Perception of University Students towards Circular Economy in Bangladesh.

By

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A thesis submitted to the Department of Economic and Social Sciences in partial

fulfillment of the requirements for the degree of

Bachelor of Social Science in Anthropology

Department of Economics and Social Sciences

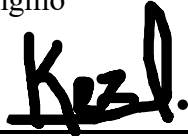Brac University

October, 2024

Declaration

It is hereby declared that

1. The thesis submitted is my/our own original work while completing a degree at Brac University.

2. The thesis does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.

3. The thesis does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.

4. I/We have acknowledged all main sources of help.

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Approval

The thesis titled "Perception of university students towards circular economy in Bangladesh]" submitted by Kezang Wangmo (20217009) of summer, 2024 has been accepted as satisfactory in partial fulfillment of the requirement for the degree of BSS in Anthropology on 3-10-2024.

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Abstract

The circular economy, a sustainable approach to production and consumption, has been gaining traction globally, yet remains underexplored within the educational sector, particularly in Bangladesh. This study aims to assess BRAC University students' perceptions of circular economy principles and evaluate university policies aligned with sustainability. The main argument of the study is that regardless of BRAC University's efforts to engage in circular economy practices, a significant gap appears in the level of awareness and involvement of its students. Through a quantitative survey of 307 students, the research analyzes their awareness and engagement with circular economy practices. The research revealed that even though students practice sustainable behavior by recycling and reusing materials, they often lack any formal knowledge of the concepts guiding the circular economy. The study contributes to the understanding of student engagement with sustainability initiatives, highlighting a gap in awareness and formal educational opportunities on the topic. It is also emphasized that the circular economy principles need to be implemented with much greater thoroughness at higher education institutions to provoke a positive cultural transition toward sustainability.

Acknowledgment

I am really grateful to all who extended support to me during the whole research process and thereby helped to complete this thesis on student perceptions regarding the circular economy at BRAC University. At the very outset, I would like to convey my profound gratitude to my supervisor, Professor Shahidhur Rahman, for his valuable guidance, feedback, and encouragement.

Their proficiencies in sustainability and higher education truly added weight to my understanding of the subject and inspired me to press further into the complexities of circular economic practice.

I would like to express my appreciation to the faculty and staff of BRAC University, who assisted in shaping my research with their valuable insights and resources. My thanks go out to the students who responded to the survey; it is their disposition to share their views and experiences that has given me the critical data to inform my findings. Lastly, to my friends and companions who have been supportive from time to time through words of encouragement and healthy discussions to improve the quality of my work. Lastly, I would also like to thank my family, who have been very supportive and believe in my academic work. Their encouragement has made this research process smoother as their constant support helped me through the various ups and downs that came my way. All these put together have made this thesis possible, for which I am grateful.

Table of Content

Chapter 1: Introduction

1.1 Background Context

Introducing a circular economy has drastically reduced waste and its environmental impact (Bai et al., 2021). Since the industrial revolution, we have been following the linear economic system, which consists of production, consumption, and waste, until a sustainable approach to the economy that considers the three R's (reduce, reuse, recycle) defined as a circular economy came into existence (Yousuf et al., 2013). As stated by Kirchherr et al., any system that replaces the traditional linear economy with a closed-loop economy system to positively impact the environment and social and economic aspects is defined as a circular economy. A circular economy is seen not to be trendy in most developing countries; however, a country like Bangladesh, located in Southeast Asia, is well known for having one of the largest population growths, producing quadrupled amounts of waste, and gearing up to use in new models (Ahasan et al., 2021).

Although the concept has been used and launched in many industrial industries, the educational industry is still unfamiliar with the notion, even after realizing its limitations, which are caused by limited conception and having less background information on this contemporary economy (Voukkali et al., 2023). Only a few scholars have attempted to address this issue by incorporating the notion into the higher education curriculum to overcome the limitation, but they are still a long way from reaching the aim because it is still gaining attention from many agencies, mostly the government (Mendoza et al., 2019). Research conducted by ERIC with a few writers headquartered in China on circular economy revealed that a higher level of positive impact can be achieved if higher education incorporates the concept into its curriculum and trains kids from a

young age to enhance sustainable values and develop a behavioral pattern to replace the traditional economy system that has been draining natural resources (Dongxu et al., 2022). Additionally, educational institutions such as universities (higher education institutions) are places of invention and creative minds that could potentially assure a sustainable future, and they must be used properly (Kilkis & Kilkis, 2017).

Out of many universities in Bangladesh particularly in Dhaka, BRAC University is reported to be leading the way into integrating the concept of circular economy through various sustainable activities within and outside the campus with the presence of their three strong vision, one being promoting sustainable development (BRAC University annual report, 2020). A crucial issue that remains unexplored despite a wealth of papers and research on BRAC University's efforts to promote sustainability is student perspectives on these sustainable techniques. To address this issue, this paper will focus on how the students of Bangladesh particularly BRAC University students perceives the concept of circular economy, how the institute is supporting these sustainable approach through academy or as an extra-curricular activities and what are the initiative that are taken by both the student body and the institution as a whole.

The circular economy is getting recognition in most developed countries, like China, Africa, the European Union, and the United States while developing countries are still in the process of understanding and implementing a sustainable strategy (Corvellec et al., 2021). The main objective is to balance economic means with environmental balance, not forgetting its impact on social equity (Kirchherr et al., 2017). This new idea is also known to be an alternative to the old economic system, which has now become more of a requirement to balance the cycle of production and waste (Gardetti, 2019). Researchers and supporters have recognized the circular economy as a strategy to accomplish sustainable urban development, as natural resources are

becoming rarer than waste produced after final manufacturing (Joensuu, 2020). And, as urbanization accelerates, new solutions to address social, economic, and environmental difficulties must be developed and implemented to ensure a sustainable present and future (Girard et al., 2019). Even after realizing a futuristic idea to overcome the wastage of resources, one important limitation must be addressed: narrowing the gap between knowledge and policymakers by educating high schools to implement this transition successfully (Qu et al., 2019). The Ellen MacArthur Foundation introduced another paradigm, ReSOLVE, which stands for resources, share, optimize, loop, and virtualize All of this adds up to reusing resources in a more sustainable way (Captureanu et al., 2018).

As the educational hub and source of knowledge for the youth of future generations, it has a higher potential to successfully adapt the new economy model by adding this concept into the academic curriculum as a major, mandatory course, increasing its research area and reducing the gap within the linear and circular economy (Faitani et al, 2023). Recently, the International Conference on Sustainable Design and Manufacturing (SDM 2022), also focused on the collaborating CE and education institutions via the lens of a pedagogical approach and highlighted the many beneficial impacts it can make if we can truly integrate the method (Mifsud et al., 2023). Internationally, many universities have already started adding any sustainable approaches like the concept of circular economy into their education curriculum and even came up with revised courses or modules mainly focusing on this concept (Mustafa, 2021). Although few research have been conducted on circular economy and its implementation on many industries, we can hardly find its framework applied in higher education institutions but its initiative can be seen in many developed and developing countries starting with academic curriculum, including training and programs and giving fundings for research (Faitani et al., 2023). Though the integration of circular

economy principles are seen applied in few higher education institutions in recent years and have

been seen as a step forward in achieving the goal of sustainability, we still don't have many reports

on its implementation and its effectiveness in youth (Sanchez et al., 2020).

BRAC University is known to be fully transitioning their approaches into sustainable and

environment friendly (Feteh, 2020). However, there hasn't been any research done on how and

what the students think of those policies or their effects. Youth being the future citizens of this

planet, many understand the significant role that the young generation can play in transforming

the world towards sustainability with their huge ability of adaptation and exploration (Riemer et

al., 2016). Realizing the significance of integrating a circular economy and environment to support

lifetime existence, young people in Bangladesh are searching for possibilities to do so. By using a

circular economy, students can contribute to the strengthening of environmental conservation

efforts (Sadat, 2013). Research on the circular economy and how higher education institutions can

advance and implement the concept is abundant, but little is known about how students perceive

this sustainable idea, which is crucial to know before incorporating it into the curriculum or adding

it to extracurricular or academic activities. As a result, the conclusions will enable us to

comprehend how students see the circular economy, as well as how it affects both the students and

the university. We are also going to be able to discuss our results and make recommendations on

how to incorporate sustainable ideas within BRAC University.

In sum, though BRAC University has taken major initiatives and developed various

policies to ensure sustainability, there is a gross deficiency in analyzing the understanding of these

issues among the students. Despite high volume research and documentation related to the

university's sustainability, there is still a huge void in the current literature regarding attitude,

perception, and level of engagement of the students about the ongoing initiatives. This gap needs

to be filled so that the exemplary implementation of sustainability measures finds a vocal resonance within the student community. Bringing the student feedback and involvement into perspective, it will be further helping BRAC University to enhance its sustainability initiatives by way of impactful and well-aligned with the needs and expectations of its primary stakeholder constituency: the students.

This holistic approach will not only advance the university's sustainability agenda but also foster a culture of environmental responsibility and innovation among future leaders.

1.2 Research Questions

1. What are the perceptions of BRAC University students regarding the university's circular economy initiatives?

2. To what extent are BRAC University students aware of and engaged with the university's circular economy practices and policies?

3. How do BRAC University students evaluate the effectiveness and impact of the university's circular economy efforts on their academic and campus life?

4. What factors influence BRAC University students' attitudes and behaviors towards circular economy initiatives promoted by the university?

Note: Circular economy here refers to all such little sustainability measures that result in the development of a circular economy.

1.3 Research Objectives

1. To assess the perceptions of BRAC University students concerning the university's circular economy initiatives.

2. To evaluate the level of awareness and engagement of BRAC University students with the university's circular economy practices and policies.

3. To analyze the perceived effectiveness and impact of the university's circular economy efforts on students' academic and campus life.

4. To identify the factors that influence BRAC University students' attitudes and behaviors towards the circular economy initiatives promoted by the university.

1.4 Significance of Study

The importance of this research is that it contributes to the literature on the principles of a circular economy within higher education, particularly at BRAC University. Higher education institutions are heavily involved in shaping behaviors and mindsets relative to global environmental sustainability concerns. By examining BRAC University students' perceptions of CE and the effectiveness of university policies aligned with sustainability, this research provides valuable insights into how educational institutions can contribute to the adoption of circular economy practices. And this research satisfies this critical gap in the existing literature on the implementation of CE within higher education, especially in developing nations like Bangladesh, where such initiatives are relatively new. It highlights the level of awareness and engagement of students in embracing CE concepts and challenges perceived, therefore forming a foundation for further research and educational reforms.

