The 'best practice' HRM leads to enhanced individual & organizational performance (Rosmah Mohamed, 2007), keeping in view "soft or high commitment HR (Beer et al. 1984), studies displaying connection between HR and its outcomes like employee attitudes, organizational citizenship is been viewed as significant (e.g Gould-Williams, 2007; Kuvaas 2008, Macky and Boxall, 2007). Various research has been conducted on innovative HRM practices and its impact on different HR outcomes is depicted through the figure 3.1 as below:

Fig. 3.1: HRM Practices and HR outcomes



**a) HRM and firm growth:** An analysis of the relationship between human resource practices and firm growth determined the extent, if any, to which particular HR practices may support firm growth. HR managers participated in the survey and provided their opinions on how HR practices and business growth are related. Results showed that the biggest influence on sales growth was the compensation policy. Except for job security, results show general support for all HR practices. (Ilias P. Vlachos, 2009).

**b) HRM and job satisfaction:** Reed Young conducted research on the impact of employee autonomy in line with the intention decisions on job satisfaction and intention to leave the company. According to the research, there is a link between autonomy, empowerment, job satisfaction, and the

intention to leave a job. These factors were identified as influencing factors in employee intention to leave a job. (Reed Y. Young, 2016)

**c) HRM and retention:** When rewards are unfair and there are few opportunities for career advancement, organizations are less likely to keep their employees. According to research, employee turnover is associated with growth and fairness of rewards. The work engagement is significantly and favorably related to employee retention, growth opportunities, and fairness of rewards. In order to keep skilled workers, there must be room for advancement and a just compensation structure.

**d) HRM and culture:** HRM procedures must be used to establish and maintain an organisational culture that fosters a welcoming workplace environment for employees. In order to design a new culture, HRM experts must be at the forefront of cultural transformation with cutting-edge HRM techniques. Others have suggested that HRM could be a potent tool for influencing and modifying an organization's culture in order to increase its effectiveness (Schien, 1983; Ulrich, 1997). A correlation between various aspects of HRM practises and aspects of culture has been shown in a number of earlier research, demonstrating that HRM practises have an impact on organisational culture. According to Ulrich and Lafasto (1995), HRM methods inform employees and influence their behaviour and experiences.

**e) HRM and work engagement:** In a study, the literature was reviewed to determine the antecedents and outcomes of work engagement, and human resources practises such as Realistic Job Previews (RJP) and selection tests were identified as antecedents (David S. Gill, 2007). Individuals who received an RJP showed a significant increase in work engagement.

## DISCUSSIONS:

With a sudden surge in the expansion of India's retail market and the entry of foreign players into the domestic market, there will undoubtedly be a talent shortage in the near future. The only solution is to support HR by incorporating digitization and innovation. Attracting the right talent, grooming them to meet your company's needs, and then retaining them is the most difficult and ongoing task facing any retail HR professional today. Human resource practises have shifted their emphasis from recruitment to talent development. Various organisations have implemented various policies to motivate their employees. Although monetary rewards may not be the most important factor for entry-level employees, there are a variety of other factors

that influence a person's intent to work, thus keeping all this in view the HR department has to adopt a well-balanced approach to create a win-win situation for organization and employees. Some of such interventions are discussed below:

**Digitizing recruitment:** The organizations are seeking qualified candidates in today's globally competitive marketplace and attracting these candidates requires organizations to invest a large amount of effort towards high-quality recruitment practices. By digitizing some components of the hiring process, you may quickly transform a labor-intensive one into one that is quick and only needs human labor where it will have the biggest impact: during the interview and hiring decision. To tackle attrition, retailers are increasingly turning to diverse sources of recruitment. For instance, organizations are recruiting differently abled candidates for certain roles, which is, in fact improving retention in these roles.

**Digital learning & Development:** The best companies offer more and better training facilities to develop their employees. Companies that deployed digital learning platforms transformed learning habits and provided individualized, just-in-time learning. Due to the proliferation of digital training solutions, L&D is significantly impacted by digital transformation. In retail, HR have been forced to adapt a new aesthetic that incorporates outdoor shopping malls, e-commerce, and social media. Some stores, finally adopted a fully multichannel strategy to retail and have an online presence.

**Performance-based appraisal and compensation:** The linkage of the Performance Management System to rewards has been one of the key objectives as part of the retailers' HR plan, as well as one of the key focus areas given the critical challenges they face. As a result, many retail organizations are working to create a strong performance management system. Because the retail industry operates on razor-thin margins, managing compensation expectations in a talent-scarce environment is a major challenge. Organizations in the retail sector are choosing to increase variable pay for employees rather than invest in increasing increments in order to maintain a competitive advantage in an increasingly competitive environment.

**Self-managed teams:** Since the retail sector is recognized for hiring a significant amount of temporary workers, mostly in the sales team, the demand for temporary workers is continuing to increase. These personnel work to provide them with an opportunity to have involvement in the

decision-making process, related to their jobs and workplace environment. Empowering them to feel good about the collective effort of the workgroup and hold a sense of pride in the organization

**Flexible Work arrangements:** Although there are many part-time positions available in the retail industry, thousands of talented workers are unable to advance in their careers and increase their earning potential due to the dearth of part-time positions in retail management. The second most significant benefit of working in retail is flexibility. Therefore, businesses that accept flexible working practises in more senior roles have a higher likelihood of reducing the gender pay gap and keeping critical employees.

**Skill development for tech-savvy employees:** Many retail businesses operate their own academies to carry out employee skill development. The abilities needed for a planogram role are developed internally. The Learning Management System is used to implement the curriculum, which was developed with consideration for each and every position. Development needs for KPIs are met with the use of particular testing. Additionally, training time is consistently evaluated and logged for future planning.

**Social benefits for millennials:** Careful consideration should be given to choosing compensation packages for millennial retail employees to ensure that they stand out in the retail industry and retain those high-performers who help the business grow. Retailers are in a better position than other industries to provide benefits to employees. Giving employees a discount on merchandise, for instance, can go a long way toward retaining workers. Additionally, sales incentives are a fantastic way to keep retail staff motivated and interested in moving merchandise. If there is an arrangement where their tuition fees can be reimbursed or any other assistance program which would help to retain them, the majority of retail employees are still in college or are recent graduates.

## SUGGESTIONS

Based on the studies done on other industries like IT-ITES, hospitality there are certain innovative practices being embraced by them befitting retail sector, which are discussed below

a) Customizing the job roles for the talent: HR professionals who are on the cutting edge are modifying job descriptions and choosing to create positions based on a

candidate's skills and interests. Although difficult, if managed properly, this new practise is very successful. It requires both an understanding of the employees and an accurate assessment of their skill levels.

b) Rising above job titles: Traditional businesses' "hierarchical" atmosphere is being abandoned. Titles, according to this argument, inhibit creativity and create an unproductive hierarchy. A more unified, cohesive team of employees results from their removal. Going with a flat structure of the organization will serve better as far as employee contribution is concerned.

c) Two-way mentoring: When new hires enter the organization, company veterans teach them the essentials of product knowledge and procedural requirements. At the same time, these seasoned veterans can learn new technology, acquire new "capabilities," and have their minds stimulated. Retail businesses must take advantage of the mentoring connection as a back-and-forth one rather than an up-to-down one.

d) Fostering workplace flexibility: In general, businesses that uphold this new degree of employee flexibility will likely do far better than comparable businesses that opt to revert to the old way of doing business with less employee flexibility in terms of recruitment and retention efforts as well as overall employee engagement. Employees may feel more in control of their schedule and working environment when their workplace is flexible. You can help your staff feel more self-determined by encouraging the entrepreneurial spirit by letting them choose their own delivery approach.

e) Asking for feedback: If employees provide valuable feedback and management holds meetings to discuss the results, then the company can bet on getting newer ideas to improve business. Also sometimes it allows an assessment of the problems and creates opportunities for resolution. For this, employees should be encouraged for open-door policies and welcome the voice of even entry-level trainees.

f) Showing empathy: Successful businesspeople think that by continually demonstrating real concern for their staff, they will feel happier and more engaged at work. Finding out what is bothering the team is one of the management's responsibilities. Playing music while working or upgrading an uncomfortable office chair can assist to demonstrate to employees that their employer values them.

