

## **International Journal of Advanced Business Studies**

https://besra.net/index.php/ijabs/



Full length article

# "I do not see others recycling"- A Perspective of Youths' Willingness in Bangladesh

Amrita Nandy<sup>12</sup>\*, Mir Misnad Sultana<sup>2</sup>, Md. Mamun Habib<sup>3</sup>

Article Info ABSTRACT

Received: 21.09.2024 Accepted: 06.10.2024 Available online: 07.12.2024

Keywords:

Recycling; Youth; Environmental Sustainability; Ethical Behavior; Social impact Theory; Bangladesh

DOI:

https://doi.org/10.59857/IJABS3298

Evidence reveals that youths' notion towards recycling in Bangladesh is altering gradually with global inclination where relative variables imply major influence. Unveiling this true scenario of youths' willingness to recycle within the context of an emerging nation is the core objective of this investigation. Three domains namely social context, ethical behavior, and issues of environmental sustainability were studied under the shed of social impact theory. To understand the current phenomenon, a total of 593 survey responses were congregated over five months (June-October, 2023) using a convenience sampling technique. Qualitative inquiry testified to a strong positive association in the social context (r=. 624, p<.000). However, an insignificant but positive impression was identified between ethical behavior (r=. 370, p<.000). Again, youths' concern regarding environmental sustainability has a positive moderate correlation (r=. 499, p<.000). All these refer to young peoples' existing unfamiliarity towards the subject matters, while on the contrary with global trends, they are also gradually getting inspired. Essentially, regression analysis proved that all these parameters explain 51% of youths' recycling enthusiasm in Bangladesh. Furthermore, it recommends practical implications for functional recycling structures. Likewise, the proposed future research directions will assist scholars in identifying further distinct features of individual arenas and action plans for extended societal progression.

#### 1. Introduction

Consumerism in 21<sup>st</sup>century is more amplified on ethical concerns like product recyclability, product origin, financing of a product, workplace safety, reduced resource consumption and marketing propagandas (Kisselburgh and Beever, 2022; Nandy, 2023) where society draws pivotal role in shaping such behavior. With piles of used, discarded, and abandoned substances and goods rigorous efforts has been noticed worldwide to achieve the minimal or abolition of waste that are being generated through human activities (Awogbemi et al. 2022). Consequently, recycling practices are getting priorities around the globe beside improved technologies and anew regulations. A detailed report assures that in the year 2022, global recycling-based service markets

<sup>&</sup>lt;sup>1</sup>Center for Higher Studies and Research, Bangladesh University of Professionals, Dhaka, Bangladesh.

<sup>&</sup>lt;sup>2</sup>BGC Trust University Bangladesh, Chattogram, Bangladesh.

<sup>&</sup>lt;sup>3</sup>School of Business & Entrepreneurship, Independent University, Dhaka, Bangladesh.

<sup>\*</sup>Corresponding Author: email: anandy2509@gmail.com

has an estimated value of USD 58 billion which is projected to cross over USD 90 billion in the year 2032 because of rising consumer consciousness towards environmental drawbacks (Alves, 2024a). Among the Asian nations, recycling practices are gradually reforming the national economy. China, the largest economy has aimed 60% of waste utilization by 2025 while the total amount of recycling was nearly USD 18 billion in the year 2022 (Wu, 2024). Countries like Singapore, Malaysia and Thailand are reforming their regulations and implanting new guidelines to encourage nationwide recycling (UOB, 2024). Nonetheless, the present recycling rate in Southeast Asia is considerably below 50% because of the absence of proper infrastructural and logistical support (UNEP, 2017). An investigation indicates that despite several governmental interventions, only 8% of plastic waste gets recycled in India (the largest economy in Asia), where immense stakeholder engagement is vital to modify the households' behavior and alter the nation's progress from linear to circular economy (Sharma, 2024). Progressively, in the year 2023, India has doubled its number of recycling plants (Alves, 2024b). Comparatively, the recycling stand of Bangladesh is still negligible (Ahmed, 2022) due to a poor waste management system. Numerous scientists testified that waste generation has true interconnections with consumption (Halder and Singh, 2018; Liu et al., 2019; Pandey et al., 2018). Figure 1 represents the material flow of municipal solid waste (MSW) of a single Dhaka city (the capital) in the year 2020.

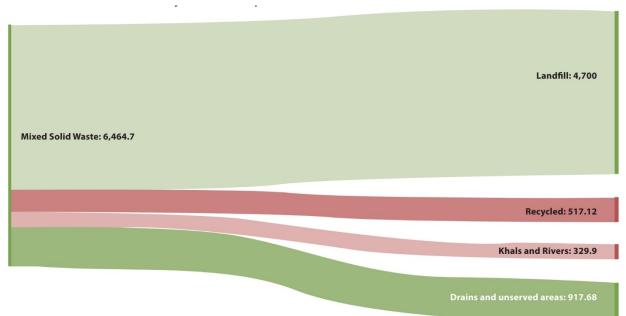


Figure-1: Material Flow of Municipal Waste of Dhaka city- Year 2020

Source: World bank (2021)

Typically, in Bangladesh innumerable uncollected waste ends up in drainage and water bodies after moving from landfills, clogs the water flow, pollutes outward as well as groundwater-soil-air and contaminates peoples 'living and demolishes the ambiance at large (Islam, 2021). An exploration by Ahmed (2022) shared that only 10 percent of the country's waste (mostly metal and plastic) is recycled each year by informal sectors. A recent document by ESDO (Environment and Social Development Organization) reveals the potentiality of the country to implant a proper waste collection system first and recycle them properly (Parvez, 2020). Regrettably, little effort has been made to explore the recycling potential in the land to date. Additionally, Halder (2018) argued that residents' active participation in waste management often makes such a process cost-efficient and easy to accomplish (for its decentralized nature) and for which "awareness creation" through civil society

organizations and educational institutions is equitably effective (Jha et al. 2011). Particularly, the youths' contribution in this regard is yet to be explored.