Additionally, it provides BRAC University and similar institutions with some pragmatic recommendations on how to engage students more in the institutions' sustainability endeavors. Student perceptions are particularly necessary to formulate policies, curricula, and extracurricular that are effective for the promotion of CE. This will enable universities not only to further enhance their sustainability impact but also to groom a generation of environmentally conscious graduates

who will strive for sustainable development in Bangladesh and beyond. Lastly, this research acts as a guide for policymakers, educators, and advocates of environmental concerns who are keen to see the principles of the circular economy integrated into educational systems. The findings additionally emphasize the importance of the formative years in exposing people to the best sustainable practices and indicate universities as drivers of societal-wide change toward a more sustainable and circular economy.

1.5 Conceptual Framework

This research will be based on the Practice theory, a theory which studies human- behavior and its relation in society, particularly focusing on how youth, education related individuals (faculty, staff) and experts (who understand the education curriculum) adapt or change their behavior with the change in time. To make this paper more effective, not only am I using the practice theory but will be using the Rapid evidence assessment (REA) framework to draw the model. This framework is inspired by the Ellen MacArthur Foundation from their research on the topic "Towards the circular " that helps in assessing the universities strategies in following up with the circular economy.

Practice theory was proposed by Pierre Bourdie who was born in 1930 (Wacquant, 2006). Though practice theory didn't end up with a particular definition from its early introduction, it made a huge contribution in understanding society and its people. It is understood that through habitus, the practice is connected with the rest of the agent (capital and field) (Reay, 2004). And the idea of habitus is considered as a system of thoughts, actions and interchangeable perceptions which is said to be learned from our own societies (Edgerton et al., 2014). The "habitus" among the policy actors and the technicians incorporated are seen similar to the middle class; in line with the perceptions, they are seen as more confident in both technology and science. They have been similar in terms of their sensibility with wide international sophistication, demonstrating approaches that have a real understanding of societies from a method that is widely used (quantitative social science) (Cullen, 2021).

There has been lots of research done on circular economy and its relation with the practice theory in education level and found that the study that included sustainability and circular economy to be more useful because it not only provided knowledge about the current situation but also enables them to innovate sustainable solutions, resulting in many positive impacts, as opposed to

traditional courses. It is also known that integrating modern education (courses that can impact beyond academic space) could encourage and impact both within and beyond the education system (Baker & Peggy, 2018). But the research done on the circular economy in Bangladesh is seen dominated by the rest of industries increasing the research gap.

Core Theme	Key Constructs	Description/Focus	Link to Circular Economy
Circular Economy (CE)	Students' Perceptions	Examines how students understand, perceive, and engage with CE principles (reuse,recycle, refurbish).	Understanding of CE practices, student awareness, and attitudes towards sustainable activities.
	University Policies.	Analyzes how the university's sustainability policies align with CE principles in campus and academic programs.	How BRAC University's policies promote or hinder CE practices within its institutional structure.

	Student Clubs & Initiatives	Investigates the role of student clubs in raising awareness and promoting sustainability and CE concepts.	Student-led initiatives that implement and support CE principles through extracurricular activities.
	Practical Engagement	Assesses students' active participation in CE practices (e.g., recycling programs, sustainability projects).	Evaluates how students incorporate CE practices into their daily lives and academic-related activities.
Additional Dimensions	Awareness	Measures the overall awareness of CE concepts among students, including familiarity with sustainability efforts.	Gauge student knowledge and understanding of CE and how it impacts their behavior and academic choices.
	Influence of Demographic Factors	Studies how socio-economic background, family	Links personal background to students' attitudes and

		influences, and previous education affect perceptions of CE.	engagement with CE and sustainability initiatives.
	University Support	Evaluates the effectiveness of BRAC University's support for CE through curriculum, training, and campus policies.	Examines the institutional role in fostering a CE environment through policies, programs, and academic courses.

Table 1 Conceptual framework
Source: Prepared by the author.

Despite much theorizing about the practice theory and habitus in relation to understanding behavioral change and adaptation in all stakeholders (Students, faculty, policy maker), there has been no systematic review of the evidence base. Rapid evidence assessment (REA) was introduced by Samueli Institute, it allows the researcher to study the available study done on the similar topic but with a narrowed topic with the similar or higher quality (Crawford et al, 2015). And it will be used to understand the relation between universities, students, the policy maker (education experts) and the circular economy. This research includes six themes: campus sustainability, academic curriculum, environmental policies, impact, the role of university in driving the futuristic courses, programs and training and lastly the opportunities.

1.6 Organization of dissertation

1. Title Page

Title: Assessment of Circular Economy Perception among BRAC University Students and

Analysis of University Policies Aligned to the Principles of the Circular Economy.

Kezang Wangmo, BRAC University, 1/10/2024, Professor Shahidur Rahman.

2. Abstract

A summary while highlighting the objectives, methodology, key findings, and importance of the

study; this should reflect the main focus on assessment.

student perceptions and evaluating the university's circular economy initiatives.

3. Acknowledgments

Express gratitude to all contributors, including my supervisor, faculty, (students who

participated, friends, and family).

4. Table of Contents

Full lists of chapters and sections, including page numbers are shown for quick access.

5. Chapter 1: Introduction

1.1. Background: Present the very concept of the circular economy, its relevance to Bangladesh

in general, and BRAC University's efforts at higher education for the introduction of

sustainability.

1.2. Research Questions:

What perceptions do BRAC University students have regarding its initiatives pertaining to the circular economy?

How aware and engaged are BRAC University students with circular economy practices?

1.3. Research Objectives:

Assess the perception and level of awareness among students about circular

Economic practices.

Assess the effectiveness of circular economy-related policy documents in universities.

1.4 Significance of Study: Talk about how important the present study is for the future of sustainability both at individual educational and societal levels.

1.5. Conceptual Framework: Connect the practice theory of Pierre Bourdiue with the change in the behavior of students in this research.

6. Chapter 2: Literature Review

2.1. Introduction to the Circular Economy: The term 'circular economy' is defined, and related to higher education in view of its principles.

2.2. Circular Economy in Higher Education:

Review how different universities across the world integrate sustainability and circular economy practices into their policies and curricula.

2.3. Gaps in Existing Literature: Identify the lacuna in research, especially on student perceptions and engagement in circular economy practices at educational institutions.

2.4. Theoretical Framework: Discussion of research problem and purpose statement

7. Chapter 3: Methodology

3.1. Research Design: Describe the quantitative approaches followed, such as surveying, and the rationale behind the choice of methodology.

3.2. Sampling Strategy: Describe how the respondents were selected, being BRAC University students, using non-probability sampling methods.

3.3. Data Collection: Describe how the survey was conducted among various informative platforms and demographic distribution of the respondents.

3.4. Data Analysis: The perceptions of the students were analyzed with the help of descriptive statistics and SPSS software.

3.5. Ethical Considerations: Discussion of informed consent and how confidentiality was assured.

3.6. Limitations: Presents the limitations in the studies, including constraints in time, sample size, and possible biases.

Chapter 4: Findings and Discussion

4.1 Individualistic Information: Sex, age, academic year and socio-economic status of the subjects.

4.2 General awareness of reuse and recycling:

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4.3 Perceptions of the Circular Economy

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Student perceptions of the relevance and importance of CE to university policy.

4.4 Engagement with University Policies and Initiatives

Student perceptions of the effectiveness of BRAC University's sustainability initiatives.

Interest in participating in CE-related university programs.

4.5 Student Clubs and Initiatives Playing Their Role

Analysis of students' involvement for sustainability through clubs and organizations.

Recommendations for increasing awareness of CE among student groups.

Chapter 5: Conclusion and Recommendations

5.1 Summary

Overview of findings on student perceptions about the circular economy and university initiatives. The level of student engagement determines the success or failure of sustainability policies at BRAC University. 5.2 Suggestions Recommendations for the incorporation of CE principles into the university curriculum. Recommendations regarding student involvement and participation in workshops, clubs, and awareness campaigns. 5.3 Future Studies Further research opportunities of CE in higher education, especially in the developing nations. Longitudinal studies tracking changes in student perceptions over time. References: Includes all academic references cited throughout the dissertation following APA 7th edition. Appendices Details of survey questions and methodology.

Chapter 2: Literature Review

2.1 Introduction to Circular Economy (CE)

The Circular Economy is increasingly recognized as a sustainable alternative to the current linear economic model, which functions in a "take-make-dispose" form (Dewi et al., 2022). On the other hand, CE is concerned about the creation of waste, keeping using resources, and regenerating natural systems. Alves et al., (2023) mentioned that CE is underpinned by the principle of designing out waste, keeping products and resources in use for longer, and restoring natural systems. In addition, Owojori et al., (2022) also addressed that adopting the CE principle has become compatible with numerous efforts at global and local levels to address environmental problems like climate change, depletion of natural resources, and waste generation. Moreover, as universities are at the forefront of instigating practices compatible with the CE principles, they are also developing curricula to foster the underlying principles of this form of economy among students and professionals (Ramli et al., 2021). Thus, universities are increasingly the leading agent for a CE by developing ideas, knowledge, and practices to embark on a more sustainable approach.

Moreover, universities are ideal places to lead such sustainability transitions as they are centers of research, innovation, education, and sustainability practice. In this regard, Korsunova et al., (2021) argued that universities are important organizations to lead the way towards a CE, and they are also in a key role to provide other sectors the skills needed for such a transition.

As per this review study, BRAC University has also been trying to adopt sustainable practices consistent with the CE principles (Ahmed et al., 2022). However, whether students perceive this, how they appreciate these efforts, and to what extent they are aware and engaged

needs to be an integral part of this review study. An important factor is to identify what determines students' perspectives and behaviors on these aspects.

2.2 Exploring the integration of circular economy principles within universities.

Universities are called to promote sustainable development and the principles of the Circular Economy as educational institutions. This implies that they are responsible for reducing their environmental impact and promoting a culture of Sustainability among students. Ahmed et al., (2019) argued that universities can become driving forces behind such progress. They suggest incorporating Sustainability into academic curricula, research projects, and campus developments to prepare students for the sustainability changes in their occupational fields. CE has already reached higher education as many universities acknowledge the need to teach their students about resource efficaciousness, waste minimization, and sustainable consumption (Mendoza et al., 2019a; Sanchez et al., 2020). This includes implementing sustainability policies in the university, such as waste management policies and recycling schemes, measures to save and conserve energy, using renewable and alternative energy, and efforts to implement sustainable materials for university infrastructure.