## CONCLUSION:

It is evident from the above research that to recruit and retain personnel, human resource departments across retail firms will need to adopt cutting-edge strategies. Today technology alters how human resources departments communicate with employees, keep records, and evaluate employee performance. HRM agrees that staff development is a strategic instrument for an organization's long-term growth, productivity, and ability to keep key personnel. The capacity to draw in and keep talent nowadays requires both being able to walk a tightrope and gradually adapting to the industry's expanding needs. At the same time, it's imperative to measure the effectiveness of HR programs. The employee experience should be a key component of the HR measuring process because HR is supposed to service the people of an organization. • HR needs to keep implementing successful onboarding programmes and engagement initiatives to meet the ongoing retention difficulties. In order to stay competitive in the sector, human resource procedures must be continuously improved. Additionally, results speak that innovative HRM techniques can have a significant impact on both the performance and retention of employees. Hire from Tier 2/ Tier 3

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## Study on Right to Education Act 2009 Implementation in Primary and Upper Primary Education in India - Need to Create Pandemic Sustainable Digitisation in Education in India

Theme: Post -Pandemic Sustainable Business Strategies:

Sub Theme: - Digitization in education / Online Universities and Hybrid learning.

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### Abstract

This paper is an attempt to critically analyse the management of implementation of RTE Act 2009 through primary survey of all major stakeholders. Moreover, the Covid-19 pandemic has created disastrous impact on almost every aspect of life including education. The loss of learning so caused is not simply the curricular learning that children's world had acquired if schools would have remained open but also include the ability to read, the ability to write and the ability to discuss; since all these abilities are the foundation to further learning. Moreover, the covid-19 pandemic has created a digital divide due to the edtech industry. The students living in remote areas with inadequate digital infrastructure have not benefitted from virtual schooling. But the continuity in education through digital mode (hybrid learning methodology) achieved in many places has nonetheless been remarkable. The authors through a primary survey have collected data from

primary and upper primary schools in Delhi, Haryana, Himachal Pradesh, Kerala, Punjab and Uttar Pradesh about the impact of Right to Education Act during the decade (2010 to 2021) including the Pandemic period.

“Necessity is the mother of all invention,” says a teacher at a school in Chandigarh in Punjab that has embraced **edtech**. “It came as a blessing in a bleak situation and made a world of difference.” Education systems must transform, using technology to benefit all learners and building on the innovations and partnerships that have emerged throughout this crisis.

**Keywords :** Education, Covid19, Edtech, Digital disruption, digital divide, learning loss, learning poverty, Hybrid learning, RTE Act

### 1. Introduction

“Childhood is a critical period in any human’s life, which marks the foundation of the personality and emotional resilience capacity of any person.”<sup>1</sup> In the 1960’s Schultz (1961) and Denison (1962) showed that education contributes directly to the growth of national income by improving the skills and

productivity of the labour force. Thus, education is a powerful vehicle to bring social change. The objective of this study is to analyze the implementation of the RTE act for primary and upper primary education and to understand the social, economic and governance dimensions of RTE implementation. The review also seeks to find out any major impact on a girl child, specially-abled children and children from vulnerable sections. "In addition, the Covid-19 pandemic has caused the irrevocable damage to the education system in human history affecting almost every country worldwide. The pandemic has nearly influenced nearly 1.6 billion learners in more than 190 countries and all continents. Closures of schools and other learning spaces have impacted 94 per cent of the world's student population, up to 99 per cent in low and lower-middle-income countries.<sup>2</sup> The disruptions caused by COVID-19 to everyday life meant that as many as 40 million children worldwide have missed out on early childhood education in their critical pre-school year.<sup>3</sup>

1. Review of the Impact of the Covid-19 Pandemic on Primary Education". Scholarly Research Journal for Humanity Science & English Language, Peer Reviewed & Refereed Journal, June-July, 2022, Vol10/52 by Self and Dr. Snehal Maheshkar.
2. UN report 'Education during COVID-19 and beyond (August2020)
3. UNICEF, "Childcare in a global crisis: the

impact of COVID-19 on work and family life", Gromada, Anna; Richardson, Dominic; Rees, Gwyther (2020).

4. Childcare in a Global Crisis: The Impact of COVID-19 on work and family life, Innocenti Research Briefs no. 2020-18,
5. Perception, Fears and Readiness for Reopening of Schools' report by Child Fund

A report by Child Fund India,<sup>4</sup> mentions that a delay in opening schools will increase 47 per cent in girl student dropout rates which could lead to an increase in child marriages, early pregnancy, gender-based violence and trafficking in future.<sup>5</sup> The impact of the period of school closure in India has implications for strategies that the stakeholders working in public education system need to adopt in future."<sup>6</sup> This information is used by me in my article "Review of the Impact of the Covid-19 Pandemic on Primary Education" related to the impact of Covid-19 on education all over the world.

This paper is an effort to find out the impact of various RTE provisions on enrollment, dropouts, parents, children and the quality of education in primary and upper primary schools and the effect of the Covid-19 pandemic on education in remote areas as well as all over India. The data is collected through primary survey, questionnaire and interviews of stakeholders.

India (March 2021)

6. UNESCO, "COVID-19 Education

Response: How many students are at risk of not returning to school?" advocacy paper, June 2020.

7. Review of the Impact of the Covid-19 Pandemic on Primary Education". Scholarly Research Journal for Humanity Science & English Language, Peer

Reviewed & Refereed Journal, June-July, 2022, Vol10/52 by Self and Dr. Snehal Maheshkar.

8. Review of the Impact of the Covid-19 Pandemic on Primary Education". Scholarly Research Journal for Humanity Science & English Language, Peer Reviewed & Refereed Journal, June-July, 2022, Vol10/52 by Self and Dr. Snehal Maheshkar.

Especially the provisions of the RTE Act, like 'No Age Proof, No Denial', 'No Fee, No Screening', and

'No Held Back, No Board Exam', admission in ageappropriate classes, unbiased education irrespective of Caste, Community, gender, religion, RTE Quota, duties of teachers and CCE are implemented fully or partially and the challenges faced; thereafter the interventions required. It also focusses to analysis the impact of school closures for more than 18 months in India on children in terms of learning loss, and especially the marginalized sections of the society.

The study has the following six hypotheses:

**Hypothesis 1:** RTE has improved the Access, Infrastructure and Quality of Education in the Primary and Upper Primary schools during 2010-2021.

**Hypothesis 2:** RTE Quota and other RTE provisions have improved the governance structure during 2010-

2021. The 'No Detention Policy' No fee, No Screening' has made education unbiased irrespective of Caste, Community. Gender, Religion as well as QLM and CCE in the Primary and Upper Primary schools during 2010-2021.

**Hypothesis 3:** RTE Act has improved the learning outcomes in the Primary and Upper Primary schools during 2010-2021.

**Hypothesis 4:** The standard of education for a girl child has improved considerably in the Primary and Upper Primary schools during 2010-2021.

**Hypothesis 5:** The standard of education of the children belonging to SC/STs and socially and physically disadvantaged categories in the Primary and Upper Primary schools has improved considerably during 2010-2021.

**Hypothesis 6:** The roles and responsibilities of all the stakeholders are well defined and they are working effectively for full and satisfactory working of the RTE implementation.

Over last one decade Post -RTE, new issues have emerged and its evolution needs to be done in terms of its outcome. And to check whether the RTE Act is implemented in essence and spirit. Intent of the authors is to study the same from a lens of a manager in addressing the challenges of Access, Infrastructure, with a focus on Girl Child, Disabled

and weaker and children from marginalized category.

### 1.2 Review of Literature

The main objective of this study is to critically analyses the implementation of Right to Education Act (2008) for primary education. This was achieved through a systematic literature review of secondary & tertiary mode of literature available on the subject, for primary education in India other than the ASER survey 2019 & 2020. This literature gap was huge and various reports of Ministry of HRD were covered with focus on Primary education. This gap included a detailed review of implementation of RTE in last decade as seen by the major stakeholders. Hence an exhaustive questionnaire was prepared for four stakeholders namely- experts in education, principal/head teachers, teachers and students. Since some items were common while some items were specific, 4 distinct sets of questions and options for answers in multiple choice were drafted. It is in the fields of education and health, more particularly in education, that India's poor performance in human development has become most conspicuous.

Educational reform has been identified as one of the most urgent and important of such measures. However, the subject still remains largely at the discussion stage and even as India steps on to the twenty-first century, its educational system continues to be grossly inadequate to meet the challenges of development.

Education is a socially felt need and cannot be considered in isolation of the state of the society; its mode of production and the level of technological development it has attained is a primary consideration to gauge its abilities. It is the collective heritage of the social group which is the basic criterion that makes a certain framework of education relevant, desirable and necessary Critics of India's planning process have pointed at the low priority accorded by India to education as one of the important causes of its failure to break out of its backwardness. They have criticized the Indian strategy of trying to acquire economic strength through high investments in agriculture, industry and services without giving an equally high priority

to education. India inherited serious social imbalances and the Constitution of India Addressed itself to this question. Education is a crucial social input necessary to correct social imbalances, and the Constitution makers attached great importance to it.