Conventionally, youth have a formidable role in reforming any cultural and social up-gradation. In South Asia, the youth have momentous contributions to national progression. Again, recycling activities have noteworthy possibilities because of the nation's strong commitment to sustainable development goals which can decrease the country's negative ecological distress extensively. Furthermore, the added advantages can far extend environmental return as well as prolong human productivity (Parvez, 2020). Notably, numerous works of literature examined several facets of recycling behavior (household, municipal level, particular locality) under myriad theories like the theory of planned behavior (Theodorou et al. 2023; Roy et al. 2022), normalization process theory (NPT) (Menges et al. 2021; Thomas and Sharp, 2013), value belief-based theory (Ghazali et al. 2019; Kiatkawsin and Han, 2017) on divergent aspects of multiple nations. Traditionally, society has a vast role in reshaping people's behavior incorporating both positive and negative consequences (Telzer et al., 2018). Two motives work to consider social Impact theory (SIT) as the theoretical basis of this examination. Foremost, recycling behavior is not only a healthy behavior but also a systematic adoption behavior that needs constant information sharing, awareness campaigns, and monitoring where numerous scientists approved the fitness of SIT (Wu et al. 2021). Secondly, we believe that by perusing the specified group (youth), we can gather comprehensive insight regarding the features that controls behavioral intentions within the social mechanism. Generally, at the primary stage, individuals accept information from the surroundings and later apply it as a decisionmaking reference. Hereafter, the prime effort is to further explore the model of social impact theory surrounded by the spectrum of behavioral science (the youth). Subsequently, the objectives of the current study are to investigate the youths' awareness towards recycling in the shed of social context of a developing nation and how certain aspects of this theory can contribute supplementary to creating recycling cautiousness in the country. The research outcome will attribute vastly to policy development for local and national government and will ensure youths' active participation in recycling performance. Expectantly, through the young generation, large-scale of social development will be accomplished concurrently process which is the novelty of this paper. Accordingly, the research attempts to answer the below question:

"What social features are influencing the youth towards recycling in Bangladesh?"

#### 2. Literature Review

## 2.1 Recycling and Its Practical Utility in Bangladesh

ecycling is an essential phase of environmental management (Sharma and Jain, 2020). Recycling consists of all activities to reproduce new products by reusing several unwanted/or waste materials such as plastics, metals, and various sorts of papers (Roy et al. 2022). Higher scales of recycling along with extensive consumer awareness, are basics to upkeep sustainable growth and lower the negative industrial impacts (Wagner and Heinzel, 2020; Hole and Hole, 2019). Additionally, recycling involves re-melting significant waste materials and reformation of new or modified objects with economic values (Meskers et al., 2023). Like this, thru ecological return recycling brings economic gain for the consumers. Ultimately, by proper investment (both monetary and time) and supervision, levels of national wealth as well as the environmental landscape will be instrumentally transformed by recycling -creating new job opportunities and ensuring bio-diversity preservation. Lately, many advanced nations like France, Italy, Denmark, and Switzerland have adopted an "Extended Producer Responsibility (EPR)" system as a tool to promote a formal recycling scheme (Liu et al., 2021; Wang et al., 2017). According to "Comparing the EPR regulations" (n.d.) EPR is compulsory for all European countries at present. For instance,

in Germany, nearly 60 percent of household plastic waste is recycled using incinerators that later being used as fuel in cement production (Weghmann, 2023). In France, residential authorities have various recycling measures planned as per the local demand ("What are the recycling rules in France", n.d.) where inhabitants even bound to compost green waste (including dead leaves, grass trimmings, and various garden trash) within indoor facilities in order to lessen the air effluence (Borg, 2024).

Compared to the West and even in South-Asian terrain, Bangladesh is far behind concerning recycling and sustainable actions. A dynamic study by Nawar (2023) in Bangladesh has identified that plastic consumption has drastically risen from the year 2005 to the year 2020. In Bangladesh, the packaging industry is the biggest user of plastics (World Bank, 2021) although only 30 percent of plastic waste is recycled. Many modest studies of scholarships have explored multiple facets of recycling potential in Bangladesh. A detailed study by ESDO (Environment and Social Development Organization) highlighted that annually the land generates 60 percent organic waste, 15 percent metal waste, plastic waste ranges from 12-15 percent, and the rests are contributed from papers or wood made goods and thus 100 percent compost can be processed from this huge of organic waste (Parvez, 2020). Regrettably, that waste is simply dumped on landfills or else on roadside ditches habitually. Again, the report documented that using improved technologies 90 percent of such metal waste (except heavy metals) and 95 percent of plastic waste (except single-use multi-layer plastics) can be recycled.

#### 2.2 Youth

Youths are the architects of the national economy as the imagining power, ideals, and energy of those people are dynamic for continuing the progression of the societies (UN, 2024). The extent of "youth" varies from nation to nation based on sociocultural and economic aspects. Officially, both "youth" and "young people" are interchangeable terms. Further, a report from the UN (2024) classified "youth" as people between the ages of 15-24. Conversely, many countries consider the starting age of youth as 18, to establish equal treatment under the law. In Bangladesh, the official age of youth ranges from year 18 to 35 (Matin et al 2018).

As a social category, "Youth" was first acknowledged by the Government of Bangladesh in the year 1978, when the Ministry of Youth Development was established. Later, in the year 1981, the ministry was renamed as "Ministry of Youth and Sports" (ISDB, 2019). According to the recent census report of the Bangladesh Bureau of Statistics, the country's current youth inhabitants is 45.9 million which represents one-fourth of the total population (Rahman, 2022). In addition, the median age of the nation is slightly above 26 years (Khatun, 2018). Table 1 reflects the key highlights of the youth in Bangladesh based on gender.

Table 1- Status of Youth Community in Bangladesh

Categories	Females	Males	
Literacy Rate	94.38%	91.54%	
Out of school	53.3%	55.5%	
Labor force participation	26.4%	54.9%	
Unemployment Rate	16.8%	10.8%	
Marital Age	18	21	

Source- ISDB (2019); Nandy and Biswas (2022)

The Young civic are being recognized as the 'torchbearers' of the "Agenda 2030", as their dual contribution as a fundamental role-player and the beneficiaries of all relevant actions and policies under this agenda (UN, 2024). The accomplishment of the 2030 Agenda entails strong and comprehensive partnerships between the young generation and all stakeholders. Being a pivotal part of the society, over the years youth have modernized societies in myriad ways like creating awareness, adopting training, gathering inspiration for a better life, promoting entrepreneurship, working at the grass-root level for development, monitoring social practices, and providing shadow reporting on progress.

