

# CSR: "A Way for Sustainable Development"

Dr. Tazyn Rahman

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## CSR: "A Way for Sustainable Development"

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## Preface

The term corporate social responsibility is very wide and complex and it has different meanings. Generally, corporate social responsibility means, those activities taken by corporate with aim of welfare of the society. CSR is generally understood as being the way through which a company achieves a balance of economic, environmental and social imperatives. The foundation for sustainability and CSR has been around for a long time. However, they have taken on new meaning in the early 21st century. Companies are becoming increasingly aware that operating in a way that benefits society now and in the future can earn favor with core customers, while ignoring expectations for responsible activities can lead to negative public relations, boycotts and general backlash from communities in which one does business.

The Sustainable Development Goals, adopted by the United Nations (UN) General Assembly in September 2015, contained 17 global goals, such as “no poverty, zero hunger, good health and well-being, quality education, gender equality, clean water and sanitation, and affordable and clean energy”. Corporations need to take action to improve the economy, society as a whole, and the environment. The way to do so is to innovate. Innovation can uncover new ways to foster societal progress and when it comes to innovation, the private sector has a crucial role by engaging in CSR.

This book considers the motivations for and nature of business contributions to sustainable development through the medium of corporate social responsibility (CSR). It compares CSR with sustainable development, given that they are both ‘essentially contested concepts’; it introduces CSR's changing meaning and it explains why there has been a recent increase in CSR with reference to the increasing socialization of markets as a result of narrow market drivers, along with other social, governmental and globalization drivers.

We hope that this book will be prove to be helpful to students, research scholars, academicians and business executives in having a better understanding of the concept of CSR And Sustainable Development..

## **Acknowledgements**

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Nothing can be possible without the Blessings of the Almighty. I bow to the supreme power for always being there with us in all our endeavors.

This Edited Book is the hard work of all the dedicated researchers. We are indebted to all of them for their quality work and for making this book a possibility.

I am thankful to my parents Ms. Nazma Rahman & Mr. Nakibur Rahman for making me understand the importance of education and making me a confident individual.

I am indebted to my Mother-in-law Ms. Rumena Begum who has always supported in all my decisions. Without her support I could not have been able to pursue my professional career. I know she is always blessing us from the Heaven above.

My deepest gratitude is towards my Husband Dr. Akhter Alam and my Son Irfan Alam for always coping up with my erratic work schedules. They have been my pillar of strength. Without their motivation and support I would not have been able to complete this project.

Last but not the least, I express special thanks from the core of my heart to Mr. Arvind Kumar and Empyreal Publication House for their support to print and publish this book in a very short period of time.

**Dr. Tazyn Rahman**

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# Reconsidering Consumer Perception towards green products: An in depth Study of online buying pattern

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## ABSTRACT

*In the contemporary locale of dynamic business situation, satisfying the consumer's wishes as well as keeping adherence to environmental safety issues is a heavy challenge for the industries. Consumers are inclining their purchase intention towards brands that are sensitive and actionable towards environmentally friendly goods. Given the limited resources, it is necessary for the manufacturing firms to optimize the use of resources to promote sustainability. In lieu of such situation, Consumers too are leaning their attention goods and towards services which are environmentally friendly. Product development of organic goods is a challenging task, especially when resources of the business are lean. Increasing number of societies are supporting and expressing advocacy for Government's environmental protection program. Adoption of non-hazard methods in manufacturing the goods is crucial in making the planet as natural resource conservation and sustainable development. This paper explores the factors that is shapes the attitude of consumers towards demographic profiles of green marketing goods. The primary data were collected via a well-structured questionnaire among 100 respondents to achieve the objective of the Analysis. Subsequent to review of data, appropriate conclusion and recommendation was made.*

*Keywords: Green marketing, Consumer perception, buying behaviour, green product, online buying behaviour, marketing strategy, environmentally friendly products, ANOVA*

## 1. INTRODUCTION



The concept of "Green Marketing" is gaining greater adoption among the consumers in the current day since its initiation in 1990's. It has culminated to an integral part of online buying behaviour. As government and other non-government associations have invested amounts of energy in guarding our

condition from every single ecological issue or issues, for example, contamination, synthetic substances, and modern gases. "Go Green " is one of the significant social developments so far started by the legislature. The hazardous effect of traditional product on nature and individual wellbeing due to their prolonged usage have prompted the consumers to purchase green products like garments produced using reuse texture, energy efficient and durable electrical appliances, reusable water bottles, rechargeable batteries etc.

In basic words, green marketing covers a wide scope of activities that includes change for the production procedure, system of packing and publicizing that cause less harm to the earth. Natural assets are constrained while the human needs are boundless. In lieu of such situation, the manufacturing ventures should deliver the green products in order to fulfill the human needs in such a way that the business exercises don't hurt the earth. Presently, purchasers and advertisers are more worry about biological parity, request eco-accommodating items to monitor the environmental issues. This extension in the eagerness to save the natural resources have led to the necessity to understand the customer's perception towards online green marketing. Subsequently, this examination has been attempted to give knowledge about online buying behaviour of green products and relevant information have been identified with the components that impact the disposition of purchasers towards online green products.

### **1.1 Appearances of Green Products**

Green items are normally recognized by having two essential objectives namely waste minimisation and optimization of resource utilisation. They are processed by using ingredients which are toxic free and environmentally sustainable practices, and are certified by regulatory bodies such as Energy Star and Forest Stewardship Council. These materials have key characteristics like recyclability, reusability along with biodegradability. They contain chemicals which are non-toxic and devoid of any polluting effect on environment. Thus the factors like reduced or zero carbon foot print, reduced plastic foot print are their key characteristics. They are packaged by recyclable materials (Gurusamy, 2013).

## **2. THEORETICAL FRAMEWORK**

Mahapatra (2013) made an enquiry to come out with the elements that impacts the shopping behaviour towards green products by doing a review and gathering the primary data from 162 respondents in India. A 5 point Likert scale was utilized to measure the respondent's attitude to pay for certified green items. The consequence of the examination demonstrates that the most noteworthy determinants are personal benefits, performance, availability, environment, and health concern affecting the insight of Indian consumers to purchase the green products. The author also concluded that the green literacy is required to promote the consumer towards safe habits of buying green products. Bhatia and Jain (2013) studied the customers' perception and inclination towards green advertising items and practices by gathering essential information through questionnaire survey from 106 respondents. Gathered information was analysed by various relapse examination; the detailed investigation shows that consumer's contemporary discernment about the green items and resulting buying behaviour, and the steps taken by the organizations for promoting green items have a positive and noteworthy impact to stimulate the consumers towards green buying behaviour. Hundal and Kumar (2015) investigated about the customer perception towards eco-friendly items and services by considering the components as want, inclination, social welfare, reliability, and moral. The creators found that as another idea i.e., "Go Green" have emerged where the demand for items to be certified by the concerned agencies have emerged which certify the products as deemed green. More awareness about the green products and the ways to stimulate their usage should be conducted to conserve the green based ecosystem. Patel and Chugan (2015) studied the impact of consumer perception towards green marketing. The examination's point is to investigate the impact of the buyer's conduct about the eco-friendly products. Essential information gathered from 203 respondents by primary survey. Factor analysis and multiple regression analysis tools were used for analyzing the obtained data. The results of the examination extracted that the factors like image of the company, features of the product and ethical impact have an influence to shape e-buying attitude. Parthiban (2016) conducted an investigation on buyer's perception towards green marketing with the principle objective is to extract the factors that improve the consumer engagement with the green products in Chennai city. The data collected through well-

structured and close ended questionnaire from 188 respondents from Chennai city. The gathered information was analysed with the notable measurable strategies as Chi-square test, Friedman test, and percentage analysis. The analyst found that the green marketing acts as a stimulating factor to save the green environment. The enhanced inclination of consumers towards green marketing practices promoted sustainability in environment and resilience in business. **Choshaly** (2017) investigated about purchase intention of consumers towards the purchase of green products. The objective of the study was to discover the factor or factors significantly influencing the customer disposition to purchase the green items and utilization of reusable bags. Primary information gathered from 170 university students in Malaysia. Multiple regression analysis and correlation analysis have been used to analyse the gathered information. The researcher identified that perceived environmental responsibility as a key driver for influencing such behaviour along with social influence, concern for Self-portrait or image, Consumer's green purchase intention. N.P (2017) undertaken study to assess consumer's awareness towards eco-friendly items with the objective to enhance proximity towards green marketing and overcome the barriers towards it. To achieve the destinations essential information gathered through survey asked from 80 respondents in Palakkad area as well as secondary data obtained from journals, books and unpublished reports. The researchers have indicated that there is lack of standardization towards green products. Shoppers purchase eco-friendly products repeatedly when they are satisfied with the products. Shuba (2019) conducted a study on consumer perception towards green marketing. The investigation was conducted to know the inclination and attention towards Indian buyers about green items; additionally to discover the determinants that convince the client's conduct to purchase green products. The researched collected primary data through primary survey from 45 respondents or purchasers living in the city of Bangalore. The examination uncovered that 75 percent of the respondents affirm that the green item cost is higher than the conventional items. More awareness about green advertising and practices should be spread among the consumers to enhance its usage. As per Mahesh and Ganapathi (2016), price, familiarity, environmental anxiety is factors that influence client discernment. Furthermore, these elements have a positive effect for the green items on buyers' purchasing choices. The organisations are selling items that are delightful and visually awesome at competitive prices.

## 2.1 Demographic variables

**Gender** affects the online buying behaviour and contemporary studies have indicated that men are more likely than women to make online shopping (Ansary and Roushdy, 2013; Doolin et al . , 2005; Fan and Miao, 2012; Thamizhvanan and Xavier, 2013; Brown et al . , 2003; Girard and Silverblatt, 2003; Rodgers and Harris, 2003). In most studies **Age** is evaluated as a factor. As existing literatures have extracted so far, age has a positive and negative effect on online transactions (Ansary and Roushdy, 2013; Doolin et al . , 2005; Fan and Miao, 2012; Thamizhvanan and Xavier, 2013; Brown et al . , 2003; Girard and Silverblatt, 2003; Rodgers and Harris, 2003), three studies indicate that there is absence significant association between age and consumers' online buying behaviour (Doolin et al., 2005; Thamizhvanan and Xavier, 2013; Slyke et al., 2002). **Income** is evaluated in most research, and consumers with higher rates of income have propensity to shop online than consumers having lower levels of income (Cal k and Ersoy, 2008; Doolin et al . , 2005; Gong and Maddox, 2011; Hernandex et al , 2011; Punj, 2011; Girard and Silverblatt, 2003). Previous studies have inferred that online transactions are linked positively to online shopping as the data indicated within research framework (Bonera, 2011; Bosnjak et al . , 2007; Huang, 2011; Kuhlmeier and Knight, 2005; Leerapong et al., 2013; Ling et al . , 2010; Momtaz et al., 2010; Thamizhvanan and Xavier, 2013; Wang et al . , 2010; Moe and Pader, 2004; Yang and Lester, 2004). **Education** is also a key factor among demographic variables. More educated people are reportedly have more propensity to buy products through online shopping portals (Gong and Maddox, 2011; Thamizhvanan and Xavier, 2013; Punj, 2011; Girard and Silverblatt, 2003).

## 3. RESEARCH GAP

The existing literatures like Hundal and Kumar, 2015; N.P 2017 have investigated about the perception of consumers towards buying behaviour of green products through online portals. But there are fewer literatures that can relate the latent factors affecting the consumers along with demographic

variables in the chosen study area in this contemporary time frame. In lieu of such situation, it has been decided to explore the latent relation between the perceptual factors and demographic variable. In lieu of such situation, following objective has been framed.

#### 4. OBJECTIVE

To find out the related association among customer inclinations towards online buying perspective with respect to demographic contours (such as Gender, Age, Income, Profession and Education) in Durgapur City, W.B.

#### 5. RESEARCH METHODOLOGY

##### 5.1 Study Settings and Designs

There is an experimental nature to this examination. The data were gathered from online buyers from different subdivisions of Durgapur City, West Bengal, India. In this investigation the customers who purchase green products through online portals have been considered as the respondents. For this experiment, population is the one who consumes the green products online across all demographic presence, and sample size was determined by proportionality size. The respondents have been selected according to random number generated through Excel sheet. The purposive sampling method has been used to frame proper sample of respondents. According to (Freedman et al., 2007) this method, which belongs to the category of non-probability sampling techniques, sample members are selected based on their knowledge, expertise related to concerned facts.

##### 5.2 Questionnaire Design and Pilot Testing

The study has discovered secondary bases of data in order to explore the online green products buying system followed by the seller. Moreover a qualitative approach has been conducted with face to face interviews. For this investigation a structured questionnaire has been framed with the summated rating scale. The 5 point Likert Scales have been used with 25 questions where scale is coded from strongly agree to strongly disagree. The questionnaire was translated into vernacular language to achieve semantic reliability. The questionnaire has been validated from opinion of experts and pilot tested to accomplish its construct validity.

##### 5.3 Data Collection Methods & Research Tools

The data was subjected to proper arrangement and statistically processing through SPSS 21 software. The exploratory factor analysis was used for the analysis with the help of orthogonal reputation. The Principal Component Method for Factor analysis has been used for data reduction along with Bartlett's test and KMO test for sample adequacy. Analysis of variance (ANOVA) has been used to check the association among factors like Scheduled delivery, Adaptable payment system, Sensible Price with discount, Brand Reputation, Accessibility of items, E-Word of Mouth and demographic variables (like Gender, Age, Income, Profession and Education). In order to accomplish this Empirical Study, 100 samples out of 120 questionnaires were considered based on inclusion and exclusion criteria. Primary data were collected qualitatively as well as quantitatively coded through the well-structured close ended questionnaire. Secondary sources through online books, newspapers, Articles, research studies, web sources, case studies etc. were also considered to substantiate the research question.

##### 5.4 Research Process

The Study has been conducted from January-2020 to 10 April-2020. After communicating the respondents about the purpose and scope of the study, the researcher got in contact with the respondents. They were asked to take part in research. The detailed interviews were conducted between February and March 2020. The meetings took place in the executives' offices and lasted for the duration of 15-20 minutes. Notes were mostly held during the interviews, so that they can be used to interpret the data collected.

#### 6. HYPOTHESIS

**H(1)<sub>1</sub>:** There is a significant association between **Gender** and factors affecting **consumer perception towards online green products** with respect to delineated factors.

**H(2)<sub>2</sub>:** There is a positive significant relationship in between **Age** and **consumer perception towards online green products** with respect to delineated factors.

**H(3)<sub>3</sub>:** There is a positive significant association in between **Income** and **consumer perception towards online green products** with respect to delineated factors.

**H(4)<sub>4</sub>:** There is a positive significant relationship in between **Profession** and **consumer perception towards online green products** with respect to delineated factors.

**H(5)<sub>5</sub>:** There is a positive significant relationship in between **Education** and **consumer perception towards online green products** with respect to delineated factors.

## 7. ANALYSIS AND FINDINGS

**Factor Analysis:** The Principal Component Analysis has been conducted through Extraction, Rotation, and Interpretation. During extraction, maximum likelihood and Eigen value greater than one is set for further proceeding. The Exploratory Factor analysis has been done with VARIMAX procedure which implies to orthogonal rotation. The output components like on time Delivery, Flexible payment option, Reasonable price with discount, Company Branding, Availability of products and Rating and Review have been extracted through Principal Component Analysis (PCM).

<b>Table I: Reliability statistics</b>	
Cronbach's Alpha	N of Items
.756	25

From the above table, it is clear that the value of the Cronbach's Alpha for reliability checking is  $>.60$ . So it is concluding that the sample is reliable for the Study.

<b>Table II: KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.879
Bartlett's Test of Sphericity	Approx. Chi-Square	788.738
	Df	198
	Sig.	.000

**Notes:** Principal components factor analysis with varimax rotation; KMO measure of sampling adequacy: 0.879; that means sample is adequate and Bartlett test of spehericity. 198;  $p < 0.000$

**ANOVA:** Prediction the influence of demographic variables on purchase intention towards e-green products

**Table III: Factors identified by the Principal component analysis**

Factor	Variable names	Factor Loadings	% of variance explained	Cronbach's alpha
<b>On time Delivery Scheduled delivery</b>	Easy obtainability	.737	19.241	.689
	Reachability_Home	.749		
	Delivery_time	.719		
<b>Adaptable payment system</b>	Pay on delivery	.824	18.718	.889
	Return option	.660		
	Digital_Payment	.828		
<b>Sensible Price with discount</b>	Tailored_price	.830	17.445	.789
	Festive offers	.729		
	Discount	.810		
<b>Brand Reputation</b>	Variety of Product	.789	16.393	.895
	Company_cognizance	.870		
	Match with Ecofriendly sentiments	.649		

<b>Accessibility of items</b>	Contemporary Lifestyle	.707	14.603	.746
	Variety	.620		
	Multiple Choice	.650		
<b>E-Word of Mouth</b>	Review	.854	13.600	.895
	Review in Social Media	.663		
	Portal Feedbacks and Referral	.661		

### ANOVA

The ANOVA is a statistical tool that is used to assess the samples according to their mean value. This statistical technique is used to determine whether the two or more groups are significantly different or not. The ANOVA tool is used in research in order to compare the mean of more than one factor according to their obtained mean values. The P-value is chosen as the benchmark value to determine the significant level. If the P-value as obtained have value  $>0.05$ , then the null hypothesis is subjected to acceptance. In this study, the P-value greater than 0.05 have been obtained from this investigation in case of demographic variables like Age and Income (Null hypothesis is supported). In case of demographic variables like Gender, Profession and Education are significantly associated with the outlining factors like Sensible Price with discount, Reasonable price with discount, Availability of products Accessibility of items, Adaptable payment Flexible payment option, Company Branding Brand Reputation, E-Word of Mouth Rating and Review where Null hypothesis is not accepted. The detailed value of ANOVA analysis has been tabulated in table IV.