Thus, the impact of the university on the environment can be reduced, while on the other hand, students gain a practical example of how to act in a CE-compliant manner. At BRAC University, the need to move towards more sustainable practices is evident and can be observed from several initiatives on campus (Ahmed et al., 2019). For example, efforts are made to reduce energy consumption and waste while sustainable materials are used in campus development. However, how such initiatives perform largely depends on student involvement because students are the most interested stakeholders. Such initiatives will retain their potential with their active

impact as mindsets do not change. Thus, studying how students perceive and contribute to such initiatives is essential.

Student perceptions of Sustainability play a significant role in the success of these initiatives. According to research by Sanchez et al., (2020) students who are aware of their university's efforts in Sustainability are more likely to take part in turning their perception of the initiative into a reality. In other words, their perception about Sustainability serves positively with the actual behavior of recycling, reduction of waste, and saving energy amongst others. Thus, the perceptions developed in the students about such initiatives become vital for the success of sustainability programming. Wuyts, 2019 listed a number of factors that could affect perceptions of a sustainability initiative, including the extent to which these efforts are visible, the relevance of an initiative to the students, and perceived impact. Students are most likely to perceive these efforts if they can actually view the structures and events that embody them; for example, in attending institutional events, one may also be presented with a building which follows energy-efficient standards or enacts recycling programs. Besides, it gives the students a feeling that they are closer to their institution, and also it develops a sense of ownership or responsibility. Therefore, the findings have suggested that the things and structures that reflect or do efforts toward Sustainability drive the student's perception of the effort for Sustainability.

Finally, perceived relevance of sustainability efforts to the students themselves impacts perceptions. Those who major in disciplines relevant to Sustainability, such as environmental sciences, engineering, and policy studies, are more likely to view these efforts as part of their academic life (Vergani, 2024). On the other hand, students majoring in disciplines with often-perceived distant relevance to Sustainability are less likely to perceive these efforts within their lives.

The study of Bogovac et al., (2021) asserted that when students are not involved in Sustainability, a few factors need to be considered. The foremost important concern is how the students perceive the existing initiatives in the target university. In the context of BRAC University, to estimate the effectiveness of the sustainability initiative, it is necessary to evaluate the student's responses to the overall perception of the practice as contributors to the university's sustainable development. Lack of awareness about the Sustainability of education units does not generate engagement in practice, meaning that the students do not feel the need to participate in and support the available practice. Kirchherr & Piscicelli, (2019)argued that at the university level, the awareness related to sustainable activities had a very positive impact on the students, which means the university should make students and other parties more and more aware of sustainable activities. However, raising awareness does not ensure the active engagement of students in the Sustainability of higher education institutions. The students must be given opportunities to become involved in the existing practice. This does not imply only theoretical knowledge but also practical tools to make contributions to the Sustainability of higher education institutions. These opportunities include, among others, a variety of ways in which the students can practice: joining student-led organizations and clubs of CE interests, joining temporary CE campaigns, or getting involved in research CE projects (Orellana et al., 2023; Williams et al., 2018). Those who will not want to join the Education unit's practices may be informed about them online, through various social media channels, at workshops, and through visible signs throughout the campus. It is also pertinent to educate students through their academic institutions. This suggests that this form of

communication can improve awareness generation and the CE of higher education students when the outreach is well-timed and matched with Sustainability packages.

Students or employees are engaged when they need to adopt a proactive approach in an institution or company. In addition, to engage the students at a deeper level, BRAC University may involve them in the decision-making process regarding some sustainability initiatives. For instance, the students can be provided with an opportunity to develop methods to improve the university's business regarding its ecological performance or devise some policies for its Sustainability. In such a way, the university makes the students feel responsible and an owner of their activities.

2.3 Impact and factor influencing student attitudes and behaviors towards sustainability

Another important area of investigation is the effectiveness and impact of sustainability initiatives. It is not enough to develop an initiative that will reduce the university's environmental footprint; it is also essential to promote a campus culture that is generally more responsible for the environment, which can influence students and change their attitudes towards the environment (A. C. Alves et al., 2017). BRAC University has implemented several sustainability initiatives, including energy-efficient buildings, waste reduction programs, and an emphasis on renewable energy sources. However, it is relevant to investigate whether all initiatives are effective from the student's perspective. The circulation of the continuation of the effectiveness of sustainability initiatives can also be related to the fact that academic programs are more or less interconnected with the Circular Economy and will have positive impacts on student behavior. Research by Krajnc et al., (2022) showed that it is relevant to ensure educational aspects in developing sustainability initiatives. Thus, it would be interesting for BRAC University to analyze the effects and

continuation of its sustainability initiatives. This type of analysis will likely be interesting because it will provide additional evidence and directions for improvement.

Another area where investigating is important is the field of the factors influencing students' attitudes and behaviors towards Sustainability. According to Hobson & O'Byrne, (2024) students who have a solid knowledge of how the environment works are more likely to participate in positive behavior such as waste sorting, recycling efforts, or using less energy. In addition, (M. N. Alves, 2022) identified his study on Portugal, students' values as an important factor; if students are keener on protecting the environment and indulging in social and environmental responsibilities, they are also likely to be interested in the subject. Finally, according to Ab Hamid et al., (2023), social learning and the behavior they see and others, such as students, professors, or BRAC University leaders, are likely to be adopted. Thus, it is important to investigate these factors precisely to target students with adapted initiative campaigns. University policies aligned with CE principles are important to induce Sustainability on the campus. They are usually directed towards less waste, conservation of resources, maintenance of economic growth, and, at the same time, resource efficiency. Concerning the resource efficiency of a policy, the university can implement various methods to reduce the use of electricity, promote recycling, save the usage of resources as much as possible, and use materials that are sustainable for the construction of the campus of the university (Tiippana-Usvasalo et al., 2023).

At BRAC University, several policies have been adopted to be in line with the principles of CE, such as waste management, energy saving, utilizing the saved energy, and substituting sources for renewable ones. However, the success of these policies is judged by how much they are informed to the students and whether they accept these policies as contributors to their campus life. In a study Del Vecchio et al., (2021) focused on transparent communication and the activity

of students are the key factors for the success of sustainability policies. The more the students are included in preparing, applying, and storing these policies, the more they feel a sense of belonging. Therefore, their participation in these policies increases. Although implemented practices and methods would logically be perceived as beneficial and willingly applied by students, the inappropriateness of students to be informed and to accept and comply with the policies is another factor to consider

2.4 Circular Economy in Higher Education: A Global Perspective on the role of student engagement and the involvement of faculty and administration in implementing circular economy projects within universities

The concept of Circular Economy is not an approach limited to the application of a single university or region. It has turned into a global movement. Universities in all regions of the world are increasingly adopting sustainability strategies. According to Mendoza et al., (2019b) multiplied by their influence over future leaders and the workforce, their role in higher education is important for Sustainability and CE measures. Integrating CE principles by universities reduces their own environmental footprints and contributes to the transition of the whole society's approach. Many universities are implementing various sustainability plans and applying the same principles on their campuses. It is crucial to know the place of BRAC University's efficiency measures in the global environment during which the policy is implemented, including the policies of the other leading universities, to better understand the weak and strong aspects of these practices.

Student engagement is one of the most critical success factors of universities' sustainability measures. Many studies have found that universities that offer students opportunities to participate in different sustainability projects, such as recycling programs, energy-saving campaigns, and academic research on Sustainability, are more likely to awaken a sense of responsibility for the environment among students. For instance, Qu et al., (2020) revealed that student-led initiatives,

including student clubs and organizations on Sustainability, could effectively raise awareness and incite behavior change; in some cases, students' contributions may lead to innovation in the field. The most salient question regarding BRAC University is whether or not students are engaged in the university's CE practices.

As a rule, faculty and administration play a crucial role in implementing and promoting sustainability measures at universities. According to the research conducted by di Santo et al., (2024) faculty members responsible for bringing sustainability topics into their research and teaching are likely to prompt students to engage in environmental activities. When university faculty members are involved in sustainability issues, students are more likely to take environmental problems seriously.

Naturally, the administration, one of the main decision-making bodies defining and guiding the university's policy, also plays a vital role in sustainability measures. A study by Yang et al., (2024) showed that universities with strong administrative support for Sustainability are likely to reach their environmental goals. Therefore, the question that should be addressed is how actively the faculty and administration at BRACU are involved in sustainability issues.

2.5 The challenges in implementing Circular Economy in universities and the role of technology in promoting its adoption within academic institutions

Although universities have endeavored to promote Sustainability and CE, they also have to address several challenges associated with implementing these initiatives. The first and one of the most notable challenges include the need for more resources and funding for sustainability programs. According to Ma & Zhang, (2016), many universities in developed and low-income countries need help allocating sufficient funds to facilitate their sustainability initiatives. As a result, they might have fewer CE policies in place, which can limit the impact of their sustainability

activities. The second challenge is the resistance to change among the students, faculty, and staff. Even though students and faculty members might openly support sustainability programs, they may need to be open to adopting a new behavior requiring changing their daily routines.

Technology can also help promote CE in universities (Bogovac et al., 2021). In this case, universities can consider investing in energy-efficient buildings and appliances. As Kirchherr & Piscicelli, (2019) reported, other sustainable technologies that can be adopted for the sustainable management of universities include smart grids. More universities are also using digital platforms to popularize their sustainability goals. More universities are using online platforms, such as webinars, online courses, and mobile applications, to teach their students about Sustainability and CE. According to Vergani, (2024), these digital technologies provide an effective and accessible means of promoting CE.

To sum up, universities are critical in incorporating the Circular Economy. At the same time, it needs to be said that many things affect the professional experience and willingness to proceed with the proper decision, including students' awareness, engagement, and perception of CE mobility, as well as the role of faculty/ administration/ technology and support. Even though BRAC University has been doing something to improve the situation, much work still needs to be done. People must inform others about what is happening, improve students' engagement, and implement conductive analysis to address the challenge (Krajnc et al., 2022).