The literature reviewed are Annual Status of Education Report 2013 (Rural Findings) and ASER report 2016, 2017, 2018, 2019 & 2020. This is an exhaustive, scientific annual review of Indian education systems and is quite useful. UNESCO and

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This was a very comprehensive effort after the RTE Act was passed. A Paper published on August, 2022

"Review of the impact of the Covid-19 Pandemic on Primary Education", Rekha Raikar Kumar & Snehal Maheshkar, Ph.D; Scholarly research journal for Humanity Science & English Language; Peer

Reviewed & refereed journal, June-July,2022, vol10/52, since this research is by the authors, it helped in drafting the questionnaire.

The assessment of the learning loss during pandemic and the digital mode of education used by schools to ensure continuity of education through various edtech modes was not available in the public domain to a large extent.

The UN report 'Education during COVID-19 and beyond (August2020). UNICEF, Childcare in a Global Crisis: The Impact of COVID-19 on work and family life, Innocenti Research Briefs no.

2020-18 gives an entire spectrum of Pandemic affected world. Perception, Fears and Readiness for Reopening of

Schools' report by Child Fund India (March 2021) after a survey done in 10 states brought many stark facts about the learning loss.

UNESCO, "COVID-19 Education Response: How many students are at risk of not returning to school?" advocacy paper, June 2020 emphasizes the need of hybrid learning. "The eighth edition of the ILO Monitor: COVID-19 and the world of work, Oct 2021. Together Against Covid-19 campaign by Action Aid Association (India),2020 and The National Commission for Protection of Child Rights report based on BAL Swaraj Portal-Covid Care etc. gives the initiatives of Digitisation of education employed by other nations."<sup>7</sup>

### 1.2 Methodology and Data

The study assesses the impact of RTE from the perspective of Experts in education for capturing their level of awareness and to identify the hurdles in implementation of the Act in schools during the decade following the Act. The experts include education administrators, members of School Management Committee, education officer of the State government/Municipal Corporation and NGO's working in the field of RTE implementation. The study also examines the Experts in education perception on the impact of RTE implementation in improving the standard of education for a girl child and on children belonging to socially and physically disadvantaged categories in schools during 2010-2021. To capture the impact of Right of Children to Free and Compulsory Education (RTE) Act, 2009 implementation on the social, economic, legal and governance dimensions such as improving the access to education, improving the infrastructure of schools and improving the quality of education in States of India, the analysis of the study advance in three steps. First, descriptive analysis of the Expert in education survey has been carried out.

Second, the study employs preliminary diagnostic to check the reliability, normality and homogeneity of variances of the data collected through the primary survey and to assess the differences on the impact of RTE from the perspective of Experts in

education in States of India like Delhi, Haryana, Himachal Pradesh, Kerala, Punjab and Uttar Pradesh.<sup>8</sup> These include: Cronbach Coefficient Alpha test, Shapiro Francia (W') and Shapiro Wilks (W) test, Levene's test and Kruskal Wallis one way analysis of variance by rank test. The diagnostic tests are discussed in detail in Appendix 1.

Third, to further validate the descriptive analysis results, the study also incorporates an empirical analysis of the primary survey data for Experts in education. In this context, the present study examines the Experts in education respondents' perception on the impact of RTE implementation in improving access, infrastructure and quality of education and its impact in improving standard

<sup>7</sup> Review of the Impact of the Covid-19 Pandemic on

Primary Education". Scholarly Research Journal for

Humanity Science & English Language, Peer Reviewed & Refereed Journal, June-July, 2022, Vol10/52 by Self and Dr. Snehal Maheshkar.

<sup>8</sup> Survey responses from Andhra Pradesh, Madhya Pradesh, Maharashtra and Chhattisgarh are very small, therefore, they are dropped from the analysis.

of education for a girl child and on children belonging to socially and physically disadvantaged groups. In addition, the study also examines the Experts in education respondent's perception on the impact of RTE implementation on governance, learning outcomes and roles and responsibilities of stakeholders. The study also focusses on learning outcomes and the capability of education system to deal with school closures due to Covid 19. The study employs a probit model analysis technique for estimating the research questions and accompanying hypothesis for experts in education primary survey (see Appendix 2).

### 1.2.1 Pilot Study

The pilot study was done in 25 Primary and upper primary schools in New Delhi Municipal Corporation (NDMC) using a structured questionnaire. "To analyse status of implementation of RTE as well as the impact of the

COVID Pandemic on primary education in different geographical locations, a study/survey was undertaken by the author. The Survey was conducted through questionnaires in Primary and Upper Primary schools which covered responses from Head Teacher/Principal, Teachers, Expert in Education and School going Children in various border areas of India, mainly Atari and Dera Baba Nanak in Punjab state bordering Pakistan, Raxaul, Jogbani and Rupaidiha in Bihar and Uttar Pradesh bordering Nepal and Sutarkandi in Assam, Agartala and Srimantpur in Tripura, Petrapole in West Bengal and Dawki in Meghalaya bordering Bangladesh and Moreh bordering Myanmar."<sup>9</sup>

### 1.3 Data and Scope of the Study

Due to extremely large size of Indian sub-continent and the primary and upper primary schools in various categories like Government school/partially aided schools and private schools under the mandate of CBSE, Kendriya Vidyalaya, Navodaya Vidyalayas etc. In this research, the basic information related to RTE Implementation, an important policy decision made by Government of India for primary education has been collected by using survey method through a structured questionnaire for experts in education the primary survey data sample size is 375.

### 1.4 Expert in Education Primary Survey Descriptive Analysis

Figure 1 depict the experts in educations' responses on implementation of RTE's role in making qualitative improvement in primary education. 62.8 % of the respondents are of the view that the implementation of RTE has made qualitative improvement in primary education. While 28.84 % of the respondent feel that RTE implementation has made 30 to 40 % improvement in quality of education.

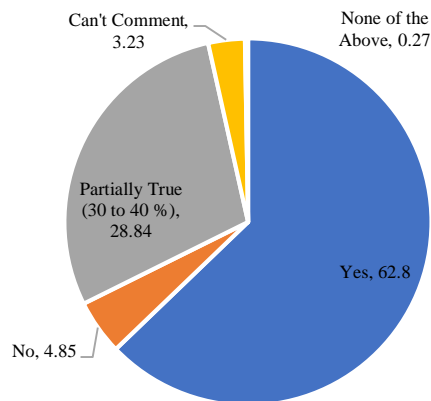
<sup>9</sup> Review of the Impact of the Covid-19 Pandemic on

Primary Education". Scholarly Research Journal for Humanity Science & English Language, Peer



Reviewed & Refereed Journal, June-July, 2022,  
Vol110/52 by Self and Dr. Snehal Maheshkar.

**Figure 1: Responses on RTE's Role in Qualitative Improvement of Primary Education (%)**



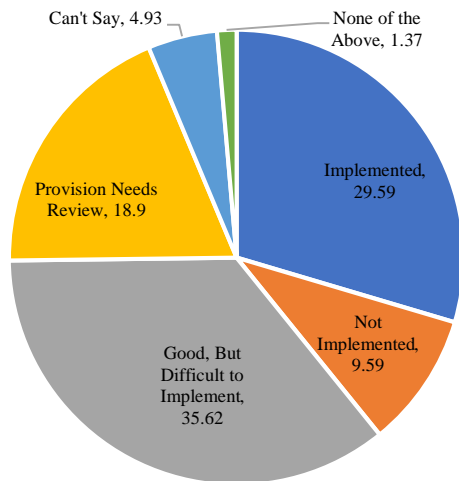
On the provision of **No Fee, No Screening** of the RTE Act, 35.62 % think it is good provision but difficult to implement. while 29.59% feel it is implemented while 18.9 % think the provision needs review and 9.59% say it is not implemented at all (Figure 2(a)).

**Figure 2: Responses on Impact of RTE Provisions of No Fee, No Screening, No Age Proof, No Denial for Admission (%)**

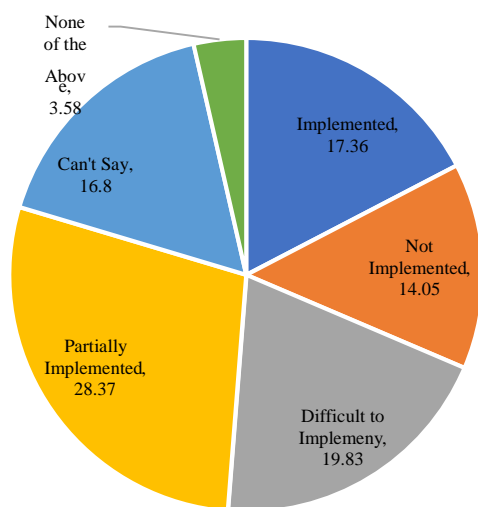
**a) No Fee, No Screening**

Response on the provision of **No Age Proof, No Denial** for Admission implemented anywhere 28.37% largest number of respondents say it is partially implemented, 17.36% feel its fully implemented while 19.83% think it is difficult to implement and 14.05% say it is not implemented in schools (Figure 2(b)).