**Table IV: ANOVA analysis to analyse association the Demographic Data**

<b>Variables</b>	<b>Significance value along with factors</b>	<b>Significant value(positive association)</b>
<b>Gender</b>	Scheduled delivery (0.140), Adaptable payment (0.406), Sensible Price with discount (0.022), Brand Reputation (0.165), Accessibility of items (0.013), E-Word of Mouth (0.421)	Gender is Significantly associated with Sensible Price with discount ( <b>0.022</b> ) and Accessibility of items ( <b>0.013</b> )
<b>Age</b>	Scheduled delivery (0.610), Adaptable payment (0.406), Sensible Price with discount (0.022), Brand Reputation (0.163), Accessibility of items (0.112), E-Word of Mouth (0.402)	No significant association
<b>Income</b>	Scheduled delivery (0.310), Adaptable payment (0.066), Sensible Price with discount (0.210), Brand Reputation (0.113), Accessibility of items (0.121), E-Word of Mouth (0.432)	No Significant Association
<b>Profession</b>	Scheduled delivery (0.560), Adaptable payment (0.036), Sensible Price with discount (0.031), Brand Reputation (0.043), Accessibility of items (0.121), E-Word of Mouth (0.022)	Profession is significantly associated with Adaptable payment (0.036), Sensible Price with discount (0.031), Brand Reputation (0.043) and E-Word of Mouth (0.022)
<b>Education</b>	Scheduled delivery (0.056), Adaptable payment (0.046), Sensible Price with discount (0.061), Brand Reputation (0.003), Accessibility of items (0.121), E-Word of Mouth (0.032)	Education is significantly associated with Adaptable payment (0.046), Brand Reputation (0.003) and E-Word of Mouth (0.032)



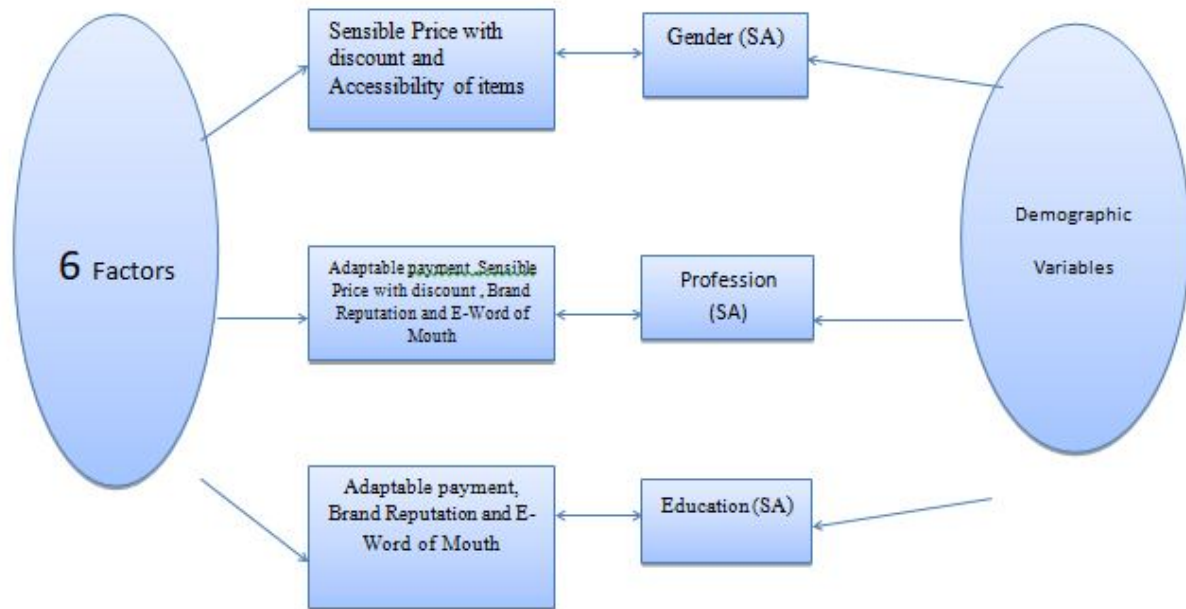
**Final Framework of Conceptual Design**

Figure 1: The model shows the association between the variables and outline Factors

**8. CONCLUSION**

The detailed analysis of the research have indicated that there is a significant association between the demographic variable Gender and consumer perception towards online green products with respect to factors such as Sensible Price with discount (0.022) and Accessibility of items (0.013). Thus the first hypothesis (H1)<sub>1</sub> proposed does support the first investigation. Another demographic variable like Age did not indicated support for suggested hypothesis (H2)<sub>2</sub>. The findings of the research have indicated that there is no substantial correlation between the variable like age and the attitude of consumers towards online green products in terms of underlying variables as Age is a neutral function and sufficient of technology is unbiased to age as study has inferred. Income is also another categorical attribute that is showing subsistence with the NULL (H0)<sub>3</sub> hypothesis. It was observed here that Income is a variable which is not associated with the factors extracted. Similarly, in case of Profession, it is supporting the suggested hypothesis (H4)<sub>4</sub> and rejects the alternative hypothesis as the statistical results are showing that is a strong correlation between the variable "Profession" and the consumer's perception of consumers about online green products in terms of factors like Adaptable payment (0.036), Sensible Price with discount (0.031), Brand Reputation (0.043) and E-Word of Mouth (0.022). Lastly it was found that the proposed hypothesis (H5)<sub>5</sub> is supported by the variable Education. Thus, Alternate hypothesis is accepted for the variable associated with online green products education and consumer perception in relation to few factors such as Adaptable payment (0.046), Brand Reputation (0.003) and E-Word of Mouth (0.032).

**9. MANAGERIAL IMPLICATIONS**

The extracted findings of this research will support the consciousness of consumers towards green products according to their contemporary buying pattern. This examination will likewise support product development team, stakeholders, strategist to improve the online business and customise the service exchange and value exchange concerned with the purchasing and selling of online green items in the country. The marketers will execute their strategy according to consumption behaviour of the consumers which will further help in predictive and prescriptive analysis of consumers. The inferred findings will balance the concept of wellbeing along with sustainability of business tasks.

**10. LIMITATION OF THE STUDY**

- a. The study has been conducted specifically in Durgapur City, West Bengal; it may not uncover the perception of the consumers at large
- b. The Sample size taken for this is small i.e., 100 respondents living in the Durgapur City. The study can be extended with larger sampling frame.
- c. The study was conducted with limitations of Time along with restricted funds.

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# Study on Ecology of Lonar Crater-Concept and Scope

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## ABSTRACT

*The world famous high impact velocity created Lonar Crater is having unique ecosystem to experience. As ecology is the branch of biology dealing with the relations and interactions between organisms and their environments, including other organisms also. An ecosystem has diverse living organisms inside and outside of the water with varied life form. These living organisms are categorized on the basis of the level of organizations. So at the basic numbers level we have the population, then need to identify the species and community to which that organism belonged, how the organism interacts with the ecosystem like the giant melipedes and other organisms in the ecosystem. Scientists also studied the interaction between different organisms and classified their interactions into different types. Present Study deals with ecology, concept and scopes are need of time.*

*Keywords: Ecology, Concept, Scopes etc.*

## INTRODUCTION

This particular Chapter "Ecology of Lonar Crater- Lake –Concept and scope" is written so as to understand the world famous high impact velocity created an unique ecosystem by me after long six years study, observation and experience, discussions with NGOs on various aspect regarding Lonar Crater. I am very fortunate that Lonar Crater is my regular morning walk destiny which is my permanent place of native home. So I have great advantage and opportunity to work in this regards and my privilege to put such things in front of scientific world that I daily observe. Hence this book may provide basic information not only to the college student in their ecological study, visitors but also will help researcher to give their attention towards Ecology of Lonar Crater-Lake-an unique Ecosystem.

## RESULT AND DISCUSSION

**1a:**Photo shows water body and green vegetations inside the world famous Lonar Crater M.S. India



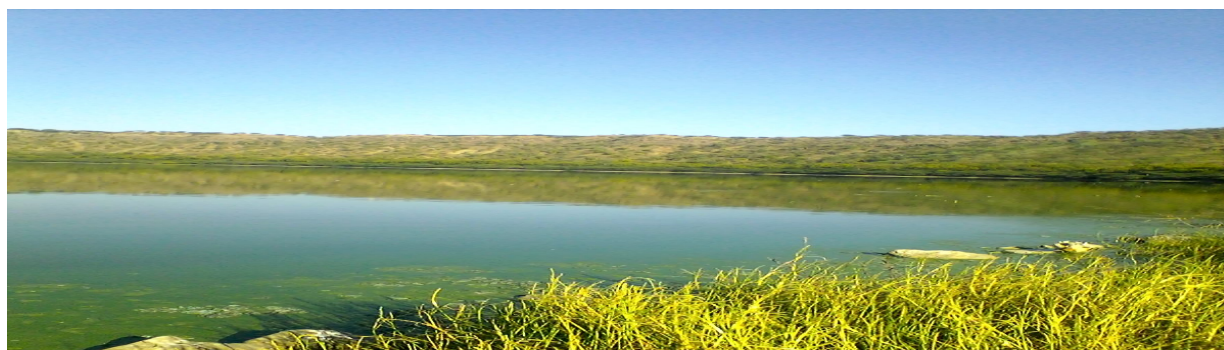
Source: Google map-19°58N76°31E

**1b:**Photo shows water body and green vegetations inside the world famous Lonar Crater M.S. India



Lunar crater is a 1.8-km-diameter impact crater in India, is a rare example of terrestrial impact craters formed in basaltic bedrock Komatsu et al., (2014). The estimated age of the crater ranges widely from less than 12 ka to over 600 ka, but the crater preserves a relatively pristine morphology. Various drainage systems of Lunar Crater studied. The crater floor hosts a shallow 5m deep lake, which fluctuates seasonally therefore this phenomenon, is also known as or referred as "magic water". Investigation reveals that the lake level is influenced by surface runoff that is active during the monsoon and groundwater input effective during both the rainy and the dry seasons. The groundwater discharge is observed as small springs on the inner rim walls corresponding to weathered vesicular basalt proximal ejecta, which are underlain by thick massive basalt layers. Groundwater movement is lithologically controlled and it passes preferentially through permeable vesicular basalt or proximal ejecta but is hindered in less permeable massive basalt rock. It is hypothesized that groundwater is also structurally controlled by dipping of basalt layers, interconnectivity of the permeable lithologic units through fractures, preferential pathways such as fractures within the permeable lithologic units. Investigation on hydrological processes at Lunar Crater and its lake could provide useful insights into purported paleo-crater lakes presumably formed in the basaltic crust of Mars. The Lunar Crater interior shows signs of degradation in the forms of gullies and debris flows, and the Dhar valley incising in the rim leading to form a fan delta followed by tiny spring known as "Sita Nhani". The ejecta surface is characterized by the presence of channels, originating from the rim area and extending radially away from the crater center. The streams or channels probably resulted from surface runoff, and its erosion contributes to the removal of the ejecta. Lunar Crater is a valuable analog site for studying degradation processes with potential application to impact craters occurring on Mars. Microbiology of Lunar Lake and other soda lakes present on Earth Paul Antony, et. al., (2013) Lunar Crater lake, Soda lakes are saline and alkaline ecosystems that are believed to have existed throughout the geological record of Earth. The unusual geochemistry of these lakes supports the growth of an impressive array of microorganisms that are of ecological and economic importance. Haloalkaliphilic Bacteria and Archaea belonging to all major trophic groups have been described from many soda lakes, including lakes with exceptionally high levels of heavy metals along with other elements. Lunar Lake is a soda lake that is centered at an unusual meteorite impact structure in the Deccan basalts in India and its key physicochemical and microbiological characteristics are highlighted in this article. Haloalkaliphilic microorganisms that grow optimally at high-pH and high-salinity conditions can be found in natural environments such as soda lakes. These globally spread lakes harbour interesting anaerobic microorganisms that have the potential of being applied in existing technologies or create new opportunities or scavengers of pollutants also. The occurrence of diverse functional groups of microbes, such as methanogens, methanotrophs, phototrophs, denitrifiers, sulfur oxidizers, sulfate reducers and syntrophs in soda lakes, suggests that these habitats harbor complex microbial food webs that interconnect various biological cycles i.e. redox coupling and impact on the production and consumption of greenhouse gases. Soda lake microorganisms harbor several biotechnologically relevant enzymes and biomolecules i.e. cellulases, amylases, ectoine and there is the need to augment bioprospecting efforts in soda lake environments with new integrated approaches. Importantly, some saline and alkaline lake ecosystems around the world need to be protected from anthropogenic pressures that threaten their long-term existence.

## 2. Photo structure of Lunar Lake, the only hypersaline meteorite Crater Lake within basalt rock



Exploration of microbial diversity and community structure of Lonar Lake, the only hypersaline meteorite Crater Lake within basalt rock Dhiraj et al. (2016). Lonar Lake is a hypersaline and hyperalkaline soda lake and the only meteorite impact crater in the world created in the basalt rocks. Although culture-dependent studies have been reported, the comprehensive understanding of microbial community composition and structure of Lonar Lake remain obscure. In the present study, microbial community structure associated with Lonar Lake sediment and water samples was investigated using high throughput sequencing. Microbial diversity analysis revealed the existence of diverse, yet near consistent community composition. The predominance of bacterial phyla Proteobacteria, Actinobacteria, Cyanobacteria observed. Bacterial phylum Bacteroidetes, Nitrospirae, Verrucomicrobia were detected as relatively minor populations in Lonar Lake ecosystem. Within Proteobacteria, Gammaproteobacteria represented the most abundant population among all the sediments and as a minor population in water samples. Bacterial members Proteobacteria and Firmicutes were present significantly higher in sediment samples, whereas members of Actinobacteria, and Cyanobacteria were significantly abundant in water samples. It was noted that compared to other hypersaline soda lakes, Lonar Lake samples formed one distinct cluster, suggesting a different microbial community composition and structure. The present study reports for the first time the different composition of indigenous microbial communities between the sediment and water samples of Lonar Lake. Having better insight of community structure of this Lake ecosystem could be useful in understanding the microbial role in the geochemical cycle for future functional exploration of the unique hypersaline Lonar Lake.

From Lonar lake indications of human activity from amino acid and amino sugar analyses on Holocene sediments, Menzel, P.; et al. (2012) changes in sedimentation, lake chemistry, local vegetation and regional to supra regional climate patterns. Lonar Lake occupies the floor of an impact crater that formed on the old basalt flows of the Deccan Traps is situated in India's core monsoon area. The modern lake has a maximum depth of about 5 m, is highly alkaline, and hyposaline, grouped in the subtype of saline lakes. No out flowing stream is present and only three small streams feed the lake, resulting in a lake level highly sensitive to precipitation and evaporation. The lake is eutrophic and stratified throughout most of the year with anoxic waters below 2 m depth. The core sediments have amino acid and amino sugar content. There are three zones within the core separated.

**3:** Photo shows green vegetations, animals inside the world famous Lonar Crater M.S. India



(a)



(b)



(c)



(d)



(e)



(f)

a. Green vegetation b. Cattles c. sampling d. Giant melipeds e. Migratory Birds f. fly

Recent attention regarding the impacts of pollution and exploitation has focused on the unintentional release of hydrocarbons into the environment, whilst the potential negative effects of other possible avenues of environmental contamination are less well documented. In the hydrocarbon-rich and ecologically sensitive saline wastes associated with hydrocarbon exploration have typically been disposed where high values of COD and BOD affects lot.

Live or dead comparisons of ostracodes in temperate lakes reveal evidence of anthropogenic, human impact and providing a tool to measure the progress of remediation progresses in the craters Spengel, J.; et. al.(2015) Lake ecosystems face a multitude of environmental threats including: eutrophication, and heavy metal pollution out of which detection metal elements can be possible. Tools to identify lakes impacted by human activity and quantify that impact are needed to combat their environmental degradation processes. One such promising tool has been the comparison between living communities and associated time-averaged death impacted by human activity.

**1. Table shows largest craters in the world.**

Name	Location	Country	Dimensions -Km	Age in thousands	Coordinates
Tenourmer	Sahara Desert	Mauritania	1.9	21	22°55'5"N 10°24'27"W
Meteor Crater	Arizona	United States	1.2	49	35°2'N 111°1'W
Xiuyan	Xiuyan	China	1.8	50	40°21'N 123°27'E
Lonar	Maharashtra	India	1.8	52	19°58'N 76°31'E
Agoudal	Atlas Mountains	Morocco	3.0	105	31°59'N 5°30'W
Tswaing	Pretoria Saltpan	South Africa	1.1	220	25°24'32"S 28°4'58"E
Zhamanshin	Kazakhstan	Kazakhstan	14.0	900 ± 100	48°24'N 60°58'E

## CONCLUSION

It is obvious that there are craters on the Earth out of which few have exists life. Lonar carter is having unique ecosystem which need to bring more attention of visitors, academicians, researchers, scientist and funding agencies for ecological findings present at this part of the world. **Acknowledgement:**

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- Source: Google map

# PM Cares: A New, Emerging and Simple Way of CSR

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## INTRODUCTION OF CSR

CSR is a management concept whereby companies integrate social and environmental concerns in their business operations and interactions with their stakeholders. CSR is generally understood as being the way through which a company achieves a balance of economic, environmental and social imperatives while at the same time addressing the expectations of share-holders and stakeholders. The idea of CSR first came up in 1953 when it became an academic topic in HR Bowen's "Social Responsibilities of the business". Since then, there has been continuous debate on the concept and its implementation. Some of the definitions of CSR are given below: World Business Council for Sustainable Development de-fines CSR as "The continuing commitment by business to be-have ethically and contribute to economic development while improving the quality of life of the workforce and their fami-lies as well as the local community and society at large" World Bank Group states that "CSR is the commitment of business to contribute to sustainable economic development by working with employees, their families, the local community and society at large, to improve their lives in ways that are good for business and for development."

## INTRODUCTION OF PM CARES

In the middle of the month November in the year 2019, world came to know about the novel CORONA Virus. WHO in March 11, 2020 declared the disease coming out of corona virus i.e. COVID-19 as a global pandemic. What started in the Wuhan City of China in mid-November 2019 has now spread around the world. It is very difficult to know the exact statistics about those infected by the Corona virus because of the lack of testing in many countries, but what we can say is that the numbers are increasing very rapidly. If we see the analysis of the figures worldwide, we can say that those most likely to die from this disease are older people and those with underlying health conditions and weak immune systems. COVID-19 is a "novel" or new virus, and scientists, health worker and our governments don't know much about its present and what to about what to expect from it in the near future. Everyone of us know that it spreads quickly and that it will be difficult to get everybody who might be infected tested and also the fact is that a vaccine is 12 to 18 months away. No drugs are currently available to slow down the virus. We will come to know more about the unknown qualities of this virus and pandemic only after days and months go on.

On 22 March 2020, Prime Minister Mr. Narendra Modiji announced a one day Janta Curfew. From then, the lockdown continued till the day. This was a major step which has helped India in fighting this pandemic. On 28<sup>TH</sup> March 2020, there was a creation of the relief fund by the Prime Minister called as the 'PM CARES' Fund. The full form of this relief fund is **Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund (PM CARES Fund)**. The PM Cares is being created specially following the COVID-19 pandemic in India. However, this fund will be used for combating, containment and relief efforts against the corona virus outbreak and similar pandemic like situations in the future. The Prime Minister is the chairman of the trust. The other Trustees include the Defense Minister, Home Minister and the Finance Ministers.

The specialty of this fund is that, this fund has enabled the micro-donations. The minimum donation accepted for the PM CARES Fund starts from ₹10. All the donations to this fund are tax exempted and fall under corporate social responsibility. The Prime Minister had said that the PMO had received many requests to help in the war against COVID-19. Accordingly, the fund was set up and will be used for disaster management and research. Any contribution made to the PM CARES Fund before 30 June would qualify for a tax deduction under section 80G of The Income-tax Act, 1961. The Ministry of Corporate Affairs announced that donations to the PM CARES fund would be counted as part of the

statutory Corporate Social Responsibility (CSR) obligation of the companies, with additional CSR being offset in subsequent years. Donations made to the state governments' initiatives such as the Chief Minister's Funds do not qualify for the CSR obligation.

The Ministry of Corporate Affairs has issued an FAQ on what qualifies as contribution towards CSR activities of the corporate in their fight against Covid-19.

Among other expenditures that are considered as CSR include contributions made to state disaster management authority to fight against Covid-19, spending on Covid-19 related activities like preventive health care and sanitation and any ex-gratia paid to temporary/casual workers over and above their daily wages.

The PM CARE fund was established to receive contributions from those who wanted to do their bit in combating the Corona virus pandemic.

As per the MCA circular, Schedule 7 of the Companies Act, 2013, contribution to any fund set up by the central government for socio-economic development and relief qualifies as CSR expenditure.

## REVIEW OF LITERATURE

In view of the changes to the economy in India since liberation, and the rapid growth in certain industrial sector or regions, CSR perception data is an important field to research. It is important for the researcher to be familiar with both previous theory and researches published so far in the field of investigation or study. Every research projects requires the review of concerned literature for doing the research. With the help of review of literature, a researcher can identify the methodology used, research design, methods of measuring concepts, techniques of analysis etc. The researcher presents here the resume on various studies undertaken by several re-searchers from time to time in India and also abroad.