The expanded literature review provided a coherent discussion of the main aspects that students must consider. This means that students' perceptions of schools need to be developed. At the same time, university law and policies greatly impact students, as they can understand how to proceed, treat others, or prepare for business.

2.6 Research Gaps in the Literature

Despite the great research improvements in the field of sustainability, especially with regard to the circular economy, the way these principles are integrated into higher education is not well understood, especially for developing countries like Bangladesh. Although a range of studies have investigated the implementation of CE in industries like manufacturing and waste management, very few have assessed how educational institutions introduce and perceive CE principles. Much of the literature on universities that have applied sustainability practices has emanated from developed countries, leaving behind gaps in terms of attention to specific challenges and opportunities in developing regions where infrastructures, awareness, and policy support are mostly lacking. This research gap is especially significant as universities are recognized as key drivers of sustainable practices and behavioral change.

Another prominent gap in the literature is related to the student perspective on circular economy practices within higher education institutions. Most of the literature has focused on either institutional efforts or policy-level actions rather than how students themselves perceive and engage in sustainability practices. In addition, though student awareness, motivation, and engagement are crucial for successful CE initiatives, few empirical studies have explored how students consider and engage with the concept of a circular economy, especially in developing countries like Bangladesh. For example, although BRAC University has taken steps toward the goal of sustainability, little research is done on how students perceive these moves and whether they are adequately supported by the university in engaging with the practices of CE. Student perspectives would provide deeper insights into how educational institutions can tailor their sustainability initiatives to be more effective and appealing.

Finally, the junction between socio-economic background, previous education, and involvement in circular economy practices is not well examined. Most studies in sustainability rarely consider how a student's background, which includes socio-economic status, family education level, and type of schooling, influences their attitudes and behaviors about sustainability. The findings of this survey indicate that in the case of BRAC University, these factors significantly influence student engagement with CE practices, yet little theoretical or empirical development of this dynamic is evidenced in the literature. Such gaps may be explored by future research to yield a better understanding of how different demographic factors influence engagement with sustainability initiatives by students-a valuable lesson in the quest to contextualize the shape of CE education in varied contexts.

Theoretical Framework

Research Problem

A circular economy is an innovative economic system that halts natural resource depletion, lessens risks of environmental contamination, supports cost-effective waste management and materials reuse, and boosts resource circulation for sustainable growth through enhanced technology, assets, company development, and value chain redesign (Neves & Marques, 2020). Hence, the circular economy shifts the focus from a traditional make-use-dispose system towards a supportive closed-loop resource system where resources are consistently harvested and regenerated, thereby safeguarding the environment (Ziegler et al., 2023). However, education on the circular economy is not broad enough due to a lack of awareness of the concept (Guia, 2023). Researchers have criticized educational institutions for their incompetence in integrating circular economy concepts into university curricula and the lack of universities' waste reduction programs (Pop et al., 2022). Moreover, they pointed out the need for universities to develop a circular economy roadmap in collaboration with stakeholders, raise environmental awareness, and incorporate circular economy principles into university policymaking and research activities.

Statement of Purpose

The aim of this study is to analyze students' perceptions of the circular economy and their knowledge of the economic, environmental, and social benefits, as well as potential roadblocks to advancing the concept. Besides, this paper presents a discussion on circular economy-centered planning and university policies that assist students in better understanding the value-creation pathways that can help university stakeholders create successful courses. The research findings will not only be helpful for the university, but they will also help policymakers take into account insights into the status of teaching circular economy concepts and circular economy promotion

practices in universities in order to develop students' ability to identify future opportunities and

confront challenges.

Chapter 3: Methodology

3.1 Research Design

A quantitative approach was adopted for data collection among the students from different departments to ensure that the research provides a wide scope on the students' understanding of circular economic principles. The method used allowed the collection of numerical data; hence, statistical analysis is possible to come up with trends and patterns in the knowledge and attitudes of students. This descriptive research design was quite instrumental in providing a snapshot of the thoughts, behaviors, and views currently held by students in relation to the circular economy without trying to manipulate variables. The research, therefore, aimed at providing an accurate depiction of students' awareness, their engagement with sustainability practices, and the potential gaps in their understanding that could inform future educational interventions.

3.2 Time Horizons

Due to the time constraint, cross sectional time horizons were used to collect the data.

3.3 Selection of Universities

BRAC University has been chosen for this research due to the time constraints and access to both participants and its driving emphasis on various sustainable approaches.

3.4 Sampling Strategy

3.4.1 Participants

- Students:

Non-probability sampling has been incorporated in this research as the participants are selected subjectively based on availability, convenience and volunteering. All the students from

seven departments in the university were included (students from every department contributed their knowledge despite the difference in number from each department).

The department in the university were divided into three majors as following:

1. Social sciences

2. Business

3. Engineering

And others were left open as few students didn't want to disclose their department.

3.5 Data Collection Methods

3.5.1 Survey

Surveying technique has been followed to collect data with its ability to not only use words to describe the result but can also use diagrams to visualize the data in this research. This way, the research can be both objective and subjective depending on the findings.

3.5.2 Conducting Survey

Surveys were done online using various social media platforms like messenger, instagram, whatsapp and emails.

3.5.3 Sample Size

The Slovin's Formula was used to derive the sample size for this research. **Slovin's Formula:**

$$n = \frac{N}{1 + N .e^2}$$

Where:

· $n = sample\ size$

- $N = population\ size\ (17{,}235)$

- $e = margin\ of\ error\ (0.05\ or\ 5\%)$

$$n = \frac{N}{(1 + N.e^2)}$$

$$= \frac{17.235}{1 + (17.235 \times 0.05^2)}$$

$$= \frac{17.235}{1 + (17.235 \times 0.0025)}$$

$$= \frac{17235}{1 + (43.0875)}$$

$$= \frac{17235}{44.0875}$$

$$= 390.972$$

$$\approx 391$$

3.6 Data Analysis

Data obtained from the questionnaires were analyzed using descriptive statistics to interpret students' perceptions concerning the practice of a circular economy at BRAC University. Descriptive statistics summarize the data, and for that reason, the researcher can present the findings in a clear and understandable manner. Data processing and the plotting of relevant visualizations-such as bar charts and pie charts-were performed using the SPSS (Statistical Package for the Social Sciences) software.

Use of SPSS allowed the research team to disaggregate the key variables in this case: gender, department, socio-economic background, and level of awareness about CE. These allowed us to show patterns and trends within the population of students. Moreover, percentages have been

calculated to indicate the proportion of students who were aware or engaged in practices or policies related to CE at BRAC University.

The result of this analysis was then represented in graphs, tables, and percentages to make sure clarity and ease of interpretation are made available. These visualizations highlighted the distribution of responses and allowed for a deep understanding of the perceptions of students. The research done by Rodrigo Lozano et al. is similar, and helps this study by demonstrating how integrating sustainability into university curricula with active pedagogical approaches can be used most effectively to enhance student awareness and engagement with sustainability topics, such as CE. Their attention to the development of sustainability competences by means of practical, interdisciplinary, and problem-based learning directly supports your findings that the students of BRAC University have limited knowledge of CE concepts though they are interested in sustainability-related initiatives. Their study reinforces your recommendation for BRAC University to introduce courses related to CE and to use more interactive teaching methods that increase students' participation and develop a deeper understanding of how CE principles work.

3.7 Ethical Considerations

Participants were provided with detailed information about the research and their rights before obtaining their informed consent. All participants' identities were kept confidential, using pseudonyms in the analysis and reporting of findings. Research was done following the proper procedure and had permission from the concerned authorities prior to the survey.

3.8 Limitations

- The study's scope is limited to a small sample of participants, representing only a few students from every department.

- The research might have been impacted by the participants' subjectivity and bias during data collection and analysis.

- Lack of time and budget constraints resulted in limited information and limited analysis methods.

In this research, I chose to use only quantitative data to clearly and objectively analyze the perception of the students of BRAC University regarding the circular economy. Under a survey methodology, one can obtain measurable data by identifying trends or patterns through the use of statistical analysis across a large population of diverse students. This has given a more holistic understanding of the general levels of awareness and engagement, enabling me to quantify relationships between demographic factors and perceptions of the CE initiatives. Moreover, quantitative data will enable replicable findings that may be generalized to a larger population, thus being a sound basis for further research and recommendations.

Chapter 4: Finding and Discussion

4.1 Demographic Information

4.2.1 Gender

Out of 307 participants who responded to the survey, 41.04% described themselves as male, while 58.31% were female. A minimal percentage, 0.65%, did not prefer to disclose their gender. This clearly indicates from the above data that there are more participating rates from females compared to males.
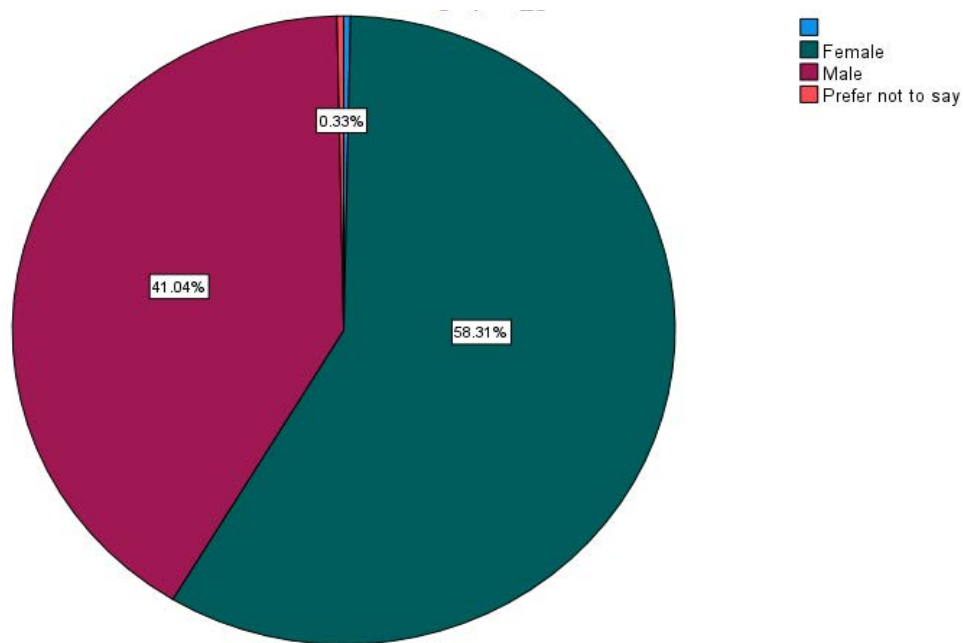
Figure 1Gender ratio

A higher representation of female respondents indicates a greater interest or engagement in the topic of CE among BRAC University females. This finding is corroborated by broader trends in sustainability research, in which women have often shown higher levels of awareness and concern about environmental issues than men. In addition, such gendered participation may suggest variation in the extent of exposure to sustainability and circular economy issues through specific university disciplines or extracurricular activities. Furthermore, the fact that a small

percentage of participants opted not to disclose their gender highlights the need for inclusive survey design that respects participants' preferences and privacy, possibly signaling sensitivity towards gender identity issues within the university community. This may also have an influence on how BRAC University tailors its sustainability initiatives and CE-related educational programs. The female students were more represented in the survey, and there might be an opportunity for further investigation of how gender influences perceptions and behaviors toward sustainability and circular economy practices. For example, future research could examine whether female students at BRAC University are more involved with student clubs or initiatives related to sustainability, compared with male students, and ways in which gender-based approaches could be used to increase involvement overall.