Regarding the overall impact of the implementation of the provision of **No Age Proof, No Denial** for Admission on enrolment, on dropout, on parents, on children and on quality of education 36.54% mixed response feels it is useful and 27.2% feels



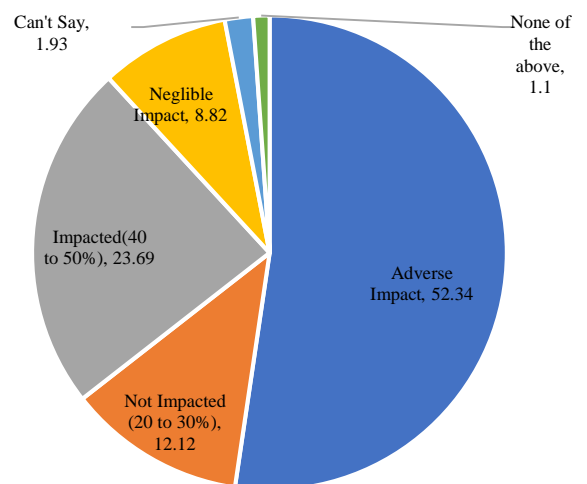
b) **No Age Proof, and No Denial**



need improvement on enrolment and quality of education. 12.36% respondent feel improvement in

dropout ratio and 12.36% it is useful for parents and out school children and 8.79% says not impact.

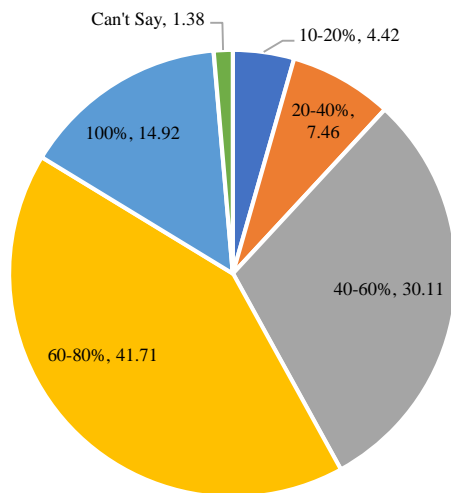
**Figure 3: Responses on Impact Covid-19 on Quality of Education (%)**



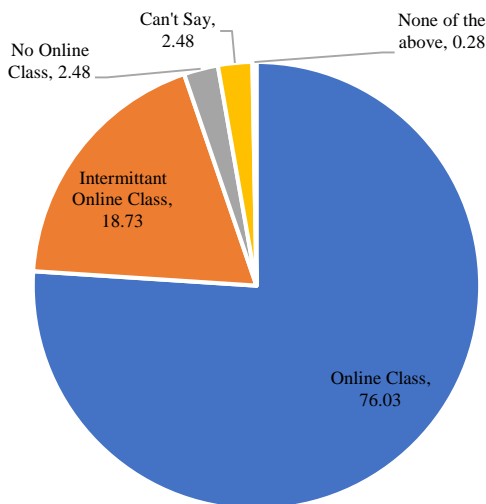
The education of students during Covid pandemic and closing of schools in 2020 and 2021 has adversely affected according to 52.34% respondents (Figure 3). Whereas 23.69% respondents feel schooling and education has an impact to the tune of 40 to 50% while 12.12% say it has impacted by 20 to 30%, whereas 8.82% feels negligible impact (Figure 3).

**Figure 4: Responses on Access to Online Classes During Covid-19 Pandemic**

**(a) Access to online education (%)**



**(b) Online Classes During Pandemic (%)**



About 41.71% respondents say 60 to 80% had access to online education, 30.11 % say about 40 to 60% had access to online education while 14.92 i.e., 15 % say no access to online education Figure (4(a)). Total 76.03% responses say schools opted

for online class but they were intermittent and of not much use (Figure 4(b)). Whereas 18.73% feels intermittent online Classes were conducted and 2.48% feels no online classes during the entire pandemic.

### 1.5 Expert in Education Primary Survey Preliminary Analysis

The Cronbach coefficient alpha test (reliability test) estimated scales derived from the expert primary survey variables indicating experts' perception on the current status and impact of RTE implementation appears to be reasonable with a score of 0.76 for the total sample implying that there is internal consistency (Appendix 3 Table 1). The reliability test results for States also have reasonable estimated test scores in range of 0.72 and 1 which indicates that there is internal consistency. The study employs Shapiro Francia test (for sample size more than 20) and Shapiro Wilk test (for sample size less than 20) issues for checking the normality of the total sample as well as States sample. The estimated results of Shapiro Francia test for total sample (375) fails to reject the null hypothesis that the sample comes from a normally distributed population for most of the variables in the survey which includes questions like compulsory and free education provision for child of weaker, disadvantaged group, violation of compulsory and free education provision (at least 25%) for child, CCE on enrolment, dropout, parents and quality of education, covid impact on quality of education etc. The study also employs the Shapiro Francia test for States such as Delhi, Haryana, Himachal Pradesh and Kerala with sample size more than 20 and Shapiro Wilk test for States such as Punjab and Uttar Pradesh with sample size less than 20 (Appendix 3 Table 2).

Given that some of the variables are not normally distributed in the experts' survey, the study employs Leven's test which checks for homogeneity of variances (two or more States have equal variances) even under non-normality conditions. Appendix 3 Table 3 reports the Levene's robust test statistic (W50) median values for equal variances between the States defined by State. The estimated results for variables such as

Improved Free and Compulsory Elementary Education for 6 to 14 years Children; RTE Improved Primary Education of Disabled Children; Covid Impact on Quality of Education; Online Classes in Schools during Pandemic etc. fail to reject the null hypothesis that the States have equal variances. To analyse the perception of experts, the study checks the differences on the impact of RTE implementation on improving access, the study employs the non-parametric Kruskal-Wallis test which helps in deciding whether the sample is coming from an identical population or differ from the population (Appendix 3 Table 4). The estimated results of the Kruskal-Wallis test shows that most of the variables appear to come from an identical population i.e., there is no statistical difference in RTE implementation between States (except few variables).

### 1.6 Expert in Education Primary Survey Empirical Analysis

Table 1 reports expert in education survey marginal effects of probit model for six Hypothesis<sup>10</sup>. The marginal effects explain the instantaneous change for each of the explanatory variable's effects on the experts in education's perception on RTE implementation making qualitative improvement in access, infrastructure and quality of education for all students as well as girl child, weaker & physically disadvantaged groups as well as improvements in governance, learning outcomes and roles and responsibilities of stakeholders' probability. The estimated result of marginal effect for Hypothesis 1 for RTE qualitative improvement is statistically significant at 5 per cent level of significance suggesting that experts in education choosing RTE implementation has made qualitative improvement in primary education in last 10 years are 8 per cent more likely to agree that RTE has played an important role in making elementary education free and compulsory for a child of 6 to 14 years as compared to the experts in education who think that RTE implementation has not made qualitative improvement.

The estimated results of marginal effect for Hypothesis 2 for RTE qualitative improvement is statistically significant at 1 per cent level of significance suggests that experts in education

choosing RTE implementation has made qualitative improvement in primary education in last 10 years are 25 per cent and 17 more likely to agree that the provision of No Fee, No Screening under the RTE Act and No Age Proof, No Denial for Admission has been implemented and made considerably improved the enrolment, dropout rates, quality of education as compared to the experts in education who think that RTE implementation has not made qualitative improvement. While the marginal effects for the provision of CCE on enrolment, dropout, Parents and quality of education is insignificant. The marginal effect of the State Haryana is statistically significant at 10 per cent level of significance suggesting that experts in education from Haryana are 13 per cent less likely to agree that provision of No Age Proof, No Denial for Admission under the RTE Act has considerably improved the enrolment, dropout rates, quality of education as compared to Delhi. The marginal effects of states such as Himachal Pradesh and Kerala are significant at 5 and 10 per cent suggesting that expert in education from Himachal Pradesh and Kerala are 10 per cent and 9 per cent more likely to agree that the RTE ACT provision of CCE has had a positive impact on enrolment, dropout, Parents and quality of education as compared to Delhi.

The estimated result of marginal effect for hypotheses 3 (RTE Act has improved the learning outcomes in the Primary and Upper Primary schools during 2010-2021) for Covid impact is statistically significant at 10 per cent level of significance suggesting that experts in education are 7 per cent likely to agree that Covid has adversely impacted the education of students even with access to online education as compared to experts in education who say that Covid did not have much impact on the education of students. The marginal effects of the State Himachal Pradesh are statistically significant at 5 per cent level of significance suggesting that experts in education from Himachal Pradesh are 9 per cent less likely to agree that students have access to online education as compared to Delhi. Similarly, marginal effects of the State Kerala are statistically significant at 10 per cent level of significance suggesting that experts in education from Kerala are 18 per cent more likely to agree that students have access to

online education as compared to Delhi. The estimated result of marginal effect for Covid impact is statistically significant at 10 per cent level of significance suggesting that experts in education are 4 per cent less likely to agree that schools conducted online classes during pandemic as compared to experts in education who say that Covid did not have much impact on the education of students.