A comparative study conducted by **Khan and Atkinson(1987)** on the managerial attitudes to social responsibility in India and Britain shows that most of the Indian executives agreed CSR as relevant to business and felt that business has responsibilities not only to the shareholders and employees but also to customers, suppliers, society and to the state.

**Arora and Puranik (2004)** reviewed contemporary CSR trends in India concluding that the corporate sector in India. He concluded that the corporate sector in India has benefitted immensely from liberation and privatization process, its transition from philanthropic mindsets to CSR has been lagging be-hind its impressive financial growth.

**D.Y. Chacharkar and A. V. Shukla (2004)** in their paper en-titled "A study of Corporate Social Responsiveness" tried to highlight theoretically the benefit of CSR through "iceberg effect" diagram. The results showed that just like iceberg, except the recognition and appreciation, the larger part of CSR initiatives for the company are invisible in the form of publici-ty, image building, expansion of customer base and profit.

**Harish Kumar (2012)** in his research article entitled "CSR Revisited" has thrown lights on four different approaches of companies towards CSR viz; Good Governance, Ruinous CSR, Discretionary CSR, and Illusion CSR. He also tried to highlight argument against the CSR as well as the CSR driver. The re-searcher also found eight factors that drive the CSR initiatives. They are Philanthropic Attitude, Governmental Actions, Environmental Concern, Ethical Consumerism, Crises and Calamities, Globalization and Market force, Social Awareness & Education, and Social Expectation.

## FAQ ON PM CARES FUND

### 1. Whether contribution made to 'PM CARES Fund' shall qualify as CSR expenditure?

Contribution made to 'PM CARES Fund' shall qualify as CSR expenditure under item no (viii) of Schedule VII of the Companies Act, 2013 and it has been further clarified vide Office memorandum F. No. CSR-05/1/2020-CSR-MCA dated 28th March, 2020.

**2. Whether contribution made to 'Chief Minister's Relief Funds' or 'State Relief Fund for COVID-19' shall qualify as CSR expenditure?**

'Chief Minister's Relief Fund' or 'State Relief Fund for COVID-19' is not included in Schedule VII of the Companies Act, 2013 and therefore any contribution to such funds shall not qualify as admissible CSR expenditure.

**3. Whether contribution made to State Disaster Management Authority shall qualify as CSR expenditure?**

Contribution made to State Disaster Management Authority to combat COVID-19 shall qualify as CSR expenditure under item no (xii) of Schedule VII of the 2013 and clarified vide general circular No. 10/2020 dated 23rd March, 2020.

**4. Whether spending of CSR funds for COVID-19 related activities shall qualify as CSR expenditure?**

Ministry vide general circular No. 10/2020 dated 23rd March, 2020 has clarified that spending CSR funds for COVID-19 related activities shall qualify as CSR expenditure. It is further clarified that funds may be spent for various activities related to COVID-19 under items nos. (i) and (xii) of Schedule VII relating to promotion of health care including preventive health care and sanitation, and disaster management. Further, as per general circular No. 21/2014 dated 18.06.2014, items in Schedule VII are broad based and may be interpreted liberally for this purpose.

**5. Whether payment of salary/wages to employees and workers, including contract labour, during the lockdown period can be adjusted against the CSR expenditure of the companies?**

Payment of salary/ wages in normal circumstances is a contractual and statutory obligation of the company. Similarly, payment of salary/ wages to employees and workers even during the lockdown period is a moral obligation of the employers, as they have no alternative source of employment or livelihood during this period. Thus, payment of salary/ wages to employees and workers during the lockdown period (including imposition of other social distancing requirements) shall not qualify as admissible CSR expenditure.

**6. Whether payment of wages made to casual /daily wage workers during the lockdown period can be adjusted against the CSR expenditure of the companies?**

Payment of wages to temporary or casual or daily wage workers during the lockdown period is part of the moral/ humanitarian/ contractual obligations of the company and is applicable to all companies irrespective of whether they have any legal obligation for CSR contribution under section 135 of the Companies Act 2013. Hence, payment of wages to temporary or casual or daily wage workers during the lockdown period shall not count towards CSR expenditure.

**7. Whether payment of exgratia to temporary /casual /daily wage workers shall qualify as CSR expenditure?**

If any ex-gratia payment is made to temporary /casual workers/ daily wage workers over and above the disbursement of wages, specifically for the purpose of fighting COVID 19, the same shall be admissible towards CSR expenditure as a onetime exception provided there is an explicit declaration to that effect by the Board of the company, which is duly certified by the statutory auditor.

**OVERVIEW ON THE CONTRIBUTIONS**

Within a week of the announcement of PM Cares Fund, the fund raised Rs. 6,500 Crores, this showed the support of the Corporate Businesses & Citizens of India on our Prime Minister. Here is the list of Top Contributors as of now:

**Tata Group:** On March 31, the company announced on Twitter that it was making a "humble contribution" of Rs 500 crore. "As always, we remain fully committed and united in the support to the nation," it said. Tata Group, in collaboration with Tata Trusts, has pledged Rs 1,500 crore for the cause.

**Mukesh Ambani Group:** On March 30, Reliance Industries was one of the earliest biggies to come forward and contribute to the PM-Cares Fund. It announced Rs 500 crores contribution to the PM-



CARES Fund in addition to its multi-pronged on-the-ground fight against COVID-19. In addition, it announced Rs 5 crore each to the Maharashtra CM Relief Fund and the Gujarat CM Relief Fund. The company is setting up a 100-bed hospital for corona virus patients, and has been manufacturing one lakh masks each day. It has also been providing PPE protective gears and food for those in need.

**Aditya Birla Group:** On April 3, Aditya Birla Group contributed Rs 400 crore to the PM-Cares Fund as a part of its overall commitment of Rs 500 crore. In partnership with Brihanmumbai Municipal Corporation, it also activated a 100-bed facility at Seven Hills Hospitals in Mumbai. Among other measures, the company also earmarked 200 beds in cities like Ujjain, Pune, Hazaribagh and Rayagada.

**Adani Group:** On April 3, the company declared on LinkedIn that the Adani Foundation had contributed Rs 100 crore to the PM-CARES. Adani Foundation has contributed Rs 5 crore to the Gujarat CM-Relief Fund and Rs 1 crore to the Maharashtra CM- Relief Fund as well.

**Damani Group:** On April 4, Radhakrishnan Damani - the promoter of Avenue Supermarts that owns D-Mart - donated Rs 100 crore to the PM-CARES Fund. It also contributed another Rs 55 crore towards various state relief funds. Damani made the donation through group company Bright Star Investments.

**Jindal Group:** JSW Group Chairman Sajjan Jindal has said that the group was continuously evaluating the situation. He said it was committed to assist the government in all ways possible to deal with the corona virus pandemic. The company donated Rs 100 crore to the PM-CARES Fund.

**Kotak Mahindra Group:** Kotak Mahindra Bank MD Uday Kotak on Sunday announced to donate Rs 25 crore to the PM-CARES Fund. The bank will also donate an additional Rs 25 crore to the fund. "It is time to protect Lives and Livelihood," he tweeted.

Following this trend and knowing their Corporate Social Responsibility, many other companies started donating in this fund & making it a huge success in the history of India.

## CONCLUSIONS

Today the concept of CSR has undergone radical change. It has integrated social as well as environmental issues into their missions and decisions. Companies take keen interest in informing about their CSR activities to their stakeholders as well.

From the above discussion, we can conclude that PM Cares is a very good way, an easier way to help the society & give back the society. This fund is having a very bright future & will be very helpful during this period of COVID-19 pandemic

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# Statutory Frame Work of Corporate Social Responsibility in India

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## ABSTRACT

*In today's transnational corporate operation corporation is getting recognized worldwide, but the impact on the society and environment is depraved. The norm -corporate social responsibility grew out of such logical behavior of the transnational corporation. The concept of Social Responsibility (SR) can be traced back to the 1930s Chester Barnard's publication "The Functions of the Executive and Theodore Krep's "Measurement of the Social Performance of Business published in 1940 .The 1950s saw the start of the modern era of Corporate Social Responsibility and later it was coined by Howard Bowen in 1953. India is the first country in the world Corporate Social Responsibility to make corporate social responsibility mandatory. In India The Companies Act 2013 for the first-time mandates that private corporations join public sector firms in annual donations for Corporate Social Responsibility. CSR can be termed as "Triple-Bottom-Line-Approach", which is meant to help the company promote its commercial interests along with the responsibilities it holds towards the society at large.*

*The present research paper explores the extent of Corporate Social Responsibility and the development of CSR in India.*

*Keywords: Corporate Social Responsibility, Transnational Corporation, Triple-Bottom-Line-Approach, Commercial, Society.*

## METHODOLOGY

Mainly secondary data have been used from textbooks, reference books, websites etc. The study is mainly based on analytical study.

## HISTORY OF CORPORATE SOCIAL RESPONSIBILITY IN INDIA

The history of Corporate Social Responsibility dates back many years and in one instance can even be traced back 5000 years in Ancient Mesopotamia around 1700 BC, King Hammurabi introduced a code in which builders, innkeepers or farmers were put to death if their negligence caused the deaths of others, or major inconvenience to local citizens. In Ancient Rome senators grumbled about the failure of businesses to contribute sufficient taxes to fund their military campaigns, while in 1622 disgruntled shareholders in the Dutch East India Company started issuing pamphlets complaining about management secrecy and "self-enrichment". With industrialization, the impacts of business on society and the environment assumed an entirely new dimension. The "corporate paternalists" of the late nineteenth and early twentieth centuries used some of their wealth to support philanthropic ventures.

Wealthy businessman and philanthropist Andrew Carnegie challenged wealthy people to support social causes, following his belief in the Gospel of Wealth. In the late 1800s, John D. Rockefeller, taking inspiration from Carnegie, followed suit in donating more than half a billion dollars.

In 1914, Frederick Goff, a well-known banker in Cleveland, founded the Cleveland Foundation, a trustee of the Cleveland Trust Company. Its purpose was to give power to the community by accepting gifts from multiple donors rather than one fortune, who could collectively assess needs and respond to the community. This was the first community foundation. It wasn't until the 1940s, however, that businesses, and not their owners or shareholders, could support charities.

Howard Bowen, an American economist and Grinnell College president, is often cited as the "father of Corporate Social Responsibility." He connected the responsibility of corporations to society and published a book in 1953, which advocated for business ethics and responsiveness to societal stakeholders called *Social Responsibilities of the Businessman*.

The first company to implement CSR was Shell in 1998. (Corporate watch report, 2006).

### **CORPORATE SOCIAL RESPONSIBILITY**

India is the first country in the world to make corporate social responsibility (CSR) mandatory, following an amendment to The Company Act, 2013 in April 2014. Businesses can invest their profits in areas such as education, poverty, gender equality, and hunger. The term "Corporate Social Responsibility (CSR)" can be referred as corporate initiative to assess and take responsibility for the company's effects on the environment and impact on social welfare. The term generally applies to companies' efforts that go beyond what may be required by regulators or environmental protection groups. Corporate Social Responsibility is the way companies manage their businesses to produce an overall positive impact on society through economic, environmental and social actions. Corporate social responsibility (CSR), also called corporate conscience, corporate citizenship, social performance, or sustainable responsible business. Business depends for its survival on long term prosperity of the society.

CSR can be termed as "Triple-Bottom-Line-Approach", which is meant to help the company promote its commercial interests along with the responsibilities it holds towards the society at large. CSR is different and broader from acts of charities like sponsoring or any other philanthropic activity as the latter is meant to be a superficial or surface level action as part of business strategy, but the former tries to go deep and address longstanding socio-economic and environmental issues.

The EC defines CSR as "the responsibility of enterprises for their impacts on society". To completely meet their social responsibility, enterprises "should have in place a process to integrate social, environmental, ethical human rights and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders".

### **DEVELOPMENT OF CSR IN INDIA**

- ✚ The UN Conference on Human Environment and Development held at Stockholm and 'Stockholm Declaration on the Human Environment' 1972 was the first major UN Conference on the environment. It is widely recognized as the beginning of modern political and public awareness of global environmental problems. It brought Countries together in proclaiming that the preservation of the environment is essential to the continued enjoyment of life itself. The Declaration contains 26 principles concerning the environment and development; an Action Plan with 109 recommendations, and a Resolution.
- ✚ 42nd amendment to the Constitution of India incorporated Article 48-A and Article 51-A in the Constitution. According to Article 48-A (Directive Principles of State) the states are under the 'active obligation' to make all endeavour to protect and improve the environment. It provides that "The State shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country". On the other hand, according to Article 51-A(g) (Fundamental Duties of citizen of India) it is the duty of every citizen of India to protect and improve the environment.
- ✚ After the 1972 proclamation there were several legislations introduced for protection of environment and planet which includes Water (Prevention and Control of Pollution) Act, 1974; Air (Prevention and Control of Pollution) Act, 1981; Environment Protection Act, 1986; The Public Liability Insurance Act, 1991; The National Green Tribunal Act, 2010, etc.
- ✚ The term "Sustainable Development" became prominent after the Rio Earth Summit in 1992 which prioritized global environmental discussions and improved upon the initial framework introduced at the United Nations Conference on the Human Environment, Stockholm in 1972. Sustainable development in this Summit was defined as "Development which meets the needs of

current generations without compromising the ability of future generations to meet their own needs".

The Government of India took up major initiatives for the development of CSR in India. The Government encouraged society to make a larger contribution towards welfare, Education, Research and development. Keeping in mind the need for development, the Ministry of Corporate Affairs, Govt. of India had notified the Corporate Social Responsibility Voluntary Guidelines 2009 on 21st November 2009 to be followed by the corporate. The corporate was required therein to formulate a CSR Policy according to Voluntary Guidelines 2009 as an integral part of the overall business policy in order to provide a road map for the CSR initiatives and efforts and guide to its strategic planning.

### **APPLICABILITY**

The companies on whom the provisions of the CSR shall be applicable are contained in Sub Section 1 of Section 135 of the Companies Act, 2013. As per the said section, the companies having Net worth of INR 500 crore or more; or Turnover of INR 1000 crore or more; or Net Profit of INR 5 crore or more during any financial year shall be required to constitute a Corporate Social Responsibility Committee of the Board "hereinafter CSR Committee" with effect from 1st April, 2014. The Act encouraged companies to spend at least 2% of their average net profit in the previous three years on CSR activities.

The ministry's draft rules, that have been put up for public comment, define net profit as the profit before tax as per the books of accounts, excluding profits arising from branches outside India. Promotion of education, Gender equity and women empowerment, Eradication of extreme hunger and poverty, Reducing child mortality and improving maternal health, Combating HIV-AIDS, malaria and other diseases Environmental sustainability Employment enhancing vocational skills Contribution to Prime Minister's relief fund and other such state and central funds Social business projects And such other matters as may be prescribed in the List of activities under Schedule VII.

Activities which may be included by companies in their Corporate Social Responsibility Policies  
Activities relating to: —

- (i) Eradicating extreme hunger and poverty;
- (ii) Promotion of education;
- (iii) Promoting gender equality and empowering women;
- (iv) Reducing child mortality and improving maternal health;
- (v) Combating human immunodeficiency virus, acquired immune deficiency syndrome, malaria and other diseases;
- (vi) Ensuring environmental sustainability;
- (vii) Employment enhancing vocational skills;
- (viii) Social business projects;
- (ix) Contribution to the Prime Minister's National Relief Fund or any other fund set up by the Central Government or the State Governments for socio-economic development and relief and funds for the welfare of the Scheduled Castes, the Scheduled Tribes, other backward classes, minorities and women; and
- (x) Such other matters as may be prescribed.

### **INDIAN COMPANIES UNDER CSR**

#### **TATA GROUP**

The Tata Group carries out CSR activities extensively which is largely on community improvement, and poverty alleviation programs. It is engaged in women empowerment activities, rural development and many other social welfare programs. TATA Group provides scholarship in the field of education. It strives to work on the health development in the rural sectors by the way of educating and by

creating awareness and providing immunization facilities. The other area includes agriculture, environment protection, sports scholarships, infrastructure development.

### **MAHINDRA AND MAHINDRA**

Indian automobile manufacturer established the K. C. Mahindra Education Trust in 1954, followed by Mahindra Foundation in 1969 with the purpose of promoting education. The company primarily focuses on education programs to aid economically and socially disadvantaged communities. CSR programs such as invest in scholarships and grants, healthcare for remote areas, water conservation, and disaster relief programs. Nali Kali has been introduced focusing on girl education, Mahindra Pride Schools for industrial training, and Lifeline Express for healthcare services in remote areas.

### **ULTRA TECH CEMENT**

India's biggest cement company is involved in social work across 407 villages in the country aiming to create sustainability and self-reliance. Its CSR activities focus on healthcare and family welfare programs, education, infrastructure, environment, social welfare, and sustainable livelihood.

### **L&T**

Key CSR Areas: Water and sanitation, education, healthcare and skill building. L&T partners with local governments on health programs focused on reproductive health, tuberculosis & leprosy control, integrated counseling & testing centres for HIV/ AIDS. L&T's community health centres are located at Mumbai, Thane, Ahmednagar, Hazira, Vadodara, Coimbatore, Chennai, Lonavala and Kanskahal. L&T's Construction Skills Training Institutes (CSTIs), established in 1994 provide skills to rural youth.

### **INFOSYS**

Infosys Foundation, headed by Sudha Murty, towards removing malnutrition, improving healthcare infrastructure, supporting primary education, rehabilitating abandoned women and children and preserving Indian art and culture. Infosys Foundation USA is focused on bridging the digital divide in America by supporting computer science education and training in underrepresented communities. The Infosys Foundation mid-day meal program, an initiative in partnership with the Akshaya Patra Foundation, spans several states across India.

In India several companies have started realizing that it is a sensible move to take up CSR activities and integrate it with their business process. The basic objective of CSR in these days is to maximize the company's overall impact on the society and stakeholders. Corporations are becoming increasingly aware of their role towards the society. They are responsible bodies that feel a sense of duty towards the common welfare and the environment. Companies now are setting up specific departments and teams that develop policies, strategies and goals which are for their CSR programs and allocate separate budgets to support them. These programs are based on well-defined social beliefs or are carefully aligned with the companies' business domain. The programs are put into practice by the employees who are crucial to this process. CSR programs ranges from community development to development in education, environment, and healthcare and so on.

### **CHALLENGES OF CSR IN INDIA**

There is a lack of interest of the general public in participating and contributing to CSR activities of companies. This is because of the fact that there exists little or no knowledge about CSR. The situation is further aggravated by a lack of communication between the companies involved in CSR and the general public at the grassroots. CSR activities carried out by companies often clash with their commercial and other vested interest which are prioritized over serving the society. Furthermore, it is also claimed by scholars that social issues often cannot be solved by money alone and most corporates do not want to look beyond fiscal measures to help the society. They also do not realize that money can often worsen existing problems. As per section 135 of the Companies Act, 2013, CSR efforts will be equated with the money spent- which should be at least 2 percent of the net profit. However, companies are not very transparent in declaring their CSR income. Companies have engaged in selective CSR tasks that ultimately benefit their brand value and help them prosper rather than activities that genuinely help the society at large. Non-governmental organizations and Government

agencies usually possess a narrow outlook towards the CSR initiatives of companies, often defining CSR initiatives more as donor-driven. As a result, corporates find it hard to decide whether they should participate in such activities at all in medium and long run.