4.2.2 Age

Majority of the respondents were between the age of 21-23, processed by the age between 24-26 and the age of 18-20 with 4.6 percent. Only few respondents were from the age of 27 and above, increasing the possibility of a diverse age range in this research.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-20	14	4.6	4.6	4.6
	21-23	193	62.9	62.9	67.4
	24-26	89	29.0	29.0	96.4
	27 or above	11	3.6	3.6	100.0
	Total	307	100.0	100.0	

Figure 2 Age Distribution

4.2.3 Department

This survey received at least one or more students from every department making the response more strong and diversified. And helped in viewing the concept of circular economy and the policy of university from many different education backgrounds through first hand views.
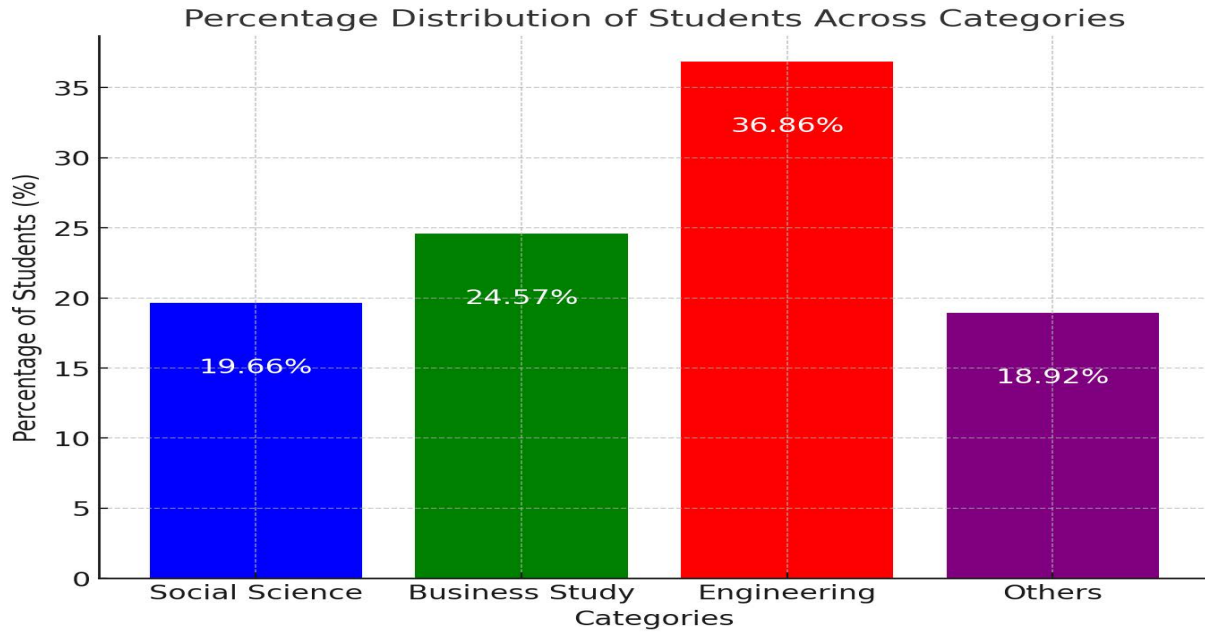
Figure 3 Department of Students

4.2.4 Academic Year

With the data being circulated among many social media platforms like facebook, messenger, whatsapp and email, students in the final year showed interest in contributing in research unlike the first year with 9.4 percent. Second year with 18.6 percent, third year with 22.8 and lastly 14.0 from graduate students.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1st Year	29	9.4	9.4	9.4
	2nd Year	57	18.6	18.6	28.0
	3rd Year	70	22.8	22.8	50.8
	4th Year	108	35.2	35.2	86.0
	Graduate/ Postgraduate student	43	14.0	14.0	100.0
	Total	307	100.0	100.0	

Figure 4 Academic year

4.2.5 Socio-economic

To understand the nature of students, their upbringing and its effects on quality of education, it was necessary to know the socio-economic background of individual students. With the respondent 32.57% from upper middle income, 57.65% from middle income, 8.47% from lower income and the rest 1.30% from the high income. The level of income is directly proportional to the quality of education and the perceptions of individuals in many ways.
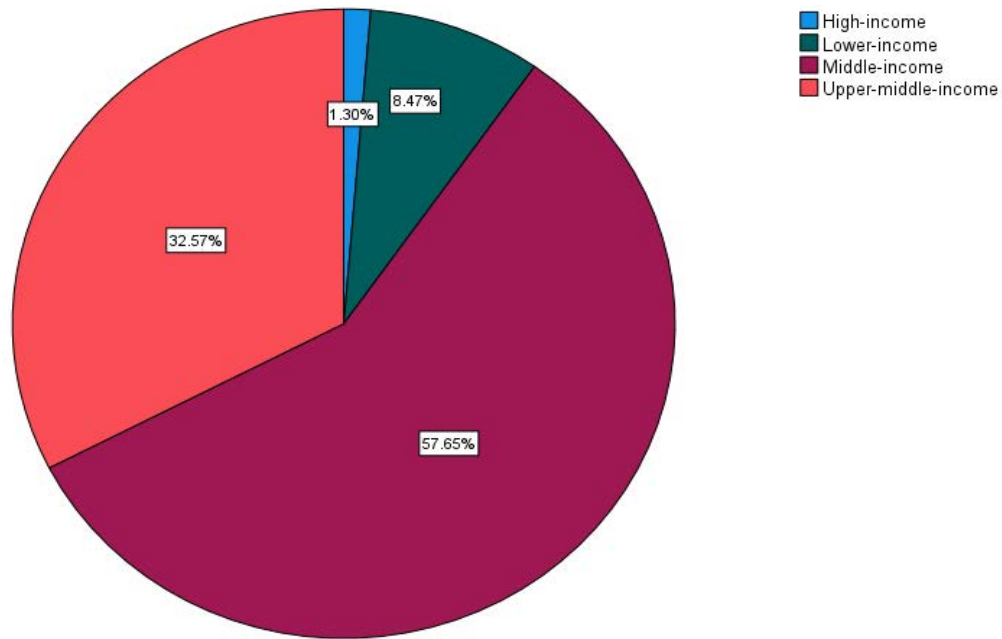
Figure 5 Socio-economic

4.2.6 Family Education

Not only is the socio-economic background important, but it is also important to understand the upbringing of individual students. Having an educated parents and family highly impacts the life of a student starting with the living, learning and getting an insight. In this survey, there are families (parents) who graduated with a degree or higher with 44.6 percent, the family who completed high school with 15.6 percent, family who attended non formal education with 10.7 percent and family who completed undergraduate with 25.7 percent. And few didn't want to share making it the rest of the percent.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	.3	.3	.3
	Graduate degree or higher	146	47.6	47.6	47.9
	High school	48	15.6	15.6	63.5
	No formal education	33	10.7	10.7	74.3
	Undergraduate degree	79	25.7	25.7	100.0
	Total	307	100.0	100.0	

Figure 6 Family education background

4.2.7 Schooling Prior University

51.14 percent of respondents attended private school before joining BRAC University, while 40.39 percent went to public school, few went to international school making 7.49 percent, few went to cantonment and Dhaka City College with the same percentage of 0.33 percent and rest joined both the public and private school. This shows that the majority of the respondents went to private school, opening the bigger picture of quality of education.
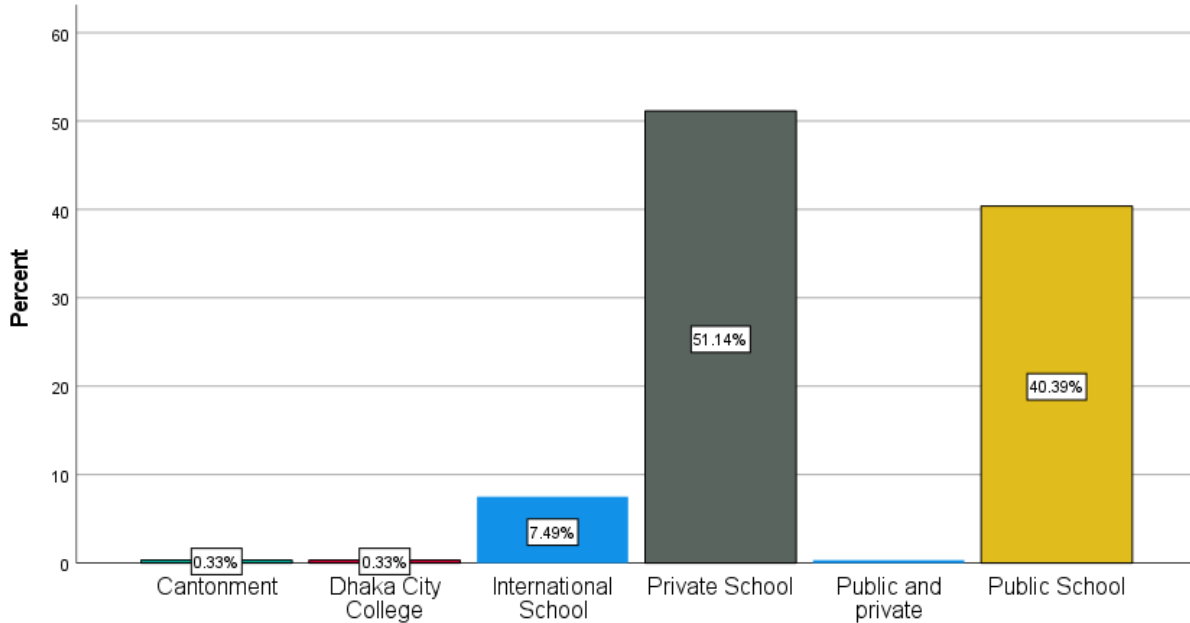
Figure 7 Schooling prior University