**Table 1: Expert in Education Survey  
Estimated Marginal Effects Results**

Similarly, the estimated result of marginal effect for Hypothesis 4 for RTE qualitative improvement is statistically significant at 1 per cent level of significance suggesting that experts in education choosing RTE implementation has made qualitative improvement in primary education in last 10 years are 12 per cent more likely to agree that RTE Act implementation has improved the standard of education for a girl child as compared to the experts in education who think that RTE implementation has not made qualitative improvement. The estimated result of marginal effect for Hypothesis 6 for RTE qualitative improvement is statistically significant at 10 per

Variables	Hypotheses 1	Hypotheses 2			Hypotheses 3		Hypotheses 4	Hypotheses 6
	Dependent Variable							
	Free & Compulsory Education	No Fee, No Screening	No Age Proof, No Denial	CCE	Access to Online Classes	Online Classes During Covid	Girl Child Admission	State Commission
RTE Qualitative Improvement	0.082**	0.259***	0.174***	0.044	-0.019	0.041*	0.124***	0.166***
	-2.28	-5.37	-3.28	-1.32	-0.51	-1.8	-3.37	-4.69
Covid Impact					-0.077*	0.040*		
					(1.79)	(1.65)		
Gender								
Male	-0.021	-0.005	0	0.026	0.007	0.033	-0.001	0.044
	-0.57	-0.12	-0.01	-0.83	(0.19)	(1.51)	-0.04	-1.27
State								
Haryana	0.033	-0.067	-0.134*	0.071	-0.052	-0.005	0.064	0.036
	-0.69	-0.99	-1.73	-1.37	(1.01)	(0.13)	-1.15	-0.69
Himachal Pradesh	0.01	0.011	-0.059	0.106**	-0.095**	0.009	0.128***	0.028
	-0.21	-0.17	-0.82	-2.29	(2.11)	(0.30)	-2.62	-0.57
Kerala	-0.102	-0.096	-0.044	0.095*	0.189***	0.036	-0.093	0.066
	-1.64	-1.36	-0.54	-1.83	(2.63)	(1.35)	-1.33	-1.29
Punjab	-0.081	0.135	-0.066	0.051		-0.091	0.056	-0.13
	-0.77	-1.12	-0.53	-0.58		(1.16)	-0.6	-1.15
Uttar Pradesh	0.047	0.056	-0.013	0.108	-0.032	-0.088	0.144**	0.110*
	-0.57	-0.48	-0.09	-1.53	(0.35)	(0.93)	-2.19	-1.84

cent level of significance suggests that experts

Note: Absolute z statistics in parentheses \* p< .10, \*\* p< .05, \*\*\* p< .01.



in education choosing RTE implementation has made qualitative improvement in primary education in last 10 years are 16 per cent more likely to agree that RTE Act provision of monitoring of the State Commission has been implemented as compared to the experts in education who think that RTE Act implementation has not made qualitative improvement have been implemented. Some of the experts have suggested that a specific purpose grant by the 15th Finance Commission based on equalization principle can be thought about to fully make way for universalization of education. Covid-19 pandemic and its after effects on institutions regarding the admissions under RTE quota specially (low) Budget schools have a Big impact on them. Under this act Union govt.

Contributes to state 65percent or so of the total cost, for providing free primary as well as upper primary education. But there are several poor states that need more funding. The approach should be to provide clear goals and operational autonomy to states. The government schools are spending 80,000/- per child but the private schools are reimbursed just a small amount putting burden on the rest.

Some experts pointed out that Schools are not able to fully implement RTE provisions due to resources crunch and lack of proper monitoring state-wise, feedback problems, funds problem and paucity of trained experts and teachers, lack of institutional interest etc. Practically fund is not released on time to support scheme like reimbursement of RTE dues to unaided school, secondly funds are not sufficient to make the quality. Even though HRD Ministry has allocated Rs.1,04,277 crore in the Union Budget which is 18.5% higher than 2021-22. State Governments also allocate funds. The provision of discharging the concurrent financial responsibility of the centre and the state violated in this practise. It was observed that RTE quota (The provision of compulsory and free education to the child of weaker, disadvantaged group around at least 25% (of that class) in an unfunded school) is violated according the all the education experts surveyed. This shows that the monitoring of RTE quota admissions to weaker, disadvantaged group is not

satisfactory and hence all the violations are going unnoticed. The legal redressal system for such violation has also not been established. The RTE quota implementation in unfunded school has impact on enrolment, dropout, parents of the children and the quality of education according most of the respondent. The provision of Separate Teacher, Separate curriculum and separate provision for specially-abled children (Physical disability and mental disability) is also not implemented.

“Any remote teaching needs to be appropriate for the local context, considering issues such as availability, accessibility and affordability (Dabrowski et al., 2020). Survey of Ministries of Education on National Responses to COVID-19, jointly supported by UNESCO, UNICEF and the World Bank, April 2021 shows that the alternative modes of teaching and learning do not ensure equitable quality learning for all students due to various factors such as unequal distribution of time of teachers, students having differential access to technological devices, and lack of support for learning at homes in several cases. PRAGYATA guidelines for digital education and the DIKSHA platform for teaching and learning; ‘Anytime, Anywhere Learning’ with content for all including children with special needs are impressive initiatives.”<sup>11</sup>

“The Central Board of Secondary Education, KVS and NVS conducted a google survey in their schools and collected data from students, teachers, school principals, and parents on the present teachinglearning scenario. A total of 18188 students, 3543 teachers, 253 principals and 12614 parents participated in this survey. The findings revealed that about 60-70% of the shared that the teaching and learning during the COVID-19 period were joyful and satisfactory. About 20-30% of stakeholders shared that they had difficult experiences and about 10-20% said that it was burdensome for them. While about one-third of the students were comfortable with online assessments, the remaining 3/4 of students did not find them suitable.”<sup>12</sup>

<sup>11</sup> Review of the Impact of the Covid-19 Pandemic on

Primary Education". Scholarly Research Journal for Humanity Science & English Language, Peer Reviewed & Refereed Journal, June-July, 2022, Vol10/52 by Self and Dr. Snehal Maheshkar.

<sup>12</sup> Review of the Impact of the Covid-19 Pandemic on

Primary Education". Scholarly Research Journal for Humanity Science & English Language, Peer Reviewed & Refereed Journal, June-July, 2022, Vol10/52 by Self and Dr. Snehal Maheshkar.

"Wave 1 ASER survey 2019 focussed on key questions regarding the provision of, access to, engagement with, and challenges concerning remote learning using digital modes during school closures. As per ASER, 2021 findings are; that at an all-India level, over 80% of children with parents who have studied up to Std IX or higher had a smartphone available at home, as compared to just over 50% of children whose parents had studied till Std V or less. However, even among children whose parents are in the 'low' education category, over a quarter bought a smartphone for their studies since March 2020. But mere smartphone availability does not translate into access for children as though over two-thirds of all enrolled children have a smartphone at home (67.6%), and over a quarter of these have no access to it (26.1%). Both these surveys gave a reasonably fair picture about how technology could have helped cope with this catastrophe."<sup>13</sup>

### 1.7 Conclusion

**This survey highlighted certain sections of RTI that need review and alterations while as certain interventions to be undertaken immediately for better results like:**

- To have a clear and definite Plan of action (POA) for effective implementation of the Act.
- The funding sources, strategies to be adopted for implementation of the Act may also be explored.
- The facilities may it be infrastructure (school building, playground, rooms etc.), teachers, resource materials, grants to schools should be according to requirements obtained from the implementation level.

- Equal treatment of children irrespective of their religion, race, etc.
- Improve quality of education with the help of academic institutions such as NCERT, SCERT and Textbook society for training teachers and designing curriculum, syllabus and textbook and timely availability.
- Co-ordinate with various Government Departments for effective fund utilization, implementation of several programmes and avoid duplication of beneficiaries.
- Special attention to girl children should be given. Encourage, motivate and provide them facilities such as separate toilets, hostels, etc.
- Streamline the existing monitoring system and design a comprehensive monitoring system that looks into academics and administration.
- Conduct Awareness programmes on RTE Act for all the stakeholders such as Teachers, Parents, School Management Committee. Involve NGOs for conducting these awareness programmes. Create awareness on the importance on RTE Act provisions among the local authorities through distance mode.