### **PENALTY**

Although the compliance of Section 135 is mandatory in nature, there are no specific penalties stipulated under Companies Act 2013 for non-compliance. The company is required to submit the report recording the reasons for failure of implementation in the report by the Board of Directors. The CEO or managing director or director as the case may be, the chairman of the CSR committee, and in case of foreign companies, the authorized person to accept court notices, has to sign the report. The noncompliance of Section 134 attracts a fine which shall

not be less than fifty thousand rupees but which may extend to twenty five lakh rupees and every officer of the company who is in default shall be punishable with imprisonment for a term which may extend to three years or with fine which shall not be less than fifty thousand rupees but which may extend to five lakh rupees or with both. Furthermore, the implementation of CSR being a board function reckons that any non-compliance with the provision should attract the penalties provided for breach of director's duties.

### **CSR EXPENDITURE: DATA**

#### **CSR expenditure for the three Financial Years**

Sl. No.	Company Type	F Y 14-15	F Y 15-16	F Y 16 -17
1	PSUs	2673.85	4163.09	1325.83
2	Private Sector Companies	6890.92	9664.77	3393.17
	<b>Total</b>	<b>9564.77</b>	<b>13827.86</b>	<b>4719.00</b>

### **CASE LAW REALTED TO CSR**

#### **The Goa Foundation vs M/S Sesa Sterlite Ltd. And Ors.**

Notwithstanding this serious indictment of the pre-existing „policy“ for mining natural resources in Goa, the Mineral Policy did not address itself to the allocation or distribution of the natural resources in any of its 20 paragraphs and many sub-paragraphs. The topics dealt with in the Mineral Policy include objectives and parameters, sustainable mining and mineral conservation, mineral administration, regulation of mines and minerals, pollution and its social impact, and policy highlights. Some of the other topics dealt with in the Mineral Policy include capping, based on carrying capacity of public roads and to protect inter-generational equity, mines safety and rehabilitation of affected people, stakeholder participation (including corporate social responsibility), welfare and social responsibilities and establishment of the Goa Minerals Development Fund etc.

#### **BHOPAL GAS TRAGEDY: WRT TO CSR**

The Supreme Court order dated July 19,2004, ordering relief for Bhopal gas victims is a case of the long arm of justice 20 years after the event. The leakage of a poisonous gas, Methyl Isocyanate (MIC) from the pesticide plant of Union Carbide India Ltd, Bhopal, on December 3, 1984, resulted in a loss of 10,000 lives and permanently disabled nearly 50,000 people. This tragedy raises some serious corporate social responsibility issues to be addressed by manufacturing Companies, in their responsibility towards the community and environment. This Case examines the Bhopal Gas Tragedy and explains what happened and why: The economic, legal and environmental aspects and addresses the wider issues facing the stakeholders and the players.

### **CONCLUSION**

CSR has come a long way from moral duty to statutory mandate since the theory of corporate social responsibility revolves around the discretionary, ethical, legal and economic expectations placed on businesses by society, Ethics, in this case, pertains to the perceived duty of businesses to adhere faithfully to law and avoid activity that undermines the welfare of investors, consumers, employees and citizens in the pursuit of profit. To some it conveys the idea of legal responsibility or liability; to others, it means socially responsible behavior in the ethical sense. Today the concept of corporate

social responsibility is firmly rooted on the global business agenda. But in order to move from theory to concrete action, many obstacles need to be overcome. It is found that the degree of CSR activities of companies should depend upon their business size and profile. In other words, the bigger the company, the bigger is its CSR program. Non-governmental organizations and Government agencies generally possess a constricted viewpoint towards the CSR activities of companies. As a result, they find it hard to decide whether they should contribute in such activities at all in medium and long range. Lack of transparency is another issue which needs focus. This is mainly due to the fact that there is little or no knowledge about CSR within the local communities since no sincere efforts have been made to create awareness about CSR and win the confidence of local communities. There is a need to increase the understanding and active participation of business in equitable social development as an integral part of good business practice.

# Corporate Social Responsibility - A Way for Sustainable Development - A Conceptual Study

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## ABSTRACT

*In the opinion of the Researcher, it is the right time; the Corporate concentrate on the Social Responsibility for Sustainable Development. 'Corporate Social Responsibility' can be defined as an obligation of a Corporate to protect and enhance the society. Sustainable Development meets the needs of the present without compromising the ability of future generations to meet their own needs.*

*The Contribution of Corporate Social Responsibility; as it is suggested by 'Brummet;' extends to different aspects like Net Income Contribution; Environmental Contribution; Product or Service Contribution; Public Contribution and Human Resource Contribution. The Parameters of Sustainable Development can be studied under different dimensions namely; Environmental Sustainability; Economic Sustainability; Social Sustainability and Institutional Sustainability. The contents of the Sustainability Strategy adopted by each business enterprise vary because of its dissimilar nature.*

*After the Review of literature, the Researcher has come to a conclusion that all the Corporate do not have unanimity as regards the concept and the practices towards Social Responsibility. This ambiguity has given rise to emergence of various approaches.*

*The Researcher is of the view that the Corporate possesses Social Responsibility. After learning the concepts of Corporate Social Responsibility and Sustainable Development, it is inferred that Corporate Social Responsibility is one of the ways (besides others) towards Sustainable Development.*

*Keywords –*

- (a) Social Equity*
- (b) Environmental Protection*
- (c) Economic Development.*
- (d) Philanthropic Compliance*

## INTRODUCTION

In the words of **Dietrich Bonhoeffer**, "**Action springs not from thought; but from the readiness for Responsibility.**" The actions towards Social Responsibility can certainly and surely spring only when the society; as a whole; is really ready to accept the same as a concept and also in principle.

Sometimes Corporate Social Responsibility is roughly interpreted as an **Academic Discipline** as a coherent body of knowledge addressing a central theme. It can also be presented as a distinct **Management Approach or Style** as a technical and instrumental response to the overall Business Environment prevailing at present. Its prime focus is on the relationship existing between the Business and the wider society and its effective management; in practice. As a matter of fact; logically and ideally it should be treated as a **Special Sphere including both the Perspectives of the Pure- Hard core Academicians as well as that of Management Practitioners**. The main areas of Corporate Social Responsibility comprise of **Ecology and Environmental Quality; Consumerism; Community or Social Requirements; Relationships with the Government; Stake-holders and the Labors; Services to the Minorities and Disadvantaged Persons**; etc. This list is *strictly suggestive; and not exhaustive* in its practical nature.

The title of the book; '**Corporate Social Responsibility – A Way for Sustainable Development;**' in itself; includes the two giant terms; namely; Corporate Social Responsibility and Sustainable



Development. Thus, at the outset; indeed; it is quite imperative on the part of the Researcher; to explain the concepts; in themselves; at depth and different definitions in detail; of these two different terms.

### CONCEPT OF CORPORATE SOCIAL RESPONSIBILITY

Corporate Social Responsibility is self-imposed restriction by the Corporate on their self social actions or consciously undertaken activities for the welfare or well-being of the Society; at large. It is a Multi-Faceted and Multi-Dimensional Approach and an Affirmative practical concept. Ideally; it is expected to secure the interest of all the Stakeholders in general and it is complementary; particularly; with the objective of maximizing Shareholder's dividend. It incorporates not only Legal but also Moral Social Commitment on the part of the Corporate.

The concepts of *Corporate social Responsibility and Business Ethics appear overlapping* with each other; however; there are several *points of distinction* between the two concepts; such as *Expression or Exhibition (of Corporate Social Responsibility) and Practical Application (of Business Ethics); Corporate Social Approach and Practical Attitude ultimately the result in terms of Social Image; Following up of Principles and Standards; Contractual Obligation and Conscience; etc.*

Similarly; *Corporate Citizenship* is another term confused; more often than not; with the term Corporate Social Responsibility. But; the practical scope of 'Corporate Citizenship;' as a concept; is far broader as compared to that of 'Corporate Social Responsibility.' Basically; the concept of 'Corporate Citizenship' is relatively of recent origin as it predates back to thirty years; that is the year 1990 whereas the concept of 'Corporate Social Responsibility' is as old as one hundred years; as on today; that is the year 1920. Besides *Origin*, these two concepts also differ on the grounds of *Basis; Focus and Action.*

When the Corporate shoulder their Social Responsibility; quite seriously and sincerely; in turn; they enjoy several benefits especially for the long run like Enhancement of Reputation or Goodwill; Appropriate Utility of National Resources and Economic Power; Maintenance of Harmonious Relationships with the Laborers; Intelligent Conversion of Regulatory and Social Resistances into precious Resources; Reduction of Environmental Damage; Deterioration or Destruction; etc.

### DEFINITIONS OF CORPORATE SOCIAL RESPONSIBILITY

1. In the words of '*Bowen,*' Social Responsibility means an obligation of business to pursue those policies, to make those decisions or to follow those lines of action which are desirable in terms of the objectives and values of the society.

2. The *International Seminar held in New Delhi*; some years back; on the theme of 'Social Responsibilities of Business;' defined the term 'Social Responsibility.'

It includes

- (a) Responsibility to itself, to its investors, workers, shareholders and the community
- (b) The task of Management to reconcile these separate; sometimes; conflicting responsibilities.

3. According to *Koontz and O'Donnel*, "Social Responsibility is the Personal Obligation of everyone as he acts for his own interests to assure that the rights and legitimate interests of all others are not impinged."

4. According to *Lord Holme and Richard Watts*, "Corporate Social Responsibility is the continuing commitment by business to behave ethically and contribute to Economic Development while improving the quality of life of the workforce and their families as well as of the local community and society at large."

5. According to *Cannon*," Corporate Social Responsibility means devising Corporate Strategies and building a business with the society's needs in mind."

6. The word 'Corporate Social Responsibility' can roughly be defined as an obligation of a Corporate Organization to protect and enhance the society within which it operates.

**CONCEPT OF SUSTAINABLE DEVELOPMENT -**

Sustainable Development meets the needs of the present without compromising the ability of future generations to meet their own needs. Furthermore, *for the Business Enterprise; Sustainable Development means adopting several Business Strategies as well as Activities those really meet the needs of the Business Enterprise and its various stakeholders while protecting, sustaining and enhancing Human and Natural Resources which will be actually needed in the future.*

Sustainable Development is about creating the appropriate Equilibrium or Balance and Inter-action between the three different dimensions or factors namely; *Social Equity; Environmental Protection and Economic Development*. It regulates the utility of Natural Resources and thereby leads to Environmental Balance. It is; no doubt; a forward looking concept; quite complicated and vague; still; it is systematic approach.

**DEFINITIONS OF SUSTAINABLE DEVELOPMENT**

1. According to *E. Barbier*, "The primary objective of Sustainable Development is to reduce absolute poverty of the world's poor through providing lasting and secure livelihoods that minimize Resource Depletion, Environmental Degradation, Cultural Disruption and Social Instability."

In the year 1983, thirty seven years earlier; the world commission on Environment and Development called *Brundtland Commission* was set up; *Gro Harlem Brundtland* was its Chair person. The commission was convened by U. N. Its objective was to check accelerating deterioration of the Human Environment and Natural Resources and its consequences on Economic and Social Development.

2. According to *Gro Harlem Brundtland*, "Sustainable Development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

3. Sustainable Development can be defined as a Pattern of Social and Economic Development optimizing the Societal and Economic Benefits available in the present; without spoiling the likely potential for similar benefits in future.

**RATIONALE OF THE RESEARCH PAPER**

As per the provisions of *Section 137; The Company's Act, 2013*; "Any Company having a Net worth of Rs. Five Hundred Crore or more OR a Turnover of Rs. One Thousand Crore or more OR a Net Profit of Rs. Five Crore, must spend two per cent of their Net Profits on Corporate Social Responsibility Activities."

Moreover, it is high time to emphasize and convince the Social Significance of Sustainable Development to the inhabitants basically because; the human being has not utilized the Natural Resources properly or proportionately that is he has miserably failed to distinguish or differentiate between his own real Need and Greed. Had he realized the same; *Mahatma Gandhi; the Father of the nation; would not have stated; "Earth provides enough to satisfy every man's Need; not Greed."*

Thus, in the opinion of the Researcher, it is the right time; the Corporate concentrate on the Social Responsibility for Sustainable Development.

**RESEARCH PAPER OBJECTIVES**

1. To Develop Conceptual Understanding of 'Corporate Social Responsibility' and 'Sustainable Development'
2. To Test the Contribution of Corporate Social Responsibility for Sustainable Development

**RESEARCH PAPER METHODOLOGY**

This Research Paper is based on the *Secondary Data* collected through different books, websites and the earlier Research Papers of the Researcher.

**Scope of Corporate Social Responsibility and Sustainable Development**

The Practical Scope or Contribution of Corporate Social Responsibility; as it is suggested by '*Brummet;*' extends to different aspects like *Net Income Contribution; Environmental Contribution; Product or Service Contribution; Public Contribution and Human Resource Contribution.*

The Practical Scope or the Parameters of Sustainable Development can be studied under four different dimensions namely; ***Environmental Sustainability; Economic Sustainability; Social Sustainability and Institutional Sustainability***.

The Parameters of ***Environmental Sustainability*** mainly cover Fresh Water or Ground Water, Agriculture or Secure Food Supply, Urbanization, Coastal Zone, Marine Environment or Coral Reef Protection, Fisheries, Biodiversity or Biotechnology, Sustainable Forest Management, Air Pollution, Ozone Depletion, Global Climate Change; Sea Level Rise; Sustainable Utility of Natural Resources, Sustainable Tourism, Land Use Pattern, etc.

The Parameters of ***Economic Sustainability*** include Economic Indebtedness, Production and Consumption Pattern, Energy Generation, Energy Distribution, Energy Consumption, Waste Management, Economic Structure and Development, Internal or Domestic Trade, International Trade, Productivity, etc.

The Parameters of ***Social Sustainability*** basically comprise of Educational Level, Extent of Employment, Human Health Amenities, Water Provision and Distribution Facilities, Sanitation Situation, Electricity Services, Welfare Conveniences, Overall Quality of Social Life, Level of Equitable Distribution of Income within the Society, Level of Social Poverty, Number and Resolution of Crimes in the Society, Significance for Social Norms and Values, Importance of Ethical Values, Respect for Obedience of Legal and Regulatory Framework, Women Empowerment, Gender Equality, Easy Access to Land and other allied resources, Overall Community Structure, Social Exclusion, etc.

The Parameters of ***Institutional Sustainability*** fundamentally contain Integrated and Transparent Decision- Making, Capacity Building, Adoption of Up-to-date Science; Advance and Sophisticated Technology, Public Awareness and Prompt Communication, International Alliance and Cooperation, Corporate Governance, Institutional Rules, Regulations and Bye-laws, Disaster or Crisis Management, Level of Enthusiasm of Public Participation in various events; etc.

### COMMON FEATURES OF SUSTAINABILITY STRATEGY

The detail contents of the Sustainability Strategy adopted by each business enterprise; no doubt; vary quite considerably basically because of dissimilar nature of the business; in itself. However, at the same time; there exist some common features of the same strategy; for example; ***reduction in operating costs; preservation of precious and scarce business resources; compliance with the legislative rules and regulations; enhancement of business reputation or goodwill; continuous creation and maintenance of strategic alliance and specialization; attraction and retention of effective and efficient employees; satisfaction of ever-changing consumer preferences; tastes and requirements; consistent meeting of stakeholders' expectations; frequent attraction of capital investments; capitalization or acquisition of new business opportunities and increasing of transparency***; to mention a few.

### RESEARCHER'S VIEWS TOWARDS CORPORATE SOCIAL RESPONSIBILITY FOR SUSTAINABLE DEVELOPMENT

After the Review of relevant or pertinent literature, the Researcher has rationally come to a conclusion that all the ***Corporate do not have unanimity as regards not only the concept but also the practices towards Social Responsibility***. In simple words, this ambiguity has consequently given rise to unknown emergence of various approaches towards Corporate Social responsibility like ***Social Opposition, Social Obligation, Social Response and Social Contribution***. On the continuum of 'Corporate Social Responsibility' the degree of the said Responsibility really ranges from 'Social Opposition' to 'Social Contribution.' Further, the ***Formal Approach*** is classified into three distinct categories namely; ***Legal Compliance; Ethical Compliance and Philanthropic Compliance*** and the ***Informal Approach*** travels beyond the exclusive domain of the Formal Approach and covers two prime factors such as ***Organizational Culture and Whistle Blowing***.

After careful and thoughtful study of all the approaches; as mentioned above; an ordinary Indian citizen may develop a deep and considerable confusion whether the Corporate really owe the Social Responsibility or not. This kind of confusion is undoubtedly quite understandable as it is logical.

The Researcher is of the firm view that the Corporate does possess Social Responsibility for the following two reasons.

1. *The Corporate strictly act or perform their all the activities; whatever their nature or type may be; (which will vary from Corporate to Corporate) within the parameters or the boundaries of the Society; at large; that is; not; at all; out of the periphery of the Society.*
2. *The fact of very existence of the Corporate in the Society is basically because of the existence of Society; in itself. In other words, if the Society; in itself; would not exist; naturally; the Corporate would cease to exist.*

Thus, after learning both the concepts of Corporate Social Responsibility and Sustainable Development, it can comfortably be inferred that ***Corporate Social Responsibility is indeed; one the ways (besides others) towards Sustainable Development.***

### RESEARCH PAPER LIMITATIONS

1. When the Review of Literature was done by the Researcher; it was found out that if all the definitions of the two terms namely 'Corporate Social Responsibility' and 'Sustainable Development' given in the books and also in the Research Papers on this topic authored by the eminent personalities will be covered, the length of the Research Paper would increase disproportionately and disturb the balance of the Research Paper. Thus, only some definitions of both the terms are covered in the Research Paper.

At the same time; it may not be out of place to point out over here that the inclusion of those definitions too might not have added to the existing level of conceptual clarity; as expected. .

2. As the Research study is based on human (Researcher's) views and Secondary Data; all the limitations of human views as well as Secondary Data have direct and deep impact on various views formed and inferences arrived at by the Researcher. As a result, full intellectual concurrence with all the personal views, inferences and opinions is certainly not expected.

However; those views and inferences are based on fully considered, well balanced and sound judgments of the prevailing Corporate and Social situations as regards Corporate Social Responsibility and Sustainable Development.

3. The Contribution of Corporate Social Responsibility, as suggested by '**Brummet;**' different Parameters of Sustainable Development and Approaches towards Corporate Social Responsibility have been incorporated in the Research Paper only in points for want of its length.

### SCOPE FOR FUTURE RESEARCH

1. Current Status of Corporate Social Responsibility in India – A Critical Study
2. Psychological Aspects of Corporate Social Responsibility in India – An Analytical Study
3. Institutional Aspects of Corporate Social Responsibility in India – An Investigative Study
4. Means and Ways towards Sustainable Development in India- An Exploratory Study
5. Corporate Social Responsibility in India- A Social Enigma

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# Sustainable management of e-garbage in India

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## ABSTRACT

*India is the fifth biggest producer of e-waste in the World, Electronic waste (e-waste) is one of the fastest-growing pollution problems worldwide. If a variety of toxic substances, which can contaminate the environment and threaten human health, if disposal protocols are not meticulously managed. This e-waste contains a diverse range of materials, hazardous substances and valuable materials. Classifies e-waste based on products of similar function, comparable material composition (in terms of hazardous substances and valuable materials). For effective management legal regulation, system coverage, system financing, producer responsibility. The gas emissions are filtered and effluents are treated to minimize environmental impact. The final step in e-waste recycling is refining, effective implementation of extended producer responsibility (EPR), Recovery and reuse. Replacement of hazardous constituents with non-hazardous materials. Changes in the production process could reduce waste generation.*

## 1. INTRODUCTION

World cities generate about 1.3 billion tones of solid waste per year and this is expected to increase to 2.2 billion tones by 2025 (The World Bank, 2012). According to the World Bank report of 2012, municipal solid e-waste generation rates are directly proportional to economic development and urbanization. Many waste are contributing to this steadily increasing stream of solid waste, important stream of waste is electronic waste. Electronic waste is also known as e-waste. Electronic waste or 'e-garbage, defines EEE as equipment which is dependent on electric currents or electromagnetic fields in order to work properly and equipment for the generation, transfer and measurement of such currents and fields and designed for use with a voltage rating not exceeding 1000 volts for alternating current and 1500 volts for direct current. This e-waste contains a diverse range of materials. Most studies examine five categories of materials in e-waste viz. ferrous metals, non-ferrous metals, glass, plastics and others. Iron and steel account for almost half the total weight, followed by plastics (21% of weight), and non-ferrous metals including precious metals (13%, of weight of which copper accounts for nearly 7%).