Demographic data on age, department, academic year of study, socio-economic background, family education, and school prior to university can be framed together within Bourdieu's Practice Theory, informing how one's dispositions, behaviors, and perceptions are provided through their habitus, capital, and field (Edgerton & Roberts 2014). The higher response rate from female students, 58.31%, can be framed through habitus in which societal norms and expectations were reflected. Bourdieu argues that habitus is shaped by gender roles that may predispose women to be more conscious of environmental and sustainability issues (Lamont & Marcel, 1992, p. 213). This is supported by research indicating that women tend to have stronger pro-environmental attitudes due to their social upbringing and the roles they traditionally occupy in society (Wuyts, 2019). Hence, their engagement in CE could be said to reflect the socially constituted habitus of value caring, preserving, and sustaining. The mixed background of BRAC University students gave insights into how these factors affect their engagement with the principles of a circular economy. For example, the dominated structure of the students in the age group 21-

23 years may mean that most of them are in their final years of university, which insinuates that after all those years of academic and social experiences, their habitus has already been well-settled, hence more mature to tackle sustainability issues. These students might have developed an even greater awareness of environmental issues due to increasing educational capital through coursework and university activities.

Socio-economic background significantly influences students' capital, particularly economic and cultural capital, which affects their engagement with sustainability practices. Students from middle-income families (57.65%) may have a habit shaped by resource-conscious behaviors, such as reuse and recycling, learned from their families. In contrast, students from higher socio-economic backgrounds might possess more economic capital to invest in eco-friendly products or participate in sustainability activities that require financial resources ((Alexander, 2000). The influence of socio-economic status is evident in how students from different financial backgrounds perceive and engage with CE, as those with more resources may be better positioned to practice sustainability.

Students from different departments may vary in their application of CE principles according to the fields they enter. It is observed that students studying in departments like Social Science and humanity based on the orientations of the academic fields are more prone towards environmental issues and will have more cultural capital on issues of sustainability, whereas the students in other disciplines such as business and engineering maybe less exposed to CE unless integration of courses is performed (Alexander, 2000). The difference in the academic year also plays a role, as final-year students have presumably built up more knowledge and social capital through longer engagement with the university's initiatives on sustainability compared with their

younger colleagues. This is reflected in how habitus is developed and reinforced over time through continuous interaction within the academic field (Reay 2010).

The education level of students' families and their prior schooling also contribute to the shaping of their habits (habitus) and cultural capital. Students whose parents have higher education levels are more likely to have been exposed to discussions about sustainability and environmental issues from an early age, reflecting a habitus that values knowledge and environmental responsibility (Payne, 2009). Similarly, the students coming to BRAC University from private or international schools may have received a better sustainability education; therefore, they have more valuable cultural capital in environmental matters than those coming from public schools. These differences in capital and fields of prior education shape how students perceive and engage with the circular economy at BRAC University.

4.3 General Awareness of Reuse and Recycling

4.3.1 Awareness Reuses and Recycling

The table below illustrates the frequency of reuse and recycling of certain materials by the students at BRAC University. As many as 26.7% of the students reported always reusing and recycling. This reflects that over a quarter of the participants in the survey reported high levels of commitment to sustainable behaviors. In addition, 24.8% reported that they often reuse containers, clothes, and electronics; thus, nearly half of the surveyed subjects apply some kind of reuse in their lives.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always	82	26.7	26.7	26.7
	Donating or selling items you no longer use.	46	15.0	15.0	41.7
	Never	2	.7	.7	42.3
	Purchasing second-hand or recycled products.	20	6.5	6.5	48.9
	Rarely	57	18.6	18.6	67.4
	Recycling paper, plastic, or other materials.	24	7.8	7.8	75.2
	Reusing items (e.g., containers, clothes, electronics).	76	24.8	24.8	100.0
	Total	307	100.0	100.0	

Figure 8 Awareness on Reuse and Recycle

On the contrary, the actual practice of donating or selling items that are no longer useful is at 15% as a reuse strategy, while 7.8% are into material recycling such as paper, plastic, and other materials. This therefore insinuates that while reuse activities are more comparable, the recycling behaviors remain rather low in relation to the examined student population. Interestingly, 6.5% of the students occasionally buy second-hand or recycled products. A minority, 0.7%, reported never practicing any form of reuse or recycling. Another 18.6% of the respondents answered that they rarely practice these activities; this percentage shows a very large group with minimal engagement with the sustainable behaviors.

4.3.2 Motivation towards reuse or recycle

With regard to the motivations of the respondents, the most significant category seems to be those-11.40%-motivated by "Saving money" and "Social responsibility." The options for the question related to motivations, which allows the respondents to choose more than one option, are:

environmental concern, saving money, social responsibility, convenience, university initiatives-like recycling bins and awareness programs, and others. This might suggest that one common motivation seems to be saving money but still being environmentally friendly. On-campus recycling programs and publicity also tend to be strong influencers, as they fall under more than one category listing. Other motivations that take up less space on the graph include "Other" or combinations involving fewer elements. This suggests that while these are valid reasons, not as many people are motivated due to them when compared with other combinations. The majority of the respondents stated that environmental concern and its convenience to reuse and recycle motivates them from being environmentally conscious.
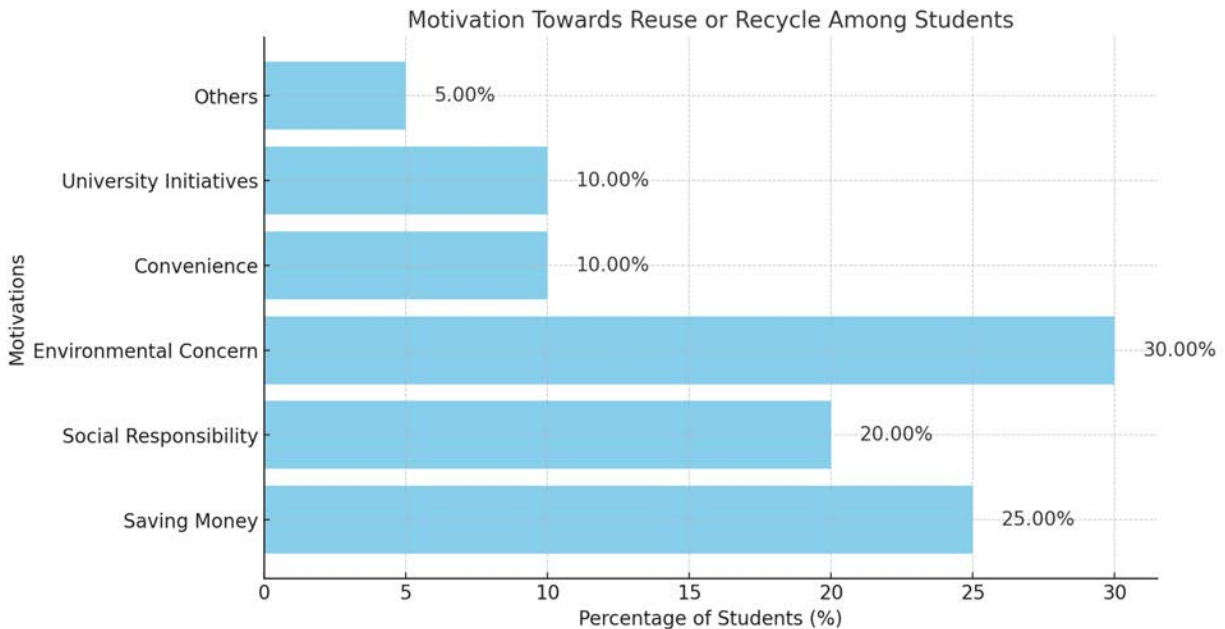

Figure 9 Motivation towards Reuse and Recycle

4.3.3 Effective recycling initiative by university

About 37.13 percent of students believe that the initiative of BRAC University in terms of recycling to be neutral means it is neither effective nor the worst. But then there is 31.92 percent who believe it to be somewhat effective, 14.66 percent stating it is somewhat ineffective, 8.14 percent believing it to be very effective and the rest 7.82 percent stating it to be very ineffective. This represents that the student within the campus is not aware of the initiatives and policies placed to promote both environmental related issues and the opportunity available to pursue a circular economy.

Figure 10 Effective recycling initiative by BRAC University
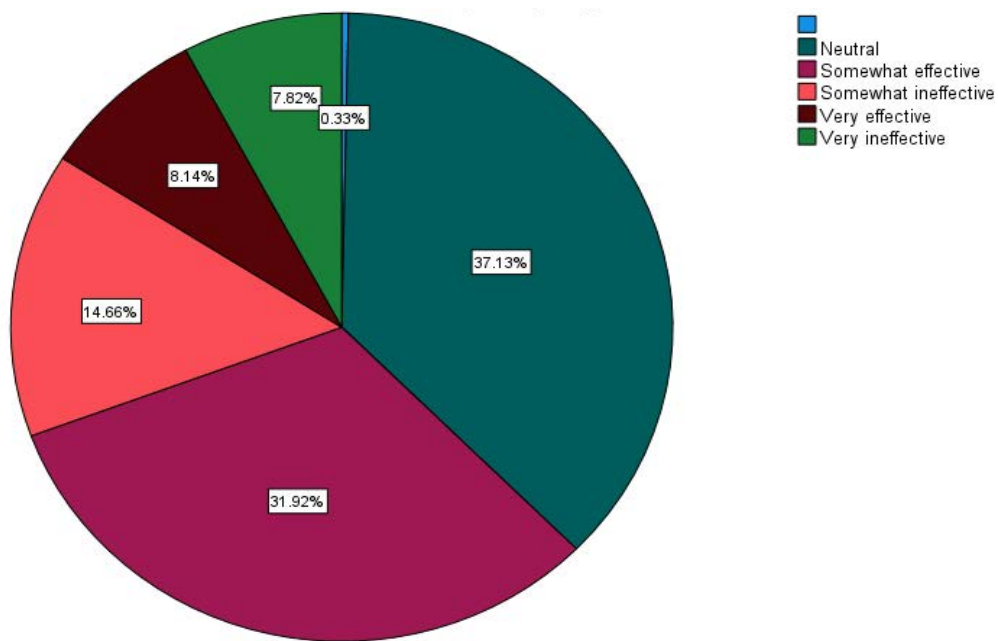
As Bourdieu (1977) explains, habitus is composed of the schemes or dispositions that organize behavior; thus, in the case of students who often reuse or recycle something, they probably do this as a practice because it was instilled in them culturally through family, previous education, or culture. The results indicated that 26.7% of students always engaged in reuse and

recycling, while 24.8% do it often, hence proving a satisfactory level of internalization by a significant student body within the institution. However, for the 18.6% of students who rarely recycle, their habitus may not have been influenced through environmental practices, possibly because they have not been widely exposed to education on sustainability or such behaviors are not emphasized in social and academic circles.