<sup>13</sup> Review of the Impact of the Covid-19 Pandemic on Primary Education". Scholarly Research Journal for Humanity Science & English Language, Peer Reviewed & Refereed Journal, June-July, 2022, Vol10/52 by Self and Dr. Snehal Maheshkar.

- Improve learning by designing policies for motivating teachers and parents for improving their teaching and parenting practices.
- Continuous evaluation of children through State level DSERT supported by DIETs, Block Resource Centres and Cluster Resource Centres.
- Establish urban and rural co-coordinator along with taluka co-coordinators in every District.
- Focus on creating a trickle-down effect from Centre to State to local authorities to school committees to school heads.
- Enhance coordination among the Centre and State level advisory councils for effective implementation of RTE Act provisions.
- Motivate teachers by providing special incentives for serving in rural areas. Help them upgrade their skills through training. Prepare

comprehensive data base of teachers and plan recruitment of teachers as and when the vacancy of teachers arises.

- With rapidly changing technology and the growth of knowledge economy, eight years of elementary education would be grossly inadequate for young children to acquire necessary skills to compete in the job market.
- Therefore, a Mission for Secondary Education is essential to consolidate the gains and to move forward in establishing a knowledge society. Strategy for future should include resolving problems in the higher education sector, where there is a need to expand the system and also to improve quality through complete digitisation of education, usage of different learning methodologies etc.

The border area survey shows that there was a washout of the academic year for these areas. The surveyed schools/teachers; being remote to the remotest places in India were deprived of the network, online education<sup>14</sup>. Online classes were intermittently feasible due to a lack of network. In online classes where a network was available by any means only 30%-40% of

<sup>14</sup> children had smartphones. But due to connectivity being available only when electricity is available, severe connectivity issues being in remote areas, only 4 to 5 hours of teaching in a week was possible intermittently. Students' feedback is that no learning material was received during school closure, so education suffered. It also created a hindrance in learning for many. Thus, it is observed that students had to mostly rely on mobile phones for their teaching-learning. Given the social, cultural and geographical diversity in the country, following only one model of teaching and learning will not work. Due to Poor Internet/ Network

Connectivity/Signal. Sharing and use of the content for online classes was difficult through mobile phones. Lack of knowledge of using devices for effective educational purposes. Teachers were not well-versed with Online teaching methodologies. In a country like India characterized by multifarious diversity and constraints in terms of availability of resources (ICT infrastructure, electricity, budget, skilled manpower), switching over to digital modes of education was full of challenges. Local decentralized planning and implementation is the need of the hour for which various States/ UTs level organization such

**To conclude, the survey highlighted the inadequacy of Indian schooling systems infrastructure and also the remarkable rebound of education system with the help of Edtech. This disruption has created a huge opportunity for the start-ups in the field of EDTECH.**

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### Appendix 1

To check the reliability, normality and homogeneity of variances, the study first employs the Coefficient Alpha test. Next, the study employs Shapiro Francia and Shapiro Wilk test to check for normality. Next, we check the homogeneity of variances by employing the Levene's test. After checking for normality and equality of variances across states are not satisfied for some of the variables, we employ the Kruskal Wallis one way analysis of variance by rank test to examine the differences on the impact of RTE from the perspective of Experts in Education in States of India like Delhi, Haryana, Himachal Pradesh, Kerala, Punjab and Uttar Pradesh in improving access, infrastructure and quality of education as well as their level of awareness and perception regarding the implementation of the RTE Act in schools with a special focus on girl child and children belonging to socially and physically disadvantaged categories.

These diagnostic tests are briefly discussed below.

### Cronbach's alpha Test (Reliability test)

It is important to check the reliability of the survey in order to increase the accuracy of evaluation of the survey. It is important to check the reliability of its measures i.e., the extent to which they are free from error and yield consistent results (Peter, 1979). Thus, to check whether the data obtained from the primary survey is free from errors, the study conducts the reliability test using Coefficient Alpha technique

(Cronbach, 1951). Cronbach's  $\alpha$  is defined as:

$$\alpha = \frac{k \bar{c}}{\bar{v} + (k-1)\bar{c}}$$

where  $k$  is the number of items,  $c$  is the average covariance between item pairs and  $v$  is the average variance. The resulting  $\alpha$  coefficient of reliability ranges from 0 to 1. Generally, 0.7 is deemed as an acceptable reliability coefficient of a measure. Higher  $\alpha$  coefficient indicates high internal consistency i.e., the more the items have shared covariance and probably measures the same underlying concept.

The data obtained from the primary survey indicate respondents' perception on the current status of RTE implementation for which the potential values are not on the same scale. Therefore, it is important to standardize the variables by adjusting the scale and reliability on the basis of sum of standardized variables. With standardization, the scale reliability  $\alpha$  is calculated as defined by the general form of the Spearman-Brown Prophecy Formula (Nunnally and Bernstein 1994; Allen and Yen 1979):

$$\alpha = \frac{k \bar{r}}{1 + (k-1)\bar{r}}$$

This expression corresponds to  $\alpha$  under the assumption that the summative rating is the sum of the standardized variables. The  $j_{it}$  value of the scale computed from the  $kx_{ij}$  items is:

$$S_j = \frac{1}{k_j} \sum_{i=1}^k S_i S(x_{ij})$$

where  $S()$  is the function that returns the standardized (mean 0, variance 1) value if  $x_{ij}$  is not missing and returns zero if  $x_{ij}$  is missing.  $k_j$  is the number of nonmissing values in  $x_{ij}$ ,  $i = 1, \dots, k$ .

### Shapiro Francia (W' test) and Shapiro Wilk (W test)

#### Test for normality

To provide accurate and reliable evaluation of the differences in the impact of RTE implementation on improving access, infrastructure and quality of education and its impact in improving standard of education for a girl child and on children belonging to socially and physically disadvantaged

categories, the study first checks for normality i.e., whether drawn from normally distributed population. To check the normality of sample size less than 20, the study employs the Shapiro Wilk (W) test. The W test is comparatively quite sensitive to a wide range of nonnormality issues such as asymmetry, long-tailedness and short-tailedness. The W test can be defined as:

$$W = \frac{(\sum_{i=1}^n a_i y_i)^2}{\sum_{i=1}^n (y_i - \bar{y})^2}$$

For sample size greater than 20, Shapiro Francia is used as it is more sensitive to non-normality issues. The W' test can be defined as:

$$W' = \frac{(\sum_{i=1}^n b_i y_i)^2}{\sum_{i=1}^n (y_i - \bar{y})^2}$$

Null hypothesis of Shapiro Francia and Shapiro Wilk test represents sample comes from a normally distributed population. Rejecting the null hypothesis implies the sample does not come from a normally distributed population. Thus, given the sample size of in the range of 300-30,000, we employ the Shapiro Francia test to check for normality.

### Levene's Test for homogeneity of variances

The Levene's test is less dependent on the assumption of normality than most tests for homogeneity of variances. The Levene's test statistics check for equality of variances even with skewed population i.e., non-normality conditions. The Levene's test can be defined as:

$$F_{Levene} = \frac{\frac{\sum_{i=1}^t n_i (\bar{D}_i - \bar{D})^2}{(t-1)}}{\frac{\sum_{i=1}^t \sum_{j=1}^{n_i} (D_{ij} - \bar{D}_i)^2}{(N-t)}}$$

It reports Levene's robust test statistic (W0) for the equality of variances between the groups defined by group variable. It also reports median (W50) and 10 per cent trimmed mean value (W10) statistics. The null hypothesis represents that variance are equal across the groups. Rejecting the

null hypothesis indicates variances are varying across groups.

### Kruskal Wallis Test

To check the differences on the impact of RTE implementation on improving access, infrastructure and quality of education and its impact in improving standard of education for a girl child and on children belonging to socially and physically disadvantaged categories, we employ Kruskal-Wallis one-way analysis of variance by rank test. The Kruskal-Wallis one-way analysis-of-variance test, H, is defined as:

$$H = \frac{1}{S^2} \left\{ \sum_{j=1}^m \frac{R_j^2}{n_j} - \frac{n(n+1)^2}{4} \right\}$$

where

$$S^2 = \frac{1}{n-1} \left\{ \sum_{all\ ranks} R(X_{ij})^2 - \frac{n(n+1)^2}{4} \right\}$$

This technique does not require the assumption of normality and is unaffected by homogeneity of variances assumption violation. The null hypothesis is that all samples come from identical population. Reject the null hypothesis means there are differences in population.

### Appendix 2

The study analyses the experts' perception on the impact of RTE implementation in improving access, infrastructure and quality of education and its impact in improving standard of education for a girl child and on children belonging to socially and physically disadvantaged groups as well as its impact on governance, learning outcomes and roles and responsibilities of stakeholders. The probit model for experts in education is defined as following:

$$Y = \alpha + \beta X + \gamma Z + \delta T +$$

where Y is the dependent variable which takes the value 1 if the respondents perceive that the RTE implementation has made qualitative improvement in access, infrastructure and quality of education for all students as well as girl child, weaker &



physically disadvantaged groups as well as improvements in learning outcomes and 0 otherwise (RTE implementation has not made qualitative improvement in access, infrastructure and quality of education).