## 2. SOURCE OF E-WASTE

Electrical and electronic equipment include a large gamut of products ranging from small household equipment, to toys, to large equipment like refrigerators, IT equipment, mobiles, office equipment, medical equipment etc. It is these equipment that become e-waste at the end of their useful life. So the sources of e-waste are also very large ranging from individual users, to households, to organizations. Therefore, the generators of e-waste are classified broadly as individual (which also include households) and bulk consumers. (Source: Wider et al., 2005). Typical material fractions in waste electrical and electronic equipment (WEEE) Classification of e-waste are important for compiling e-waste data regarding its generation and management. The United Nations University (UNU) classification that classifies e-waste based on products of similar function, comparable material composition (in terms of hazardous substances and valuable materials) average weight, end-of life characteristics and life span distribution is regarded as most comprehensive classification.

## 3. THE CHALLENGE OF E-WASTE MANAGEMENT.

Nearly 60% of recyclable material e-waste has made the global trade in e-waste from the developed countries to the developing countries a profitable business. Despite opposition from NGOs increasing annually (Kahhat et al., 2008). E-waste contains both toxic and valuable materials encourage an international trade in e-waste (Liu et al., 2006). The growing quantity of e-waste, together with its toxic nature has made the management of e-waste a global challenge (Puckett and Smith, 2002).

Higher cost for repair and comparatively low cost of electronic items (Slade, 2006). Planned obsolescence is a marketing strategy that creates long-term sales volume by decreasing the useful life of technology, thereby increasing the rate of purchase of new technology, purchases not out of personal choice but as a consequence of the products' purposefully limited durability (Lodziack, 2000). Most often the e-waste thus generated in developed countries ends up in landfills or is incinerated. expensive to recycle e-waste in most developed countries and hence they have chosen the alternate cheaper route e-waste by exporting it to the developing countries United States e-waste recycling industry once declared that around 80% of the e-waste was exported into Asia, and around 90% of it went to China (BAN, 2002). In the developing countries the increasing quantity of e-waste. Improper methods of dismantling electronic items by unskilled workers, lack of proper regulations.

#### **4. MANAGEMENT OF E-WASTE**

E- Waste management is based on the principle of extended producer responsibility (EPR). "EPR is defined as an environmental protection strategy that makes the manufacturer of the product responsible for the entire life cycle of the product and especially for the take back, recycling and final disposal of the product" (Lindhqvist, 2000). It was Thomas Lindhqvist, proposed five parameters - EPR based e-waste management system, viz. legal regulation, system coverage, system financing, producer responsibility, compliance. These parameters were closely interlinked and play an important role in the effective management of WEEE. The linking of the manufacturing phase of the product with its disposal by EPR encourages the manufacturers to go for better product design to enable easy upgrading and recycling according to Tojo (2005).

Many developing countries like China and India have now implemented e-waste legislation in line with the European Union Waste Electrical and Electronic Equipment Directive (EU WEEE). In developing countries, there is a large group of participants in the informal sector that make a living by resource extraction Wath et al., 2010; Wath et al., 2011; Meng Die Li et al., 2012 from this waste through primitive backyard recycling who cannot be ignored in an e-waste management system. The integration of the informal sector with formal e-waste recyclers by involving them only in collection for effective e-waste recycling (Sinha Khetriwala, 2004).

#### **5. E-WASTE TREATMENT**

E-waste is a mixture of valuable materials that are recoverable and recyclable with toxic substances that need to be safely disposed as their treatment is also complex. E-waste requires both labour-intensive manual segregation along with capital intensive technical processes for the separation of toxic waste (Vasudev and Parthasarathy, 2007). Handling e-waste by beginning with manual dismantling has been recommended as the best starting process for its treatment (Chatterjee and Kumar, 2009). Once the critical toxic compounds are removed the e-waste is subjected to mechanical process. Typical components of a mechanical processing plant are crushing units, shredders, magnetic- and eddy-current- and air separators, dedicated fraction and also helps to further separate hazardous materials. The final step in e-waste recycling is refining. This is an energy and capital-intensive process.

#### **6. E-WASTE MANAGEMENT IN INDIA**

According to UN report 2015 India is the fifth biggest producer of e-waste in the World, discarding 1.7 million tonnes (Mt) of electronic and electrical equipment (UN report, 2015). The e-waste in the country is rising three times faster than the municipal waste stream (Agarwal, 2009). Government institutions and the public and private sectors have been identified as the major contributors of approximately 70% of the amount. E-waste management in India has been largely left to the highly organized informal sector, which does the, Dismantling and finally recycling until recently (EMPA, 2007). E-waste management in India has been largely left to the highly organized informal sector, which does the collection, segregation, dismantling and finally recycling until recently (Raghupathy et al., 2010). Waste minimization in industries can be done by adopting the following 4 methods. Minimization various steps involved in waste minimization are Inventory management, Production-process modification, Volume reduction.

**7. DISCUSSION**

Recovery and reuse Replacement of hazardous constituents with non-hazardous materials. Changes in the production process reduce waste generation. It is done by three different ways. Improved operating and maintenance procedures: the existing operational procedures must be reviewed to improve efficiency. Optimize the use of raw materials in the production process and having control over leaks and spills can help in improving efficiency. Proper training, good inspection, good operating procedures are also a key to waste minimization Material change: replace alternative non-hazardous materials with hazardous material. For example, a circuit board manufacturer can replace solvent-based product with water-based flux and simultaneously replace solvent vapor degreaser with detergent parts washer. Process-equipment modification: Minor changes or adjustment in the process will reduce waste generation.

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**A Study of Moulding Behavior of Consumers and Equipping Online Technology- Recent Trends****Ms. Anita Verma**

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**ABSTRACT**

*Demonetization made huge development and opened a door of opportunities for digital payment in India and the digital wallet organizations profited the opening such doors. Digital payment has revolutionized retailing by making consumers buying different products from all over the world. In the last decade, India has witnessed huge growth in the use of mobile phones in the digital India era. This expanding utilization of the web, versatile use of mobile phones, and government endeavors after demonetization combined with the widespread use of digital payment modes, for example, Google Pay, Paytm, etc. have shifted the consumer base towards the use of more and more digital modes.*

*Keywords: Demonetization, Digital Era, Demographic Factors, Technology, Environmental Threats.*

**INTRODUCTION**

There are several facilitators which have paved the way to the development of digital payment mechanism and the occurrence of the change from the cash economy to a less-cash economy. These facilitators include the use of internet connectivity on smartphones and other institutions facilitating digital payment, one-touch payment, etc. These are the factors promoting the positive growth of digital payment in India. Digital Technology is reshaping the payment methodology. Technological progression is a continuous process and over the years it has been evolving. Technological advancement has provided an effective payment mode devoid of cash which is known popularly as digital payment.

Digital payment is a type of E-commerce transaction to include electronic payment for buying products and services like Paytm, Free charge, Google pay, Mobikwik, etc. As technology is developing, the devices used for transacting electronically are rapidly increasing especially after demonetization. The complete adoption of digital payment in developed economies is showing its ripple effect in developing economies as well. In the USA, for example, the use of bank cheques has decreased from 85% in 1979 to 59% in 2002. Digital India acts as a catalyst that prompts exponential development in the digital payment sector. The customer view of digital payment has a critical and positive effect on the adoption of the different modes of digital payment. With the preceding challenges, the objective of this paper, therefore, is to review opportunities and challenges laid down by digital payment.

This paper will examine the factors affecting the adoption of digital payment methods and a change in the culture of media consumption by consumers. This paper seeks to introduce the persuasive function of digital payments by exploring the contributing factors that are explicit to the environment of the digital revolution explosion projected for imminent research on this the budding trend of the digital payments system. This paper points out the barricades and challenges that are put forward to the adoption of virtual payment.

**ONLINE VIRTUAL TOOLS FOR CONSUMERS IN INDIA:**

There are a couple of techniques for the virtual and modernized portion available in India. These are:

**1. Mobile Wallets or Online Wallets:** This is a virtual portion system. One need not waste time with a charge card, Visa, or web banking mystery state for making portion using an adaptable wallet. It requires a move of money in the wallet by methods for IMPS and uses it moving. You can download a compact wallet application from the play store.

**2. Prepaid Credit Cards:** Much equivalent to platinum cards anyway it is dynamically similar to a blessing voucher; can be restored like some other restore like DTH, Mobile, etc up to a prescribed cutoff.

**3. Debit Cards:** A debit card is a plastic card used as an alternative of cash when making purchases. These are associated with an individual's record. India had 48.9M charge cards, 824.9 M platinum cards in May 2019.

**4. Aadhaar Enabled Payment System:** This System uses the 12-digit exceptional Aadhaar ID number to empower bank-to-bank trades at PoS. Aadhaar Enabled Payment System is uncommon contrasted with different virtual portion procedures.

**5. UPI Unified Payments Interface (UPI):** UPI is a flexible portion system which empowers one to do diverse budgetary trades on Smartphone. UPI empowers one to send or get money using a virtual portion address without entering bank information. Shippers can choose with banks to recognize portions. Forex SBI Pay, ICICI Pocket, etc.

**6. E-Wallets:** An E-wallet can be used to purchase things stretching out from essential nourishment thing to transporter tickets. To use E-wallets customers and dealers, both require a mobile phone with a dynamic web affiliation. The most conspicuous instance of E-wallet is PayPal. Besides PayPal, one can in like manner use Pioneer, Transfer quick, Skrill, and PayZa. In the wake of enrolling for E-wallet, you need to associate your Mastercard or check card with E-Wallet Id. One can use an e-wallet to help move or web shopping.

**7. Gift Card** -The accompanying virtual portion procedure is a blessing voucher.

**8. Online Transfer Using Neft Or RTGS** -This system for virtual trade is online trade using NEFT or RTGS. To do online money move, one needs a web banking office. Online trade using NEFT or RTGS is moderately snappier than check or DD. Online trade should be conceivable from wherever using web office. The point of convergence of the present examination is to discover and perceive how respondents are enduring or getting related to cutting edge portions.

#### **LITERATURE REVIEW: The literature review comprises of the following studies :**

**Davis (1986)** advocated one of the famous models associated with the adoption of technology is the technology acceptance model (TAM). TAM explains the theoretical epicenter of the services to designate consumer behavior, concerning the adoption of technology. TAM is envisioned as a significant addendum of (TRA) - theory of reasoned action. **Jain (2006)** -“E-payments and e-banking” discussed that e- payments will be able to check black money. **Annamalai, Muthu & Iakkuvan (2008)** in their article “Retail transaction: Future bright for plastic money” anticipated the evolution of debit and credit cards in the merchandising settlements. **Clifford (2009)** in a study titled “The problem regarding fake currency in India” suggested that the country’s skirmish in contradiction of counterfeit currency is not easier and many replicas go unnoticed. **Bansi and Amin (2012)** proposed changes in technology to be adopted, within variations in the economy virtual payment primes to some radical fluctuations. **M. Taylor (2011)** have tackled the issue of modes of payment as to in what way modes of payment effect on consumer outlay behavior. These authors have also examined the inclination of users to apply existing indication that outlay for the credit card is greater as compared to cash outlay. Studies also revealed that credit cards promote an upsurge of not so required objects procurements (**Soman, 2003**). Many famous models relating to consumers' adoption of technology have been suggested in the past. **Venkatesh (2012)** in an analysis entitled "Consumer acceptance and use of information technology: expanding the unified theory of acceptance and use of technology" showed UTAUT as an influential structure. The proposition is vital for consumer behavior regarding the usage of technology in comparison with a condition that fluctuates allowing dynamics. They also proposed a vital outcome on the behavior of consumers by technology usage in meeting a speckled condition that is effervescent. **Pushpa.S.Abbigeri & Shettarin(2019)** their article titled “The changing trends in payments: An Overview” examined the various modes of payments to suggest the advantages of digital instruments of a cashless economy, to evaluate the readiness of the Indian Government regarding the application of cashless economy and to study the online high-value payments. **Anjali R, Suresh (2019)** in their study titled “A Study on Customer Satisfaction of Bharat Interface for Money (BHIM).” analyzed the level of contentment in the consumers of government’s latest digital application for payment mode specifically the BHIM-App.

**KEY INFORMATION FROM GLOBAL DIGITAL REPORT 2019**

1. The number of internet operators globally in 2019 is 4.38 billion which is upward by 9.1 %.
2. The number of social media users worldwide in 2019 is 3.484 billion upward by 9 %.
3. The number of mobile phone users in 2019 is 5.112 billion, upward by 2 %.
4. Social media can be expanded for socialization to remain in touch with others, to share views, to share pics and videos, and to congregate new people.
5. Social media can be utilized for entertainment substances, to fill extra time, and to play favorite music.
6. Research indicates that the position of social media in campaigns has augmented enormously over the years in contrast to others. Social Media can be expended to collect information, remain apprised with current, discussion forums, gather responses by surveys and polls, and educators notify the parents about the diverse events steered and made a sagacity of society.
7. Social media is expended in e-commerce. It can view and buy anticipated goods with a press of a button. It has developed as a valuable marketing station for trades of all dimensions. The influence of social media has been abundant these days, it's infrequent to discover a company that does not influence its spectators through a social media stage.
8. Companies have originated in their awareness of social media as an instrument for communication among consumers to contemplate it as significant for determining virtual companies and creating income. Digital Industries have banked upon the obligation for individuals to continually pursue and segment data have a quota of knowledge which is used to make perceptions and create digital product offerings at the targeted level.

**BENEFITS OF VIRTUAL DIGITAL PAYMENTS:**

- **Usage:** Mobile wallets embrace the expanse in the by electronic means encoded system to comfort the payment procedure where users can designate online e- payments by not piercing the user card particulars.
- **Innovative practices:** It permits the user to connect the wallet and pay so that the users face no issues to deal through the transaction in very less time and this encourages modernization,
- **Trust:** When someone has to make payments through online merchants the wallet does not permit the card details to the other party.
- **Electronic base:** It eliminates the requirement to carry currency in the wallet with a variety of notes and coins to give exact change.
- **Saving the environment:** Due to widespread global warming with virtual modes, there is a saving of the environment.
- **Cashbacks:** One can avail discounts that are accessible by users as the majority of the industries in the payment sector offer discounts.

**EMERGENCE OF INDIA AS DIGITAL ECONOMY:**

It is realized that the developed economies are already incorporating digital technology due to its visible impact on the global economy. India has launched its ambitious project 'Digital India' with a mission. The Govt of India has launched the Digital India program as a flagship program to renovate India into a digitally vested society. To recognize Indian society as a knowledge economy with the main objects of affording e-learning, healthiness, and e-governance facilities. India also objects on giving e-learning, healthiness, e-governance amenities as its central ideas. The digitalization of the Indian economy is to authorize individuals exploiting the internet by bringing e-governance, teaching, and healthiness amenities in distant areas too. It purposes to link the opening between the rich and poor and between villages and cities.

The Digital India sequencer hurred in 2015 objects to bridge the gap by the promotion of investment of funds in infrastructure aiming to improve literacy and progressively giving internet facilities. India's accomplishment in the relations to giving internet facilities and permitting e-contribution has been in contour with the developed countries, is worth mentioning.

As per **Thomas Mesenbourg (2001)** the parts of the digital economy are :

- 1. E-Business Infrastructure:** It comprises of hardware, software, telecommunications networks, human assets for usage in digital trade.
- 2. E-Business:** A process conducted over computer-mediated networks by a business enterprise.
- 3. E-Commerce:** It is transferring goods and services between the buyer and seller online.

To analyze and measure the digital depth of various countries, the World Economic Forum has prepared a Networked Readiness Index, a crucial barometer for determining how countries are performing in the digital world. It reckons how well an economy is using information and communication technology to enhance competitiveness and well-being. As per ranking conducted by World Economic Forum, 2016, Singapore has been at the top-ranking and is deriving the best benefits of information technology and is making exemplary usage of digital technology in delivering basic and government services also ensure that its institutions are smoothly connected. The other nine countries including Finland, Sweden, Norway, the US, Netherlands, Switzerland, UK, Luxembourg, Japan also have fine access to advance technology making their venture capital and business network highly connected. These countries have an extremely favorable business and innovative atmosphere which has created one of the most buoyant and digitized economic centers in the world.

At the time of publication of the Networked Readiness Index 2016, India did not make any remarkable progress. The World Economic Forum observed that India slipped down two positions to an overall rank of 91 because other countries are moving at higher speeds compared to India. Demonetisation led cash crunch in the economy and common people started making digital transactions and thus involved themselves in the digital economy on a massive scale but subsequent remonetization again reduced the quantum of digital transactions. During the period of demonetization, the value of AEPS digital transactions, as per NPCI, has shot up from Rs. 1.9 billion to Rs. 12 billion by May 2017 (a growth of 532%).

According to a Report, of India's 1.2 billion population, an estimated 485 million in urban and 180 million in rural areas, as of June 2017, are using the Internet and further among them, it has 410-420 million mobile internet users with 245-250 million As of 31st March 2017, in urban and 165-170 million in rural areas. This was due to the demonetization drive announced on 8th November 2016 that led to a cash crunch in the economy and common people started making digital transactions and this involved themselves in the digital economy on a massive scale but subsequent remonetization again reduced the quantum of digital transactions. Digital payments rose 55% in 2016-17 against a 28% growth during the five years ending the year 2016. According to RBI data, debit card usage at the point of sale more than doubled to 400 million-plus transactions at the height of cash crunch in December from 140 million in October, reduced in February to 250 million, and has stabilized around 268 million in April.

RuPay card transactions have grown 316% at 16 lakh from 3.85 lakh on 8th November, while the value has been up 503% at Rs. 236 cr from Rs. 39 cr in November. Similarly, with more than 10 billion subscribers of Jio Telecom Services and competitive measures of other Telecom Service operators now a large part of the Indian Population is using internet-enabled services like digital payments, e-commerce, e-learning, telemedicine, and e-governance, etc.

### **Evolution of E-Wallets and Digital Currencies**

The digital economy is much more about conducting online transactions, from economic innovations to transforming how the business is done to allowing entry of new digital currencies and payment processes.

**Blockchain Technology**

Blockchain Technology is a protocol for replacing worth over the internet without the involvement of an intermediary, like Reserve Bank.

**Bitcoin**

Bitcoin is a cryptographic form of money or one of the principal advanced monetary forms. By taking care of one such issue about 12-and-a-half bitcoins are produced. Its beginning can be followed back to 2009 when an obscure gathering of codes (under the nom de plume 'Satoshi Nakamoto') acquainted Bitcoin with the world as a shared ('P2P') open-source programming that works to make and keep up a dispersed open record. Bitcoin depends on basic 'blockchain innovation' which is similar to a database that keeps up the record of all progressions made to it since its creation through the common agreement of its clients.