## 2.3 Social Impact Theory

Social impact refers individual's feelings, thoughts, or behavior that occurs as a consequence of real, oblique, or imagined existence or actions of other members or aspects of the society (Davlembayeva et al. 2024). In 1981, Bibb Latané (an American social psychologist) introduced the social impact theory (SIT) primarily focused on three key variables: i) social forces, ii) psychosocial, and iii) multiplication/division of impact (Latané, 2015; Sedikides and Jackson, 1990). The theory has manifold dimensions of implication ranging from transmission of responsibility to persuasive communication. Several scholars have testified vivid relevance of SIT (Social Impact Theory) on group behavior, virtual alliance, and social loafing. Investigation on Chinese consumers by Chang et al. (2020) revealed that society frequently implies a strong influence on the practice of recycling. Another extensive research on SIT by Wu et al. (2021) proved certain individual and environmental features highly control patients' behavior intents in telemedicine. In their paper, Telzer et al. (2018) supported that social influence can be considered as an opportunity for societal advancement as it can transmit negative consequences, particularly by manipulating social norms and social learning. An explanation by Chang et al. (2020) illustrates how intrinsic and extrinsic motivational factors and community identification promote social loafing among online travel communities. Additional examination by Spears (2021) establishes a robust interconnection between social influence and the conception of group identity underneath the SIT model. However, applications of SIT are limited in the context of developing nations where predominantly social norms and practices draw a major effect on people's way of living (Chang et al. 2020; Telzer et al. 2018). Again, numerous studies explored multiple facets of recycling practices, though youths' actual involvement in recycling from the perspective of the South-Asian landscape is scarce. Altogether, we intend to identify the relatively simple yet prolonged influence of three contextual variables: social perspective, ethical behavior (psychosocial aspects), and the burning issue of environmental sustainability (division of impact) in the shed of SIT on shaping youths' ultimate recycling actions of an emergent economy.

#### 2.3.1 Social Context (SC)

Studies emphasize that assorted aspects of social context have a substantial impact on people's recycling practices. Facilitating recycling knowledge, establishing processes, promoting environmental concerns, and encouraging people- social context can manifest recycling behavior (Geiger, 2020). Through an investigation in China, Liao and Xing (2022) highlight social capital, consisting of social norms, social networks, and trust plays foremost role in determining residential recycling behavior. Additional research distinguishes that established culture of local waste management highly influences inhabitants¹ recycling habits (Kountouris, 2022). A recent investigation by Halder and Singh (2018) explores that social factors are driving strong influence among Indian youths' where recycling is gradually becoming a "social trend" and the government is planning to set adequate public facilities in this regard. Another random-effects meta-analysis by Josefine et al. (2019) enlisted individual and contextual factors where behavior-specific factors like personal norms, and previous recycling records are

considered as better predictors of individuals recycling behavior compared to contextual factors like bin location, availability of general information, house ownership, etc. Thus, by educating youth, placing a good number of bins, and by sharing timely information, the recycling behavior of a specific locality can be improved.

• Hypothesis-1- Social contexts imply a positive influence on youths' willingness to recycle.

#### 2.3.2 Ethical Behavior (EB)

Being a psychosocial aspect, recognition of ethical behavior (EC) is much more noticeable among developed countries compared to developing nations (Wang et al., 2023; Halder and Singh, 2018). The examination of Mehmood et al. (2024) reveals that with social pressure and information publicity, the consumer's ethical perspective can be highly altered. Study by Annamdevula et al. (2023) in India further revealed that as an act of pro-environmental behavior, ethical or moral obligations encourages youths in recycling waste. In their study Xiao et al. (2017) also argued that positive public opinion is inevitable for achieving long-term success of waste management agendas particularly in the developing economies. Once again, protecting natural resources and biodiversity is considered as an essential ethical commitment (Østergaard et al. 2021; Geissdoerfer et al. 2017) of the society. Youth can thus actively participate in promoting recycling, reusing, and reducing consumption patterns nationwide by supporting governmental initiatives and initiating ethical commitments to conserve bionetwork and wildlife habitation, particularly in emerging nations.

• Hypothesis-2- Practices of Ethical behavior have no influence in motivating youths to recycle activities

## 2.3.3 Environmental Sustainability (ES)

To fulfill the UN's (United Nations) Sustainable Development Goals, countries (both rich and poor) are constantly looking for long-standing impacts typically based on technological innovation rather than conventional efficiency-based strategies where the prime concern is to lessen the total amount of consumption and level of wastages (Lorek and Fuchs 2013; Ziesemer, 2021). Hence, youth nowadays is the target group for intervening in nationwide irrational overconsumption habits" and offering innovative ideas, demonstrations, and taking responsibility for sustainable living (Ziesemer, 2021).

Numerous researchers are incessantly exploring how diverse aspects of recycling can contribute to achieving environmental sustainability. An Extensive investigation by Ferrara et al. (2023); described the magnitude of a sustainable society by developing policies emphasizing on waste deflection from landfills, and thus promoting "optimal and sustainable recycling" solutions. Research of Schützenhofer et al. (2022) proposed a concept named "Network Governance" which is a combined effort of state institutions, manufacturing companies with R&D (Research and Development) teams research to develop innovative measures to ensure environmental sustainability. Another study by Buch et al. (2021) offered a sustainable framework illustrating four basic steps: i) develop collaborative networks of stakeholders including "waste pickers"; ii) build cooperative endeavors to incorporate waste pickers in the formal economy; iii) provide them (waste pickers) technical training and capacity enhancement for entrepreneurship skill development; and iv) establish technological environment and markets allowing waste pickers to re-manufacture upcycled products.