The pie chart that shows what motivates students to reuse/recycle shows, through it, the role of capital in shaping their actions. Bourdieu (1984) describes how different forms of capital—economic, cultural, and social—inform individual behavior (Flemmen et al., 2017). In the case of BRAC University students, motivations like "saving money" and "social responsibility" reflect how both economic capital (financial benefits from reducing waste) and cultural capital (a sense of social and environmental responsibility) influence their decisions. For many students, environmental concern is also a strong motivator, indicating a higher level of cultural capital around sustainability issues. On the other hand, students who are less motivated by environmental or social factors may lack this form of cultural capital, which would otherwise encourage engagement with circular economy practices (Goldthorpe, 2007).

Finally, the mixed view of the effectiveness of the university's recycling programs underlines a disconnection between the university's policies in terms of sustainability as a field and the experiences of the students within that field. That 37.13% of the students considered university initiatives as being neutral in their effect, while a scant 8.14% saw them as very effective, may well indicate that institutional efforts are not yet fully habituated within the structure of feeling or disposition in social practices of its students. Success in initiatives at any field, according to Bourdieu (1990), is related to the degree at which the actors-in this case, students-align their dispositions and capital with the structures of the field. BRAC University might want

to work on increasing visibility and communication about the recycling programs so that students will not only recognize them but also respect these sustainability pursuits and, by extension, encourage an environmental habitus.

4.4 Introduction to Circular Economy

4.4.1 Circular Economy before today. How familiar were you?

The results of the survey indicate a knowledge gap in the concept of the circular economy among BRAC University students. This means that about a third, 34.53%, described themselves as "not at all familiar" with the term, and only 10.10% reported being "very familiar" with the term. This depicts that the concept of the circular economy is not well understood in the student body. However, once the definition was given, 55.05% of respondents claimed it was "somewhat" or "slightly" familiar, once connected with their previous reuse and recycling practices. In other words, even though students might not overtly be recognizing the term "circular economy," many are already performing behaviors that align with the principles. This thus gives an opening to bridge this knowledge gap by relating education of CE-related issues to more familiar sustainability practices and enabling students to understand the wider framing of their actions.
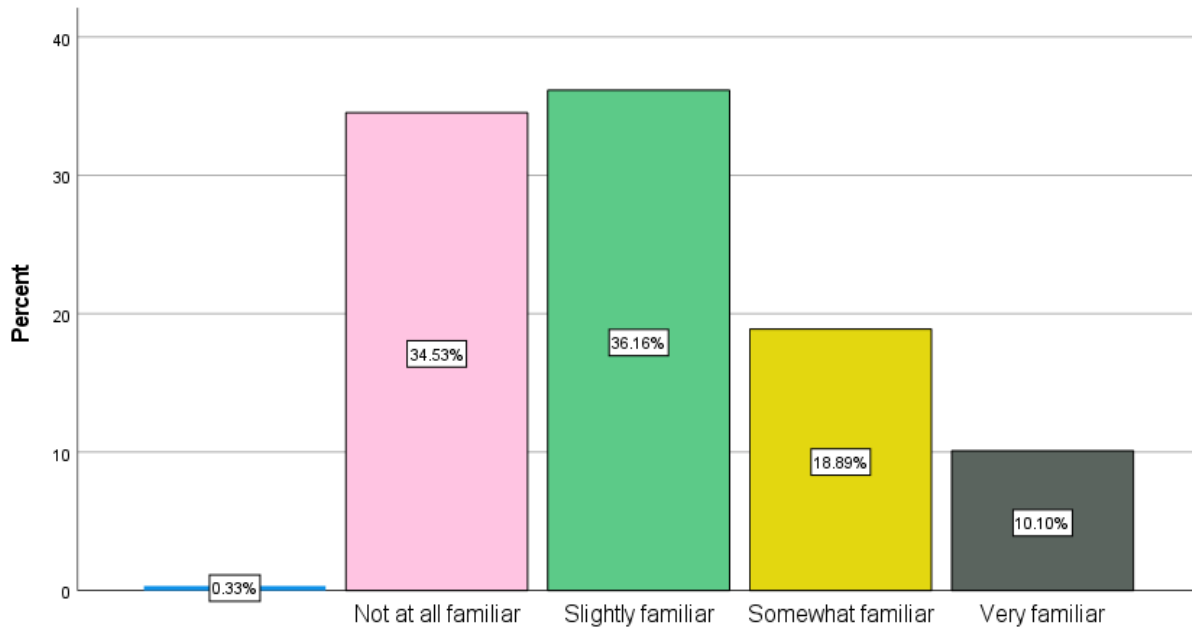
Figure 11 Prior familiarity with the concept of circular economy

4.4.2 Relevant of concept

About 47.23% believe that the notion is very relevant, that is, they are deeply convinced of the importance of the subject under consideration. Conversely, 32.57% believe the notion is somewhat important. In this case, it means these respondents find the notion relevant but do not feel as enthusiastic as responses suggesting "very relevant" may be. While 9.45% find the issue to be somewhat important, thus acknowledging the fact to a certain extent, perhaps not with total conviction about its importance. Fully another 8% or so of the respondents say the concept is irrelevant, indicating a minority view that it is unimportant to them. A very small fraction of the responders fall into the category of less than 1%, describing the concept as extremely relevant because, in their opinion, it is absolutely important. This is clearly the smallest category. There is another category of "Other" to allow a few responses where the thoughts do not fit neatly into the preset categories or where the views on the relevance of the concept are complex. It is a final point

that, while the majority of the subjects consider the concept to be relevant or highly relevant, the minority do not. Understanding the reasons for these diverse perceptions might suggest how the concept will be viewed and what its potential impact might be.
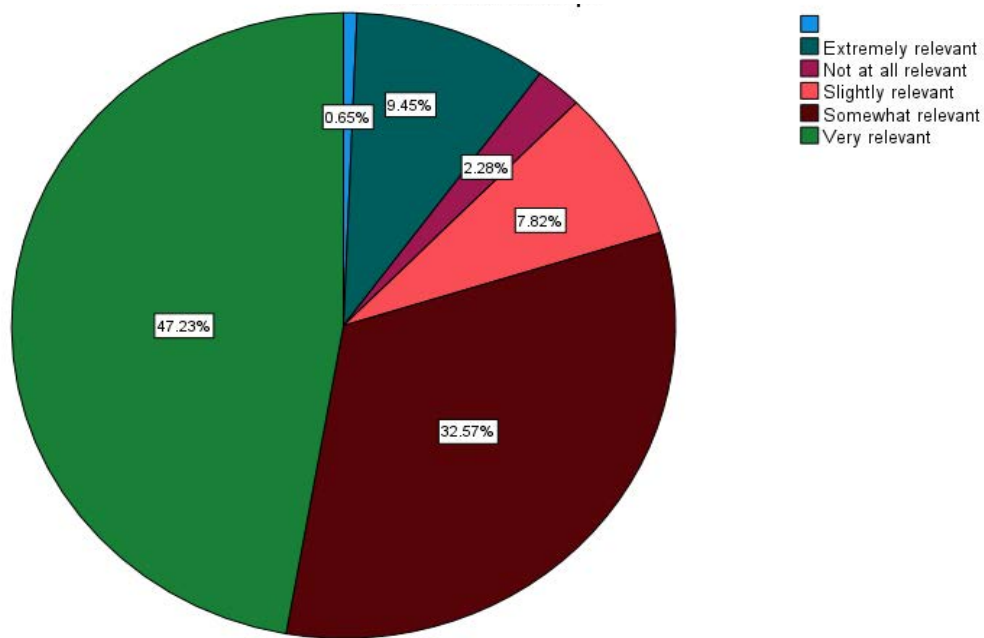
Figure 12 Relevant of Concept

The fact that 34.53% of the students responded that they were "not at all familiar" with the term "circular economy" prior to the study covers a deficiency in their habitus where sustainability practices like reusing and recycling are well practiced but not brought into explicit connection with the wider framework of CE. Following Bourdieu (1995), habitus is developed from exposure and practice within particular social contexts. For many students, their sustainable behaviors may have developed through cultural and social capital gained from family or school but these actions are not being framed within the language or concepts of CE. This would explain that, while sustainable practices are part of daily life, the academic or institutional language of CE hasn't been

internalized, and more formal educational input should be given about the topic in the university setting.

The pie chart above, on students' perceptions of the relevance of the Circular Economy concept, further illustrates how capital influences their engagement with sustainability. It is here that nearly half of the students consider CE "very relevant" (47.23%), which would seem to reflect their accumulated cultural capital on questions of sustainability, no doubt molded by exposure to environmental education, media, and social discourse. Students in this group could be said to have a fairly well-developed habitus, one indeed consonant with the principles of CE, even if they had never heard the actual term. On the contrary, the small minority of students-8%-who find CE irrelevant would have lesser access to the sustainability-related cultural capital; their habitus may be less concerned about the environment or even recognize the importance of sustainability for their social or academic life. This gap suggests that while many students are open to engaging with CE, there remains a need for the university, as a field, to provide more structured opportunities for students to develop the capital necessary to fully embrace and understand the concept (OECD, 2008).