**The principle qualities of bitcoin are**

- i) **Decentralization:** Unlike customary cash, there is no focal position to direct its stockpile.
- ii) **Cryptographic Architecture:** Bitcoin exchanges are approved on a P2P premise in a decentralized way.
- iii) **No Third Party:** Unlike prior variant of computerized monetary forms, Bitcoin need not bother with the confided in an outsider to approve transactions.
- iv) **Security:** Trading in bitcoin is protected to an extent that the giver's and collector's personality isn't revealed henceforth limiting the degree of hacking the framework.

Bitcoin has become a lot of mainstream simply after the Prime Minister Narendra Modi propelled the demonetization and that its cost came to \$102018 at some point after the demonetization declaration on 8th November 2016 which was \$757, and somewhere in the range of \$866 and \$896 at the beginning of demonetization. On 27th May 2017, the market cost of bitcoin in India came to \$2096.68. There has been a reasonable flood in bitcoin exchanges after demonetization. The advanced economy was well what's to come. Exchanges through bitcoins have been legitimized in the US, EU, Japan, and Singapore, yet there is sufficient exertion being made to control the bitcoin economy. In this specific circumstance, there is no law yet in India.

**EQUIPPING WITH DIGITAL MODES AND PROSPECTS FOR INDIA:**

Advanced Revolution, called 'The Internet Economy' or Internet of Everything (IoE), is relied upon to create new market development openings, employments and become the greatest business challenge in the following 30-40 years. Goldman Sachs predicts that India could be the second-biggest economy by 2030.

The main advantages of India's open part are expanded income; decreased costs; higher representative profitability; improved wellbeing and security; improved condition; upgraded resident experience, and better wellbeing and prosperity. India appears to be prepared for the change to an advanced economy and Mckinsey recognized three conditions, for example across the board versatile network and possession; a national advanced installment infrastructure, and a well-spread individual ID framework with chips or biometric ID for India to guarantee a smooth computerized change. The neo-liberal financial strategies since the most recent decade have just satisfied every one of these measures, with the most recent expansion of the Aadhar Card. Presently the stage is all-around set for the remarkable digitization of the economy.

The Computerized India program, as conceived by the government, will help India in beating difficulties, giving residents access to a better framework and personal satisfaction. India has an enormous chance to line up with the government's Digital India activity that can change the beneficial encounters of 1.2 billion Indians.

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# Self Help Groups: Management Links -A Story of Transition: YTT Yesterday –Today – Tomorrow

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## Abstract

*This paper is a conceptual study. It is regarding the examination of SELPF HELP GROUPS from their origin till date. Authors have angled it through past present and tomorrow. A unique approach is discussed as SHGs having number of connectors, working all of them in a good linkage. A network helping each one since no unit can work in isolation. All these connectors can make SHGs to work their optimum capacity, while emphasizing on supportive factors of SHGs. Self-help group is very small unit, but it can be a great base for commerce and economic development.*

*The study is purely based on secondary sources of data and general observation, interviews and telephonic talks.*

*Keywords: SHGS, Connectors, Supporting factors.*

To provide wider market to products made by women self-help groups (SHGs), the rural development ministry will list them on the Centre's e-commerce platform. The government will also help the SHGs in branding, packaging and pricing their products to make them more marketable. Now the products made by the SHGs will be a click way. The groups will be listed on the Centre's e-commerce portal Government e-Marketplace (GeM). This step will help in a big way in making women in villages financially independent and in overall improvement of the rural economy, officials in the ministry said. (PTI, 2020)

## Yesterday's Glimpses

'Birds of a feather flock together' is a famous proverb, William Turner in 1545, used the version in papist satire, in 1599, it came in English version. Why are we referring it? for the reason of the basis of the formation of Self- Help- Group. Those of similar taste congregate in groups, is the natural tendency. This happens in common, but still uncommon, for being in lack of a well-defined standard procedure. The story of Lijjat Papad, which took birth in 1959, with the initiation of seven ladies, having their common interest.

'The turning point of our Institution was in 1966 when it was registered under the Bombay Public Trusts Act 1950 and also registered under Societies Registration Act, 1860 and got recognition by Khadi & Village Industries Commission as a village industry'. (<http://www.lijjat.com/Default.aspx>, n.d.). But at that time the concept of SHG was not coined.

Coming together and working for resolving the common problem is not new thing. It is there since ages, long since human existence. Since ages, farmers all over the world have been observed coming together and forming groups to share the land of cultivation, found in Zimbabwe, South Eastern Ghana, Sri Lanka, Bangla Desh and such many more. There are instances of these kinds of associations of rural people who used to gather and pool their resources and energies.

## Some of the examples are:

1. Rotating Credit and Savings Association (ROSCA), A Rotating Credit and Savings Association (ROSCA) is made up of a group of individuals acting as an informal financial institution in the form of an alternative financial vehicle. A ROSCA happens via set contributions and withdrawals to and from a common fund. Rotating Credit and Savings Associations are most common in

developing economies or among immigrant groups in the developed world. Early examples of ROSCAs appeared in South America, Africa, and Asia. (<https://www.investopedia.com/credit-and-debt-4689724>, 2019). ROSCAs provide funding to individuals that might not have access to financial institutions, where these individuals often share familial, ethnic, or geographical aspects. (CHEN, 2019)

2. East Africa Farmers Federation (EAFF) is a non-political, not-for-profit, democratic, regional umbrella network of small holder family farmers of Eastern Africa. Its membership is voluntary, and it currently comprises women organisations, commodity associations, co-operatives and advocacy based organisations that are apex in nature. EAFF currently has 17-member organisations in nine countries in eastern Africa – Burundi, Democratic Republic of Congo, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Tanzania and Uganda. EAFF members constitute a total individual membership of over 20 million active farmers. (<http://www.farmaf.org/en/about-farmaf/project-partners/regional-farmers-organisations/30-southern-african-confederation-of-agricultural-unions>, n.d.)
3. The Southern African Confederation of Agricultural Unions (SACAU), is a RFO whose membership is open to national farmers. The vision of SACAU is to bring about a vibrant, prosperous and sustainable farming sector that ensures food security and contributes to economic growth in Southern Africa. Its mission is to promote and ensure strong and effective farmers' organisations in all countries in Southern Africa, and to be the main voice of farmers on regional, continental and global matters. (<http://www.farmaf.org/en/about-farmaf/project-partners/regional-farmers-organisations/30-southern-african-confederation-of-agricultural-unions>, n.d.).

The objective of reproducing these examples is to observe the concept of SHG from root. This notion is not new, but it has been developed in different names with same objectives, of course with required customization.

The credit of origin of self-help group is in the basket of Grameen bank of Bangladesh, which was initiated by Mohamed Yunus. The concept took birth with the name of SHG in 1975. In India NABARD initiated in 1986-1987. The absence of institutional credits available in the rural area has led to the establishment of SHGs.

The Tamil Nadu Women's Empowerment Project, an IFAD-supported project implemented through the Tamil Nadu Women's Development Corporation, was the first project in the country, in about 1990, to incorporate the SHG concept into a state sponsored program. MYRADA was asked to play a lead role, which it agreed to do in Dharmapuri District. This was a year or more before the launch of the SHG-Bank Linkage Programme. The empowerment of women was sought both through SHG strengthening, with capacity-building modules, and through the provision of credit for income-generating activities. (Fernandez, 2006)

### **Today's Scenario**

Government of India is promoting Self Help Groups (SHGs) for realization of socio-economic development through the following programmes:

Deen Dayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM), under Ministry of Rural Development, across the country in a mission mode with the objective of organizing the rural poor women into Self Help Groups (SHGs) and continuously nurturing and supporting them to take economic activities till they attain appreciable increase in income over a period of time to improve their quality of life and come out of abject poverty. The programme aims to ensure that at least one-woman member from each rural poor household (about 9 crore) is brought into the fold of women SHGs and their federations within a definite time frame. The programme is being implemented in all the States and Union Territories, except Delhi and Chandigarh, in a phased manner. As on 31<sup>st</sup> May 2019, 5.96 crore women have been mobilised into 54.07 lakh women Self Help Groups (SHGs) under the programme. (Press Information Bureau, n.d.)

The growth of SHGs in India is recorded as tremendous, in beginning it was quite noticeable in southern part but now the entire country experiences the momentum. The question before us is to explore those factors which have made this movement at large scale one. Some of the highlights worth counting are the roles of:

1. NABARD SHG and Bank linkage programme
2. International Fund for Agricultural Development (IFAD)
3. SHG Federations
4. Not Profit Organisations
5. State support
6. Local government
7. Industry
8. Our own people

Here to produce real example of Ambuja Cement Foundation:

National level example: Ambuja cement foundation (ACF) (Data from ACF member)

ACF was established in 1993' to tie up with communities, government and other like-minded corporates and NGO's to solve community problem. In 1999 women empowerment initiative started in kodinar (Gujarat). Formed first SHG with 15 women members. They help establish and support Women's Self-Help Groups to enable women to save and access credit to support themselves and their families. In 2017 the SHGs had a corpus of 7.7crore. In the self-help groups (SHG's). program does not only consist of helping women but also man as well. The ACF uses tool to keep the SHG connected, financed and support them with the various techniques. ACF mainly consists of women. ACF build confidence and try to give opportunities, they interact and get to know their problems and helping them out. They teach saving and how to get finance in an emergency. ACF supports SHG by conducting regular meeting, opening a bank account. They teach credit planning, record keeping, etc.

ACF has full-fledged research and monitoring units. Along with numerous external, independent studies, they basically study about health, sanitation and the income levels of low-income groups.

In 2013 SHGs started income generation activity supplying plastic for alternate fuel resources.

In 2017-2018 ACF formed 366 new SHGs with a total of 4168 women members, bringing the SHGs total of 2218 across location. In 2017 SHGs linked to national urban livelihood mission.

### **Impacts of ACF on SHGs**

22% increase in the income of cotton farmers.

30% increase production under system of rice intensification

2424 SHG's with ₹14.44 crore corpus (2019 data)

146 villages with 100% toilet coverage

₹2403 million cumulative increase in income earned by SEDI (skill and entrepreneurship Development Institutes) graduates. Around ₹2104 million is the portion of SHG's women's who study as well as do the social work

They help establish and support Women's Self-Help Groups to enable women to save and access credit to support themselves and their families. Today there SHGs have a corpus of 7.7crore. In the self-help groups (SHGs) program does not only consist of helping women but also man as well. They teach saving and how to get finance in an emergency.

Live example:

"Chanda Ramgirwar of Hardona khurd village Chandrapur, bucked societal trends and family pressure when she sent her two daughters to study high school. She created community uproar when she sent them for College!

But the homemaker turned entrepreneur didn't care and was committed to giving her girls the opportunity that she never had as a child.

"It created a lot of problems in the village for us all - but mum was adamant - we were to study," her 20-year old daughter Saima, a 2nd year student of Pharmacy at Gondwana University, Chandrapur, said.

However, the challenges did not stop there. Already operating the household on a meagre income, Chanda had to find additional source of funds to pay for the education - creating her own business in household cleaning products.

"I attended a Women's Federation event, organized by Ambuja Cement Foundation, which taught women ways in which they could start their own enterprises. I started making cleaning products and things just grew from there." She said.

Today, her girls are flourishing, and now other women in the community have followed suit - sending their girls to Study. "People can see the confidence and potential we have to earn - now they want the same for their daughters." Chanda said. Even Chanda has grown, and now holds the position of Secretary of the Ekta Mahila Bachat Sangh - Chandrapur Women's Federation." Article by the Chanda Ramgirwar.

ACF is functional across 12 states covering 22 locations in India and has succeeded in bringing about change in the lives of 6.6 crore women.

Their main goal is to increase the count of SHGs and spread around India.

They were awarded for:

- i. Excellent work in cooperative sector in 2017
- ii. Sanitation ambassadors in 2016
- iii. Banning alcohol in 2016
- iv. Best work in social and health sector in 2016

### Self Help Groups

Our Self-Help Group-Bank Linkage Programme (SBLP) aims to deliver financial products & services to the section of Indian population that lacks access to formal banking. This segment, often from the lower income, meets its financial needs through informal sources such as money lenders, traders, family and friends etc. However, these sources have their own limitations. Under SBLP, 10-20 individuals are organised in groups known as Self Help Groups (SHGs) by NGOs commonly known as Self Help Promoting Institutions (SHPI). The SHGs are also encouraged to take up livelihood activities, for which skill training is provided by certain NGOs. The members of the SHG are encouraged to save and internally lend the savings to members during times of need. SHPIs also provide knowledge on managing books of accounts. (ICICI, n.d.)

A long list of such live cases can be there to support the progress of SHGs

It does not mean no lacunae are there to count. Despite quantitative growth and qualitative too, long path is there to travel to match the requirement of the society and economy, coping with the requirements of this dynamic and globally integrating world. Everyone must be competitive.

What are the common problems which have hindered the pace and performance of SHGs? Some of the focuses may be:

1. Lack of information about SHGs
2. Training gap to members SHGs
3. Disbursement of credit, time and quantum
4. High rate of interest
5. Lessor degree of coordination and communication among members.
6. Low demand for their products
7. 'N' number of marketing problems

The question that really strikes our mind in this connection is- what next?

### Future Potential and Prospects

It is a matter of priority to give more weightage to the working performance of SHGs. These are the good small -small medias which can work as strong connectors to Banks, institutions, schools, colleges, organisations, voluntary development programs, People's associations, clubs, not for profit organisations, Governments, industries, individuals...and so on.

Today is the world of linkages and connections. There is a good degree and complexity of connectivity. There is time to plan how a SHG can comfortably approach any agent of development. These small but powerful groups can become good connectors of their own development and then overall development.

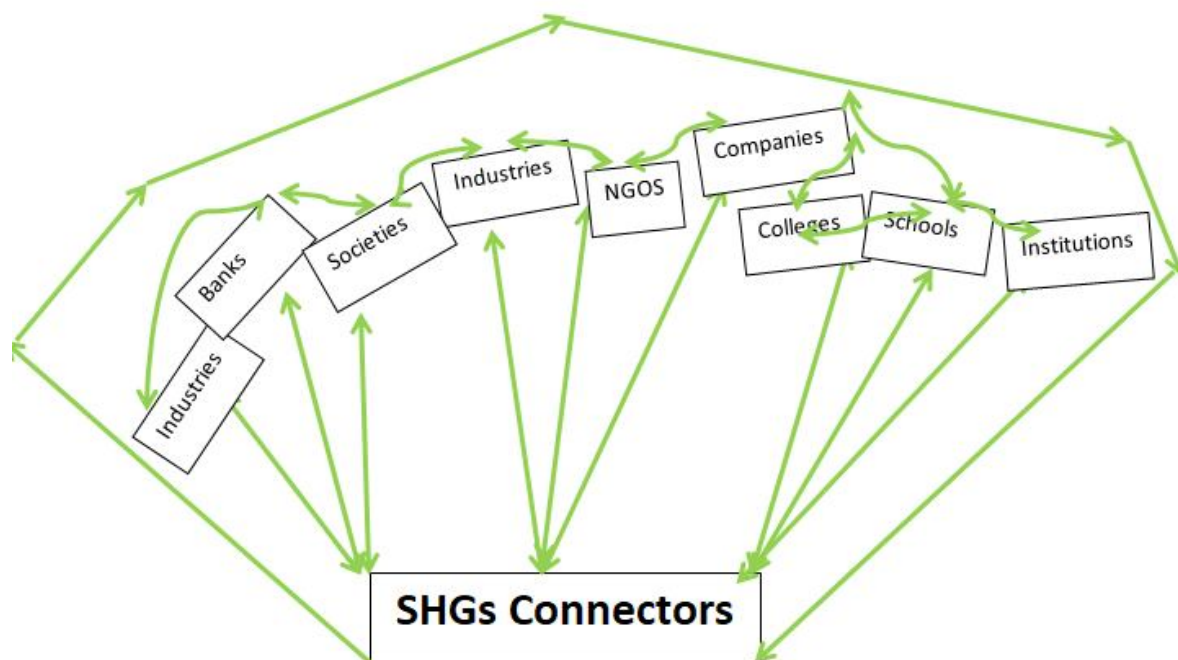


Figure 1 Created by authors

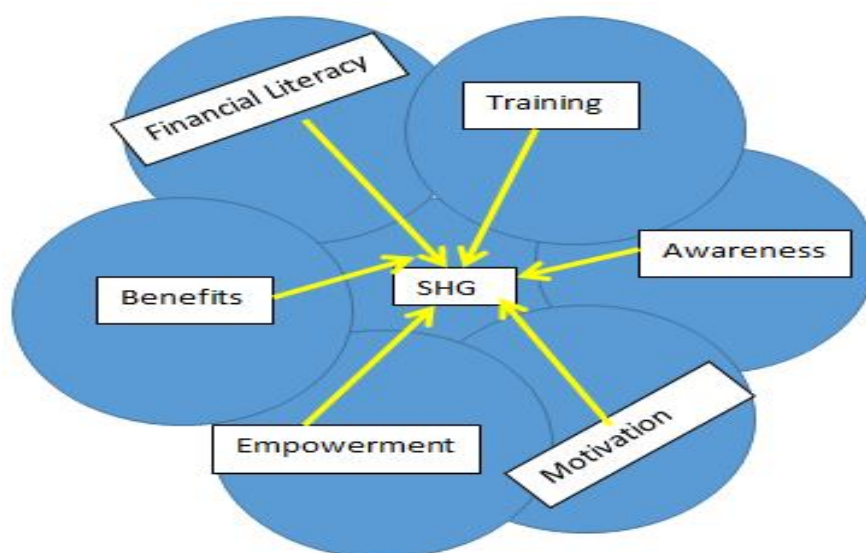
Self Help Groups have been observed as playing the role of connectors to various organisations, especially with NGOs, Government programmes, Business Correspondents.

Examples worth noticing are: 1. Kudumbashree (1998) the Kerala State Poverty Eradication Mission, launched on 17th May 1998 inaugurated by then Prime Minister (Lt Shri Atal Bihari Vajpayee.). It is the largest level mission in the country. Its working approach is its own, based on process approach. Its operational strategy is based on decentralisation of powers, universality of "REACH" approach and interface with the local government.

2. Mahila Arthik Vikas Mahamandal (MAVIM) in Maharashtra (1975), has been declared as the NODAL agency to work for and work with self-help groups.

Standardisation and universality of working standards may be the one way of making SHGs-A GREAT Success at wider scale, say at state and country.

It has been observed at various small SHGs, members do not participate actively, some are not aware of it, some are reluctant to do something, some find it difficult in following the procedures. Here is the call to the state and central government to prepare a standard procedure of formation of SHGs, working, supporting agents (banks, NGOS, Organisations, Business corporates, Individuals, Societies and such many more). This is an integrated approach with the objective of developing and empowering SHGS, resulting in the empowerment of its members and finally the society.



**Supporting Factors of SHGs**

Figure 2 Created by Authors

Supporting Factors like financial literacy, training the members, let them be made aware of the activities of SHG, motivating them, narrating the real stories of matured and successful SHGs, empowering each individual member with decision power and making them an authority.

What opines to the authors? Connectors of SHGs should be made mandatory to work for SHGS. In the similar manner as industries must follow up pollution norms, corporates to go for CSR activities. Success stories of well reached SHGs and their supporting agents should become study curriculum for learners at school, college and institutes level, with the objective of making this activity at national widespread level. SHGs members are not only to be trained to enter productive and income generating activities, but also to make them aware about their rights and responsibilities in respective areas.