$X$  represents the categorical variable for RTE implementation which takes the value of 1 if RTE implementation made qualitative improvement and 0 otherwise,  $Z$  represents gender of the respondent which takes the value of 1 if female and 0 for male and  $T$  represents the categorical variable for the States of India.  $\epsilon$  is the random error term. The RTE implementation variable is expected have a positive relation with the perception on the impact of RTE implementation in making qualitative improvement in access, infrastructure and quality of education and improving standard of education for a girl child and on children belonging to socially and physically disadvantaged groups as well as its

impact on governance, learning outcomes and roles and responsibilities of stakeholders. Both gender and States are expected to have ambiguous relation with the impact of RTE implementation in improving access, infrastructure and quality of education and in improving standard of education for a girl child and on children belonging to socially and physically disadvantaged groups as well as its impact on governance, learning outcomes and roles and responsibilities of stakeholders. States of India are measured in six categories namely- Delhi, Haryana, Himachal Pradesh, Kerala, Punjab and Uttar Pradesh. The summary statistics of the variables are presented in Table 1 below.

**Table 1: Summary Statistics of Expert in Education Survey Variables**

Variables	Observation	Mean	Standard Deviation	Min	Max
RTE Qualitative Improvement	349	0.87	0.34	0	1
Gender	370	0.59	0.49	0	1
State	371	3.85	1.81	1	10
Free & Compulsory Education	366	0.63	0.48	0	1
Weaker Section	359	0.76	0.43	0	1
Disabled children	359	0.81	0.39	0	1
No Fee, No Screening	360	0.30	0.46	0	1
No Age Proof, No Denial	359	0.52	0.50	0	1
CCE	360	0.89	0.31	0	1
Duties of teachers	359	0.56	0.50	0	1
Access to Online Classes	357	0.15	0.36	0	1
Covid Impact	358	0.75	0.42	0	1
Online Classes During Covid	358	0.95	0.22	0	1
Girl Child Admission	358	0.84	0.37	0	1
State Commission	359	0.87	0.34	0	1

### Appendix 3

### Table 1: Cronbach Reliability (Alpha) Test Results

Variable	Total Sample	Andhra Pradesh	Delhi	Haryana	Himachal Pradesh	Kerala	Punjab	Uttar Pradesh
RTE Qualitative Improvement	0.75	1.00	0.83	0.62	0.71	0.76	0.89	0.77
Improved Elementary Education for 6 to 14 years Children	0.75	1.00	0.82	0.62	0.72	0.76	0.89	0.79
Improved Elementary Education for 6 to 14 years	0.75		0.82	0.63	0.71	0.76	0.90	0.80
Implementation of RTE Provision in Schools	0.75	1.00	0.82	0.62	0.71	0.75	0.89	0.78
RTE Duty (Child Admitted in Nearby School) Violated by Parents	0.76		0.83	0.65	0.71	0.76	0.89	0.79
Compulsory and Free Education Provision for Child of Weaker, Disadvantaged Section	0.75		0.82	0.65	0.72	0.75	0.88	0.79
Violation of Compulsory and Free Education Provision (at least 25%) for Child	0.75	1.00	0.83	0.63	0.70	0.76	0.88	0.78
Compulsory and Free Education Provision (at least 25%) for Child of Weaker, Disadvantaged Section	0.75		0.82	0.63	0.70	0.75	0.88	0.79
RTE Provision of No Fee, No Screening	0.75	1.00	0.82	0.63	0.71	0.76	0.88	0.80
RTE Provision of No Age Proof, No Denial for Admission	0.75		0.83	0.62	0.70	0.76	0.88	0.78
RTE Impacted No. of Girl Child Admission	0.75	1.00	0.82	0.63	0.69	0.76	0.88	0.77
Overall Impact of No Age Proof, No Denial for Admission on enrolment, on quality of education	0.74	1.00	0.82	0.63	0.70	0.75	0.88	0.78
Violation of Provision of No Corporal Punishment, No Mental Harassment	0.75	1.00	0.83	0.63	0.71	0.76	0.89	0.77
Duties of Teachers	0.75	1.00	0.83	0.62	0.71	0.76	0.88	0.79
Impact of Duties of Teachers on Enrolment, Dropout and Parents Response	0.75	1.00	0.82	0.65	0.73	0.75	0.89	0.77
Implemented Continuous and Comprehensive Evaluation	0.76	1.00	0.83	0.66	0.70	0.77	0.89	0.79
Studies like Sports, Music, Storytelling, Drawings, Sculptures	0.77		0.84	0.63	0.73	0.77	0.89	
CCE on Enrolment, Dropout, Parents and Quality of Education	0.75		0.83	0.63	0.69	0.76	0.88	0.78
Monitoring of the State Commission	0.75		0.82	0.63	0.71	0.76	0.88	0.79
RTE Improved Primary Education of Disabled Children	0.75	1.00	0.82	0.64	0.70	0.75	0.88	0.79
SAC Formation	0.75		0.82	0.62	0.71	0.76	0.88	0.79
Covid Impact on Quality of Education	0.76	1.00	0.83	0.65	0.72	0.77	0.88	0.79
Access to Online Education	0.77		0.84	0.65	0.71	0.77	0.89	0.79

Online Classes in Schools During Pandemic	0.76	1.00	0.83	0.64	0.73	0.78	0.89	0.78
Gender	0.77	1.00	0.84	0.65	0.73	0.77	0.90	0.78
State	0.77							
Test Scale	0.76	1.00	0.83	0.65	0.72	0.77	0.89	0.79

Note: Blank space indicates that variables were constant in the analysis sample, therefore, they were dropped from analysis.

**Table 2: Shapiro Francia/Wilk (W'/W Test) for Normality Results**

Variables	Total Sample		Delhi		Haryana		Himachal Pradesh		Kerala		Punjab		Uttar Pradesh	
	W'	Prob>z	W'	Prob>z	W'	Prob>z	W'	Prob>z	W'	Prob>z	W	Prob>z	W	Prob>z
RTE Qualitative Improvement	0.99	0.00	0.99	0.62	0.99	0.57	0.99	0.51	0.99	0.67	0.64	0.00	1.00	1.00
Improved Elementary Education for 6 to 14 years Children	0.99	0.01	0.99	0.37	1.00	1.00	0.99	0.43	0.96	0.07	0.86	0.01	0.83	0.01
Improved Elementary Education for 6 to 14 years in Rest	0.99	0.01	0.97	0.04	0.99	0.56	0.99	0.39	0.99	0.77	0.80	0.00	0.96	0.62
Implementation of RTE Provision in Schools	0.99	0.01	0.99	0.42	0.99	0.67	0.98	0.06	1.00	1.00	0.85	0.01	0.78	0.00
RTE Duty (Child Admitted in Nearby School) Violated by Parents	0.96	0.00	0.96	0.01	0.95	0.01	0.96	0.00	0.96	0.03	0.95	0.40	0.99	1.00

Compulsory and Free Education Provision for Child of Weaker, Disadvantaged	1.00	0.36	0.99	0.37	0.99	0.93	0.99	0.88	0.99	0.93	0.78	0.00	0.77	0.00
Violation of Compulsory and Free Education Provision (at least 25%) for Child	1.00	0.80	1.00	1.00	1.00	1.00	0.99	0.91	1.00	1.00	1.00	1.00	0.99	1.00
Compulsory and Free Education Provision (at least 25%) for Child of Weaker,	0.99	0.00	1.00	1.00	0.99	0.56	0.99	0.63	0.95	0.02	0.88	0.02	0.87	0.04
RTE Provision of No Fee, No Screening	0.99	0.00	0.99	0.30	0.98	0.27	0.98	0.26	0.99	0.64	0.96	0.72	0.87	0.03
RTE Provision of No Age Proof, No Denial for Admission	0.99	0.01	0.99	0.79	0.98	0.33	0.99	0.49	0.99	0.77	0.98	0.93	0.90	0.10
RTE Impacted No. of Girl Child Admission	0.99	0.01	0.99	0.45	0.99	0.93	0.99	0.77	0.96	0.04	0.91	0.10	0.96	0.73
Overall Impact of No Age Proof, No Denial for Admission on enrolment, on	0.99	0.00	0.97	0.03	0.99	0.79	0.99	0.62	0.99	0.83	0.94	0.31	0.89	0.07
Violation of Provision of No Corporal Punishment, No Mental Harassment	0.98	0.00	0.99	0.65	0.98	0.38	0.95	0.00	0.99	0.87	0.99	1.00	0.96	0.68
Duties of Teachers	0.93	0.00	0.93	0.00	0.95	0.01	0.94	0.00	0.89	0.00	0.98	0.97	0.76	0.00
Impact of Duties of Teachers on enrolment, Dropout and Parents Response and	0.87	0.00	0.89	0.00	0.89	0.00	0.87	0.00	0.87	0.00	0.84	0.01	0.74	0.00
Implemented Continuous and Comprehensive Evaluation	0.97	0.00	0.98	0.21	0.96	0.02	0.98	0.19	0.96	0.06	0.81	0.00	0.99	1.00
Studies like Sports, Music, Storytelling, Drawings, Sculptures	0.96	0.00	0.93	0.00	.	0.00	0.85	0.00	1.00	1.00	0.61	0.00		
CCE on enrolment, Dropout, Parents and Quality of Education	0.99	0.05	0.99	0.85	0.98	0.31	0.99	0.90	0.99	0.94	0.78	0.00		
Monitoring of the State Commission	0.88	0.00	0.86	0.00	0.87	0.00	0.90	0.00	0.91	0.00	0.76	0.00		