Though the value of environmental preservation is not a completely unfamiliar subject to young people, often youth in emerging economies avoid such responsibility prioritizing other matters or evading following them systematically. Once again, friends, acquaintances, mass media, and social networks encourage them to participate in sustainability practices and behavior (Shutaleva et al., 2022). Moreover, respective governmental bodies

have utmost responsibility to engage youths in sustainability campaigns, trainings, and in upholding recyclingrelated promotions. Therefore, to feel the real pulse of this generation, we have drawn our third hypothesis as-

Hypothesis-3- Issues of Environmental sustainability have positive stimulus on the recycling willingness
of young generation.

Figure-1 represents the research Framework connecting three independent variables –i) Social Contexts, ii) Practices of Ethical behavior, and iii) Issues of Environmental sustainability with the dependent variable, the youths' recycling willingness in Bangladesh.



Figure 1 – Conceptual Research Framework Source- Authors Contribution, 2024

### 3. Research Methods

Being exploratory in nature, the investigation follows a deductive research approach where a researcher adopts a top-down method by starting with a theory or general idea and then trialing it through precise clarifications. Additionally, this research is centered on the positivism paradigm by mostly relying on measuring and reasoning the variables in neutral modus from data collection to quantification of activities and reactions.

#### 3.1 Research Instrument

A survey instrument was used to complete the research, which was adapted from the study of Wan et al. (2012). The questionnaire also contains demographic information, such as age, gender, and education level. A five-point Likert scale including a total of twenty-six items was placed to evaluate the level of young people's awareness towards recycling. Additionally, there were a few open questions that were used to gather further recommendations based on their understanding. The survey questionnaire was designed in simple English, as universities and households in Bangladesh have moderate capabilities of understanding basic English. Thus, no back translation (in Bengali) is required. The five-point Likert scale ranges from 'strongly disagree' to 'strongly agree' with a coding value from 1 to 5, respectively the middle point (number 3) was weighted as "neutral". For instance, a few inquiries were like this: My classmates/colleagues expect me to recycle recyclables; Media influences me to recycle recyclables.

## 3.2 Participants

Young citizens (age 18-35) of Bangladesh are the target population of this examination. As these people mostly engaged in education, universities were our prime target for data collection. Besides, questionnaires were distributed over households and in certain job fields. A Google form was developed consisting of the survey quarries. Then, it was shared among student groups through the internet. Additionally, social platforms such as Facebook, and WhatsApp were also used as a mechanism to reach them. The inspection covered both male and female youths, from poor, mid-income, and high-income families respectively. In addition, job seekers and less educated youths (above 18 years old) were also considered in the survey. Nearly 700 questionnaires were circulated in a period of 5 months (from June-October, 2023) from which 593 feedbacks were finally accrued. Henceforth, the data response rate is 85%.

Table 2: Respondent's Profile

Demograph	ic variables	Frequency	Percent
<b>Gender</b> Female		228	38.4
	Male	365	61.6
Age	15-25	517	87.2
(In Year)	26-35	66	11.1
	36-45	6	1.0
	46+	4	.7
Locality	City	362	61.0
	Sub-urban locality	40	6.7
	Village	191	32.2

Note: N = 593, Source: Survey, 2024

The demography of this survey is represented in Table 2. The participants include 38% females and 62% males. Since the study was conducted in a university, naturally the demographic variables of the respondents would illustrate that most of them were students. Hence, the age range 15-25 has a maximum (87%) respondents, and only 1.7% of samples belong below 35 years mark. In terms of residents, the majority of these people (61%) live in city areas, where 32% of samples were collected from villages. 6.7% of participants took part in sub-urban localities.

## 3.3 Sampling Design & Sample Size

We adopted the convenience sampling technique, which is the non-probability sampling technique that counts all available subjects of any study at a given time (Babbie, 2001). Another reason for following this method is its cost-effectiveness (Crossman, 2020). Therefore, this technique is often favorable to reach youths at universities as it is relatively easy to get a good number of responses without investing many resources (Babbie, 2001). Students were delivered a 3–5 minutes briefing about the issues of recycling, sustainability, and ethical behavior and shared the online link (google form) to fill it up. Online forms were chosen for feedback for two reasons: i) to reply at their good time within 2 days (Sax, Gilmartin& Bryant, 2003) and to assure privacy (Smith, 2007). Considering 593 feedback is idyllic for the current study, as the estimated young population is at least 100000 with a level of significance at 95 percent.

## 3.4 Reliability and Validity

For each construct of the study, Cronbach's alpha was calculated to test the internal consistency by using SPSS. The grounded rule of Cronbach's alpha is that "the closer it is to 1.0, the greater the internal consistency of the items in the scale" (Gliem & Gliem, 2003). Table 3 shows that the majority of constructs Cronbach's alpha are close to 1, which testifies to the profound reliability and validates the collected responses.

Table-3: Reliability Statistics- Cronbach's Alpha

Variables	α
Ethical Behavioral (EB)	0.73
Recycling Willingness (RW)	0.76
Environmental Sustainability (ES)	0.84
Social Context (SC)	0.84

Note: N =593 Source: Authors' contribution, 2024

## 4. Analysis & Discussion

At the beginning of our survey, we asked the participants to select the recycling symbol to explore their general knowledge about the subject matter. Surprisingly, only 56% selected the correct symbol (Figure 2). Nevertheless, as per the regulation recycling campaign is a common item of packaging of most of the consumer's goods. It is alarming to notice that the majority of the youths are familiar with the recycling sign. Hence, it reflects an urgency of advance training, campaigns, and awareness mechanisms within the nation at the first stage.

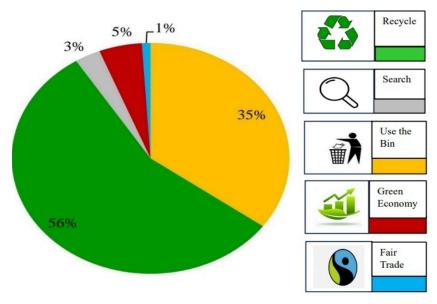


Figure-2: Youths' Familiarity with the Recycling Symbol

Source: Survey, 2024

Irrespective of their knowledge of the symbol, it was interesting to identify that this group of people is actively involved in recycling activities. Most of them selected multiple options, once we asked them to choose items that they typically recycle over time. Figure- 4 displays their feedback. The most recycled items by the youth are plastic items (65.90%), then paper (47.20%).