## CONCLUSION

To sum up, SHGs are very small powerful agents of development. These are to get connected with bigger players of development maintaining their own identity and preserving their powers, authority and responsibilities. Development of SHGs must be the focus and mandatory activity of all organisations and institutions. It must be from micro approach to macro approach through a good network and linkage programme.

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# A Study on Adoption of IOT Based Waste Segregation Techniques for Smart Cities

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## ABSTRACT

*With the tag of city of creativity, Mumbai city is finding its way of being smart city by providing smart infrastructure to the betterment of life. But the waste management is becoming a challenge to the society as the waste generation is increasing day by day. The government of India has started waste segregation initiative under Swachh Bharat Abhiyan but it becomes difficult to manage it effectively due to the problems faced during segregation. To overcome such situations, IoT technologies can be used effectively. In this paper, I have proposed a smart IoT based waste segregation techniques to help citizens segregate the waste efficiently and effectively. Using this technique, we can successfully separate the waste into different categories so that waste collection and management can be applied successfully and Swachh Bharat Abhiyan can be accomplished effectively.*

*Keywords: IoT, smart city, smart dustbin, sensors, waste segregation*

## I. INTRODUCTION

Smart city is an area which has a provision of well-equipped infrastructure to provide better quality life to the citizens. The Government of India has taken an initiative of smart cities mission in the year 2015 onwards. One of the feature of this mission is smart waste segregation system to be developed for smart cities like Mumbai.

In India, around 60 Million Tons of solid waste is generated annually and waste generation in cities varies from 0.20 kg to 0.60 kg per day depending upon the size of population per capita [24]. In recent years, though government has taken an initiative to segregate the waste before collection from each household; the initiative is lacking somewhere in proper waste segregation and collection. Many citizens find it difficult to segregate the waste properly either due to lack of knowledge or interest. To peep through the exact problems faced by the citizens in smart cities like Mumbai, I have conducted a questionnaire based survey and tried to figure out different limitations regarding existing system of waste segregation. The questionnaire is prepared base on the knowledge regarding waste segregation, waste collection system, etc. To overcome such problems and help cities for the betterment of lifestyle, I have come up with a smart solution based on IoT which will help to segregate the waste automatically and effectively.

An IoT is nothing but internet of things meaning the sensors and actuators which are used to build the system can be connected to the internet and the data gathered through this can be used further to take some decisive actions.

In this paper I have tried to make a smart solution to the daily waste segregation problem by using some smart sensors and tried to connect the system to the internet using the wifi module.

## II. LITERATURE REVIEW

Quite a few research work is done in the field of sorting of wet waste, dry waste and e-waste. In many studies IR sensors and moisture sensors are used to detect the waste type and segregate. Metal detector, IR sensor & moisture sensor are used for waste detection and NodeMCU is used to give feedback of the filled bins to the Municipal Corporation [12]. Arduino Uno board is used with GSM module to send messages to municipal groups. IR sensors and moisture sensors are being used to detect the waste types [16]. Inductive proximity sensor, IR sensor, capacitive proximity sensor and ultrasonic sensors are used with Arduino Mega controller for the segregation of waste. It is further connected to Particle Photon board to connect the device with internet [3]. RFID and QR codes are



being placed on each product at the time of production so that each and every product can be detected and placed inside selective bin using RFID reader [4]. Capacitive and inductive sensors are used with Arduino Uno board for the further segregation of glass, metal and plastic. This study is mainly focused on segregation of metal, plastic and glass [5]. A combination of PLC board and Hopper is used for waste segregation. Small pieces of magnetic material are removed using magnetized conveyor belt [6]. Arduino Uno board in combination with ultrasonic and inductive sensors are used for waste segregation and GSM module is used to send the notifications to monitoring system about filling of bin [1]. MyRIO I/O processor is used with IR sensor, ultrasonic sensor, metal and plastic sensor for waste detection. The system is based on rubber conveyor belt and fibre arm [10]. An overview of weight sensor for detection of amount of garbage in the waste bin is given in the study "IoT Based Smart Garbage and Waste Collection Bin" [13]. PIR sensor, ambient sensor, Ultrasonic sensors are used with ATMEGA 328 with GSM module having SMS notification system. It also used GPS system to identify the location of the bin and to make the system based on Internet of Things [14].

### III. EXISTING SYSTEM

To study the existing system thoroughly I have conducted a questionnaire based survey in the Mumbai suburban region. Around 98 samples are collected through this survey to study the existing system of the waste collection and segregation.

As many of the areas under smart city Mumbai have adopted waste segregation process, the survey shows that many respondents are not following the waste segregation on daily basis. If in case the waste is segregated properly by respondents at individual level, the Municipal Corporation collects the waste all in one which does not serve the purpose of waste segregation. There are many respondents who are not aware of waste types and proper method of waste segregation. Many respondents have claimed that though they follow the waste segregation individually, the other family members are quite reluctant to waste segregation and even children could not understand the segregation and keep on throwing garbage in any category.

The detailed analysis of the data gathered during survey is given in the next section.

### IV. DATA ANALYSIS

#### A. Part I

#### Waste segregation adoption

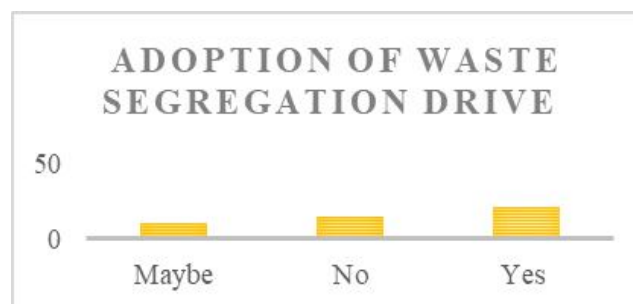


Chart 1.1 - adoption of waste segregation drive

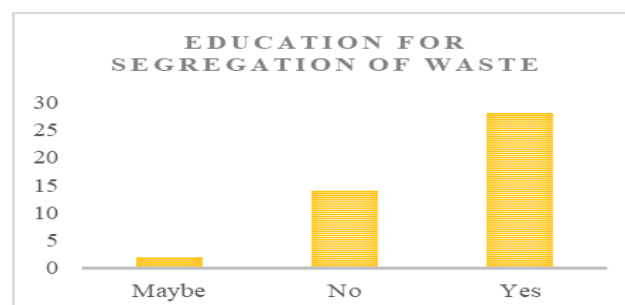


Chart 1.2 - Education for segregation of waste

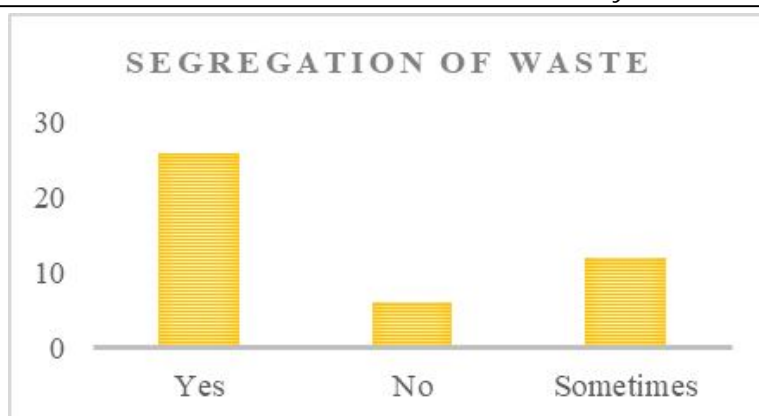


Chart 1.3 - Segregation of waste

Based on the survey conducted in the Mumbai suburban region we can conclude that as many areas have adopted waste segregation drive and education regarding waste segregation is also provided by Municipal Corporation, around 31% of respondents are reluctant to segregate the waste.

## A. Part II

### Segregation knowledge

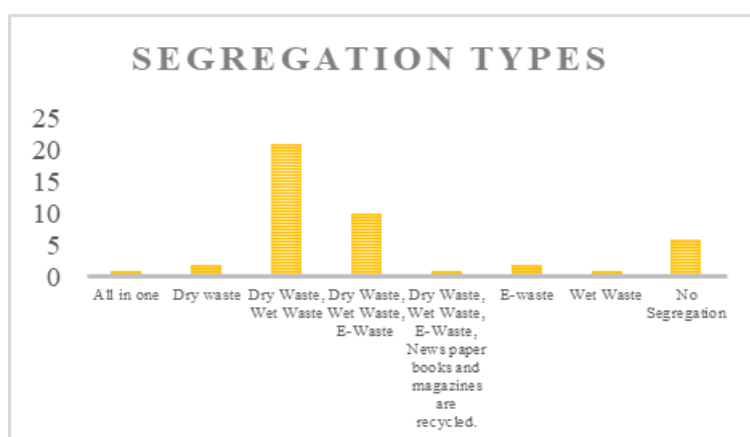


Chart 2.1 - Segregation types

The above chart shows that around 23% of total respondents are aware of the segregation types.

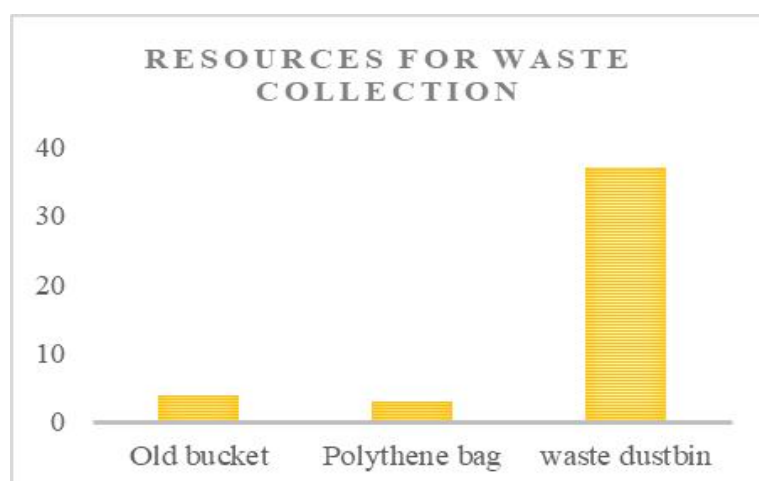


Chart 2.2 - Resources for waste collection

And around 84% respondents are using waste bins to collect the waste.

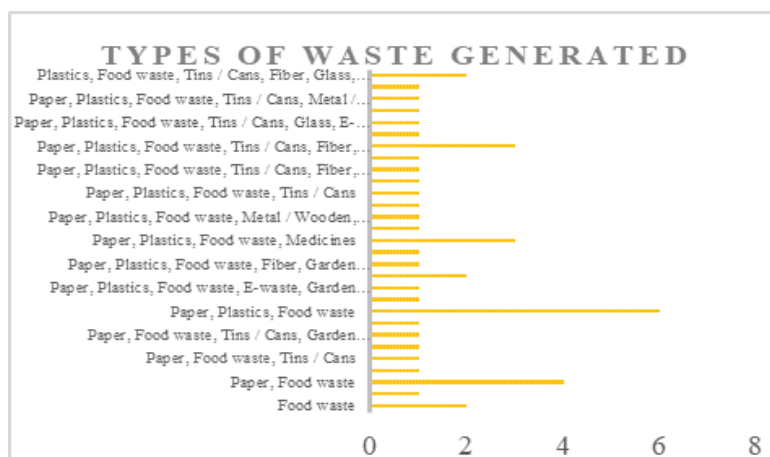


Chart 2.3 - Types of waste generated

It is evident from the chart above that around 4% respondents are not fully aware of the waste being generated in the household.



Chart 2.4 - Difficulties in waste segregation

Above chart shows that around 27% respondents find it difficult to segregate the waste as they have limited knowledge of waste segregation categories or the children in house keep on throwing garbage in any category.

### A. Part III

#### Waste disposal

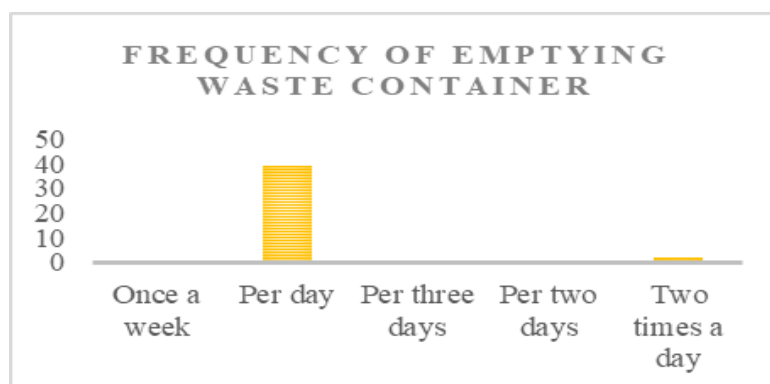


Chart 3.1 - Frequency of emptying waste container

It is evident from the above chart that 88% of respondents empty their waste bins on daily basis.

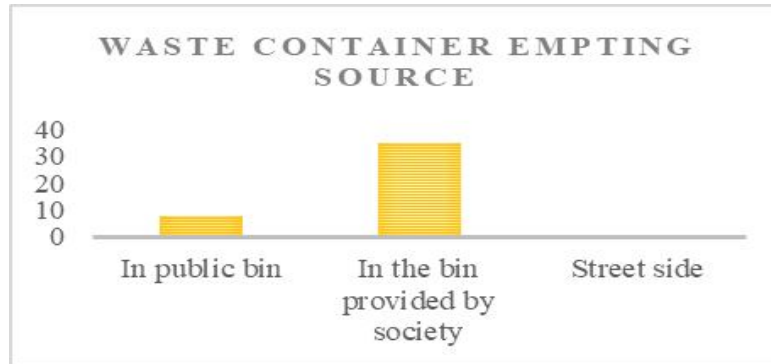


Chart 3.2 - Waste container emptying source

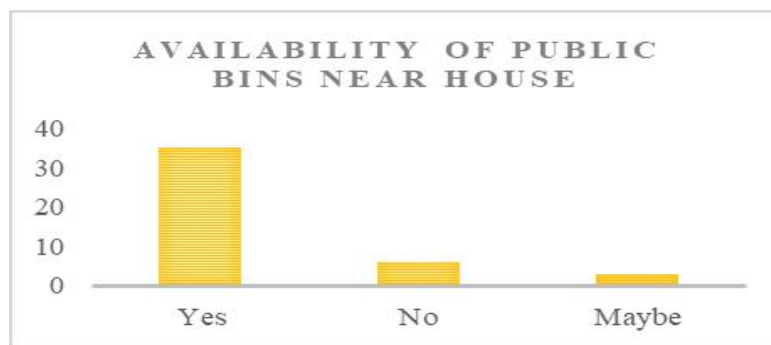


Chart 3.3 - Availability of public bins near house

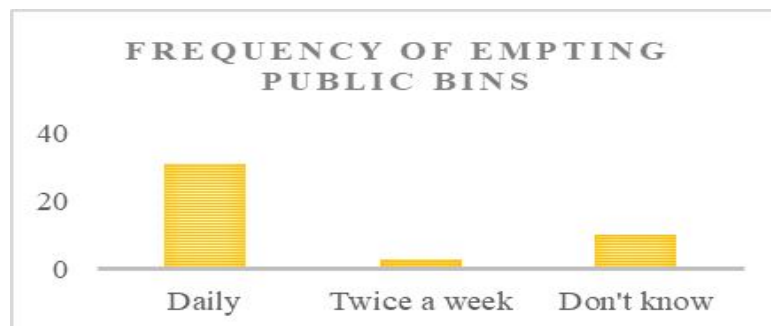


Chart 3.4 - Frequency of emptying public bins

It is shown in the above charts 3.2, 3.3 and 3.4 that around 85% respondents empty their waste container in the public bins which are then cleaned by Municipal corporations mostly on daily basis.

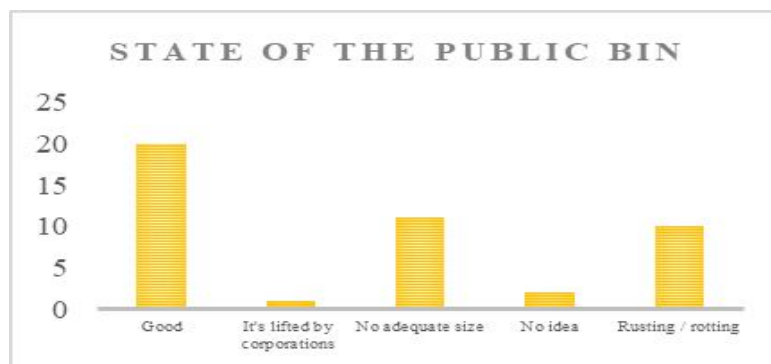


Chart 3.5 - State of the public bin

It is evident from above chart that 25% respondents have complain about the size of the public bins being adequate.

## B. Part IV

### Waste collection ranking



Chart 4.1 - Ranking on state of waste collection

It is evident from the above chart that around 35% respondents are not satisfied with the state of waste collection in their respective areas.

## V. PROPOSED SYSYEM

To overcome the challenges regarding the waste segregation which are listed in section IV during questionnaire survey, I came up with a very exciting and user friendly solution to keep your waste segregated automatically hassle free.

In this system I have used a normal dustbin which hare used in many household as per the survey conducted. To make the segregation user friendly I have used number of sensors to identify the type of waste and segregate accordingly.

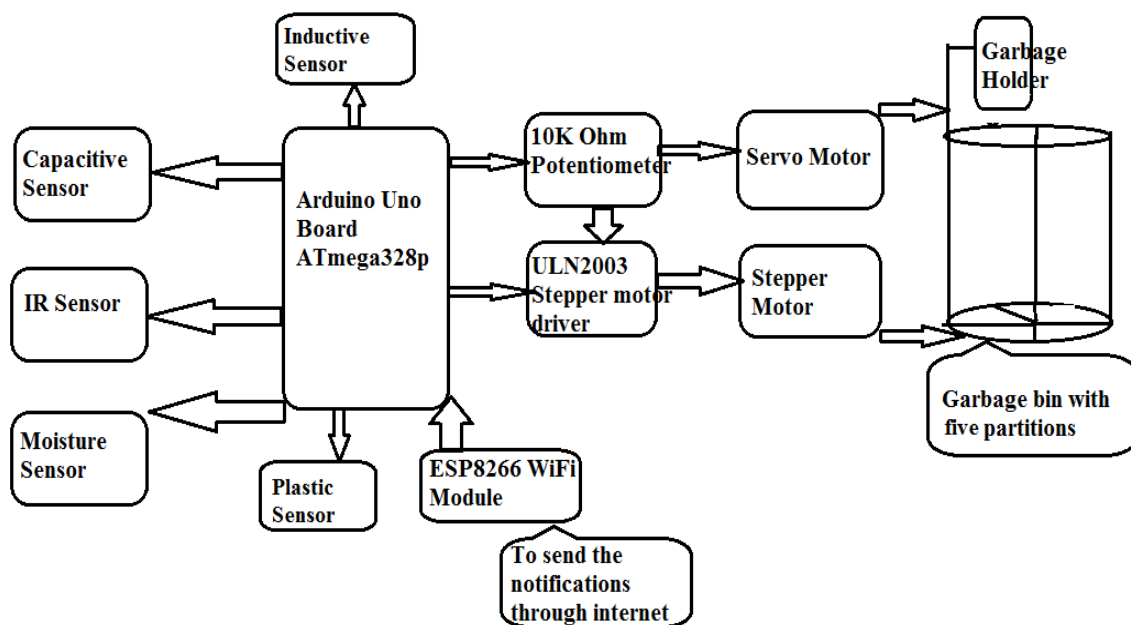


Figure 5.1: Block diagram of proposed system

The block diagram shown in figure 5.1 consists of following components.