RTE Improved Primary Education of Disabled Children	0.99	0.00	0.97	0.03	0.99	0.97	0.97	0.04	1.00	1.00	0.90	0.05		
SAC Formation	0.98	0.00	0.97	0.03	0.99	0.97	0.97	0.06	1.00	0.99	0.93	0.22		
Covid Impact on Quality of Education	0.99	0.16	1.00	0.99	0.98	0.37	0.99	0.78	0.99	0.60	0.90	0.07		
Access to Online Education	0.99	0.01	0.99	0.72	0.99	0.86	0.99	0.85	1.00	0.99	0.35	0.00		
Online Classes in Schools During Pandemic	0.94	0.00	0.90	0.00	0.99	0.86	0.89	0.00	1.00	1.00	0.77	0.00		
Gender	1.00	1.00												
State	0.91	0.00												

Note: State Sample Size is as following: Delhi: 99; Haryana: 73; Himachal Pradesh: 101; Kerala: 63; Punjab: 18 and Uttar Pradesh: 16.

**Table 3: Homogeneity Test Results**

Variables	W50
RTE Qualitative Improvement (Pr >F)	2.333 0.024*
Improved Elementary Education for 6 to 14 years Children (Pr >F)	0.383 0.912
Improved Elementary Education for 6 to 14 years in Rest (Pr >F)	1.385 0.210
Implementation of RTE Provision in Schools (Pr >F)	1.256 0.271
RTE Duty (Child Admitted in Nearby School) Violated by Parents (Pr >F)	0.753 0.627
Compulsory and Free Education Provision for Child of Weaker, Disadvantaged Group (Pr >F)	1.006 0.427
Violation of Compulsory and Free Education Provision (at least 25%) for Child (Pr >F)	0.188 0.988



Compulsory and Free Education Provision (at least 25%) for Child of Weaker, Disadvantaged Group (Pr >F)	2.656
	0.011*
RTE Provision of No Fee, No Screening (Pr >F)	6.086
	0.000*
RTE Provision of No Age Proof, No Denial for Admission (Pr >F)	3.506
	0.001*
RTE Impacted No. of Girl Child Admission (Pr >F)	2.312
	0.026*
Overall Impact of No Age Proof, No Denial for Admission on enrolment, on quality of education (Pr >F)	1.308
	0.245
Violation of Provision of No Corporal Punishment, No Mental Harassment (Pr >F)	0.798
	0.589
Duties of Teachers (Pr >F)	1.787
	0.089
Impact of Duties of Teachers on enrolment, Dropout and Parents Response (Pr >F)	2.639
	0.011*
Implemented Continuous and Comprehensive Evaluation (Pr >F)	0.432
	0.882
Studies like Sports, Music, Storytelling, Drawings, Sculptures (Pr >F)	6.203
	0.000*
CCE on enrolment, Dropout, Parents and Quality of Education (Pr >F)	1.500
	0.166
Monitoring of the State Commission (Pr >F)	0.495
	0.838
RTE Improved Primary Education of Disabled Children (Pr >F)	1.586
	0.138
SAC Formation (Pr >F)	0.982
	0.444
Covid Impact on Quality of Education (Pr >F)	1.451
	0.184
Access to Online Education (Pr >F)	2.756
	0.008*
Online Classes in Schools During Pandemic (Pr >F)	1.629
	0.126
Gender (Pr >F)	0.918
	0.493

Note: \* Indicated p-values < 0.05 i.e., reject the null hypotheses that variances are equal.

**Table 4: Kruskal Wallis Test Results**

Variables	chi-square value	p-value
RTE Qualitative Improvement	23.63	0.00*
Improved Elementary Education for 6 to 14 years Children	8.35	0.30

Improved Elementary Education for 6 to 14 years in Rest	7.66	0.36
Implementation of RTE Provision in Schools	14.74	0.04*
RTE Duty (Child Admitted in Nearby School) Violated by Parents	10.13	0.18
Compulsory and Free Education Provision for Child of Weaker, Disadvantaged	7.89	0.34
Violation of Compulsory and Free Education Provision (at least 25%) for Child	3.48	0.84
Compulsory and Free Education Provision (at least 25%) for Child of Weaker, Disadvantaged Group	17.47	0.01*
RTE Provision of No Fee, No Screening	11.40	0.12
RTE Provision of No Age Proof, No Denial for Admission	7.94	0.34
RTE Impacted No. of Girl Child Admission	10.31	0.17
Overall Impact of No Age Proof, No Denial for Admission on enrolment, on	9.09	0.25
Violation of Provision of No Corporal Punishment, No Mental Harassment	6.61	0.47
Duties of Teachers	10.99	0.14
Impact of Duties of Teachers on Enrolment, Dropout and Parents Response	15.65	0.03*
Implemented Continuous and Comprehensive Evaluation	7.41	0.39
Studies like Sports, Music, Storytelling, Drawings, Sculptures	38.94	0.00*
CCE on Enrolment, Dropout, Parents and Quality of Education	11.97	0.10
Monitoring of the State Commission	3.16	0.87
RTE Improved Primary Education of Disabled Children	9.45	0.22
SAC Formation	16.53	0.02*
Covid Impact on Quality of Education	8.84	0.26
Access to Online Education	15.10	0.04*
Online Classes in Schools During Pandemic	12.57	0.08
Gender	6.40	0.49

Note: \* Indicated p-values < 0.05 i.e., reject the null hypotheses that variances are equal.

### Appendix 4

**Table 1: Expert in Education Survey Regression Results**

Variables	Hypotheses 1	Hypotheses 2	Dependent Variable	Hypotheses 4	Hypotheses 6

	Free & Compulsory Education	No Fee, No Screening	No Age Proof, No Denial	CCE	Access to Online Classes	Online Classes During Covid	Girl Child Admission	State Commission
RTE Qualitative Improvement	0.406**	0.823***	0.451***	0.25			0.567***	0.857***
	-2.25	-4.88	-3.14	-1.31			-3.31	-4.58
Covid Impact					-0.353*	0.396*		
					(1.79)	(1.69)		
Gender								
Male	-0.102	-0.017	-0.001	0.152	0.033	0.351	-0.006	0.23
	-0.57	-0.12	-0.01	-0.81	(0.19)	(1.44)	-0.04	-1.25
State								
Haryana	0.189	-0.215	-0.344*	0.337	-0.042	-0.245	0.268	0.178
	-0.68	-0.98	-1.72	-1.32	(0.13)	(0.99)	-1.13	-0.68
Himachal Pradesh	0.052	0.033	-0.152	0.569**	0.095	-0.519**	0.651**	0.136
	-0.21	-0.17	-0.82	-2.23	(0.30)	(2.06)	-2.53	-0.58
Kerala	-0.419*	-0.318	-0.113	0.487*	0.540	0.611***	-0.311	0.356
	-1.69	-1.33	-0.54	-1.69	(1.22)	(2.69)	-1.35	-1.23
Punjab	-0.343	0.384	-0.171	0.226		-0.575	0.233	-0.485
	-0.85	-1.15	-0.53	-0.54		(1.42)	-0.55	-1.26
Uttar Pradesh	0.283	0.166	-0.033	0.593	-0.142	-0.560	0.793	0.715
	-0.49	-0.49	-0.09	-1.15	(0.33)	(1.17)	-1.53	-1.36
Constant	0.974***	-	-0.09	0.743***	-0.743***	1.227***	0.527***	0.455**
	-4.58	1.043***	-0.53	-3.45	(3.51)	(4.51)	-2.75	-2.21

Note: Absolute z statistics in parentheses \* p< .10, \*\* p< .05, \*\*\* p< .01.