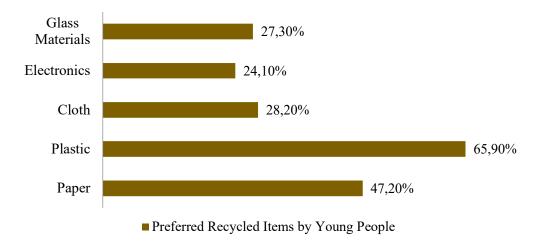


Figure-3: Preferred Recycled Items by Young People

Source: Survey, 2024

Table-4: Variable Status in terms of Mean (M), Standard Deviation (SD), & Correlation

Variables	М	SD	Correlations			
			1	2	3	4
EB	1.6365	.49240	1			
RA	1.8862	.62349	.608**	1		
ES	1.5729	.55250	.617**	.499**	1	
SC	1.9062	.53824	.524**	.628**	.371**	1

Source: Authors' contribution, 2024

Note: N= 593, Correlation is significant at the 0.01 level (2-tailed). EB= Ethical Behavior,

RW= Recycling Willingness, ES= Environmental Sustainability, SC= Social Context

Table 4 exhibits the association of variables of this study with youths' recycling willingness (RW) and several parts of SIT where BV (r=.370, p>.001) has insignificant relation, SC (r=.624, p>.001) holds strong correlation and ES (r=.499, p>.001) has moderate correlation. Moreover, the correlations are positive, which means positive change of any one of these variables encourages youths to recycle.

Further study of the linear regression analysis (Table 5) has presented below:

Table-5: Summary of Regression Analysis

Predictor	Unstandardized Coef-		Value	Standardized	Value	Value of F Sta-
Variables	ficients		of t	Coefficients	of R	tistics
				Beta	Square	(ANOVA)
	В	Std. Error				
RA	.077	.074	1.040		.519	211.859**
SC	.481	.039	12.341	.415		
EB	.188	.050	4.587	.167		

ES	.364	.041	7.245	.288	

Source: Authors' contribution, 2024

Note: N= 593, \*\*Correlation is significant at the 0.01 level (2-tailed).

EB= Ethical Behavior, RW= Recycling Willingness, ES= Environmental Sustainability, SC= Social

Context

#### **Discussion:**

Based on the analysis, the paper reveals several aspects of Bangladeshi youths' awareness in recycling activities. In this section we will discuss about the research outcome considering each of the hypothesis:

• Hypothesis-1- Social contexts imply a positive influence on youths' willingness to recycle.

Our first research objective was to explore the influence of social context on this group of people. The calculation highlights the interconnection between this two variables where SC (r=.624, p>.001). Again, through regression analysis, a strong positive influence is found (B=.415, t=12.341 p>.01). Hence, the hypothesis is accepted. As a result, this examination approves that we can alter or measure significant portion of the youth recycling behavior through the social circumstances.

• Hypothesis-2- Practices of Ethical behavior has no influence in motivating youths to recycling activities.

The second objective aimed to decline the association between ethical aspects or intentions of this group of people towards recycling. Computation shows less interconnection between actual recycling practices and EB (r=.370, p>.001). The regression analysis also reveals low influence (B=.167, t=4.587 p>.01). Henceforth, it can be concluded the hypothesis is rejected. In summary, the qualitative study testifies that ethical behavior has little but a positive influence on the youth. Interestingly, the result equalizes the literature that till date the youth of Bangladesh do not consider the ethical issues related to recycling.

- Hypothesis-3- Issues of Environmental have positive stimulus on the recycling willingness of young generation.
- The last objective again believes in the relativity of issues of environmental sustainability and recycling. Computation shows less interconnection between actual recycling practices and ES (r= .499, p>.001) and has a moderate correlation. The regression analysis also reveals a lower but high influence (B= .288, t= 7.245, p>.01) of sustainability issues compared to the previous variable (ethical aspects). Hereafter, this hypothesis is once again accepted. The global trend of environmental sustainability measures is even influencing the young generation in Bangladesh.

## 5, Implication, Limitations and Scope of Future study

On theoretical ground, this theory explains that common social attributes can simply contribute immensely on encompassing awareness specifically among youths. Thus, the present research enriches the SIT further. the contention rationalizes that recycling typically occurs under the influence of society and friends. Hence, by classifying the variables it adds deeper understanding on the theoretical ground regarding the most influential aspects for the youths' encouragement in recycling. Additionally, it extends the pro-environmental literature

that explains the level of youths' involvement or cautiousness towards the burning issue of managing waste and thus recycling, which is again one of the first to evaluate in Bangladesh as a growing economy with a precise socio-cultural background.

Over again, nationwide scarce attention from the governmental level has been noticed on these cognitive facets till date. At introductory phrase of any new experimentation, awareness creation is crucial measure for adaption (Wagner & Heinzel, 2020). Therefore, this study findings will assist the respective authorities and policy makers in suitable policy formulation. Secondly, in the survey, youth recurrently highlighted issues like lack of facilitation, information unavailability, absence of encouragement in social context. Accordingly, this investigation sheds light for local authorities on designing and implementing adequate recycling facilities and plan. Thirdly, based on youths' active involvement on social media, the study findings reveal positive stance of social media and how it can fine-tune societal notion to fulfill ecological responsibility. Consequently, the government has a substantial part to control those medias to educate the public and to alter society's attitude. Fourthly, lesson regarding ethical behavior need to be included as part of basic (primary-level) social education where young people will inevitably recycling mechanisms which will later work to create public awareness. Fifthly, from the perspective of an entrepreneur, youth can emerge as reverse logistic provider such as disposal or recycling enterprises. Being pioneer in this uncaptured market (Bangladesh), young people can thus contribute largely on ecological perseverance along with profitability. Only the youths' level of awareness has been assessed in this examination. Hence, the sample might limit the generalizability of the study outcome. Academics in future might explore a wide arena of opportunities. For instance, an age-based classifications (focused on various levels of maturities) in this precise demography (youth) will provide more elaborated information and directions for further policy deployment. Success of locality wise advancement, based on the planning of local authority can be an interesting topic to inspect. Therefore, researchers can focus on case-study based investigation and examine the impact in this regard. Ensuring true participation was another challenge as youth in this geography often remain busy among diverse responsibilities. The authors need to communicate twice/trice to collect the feedback. Lastly, the work might lead to self-reported bias based on the decisions provided by the participants. Additionally, scholars can further scrutiny the model with additional variables like social benefits, education level, and self-efficacy of the participants. Testing the proposed model by using specific waste recycling approach (such as household, paper, or fabric) can be an interesting topic to scrutinize in the context of a growing economy.