A] *Arduino Uno Board*: The Arduino Uno board contains ATmega328P microcontroller with 14 digital input/output pins with 6 of them providing PWM output and 6 analog input/output pins which works on 20mA DC current with the voltage for operation is 5V. It has flash memory of 32 KB with 2 KB EEPROM.

B] *Capacitive Sensor*: Capacitive sensor can detect metallic as well as non-metallic components. It has two conduction plates which uses electrical property of capacitance.

C] *IR Sensor*: An Infrared sensor emits and detects infrared radiation. When an object comes in the vicinity of the sensor, the Infrared LED reflects off the object which is then detected by the receiver.

D] *Moisture Sensor*: The moisture sensor measures the water content of the object.

E] *Inductive Sensor*: Inductive sensor uses electromagnetic field to detect the object which must be conductive in nature which makes inductive sensors suitable to identify only metal objects.

F] *Servo Motor*: The servo motor is used to push or rotate an object with great precision. It uses the servo mechanism to rotate the motor.

G] *Stepper Motor*: The stepper motor is a brushless DC motor which divides full rotation into equal number of steps.

H] *ESP8266 WIFI Module*: It is system on chip with integrated TCP/IP protocol to give microcontroller access to WiFi network. This module is pre-programmed with AT command firmware.

The proposed system as shown in Figure 5.1 has the working principle as below.

In this system I have used a dustbin with five partitions to segregate different types of waste. On top of the dustbin I have placed a garbage collector which has a rotating disc placed at the bottom which rotates with the help of servo motor. The idea behind this rotating disc is whenever the waste type is detected the servo motor moves the disc so that the garbage inside will fall down in the dedicated bin partition. The IR sensor is used to detect if the garbage is present in the garbage collector. Once the presence of garbage is detected, the circuit will be activated. The moisture sensor present in the circuit detects the level of moisture present in the garbage. If the moisture sensor value is HIGH then the wet waste is detected and the stepper motor which is placed on bottom of the dustbin with rotating disc starts moving till the pointer is placed on partition 1. The stepper motor angle and steps per revolution is calculated using the below formula:

Number of revolutions per second = steps per second / steps per revolution

Using above formula the number of steps required for each partition to reach the pointer is calculated.

The inductive sensor detects the presence of metal and once detected the metal waste is put in partition 2. The plastic sensor present in the circuit detects the presence of plastic material in garbage and helps to put in partition 3. The same way capacitive sensor is used to detect the glass object in the waste and it is put up in the partition 4. If nothing is detected so far then the waste is categorized as other waste and is put up in the partition 5. To control the speed of stepper motor, I have used stepper motor driver ULN2003 in combination with 10k Ohm potentiometer.

The WIFI module ESP8266 is used to send the notifications to the owner in case of household dustbin or to the server of local Municipal Corporation in case of dustbin is full. The level of garbage is calculated using the distance calculated by IR sensor.

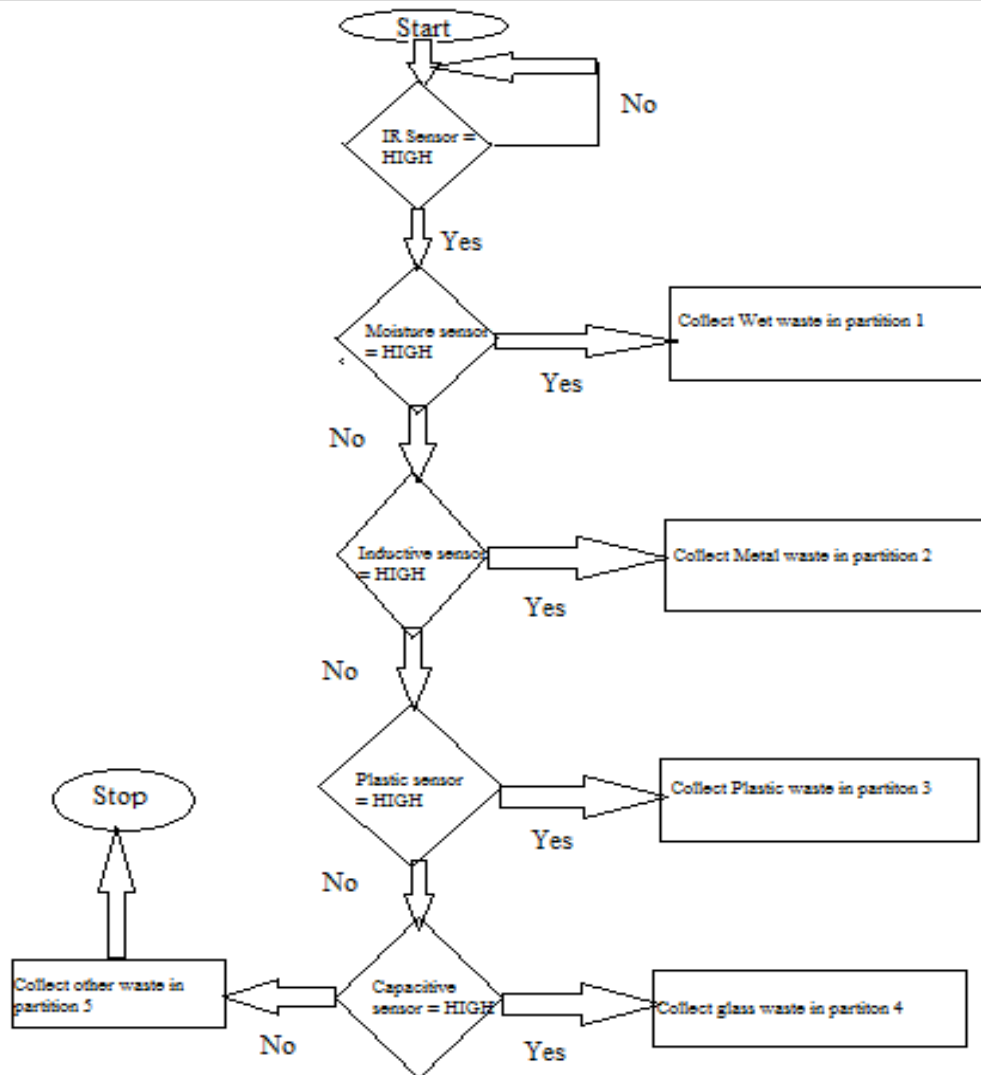


Figure 5.2: Flowchart of proposed system

The biggest strength of this system is we do not need to install different waste bins as everything is contained in a single dustbin with mere partitions. This project is also helpful in school and offices where waste segregation is difficult. The system can also be installed in housing societies and public places which can ease the waste segregation.

## VI. CONCLUSION

Based on the survey conducted which was limited to Mumbai suburban it is evident that most of the citizens find it difficult to segregate the waste. Though the waste segregation campaign is conducted all over Mumbai city under Swachh Bharat Abhiyan, the campaign itself is put up in dustbin in most of the areas. Many citizens are not even aware of the types of wastes generated and segregation methods. To come up with the solution I have recommended an intelligent IoT based smart dustbin using which an effective platform can be built to develop smart cities which also can improve the quality of society. Using such technologies we can keep our environment clean and healthy and promote green India. The system can be very effective if implemented in proper way.

## VII. ACKNOWLEDGMENT

I would like to express my sincere gratitude towards God for all his blessings. I am extremely grateful to my parents, my husband and all my family members for supporting me throughout this tenure. I am also very grateful to all my colleagues of B.Sc IT Department of SIES College of Commerce and Economics for their unconditional support.

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# Corporate Social Responsibility- An Overview

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## ABSTRACT

*This paper is looking for the answer to the question that how the concept of CSR is an old concept, which existed for a long period. Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Corporate social responsibility (CSR) can be described as embracing responsibility and encouraging a positive impact through the company's activities related to the environment, consumers, employees, communities, and other stakeholders. It may include philanthropic efforts, employee volunteering, and core strategies. Companies may benchmark their CSR performance relative to peers and may also report on CSR policies or undergo social audits. Proponents of CSR argue that socially responsible practices can have a positive impact on the bottom line and may also argue for the recognition of a "triple bottom line" that rewards social, environmental, and financial returns. Critics argue that CSR competes with shareholder value maximization and may be prone to "green washing". While Sustainable development refers primarily to issues of environmental impact and economic justice, while CSR is deeply linked to the concept of sustainable development and both are "moving targets" that can be achieved only by a process of continuous improvement. Sustainable Development and CSR are closely related business concepts that have greatly affected corporate governance in the early 21<sup>st</sup> century. Sustainable development involves the use of environmentally responsible and efficient operational practices that preserve environmental resources crucial to your long-term business success. The aim of this paper is to give a basic approach regarding CSR and Sustainable Development, to find the relationship between them and to give overview and descriptive study regarding role of CSR in achieving Sustainable Development. Corporate social responsibility on part of the business organizations is a commitment to function in an ethical manner and bring significant changes in the local community and society to ensure sustained economic development.*

*Keywords: Sustainable Development, Corporate Social Responsibility, Business, Business ethics, Corporate responsibility*

## INTRODUCTION

Social Responsibility of business is an ethical concept involving notions of human welfare and improving the quality of life in society. Business has long recognised its role alongside others in contributing to the development of the communities in which it operates.

Business depends on the society for the needed inputs like money, men & skills. Business also depends on the society for market where products may be sold to their buyers.

Sustainable development was defined by Brundtland Commission as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Thus, business depends on society for existence, sustenance, and encouragement. Once society ceases to have any use for business, it has no place and reason to live. Being so much dependent, business has definite responsibility towards society.

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. CSR is a business trying to do well in the community through responsible actions. Social Responsibility of business is an ethical concept involving notions of human welfare and improving the quality of life in society. Business has long recognised its role alongside others in contributing to the development of the communities in which it operates. Business depends on the society money, men & skills.

Sustainable development refers primarily to issues of environmental impact and economic justice, while CSR is deeply linked to the concept of sustainable development and both are "moving targets" that can be achieved only by a process of continuous improvement.

### DEFINITION

"Corporate Social Responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as the local community and society at large."

**- Lord Holme and Richard Watts**

### NATURE OF CSR

1. CSR is normative in nature.
  2. CSR is a relative concept.
  3. CSR may be started as a proactive or reactive.
  4. All firms do not follow the same patterns of CSR.
- ✓ Legal & socially responsible.
  - ✓ Legal but socially irresponsible.
  - ✓ Illegal but socially responsible.
  - ✓ Illegal & socially irresponsible

### SCOPE OF CSR

#### 1. Net Income Contribution:

A business must contribute to the overall economic development of the society. If a business fails to recognise the social problems, its performances may be affected either in the short run or in the long run.

This improper working condition may lead to lower productivity or causes damage to the quality of the product. Ultimately the sales & income of the business may be affected.

#### 2. Human Resource Contribution:

The impact of organizational activities reflects on the people who constitute the human resources of the organization. These activities include the following:

- Wages & salary level
- Experience building – job rotation
- Management – trade union leadership
- On-the-job physical environment & safety
- Transfer & promotion policies
- Occupational health
- Job security, stability of workforce

#### 3. Public Contribution

- General philanthropy – contribution of the organization towards educational, charitable or cultural organizations.
- Equal opportunity employment practices
- Employment & training of physical handicapped persons
- Taxes & duties paid

- Financial or manpower support of the business for urban housing, health services, public transportation.

#### **4. Environmental Contribution:**

This area involves the environmental aspects of production. Activities directed towards preventing environmental deterioration, e.g. air, water, noise pollution, conservation of scarce resources and the disposal of solid waste are included in this area.

Adopt more efficient technologies to minimize the use of irreplaceable resources and production of waste.

#### **5. Product or Service Contribution:**

This area concerns the qualitative aspects of the organizations' product or service which include product quality, packaging, advertising, warranty provisions, product safety.

There is difference in relative importance of product and service contribution to customer & product and service contribution to society in various industries.

- **NEED FOR CORPORATE SOCIAL RESPONSIBILITY:**

- ✓ To reduce the social cost.
- ✓ To enhance the performance of employees.
- ✓ It is a type of investment.
- ✓ It leads to industrial peace.
- ✓ It improves the public image.
- ✓ Can generate more profit.
- ✓ To provide moral justification.
- ✓ It satisfies the stakeholders.
- ✓ Helps to avoid government regulations & control.
- ✓ Enhance the health by non-polluting measures.

- **SOCIAL RESPONSIBILITY OF BUSINESS WITH RESPECT TO DIFFERENT STAKEHOLDERS**

##### **1. Responsibility towards Society**

- ✓ Carrying on business with moral & ethical standards.
- ✓ Prevention of environmental pollution.
- ✓ Minimizing ecological imbalance.
- ✓ Contributing towards the development of social health, education
- ✓ Making use of appropriate technology.
- ✓ Overall development of locality

##### **2. Responsibility towards Government**

- ✓ Obey rules & regulations.
- ✓ Regular payment of taxes.
- ✓ Cooperating with the Govt to promote social values.
- ✓ Not to take advantage of loopholes in business laws.
- ✓ Cooperating with the Govt. for economic growth & development.

**3. Responsibility towards Shareholders:**

- ✓ To ensure a reasonable rate of return over time.
- ✓ To work for the survival & the growth of the concern.
- ✓ To build reputation & goodwill of the company.
- ✓ To remain transparent & accountable

**4. Responsibility towards Employees:**

- ✓ To provide a healthy working environment.
- ✓ To grant regular & fair wages.
- ✓ To provide welfare services.
- ✓ To provide training & promotion facilities.
- ✓ To provide reasonable working standard & norms.
- ✓ To provide efficient mechanism to redress worker's grievances.
- ✓ Proper recognition of efficiency & hard work.

**5. Responsibility towards Consumers:**

- ✓ Supplying socially harmless products.
- ✓ Supplying the quality, standards, as promised.
- ✓ Adopt fair pricing.
- ✓ Provide after sales services.
- ✓ Resisting black-marketing & profiteering.
- ✓ Maintaining consumer's
- ✓ Grievances cell.
- ✓ Fair competition.

**ARGUMENTS FOR CSR: (Advantages of CSR):**

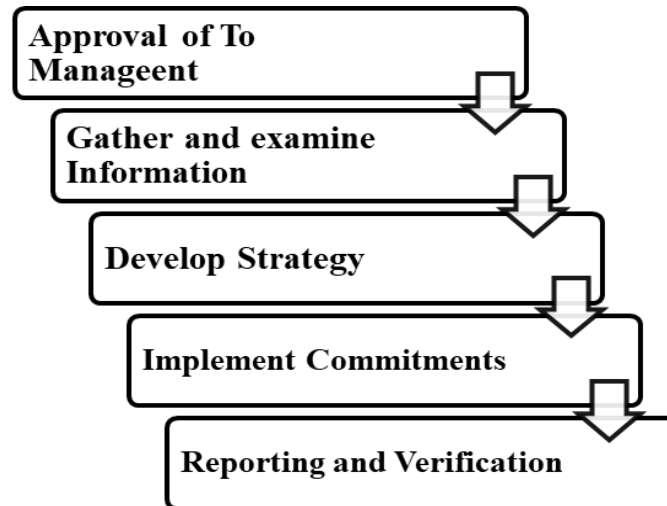
- ✓ Changed public expectations of business
- ✓ Better environment of business
- ✓ Public image
- ✓ Balance of responsibility with power
- ✓ Business has the resources
- ✓ Let business try
- ✓ Moral responsibility
- ✓ Citizenship argument
- ✓ Prevention is better than cure

**ARGUMENTS AGAINST CSR: (Disadvantages of CSR):**

- ✓ Profit maximization
- ✓ Society has to pay the cost
- ✓ Lack of social skills
- ✓ Business has enough power
- ✓ Social o/h cost

- ✓ Lack of accountability
- ✓ Lack of broad support

### IMPLEMENTATION OF CSR



### INDIAN SCENARIO OF CSR

Major corporate has taken it upon themselves to think beyond profit and paying taxes, like the Bill Gates Foundations fight against AIDS, and other companies like TATA, Mahindra & Mahindra, Birla Group, taking a socially responsible approach when it at mattered the most.

Its time companies started looking at CSR more pragmatically and as a separate entity from philanthropy. Experts argue that CSR and even philanthropy can be a source of competitive advantage.

In a country like India, 70% of the population resides in rural areas, doing a bit of good to them make a big business sense as huge volumes and large potential exist there.

Mitigating environmental hazards caused due to intense industrial activity is a notable feature of CSR. Thus, there is an urgent need to initiate proactive measures in this regard at least not to harm the society.

### CORPORATE SOCIAL RESPONSIBILITY (CSR) LEADS TO INCREASED BUSINESS EFFICIENCY

CSR initiatives have a positive impact on employee wellbeing and motivation. They can, and do, contribute to the ease of hiring staff, employee retention, commitment and motivation, all of which leads to increased innovation and productivity.

In case corporations need some convincing to be done to adopt CSR, the model proposed by Young and Tilley (2006) where they list six criteria (eco-efficiency, socio-efficiency, eco-effectiveness, and sufficiency, and ecological equity. Taken together as a whole, these 6 criteria form an integrated model which corporations can follow for sustainable business practices. For corporate sustainability that not only contributes to the social responsibilities of the business but also improves the business efficiency.

### EXAMPLES OF CSR IN INDIA

There is one & only one social responsibility of business to use its resources & engage in activities designed to increase its profit so long as it says within the rules of the game, which is to say engages in free & open competition, without deception or fraud.

1. Tata steel:
  - ✓ Self-help group
  - ✓ Health care projects

## 2. Tata motors:

- ✓ Pollution control
- ✓ Natural capital
- ✓ Employment creation

## 3. Tata chemicals limited:

- ✓ Honesty, transparency towards stakeholders, environmental protection, promoting human rights

## 4. Tata tea:

- ✓ Various program me provide education, training & rehabilitation of children & young adults.
- ✓ Tata archery academy:
- ✓ Efficient coaches, archery grounds, equipment from India & abroad. Hostels facilities

❖ **Top Ten companies in India's CSR rankings:**

1. Tata Consultancy Services
2. ITC Ltd
3. Infosys Technologies
4. Larsen and Toubro
5. Reliance Industries
6. Oil and Natural Gas Corporation
7. Indian Oil Corporation
8. Bharti Airtel
9. Steel Authority of India Ltd
10. NMDC Ltd.

**CONCLUSION**

In recent trends the concept of CSR turned out to be avital strategy for companies to survive in a ruthless market environment. CSR strategy, sometimes, referred to as a sustainability strategy is simply a form of corporate self-regulation integrated into a business model. Corporate social responsibility on part of the business organizations is a commitment to function in an ethical manner and bring significant changes in the local community and society to ensure sustained economic development.

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**WEBSITES**

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## ABOUT THE BOOK

The Book “CSR - A Way for Sustainable Development” tries to put some insights into CSR and Sustainable Development. Sustainable development and corporate social responsibility are closely related business concepts that have greatly affected corporate governance in the early 21st century. Sustainable development involves the use of environmentally responsible and efficient operational practices that preserve environmental resources crucial to the long-term business success. Corporate social responsibility, or CSR, involves balancing corporate citizenship and environmental responsibility to give back to the communities in which one operates. The Book brings together academicians, research scholars, business entrepreneurs, practitioners, managers and policy makers who have interest and want to bring in some change through Corporate Social Responsibility, Governance and Sustainable Development. It includes the research works carried on in order to achieve competitive advantage, best practice and cost savings in modern organizations such as governmental, private, industrial, business sectors and NGOs.

The Researches are in the domain of CSR and Sustainable Business along with Sanitation, Climate Control, Work Life Balance, Philanthropy, Responsible Products, Business Ethics and Social impact.



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