#### 5. Conclusion

Worldwide, youth consist of 16 percent (nearly 1.2 billion) of the global inhabitants (UNESCO, 2024). Youths' active participation to sustainable development is fundamental for any government to achieve progressive and sustainable economy to avert poverty, unemployment, gender inequality, climate change, migration and other conflicting issues. The study signifies that though youth represent a huge portion of the population in Bangladesh, yet their level of awareness, and involvement in establishing ground-level policy is limited. To achieve sustainable triumph over any crisis, public education is key (Vijayan et al., 2023), as it ensure citizens' active participation in decentralized way and the most cost-efficient measures (Halder and Singh, 2018). Specifically, at individual level, youth need to get engage with recycling practices and strategies. One prime step is to initiate "Environmental sustainability campaigns" at communities and in universities. Numerous media like television, radio, newspapers, etc. Opinion leaders from various fields can be invited in such campaigns, to spread wider influence in this regard. Gradually, following a top-down strategy such motivational program will be shifted to

secondary and primary education level from youth to the children. Once again, It is imperative for policymakers to promote recycling as a "social trend" and facilitate sufficient amenities and instructions for public service without causing worries. Several constituents like local communities, affected parties, indigenous assemblies and environmental agencies need to get involve in decision-making processes following a people-centric approach (Wang et al. 2023). Such motivational phases will progressively augment moral attachment or responsiveness among the mass in Bangladesh.

#### **Conflict of Interest:**

The authors declare no conflict of interest.

## Reference

- Ahamad, R. (2022, 17 May). Waste Recycling Ignored. *The New Age BD*. https://www.newagebd.net/article/170833/waste-recycling-ignored
- Alves, B. (2024, January 8a). Global Waste Recycling Services Market Size 2022-2032. *Statistia*. https://www.statista.com/statistics/239662/size-of-the-globalrecyclingmarket/#:~:text=\_The%20global%20waste%20recycling%20services, environmental% 20impacts%20of%20waste%20increases
- Alves, B. (2024, February 5b). Number of Waste Recycling Plants Installed in India FY 2020-2023. *Stati sta.*. https://www.statista.com/statistics/1448800/number-of-waste-recycling-plants-india/
- Annamdevula, S., Nudurupati, S.S., Pappu, R.P. and Sinha, R. (2023). Moral Obligation for Recycling am ong Youth: Extended Models of the Theory of Planned Behaviour. *Young Consumers*, 24(2), 165-183. https://doi.org/10.1108/YC-05-2022-1520
- Awogbemi, O., Kallon, D.V.V., and Bello, K.A. (2022). Resource Recycling with the Aim of Achieving Zero-Waste Manufacturing. *Sustainability*, 14. 10.3390/su14084503.
- Babbie, E. (2001) The Practice of Social Research. 9th Edition, Wadsworth Thomson, Belmont.
- Borg, B. (2024, May 15). Trash and recycling in France. *Expatica*. https://www.expatica.com/fr/living/household/trash-and-recycling-in-france-536594/
- Buch, R., Marseille, A., Williams, M., Aggarwal, R., and Sharma, A. (2021). From Waste Pickers to Prod ucers: An Inclusive Circular Economy Solution through Development of Cooperatives in Waste Management. *Sustainability*, 13(16). https://doi.org/10.3390/su13168925
- Chang, Y., Hou, R., Wang, K., Cui, A. P., and Zhang, C. (2020). Effects of intrinsic and extrinsic motivate on on social loafing in online travel communities. *Computers in Human Behavior*, 109. https://doi.org/10.1016/j.chb.2020.106360.
- Chang, S., Chang, C. and Chiu, H. (2020). A Social Impact Theory Perspective on Consumers' Intention to Adopt Recycling in China. *The International Journal of Organizational Innovation*, 12(4).
- Comparing the EPR regulations and systems across the EU (n.d.). Retrieved from https://deutsche-recycling.com/blog/comparing-epr-regulations-europe/
- Crossman, A. (2020) An Overview of Qualitative Research Methods. Direct Observation, Interviews, Part icipation, Immersion, Focus Groups. *Thought Co.* https://www.thoughtco.com/qualitative-researc h-methods-3026555
- Davlembayeva, D., Chari, S., and Papagiannidis, S. (2024). Virtual Influencers in Consumer Behaviour: A Social Influence Theory Perspective. British Journal of Management, https://doi.org/10.1111

- /1467-8551.12839
- Ferrara, C., Scarfato, P., Ferraioli, R., Apicella, A., Incarnato, L., and Feo, G. D. (2023). Environmental Sustainability Assessment of Different End-of-Life Scenarios for the Pulper Rejects Produced in the Paper Recycling Process. *Sustainable Production and Consumption*, 43,297-307, https://doi.org/10.1016/j.spc.2023.11.014.
- Geiger, J. (2020). Context matters: Three Ways of How the Context Influences Recycling Behaviour.[The sis fully internal (DIV), University of Groningen]. https://doi.org/10.33612/diss.131464819
- Geissdoerfer, M., Savaget, P., Bocken, N.M.P., and Hultink, E. J. (2017). The Circular Economy A new sustainability paradigm? Journal of Cleaner Production, 143, 757-768. https://doi.org/10.1016/j.j clepro.2016.12.048.
- Ghazali, E.M., Nguyen, B., Mutum, D.S., and Yap, S.-F. (2019). Pro-Environmental Behaviours and Valu e-Belief-Norm Theory: Assessing Unobserved Heterogeneity of Two Ethnic Groups. *Sustainabili ty*, *11*. https://doi.org/10.3390/su11123237
- Gliem, J. A., and Gliem, R. R. (2003). Calculating, Interpreting, and Reporting Cronbach's Alpha Reliabi lity Coefficient for Likert-type Scales. *Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education*. Columbus, 82-88.
- Halder, P., and Singh, H. (2018). Predictors of Recycling Intentions among the Youth: A Developing Co untry Perspective. *Recycling*. 3(38). https://doi.org/10.3390/recycling3030038
- Hole, G. and Hole, A.S. (2019). Recycling as the way to greener production: A mini review. *Journal of Cl eaner Production*, 212, 910–915.
- ISDB (2019). *Country Youth Profile*. Islamic Development Bank.https://www.isdb.org/sites/default/files/media/documents/2020-09/Bangladesh%20Youth.pdf
- Islam (2021). *Urban Waste Management in Bangladesh: An Overview with a Focus on Dhaka*. ASEF Org anization. https://asef.org/wp-content/uploads/2021/11/ASEFSU23-Background-Paper\_WasteManagement-in-Bangladesh.pdf
- Jha, A.K., Singh, S.K., Singh, G.P., and Gupta, P. (2011). Sustainable Municipal Solid Waste Manageme nt in Low Income Group of Cities: A Review. *Tropical Ecology*, 52(1),123-131.
- Josefine, L. G., Linda, S., Werff, E. V. and Ünal, A. B. (2019). A Meta-Analysis of Factors Related to Recycling. *Journal of Environmental Psychology*, 64. 10.1016/j.jenvp.2019.05.004.
- Khatun, F. (2018, September 20). How much has the youth gained from growth? *The Daily Star*. https://www.thedailystar.net/opinion/macro-mirror/news/how-much-has-the-youth-gained-growth-16360 12.
- Kiatkawsin, K., and Han, H. (2017). Young travelers' intention to behave pro-environmentally: Merging the value-belief-norm theory and the expectancy theory. *Tourism management*, *59*, 76–88.
- Kisselburgh, L., Beever, J. (2022). The Ethics of Privacy in Research and Design: Principles, Practices, an d Potential. In: Knijnenburg, B.P., Page, X., Wisniewski, P., Lipford, H.R., Proferes, N., Romano, J. (eds) Modern Socio-Technical Perspectives on Privacy. Springer, Cham.https://doi.org/10.1007/978-3-030-82786-1\_17
- Kountouris, Y. (2022). The Influence of Local Waste Management Culture on Individual Recycling Beha vior. *Environmental Research Letters*, *17*(7). 10.1088/1748-9326/ac7604
- Latané, B. (2015). *Good Therapy*. https://www.goodtherapy.org/famous-psychologists/bibb-latane.html Liao, Y. and Xing, Y. (2022). Social Capital and Residents' Plastic Recycling Behaviors in China. *Journ*

- al of Environmental Planning and Management, 66(5), 955-976.
- Liu, T., Cao, J., Wu, Y., Weng, Z., Senthil, R. A., and Yu, L. (2021). Exploring influencing factors of WEEE social recycling behavior: A Chinese perspective. *Journal of Cleaner Production*, 312, https://doi.org/10.1016/j.jclepro.2021.127829
- Liu, J., Li, Q., Gu, W., and Wang, C. (2019). The Impact of Consumption Patterns on the Generation of Municipal Solid Waste in China: Evidence from Provincial Data. *International journal of enviro nmental research and public health, 16*(10), 1717. https://doi.org/10.3390/ijerph16101717
- Lorek, S., and Fuchs, D. (2013). Strong sustainable consumption governance precondition for a degrowth path? Journal of Cleaner Production, 38, 36–43
- Matin, I., Bhattacharjee, A., Ahmed, M. S., Das, N. C. and Jahan, N. (2018). *Youth of Bangladesh Agents of Change?* BRAC.
- Mehmood, K., Iftikhar, Y., Jabeen, F., Khan, A. N., and Rehman, H. (2024). Energizing Ethical Recyclin g Intention Through Information Publicity: Insights from an Emerging Market Economy. *Journal of Business Ethics*, 191, 1-27. 10.1007/s10551-024-05671-6.
- Menges, R., Cloos, J., Greiff, M., Wehrle, J., Goldmann, D. & Rabe, L. (2021)
- Meskers, C., Worrell, E., and Reuter, M. (2023). Handbook of Recycling State-of-the-art for Practitioners Analysts, and Scientists. Second Edition. 10.1016/C2017-0-03207-X.
- Nandy, A. (2023). Emerging Practices of Ethical Consumption To Affirm Sustainability: A Literature Re view. *BAUET Journal*, 4. 10.59321/BAUETJ.V4I1.13.
- Nandy, A., and Biswas, M. (2022). Women Entrepreneurs" survival in the course of COVID-19 pandemic in Bangladesh. *International Journal of Research and Innovation in Social Science*. https://doi.org/10.47772/ijriss.2022.6226
- Nawar, N. (2023, June 5). Bangladesh is being engulfed by plastic. The Bdnews24. https://bdnews24.com/hello/jae2kkj98a
- Pandey, R.U., Surjan, A., and Kapshe, M. (2018). Exploring Linkages between Sustainable Consumption and Prevailing Green Practices in Reuse and Recycling of Household Waste: Case of Bhopal City in India. *Journal of Cleaner Production*, 173, 49-59.
- Parvez, S. (2020, October 18) Potential of e-waste recycling remains untapped. *The Daily Star.* https://www.thedailystar.net/business/news/potential-e-waste-recycling-remains-untapped-1979765
- Østergaard, P.A., Duic, N., Noorollahi, Y., and Kalogirou, S.A. (2021). Recent Advances in Renewable Energy Technology for the Energy Transition. Journal of *Renewable Energy*, 179, 877–884.
- Rahman, A. (2022, July 29). Bangladesh, a country of over 45 million youths. *The Daily Prothomalo*. https://en.prothomalo.com/bangladesh/o9i009reql
- Roy, H., Islam, M. S., Haque, S. and Riyad, M.H. (2022). Electronic waste management scenario in Bang ladesh: policies, recommendations, and case study at Dhaka and Chittagong for a sustainable solu tion. *Sustainable Technology and Entrepreneurship*, 1(3).https://doi.org/10.1016/j.stae.2022.1000 25.
- Sax, L.J., Gilmartin, S.K. and Bryant, A.N. (2003). Assessing Response Rates and Nonresponse Bias in Web and Paper Surveys. *Research in Higher Education*, *44*, 409–432. https://doi.org/10.1023/A:1 024232915870
- Schützenhofer, S., Kovacic, I., Rechberger, H., and Mack, S. (2022). Improvement of Environmental Sust ainability and Circular Economy through Construction Waste Management for Material Reuse. *Su stainability*, 14. 10.3390/su141711087.

- Sedikides, C., and Jackson, J. M. (1990). Social Impact Theory: A Field Test of Source Strength, Source Immediacy and Number of Targets. *Basic and Applied Social Psychology*, 11(3), 273 281.
- Sharma, M. (2024, February 5) India recycles only 8 percent of its plastic waste, reveals study. *The Week*. https://www.theweek.in/news/india/2024/02/05/india-recycles-only-8-percent-of-its-plastic-waste -says-study.html
- Sharma, K.D. and Jain, S. (2020) Municipal Solid Waste Generation, Composition, and Management: The Global Scenario. *Social Responsibility Journal*, 16, 917-948. https://doi.org/10.1108/SRJ-06-2019-0210
- Shutaleva, A., Martyushev, N., Nikonova, Z., Savchenko, I., Abramova, S., Lubimova, V., and Novgorod tseva, A. (2022). Environmental Behavior of Youth and Sustainable Development. Sustainability, 14(250). https://doi.org/10.3390/su14010250
- Spears, R. (2021). Social Influence and Group Identity. In Fiske, S. T., and Schacter, D. L. (Eds.), Annual Review of Psychology, 72, 367-390. https://doi.org/10.1146/annurev-psych-070620-111818
- Smith, J. A. (2007). Qualitative Psychology: A Practical Guide to Research Methods. Sage.
- Telzer, E. H., Hoorn J. V., Rogers, C. R., and Do, K. T. (2018). Social Influence on Positive Youth Development: A Developmental Neuroscience Perspective. Advances in Child Development Behavior, 54, 215-258. doi: 10.1016/bs.acdb.2017.10.003.
- Theodorou, A.; Hatzithomas, L.; Fotiadis, T.; Diamantidis, A.; Gasteratos, A. (2023). The Impact of the COVID-19 Pandemic on Online Consumer Behavior: Applying the Theory of Planned Behavior. *Sustainability*, 15, 2545. https://doi.org/10.3390/su15032545
- Thomas, C., and Sharp, V. (2013). Understanding the normalisation of recycling behaviour and its implic ations for other pro-environmental behaviours: A review of social norms and recycling, *Resource s, Conservation and Recycling*, 79,11-20. https://doi.org/10.1016/j.resconrec.2013.04.010.
- UN (2024). *Peace, dignity and equality on a healthy planet*. United Nations. https://www.un.org/en/global-issues/youth
- UNEP (2018). *UN Environment Annual Report 2017*. UN environment program. https://www.unep.org/resources/un-environment-annual-report-2017
- UNESCO (2024). UNESCO with, by and for youth. UNESCO. https://www.unesco.org/en/youth
- UOB (2024). The future for plastic recycling in Asia is bright. UOB Group. https://www.uobgroup.com/i ndustry-insights/energy-chemicals/the-future-for-plastic-recycling-in-asia-is-bright.page
- Vijayan, R. V., Krishnan, M.M., Parayitam, S., Duraisami, S. P. A., and Saravanaselvan, N. R. (2023). Exploring e-waste recycling behaviour intention among the households: Evidence from India. *Cleaner Materials*, 7. https://doi.org/10.1016/j.clema.2023.100174.
- Wagner, M.M. and Heinzel, T. (2020). Human Perceptions of Recycled Textiles and Circular Fashion: A Systematic Literature Review. *Sustainability*, 12, 599; doi:10.3390/su122410599
- Wang, H., Chen, H., and Tawiah, V. (2023). Does Ethical Behaviour Affect Sustainable Development? Evidence from Developed and Developing Countries. *Sustainability*. 15(13). https://doi.org/10.3390/su151310246
- Wang, H., Gu, Y., Li, L., Liu, T., Wu, Y., Zuo, T. (2017). Operating Models and Development trends in the extended producer responsibility system for waste electrical and electronic equipment Resou rces, Conservation & Recycling, 127, 159–167. https://doi.org/10.1016/j.resconrec.2017.09.002.
- Weghmann, V. (2023). *Waste Management in Europe*. EPSU. https://www.epsu.org/sites/default/files/article/files/Waste%20Management%20in%20Europe\_EN.pdf
- What are the recycling rules in France? Has something changed? (n.d.). The Daily Connexion. https://ww

- w.connexionfrance.com/practical/what-are-the-recycling-rules-in-france-has-something-changed/
- World bank, 2021. *Towards A Multisectoral Action Plan for Sustainable* Plastic *Management in Banglad esh*. The World Bank. https://www.brac.net/program/wp-content/uploads/2019/07/YOUTH-SURVEY-2018\_full.pdf
- Wu, Y. (2024, May 2). New Business Prospects in China's Waste Recycling Market. *The China Briefing*. https://www.china-briefing.com/news/new-business-prospects-in-chinas-waste-recycling-market/
- Wu, D., Gu, H., Gu, S., and You, H. (2021) Individual motivation and social influence: a study of telemed icine adoption in China based on social cognitive theory, Health Policy and Technology, 10(3).htt ps://doi.org/10.1016/j.hlpt.2021.100525.
- Xiao, L., Zhag, G., Zhu, Y., and Lin, T. (2017). Promoting Public Participation in Household Waste Man agement: A Survey based Method and Case Study in Xiamen City, China. *Journal of Cleaner Pro duction*, 144, 313–322.
- Ziesemer, F., Hüttel, A., and Balderjahn, I. (2021). Young People as Drivers or Inhibitors of the Sustainab ility Movement: The Case of Anti-Consumption. *Journal of Consumer Policy*, 44, 427–453. https://doi.org/10.1007/s10603-021-09489-x