4.5 Perceptions of University Policies and Practices

4.5.1 How well does the university promote practices aligned with the circular economy?

Only 0.3% claim to have a very good understanding of Circular Economy. This is followed by 51 respondents, 16.6%, who perceive themselves as having a good understanding of the concept. The remaining 142 respondents, 46.3%, consider their level of knowledge about the circular economy as average. This suggests that while they have a general idea of the circular economy, there may still be gaps in their knowledge or depth of understanding. Whereas 26.4%,

can only understand the concept minimally. The remaining percentage of 9.4% show they do not understand the concept at all. Whereas a majority of the students have at least a moderate understanding of Circular Economy concepts from their university, there is quite an evident need for enhanced awareness or education, as a substantial percentage either have minimal or no understanding at all. It would be useful for the university to focus on strengthening its educational initiatives around Circular Economy principles.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	.3	.3	.3
	Extremely well	3	1.0	1.0	1.3
	Minimally	81	26.4	26.4	27.7
	Moderately	142	46.3	46.3	73.9
	Not at all	29	9.4	9.4	83.4
	Well	51	16.6	16.6	100.0
	Total	307	100.0	100.0	

Figure 13 Effectiveness of University promotion and practices aligned with the circular economy

4.6 Importance of circular economy in BRAC

55.37 percent of students rated it as very important, 19.54 percent rated it extremely important and 20.85% rated moderately important for BRAC University to adopt circular economy principles. While the rest consider it to be slightly important. And the 0.65 percent believes it to

be not important. The most requested initiatives were enhanced recycling programs (70%), workshops on reusing and repairing items (60%), and policies to reduce single-use plastics (50%)."
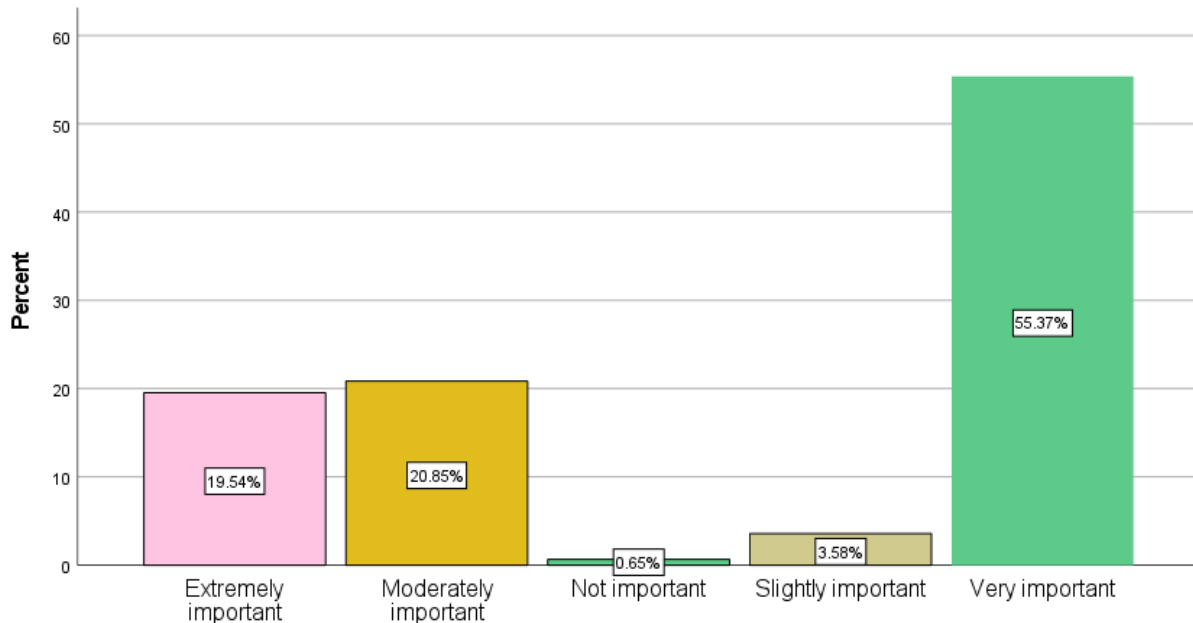
Figure 14 Importance of circular economy in BRAC University

4.6.3 Initiative of BRAC University

While asking the respondent about what initiative they like to see BRAC University implement to promote circular economy, with the options of selecting more than one answer, from enhancing recycling programs, workshops on reusing and repairing items, policies to reduce single use plastics on campus, providing incentives to buy and sell used item and lastly collaborate with student clubs to raise awareness; many choose the first three. The first three would be enhancing recycling programs, workshops on reusing and repairing items and lastly framing policies to reduce single use plastics on campus. And this indicates the guinean concern of students when it comes to the progress and effectiveness of the present policies.

Initiative	Percentage of student responses
Enhancing recycling programs	70%
Workshops on reusing and repairing items	60%
Reducing single-use plastics	50%
Providing incentives to buy/sell used items	N/A
Collaboration with student clubs	N/A

Table 2 Initiative of BRAC University

4.6.4 Impact of Circular Economy in University policies

Although many students aren't aware of the available courses and opportunities in the university, almost 50 percent of the students believed that the concept of circular economy can bring significant impact given the priority. While 28.66 percent believes that it can at least bring in moderate impact, another 10.10 percent believes that it plays a major impact. 7.49 percent believes that it can contribute slight impact and the 3.26 percent believes that it won't have an impact in any way. And the last 1.30 percent is still not sure about the situation.
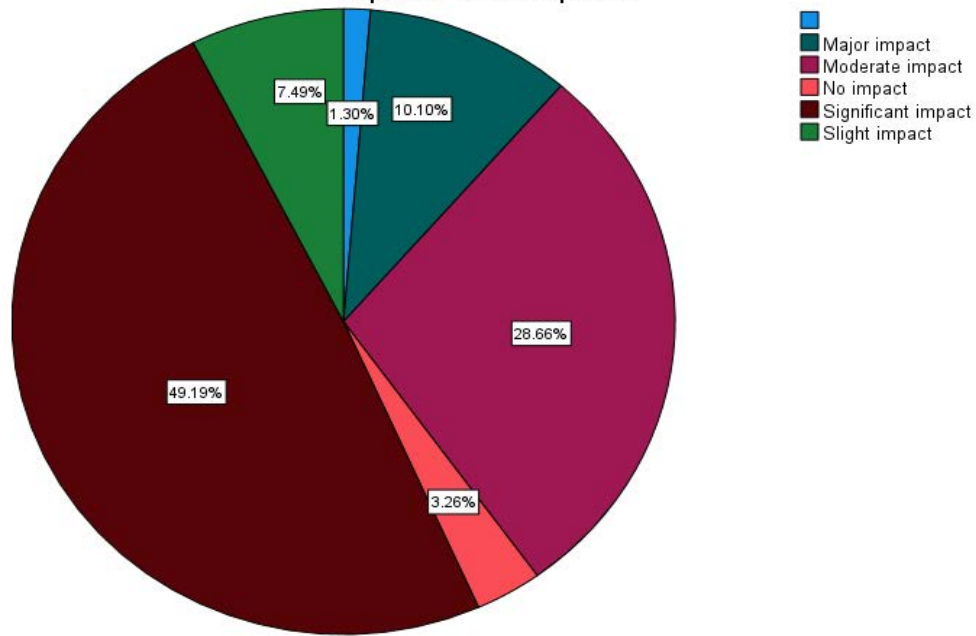
Figure 15 Impact of circular economy in BRAC University

Within the sample, 46.3% of students rated their understanding of the university's promotion as "average," which might suggest that some awareness exists, but it is not deeply inoculated into their habitus-that is, the ingrained dispositions guiding behavior. This would suggest that the university, as a field, has not yet succeeded in embedding principles of CE into the daily practices and values of its student body. What Bourdieu's argument is that the field herein described-that is, the university's policies and practice-should consistently shape the habitus of its participants through clear, visible, and actionable initiatives. It has been argued by Grenfell, 2009, that the low level of engagement on the part of students with the CE policies indicates incomplete transmission of the *cultural capital* comprised of knowledge and values related to sustainability from the institution to the students.

A high ranking of importance of CE at BRAC University, as evidenced by "very important" responses from 55.37% of students, may reveal an area of congruence between students' changed

habitus and the goals of the institution. They would consequently understand sustainability and therefore have more cultural capital related to environmental responsibility, thus allowing them to consider CE significant in universities' policies. However, the fact that most students perceive university initiatives, like recycling programs and policies of reducing single-use plastics, as being only somewhat effective creates a gap between the policies and the students' real experiences within the university field. Seblos et al., 2023. For instance, while such initiatives do exist, the low salience or a lack of embedding within students' academic and social practices provides less than the accrual of social capital necessary for facilitating collective action. This is also indicative of the gap existing in the level of change CE could effect at the university policy level, as stated by 50% of the students. However, without a stronger connection between the university's field and students' habitus, these policies may not reach their full potential in shaping a sustainability-oriented campus culture (Ivemark et al., 2021).

4.7 Role of Student Clubs and Initiatives

4.7.1 Student participation in clubs/ organization

66.45% Of students answered No, meaning they do not belong to any student clubs, while 33.22% said Yes, which means they are into student clubs.

While the rest 0.33 percent did not respond or selected none of the above as an option. The highest percentage, 66.45%, of the students are not affiliated with any club. This might suggest the following reasons like lack of awareness or interest in student clubs, possible barriers to joining clubs, such as time constraints or lack of relevant options or a disconnect between student activities and student engagement at the university. And the 33.22 percent who are involved in clubs represent a minority, but still a notable portion. These students might have better access to peer

networks, extracurricular development, and possibly more exposure to CE initiatives if any clubs focus on sustainability. The less-than-small percentage of students who did not answer might represent minimal indecision or confusion about the question or a low likelihood of survey fatigue or misunderstanding regarding club membership.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	.3	.3	.3
	No	204	66.4	66.4	66.8
	Yes	102	33.2	33.2	100.0
	Total	307	100.0	100.0	

Figure 16 Students participation in clubs

Low club involvement might be a contextual element in analyzing the perception of the circular economy among students. If any activity or awareness about CE is driven through student clubs, the majority would likely not be covered. This data may suggest that to increase awareness of CE, broader approaches beyond club activities might be necessary, such as classroom integration or campus-wide campaigns.

4.7.2 Does the club promote awareness of the circular economy?

Among them, 1.30 percent chose none of the above, 25.73 percent agreed to the fact that clubs help promote the circular economy and 21 percent disagreed with the statement. And 51.47 percent responded maybe, which shows uncertainty.
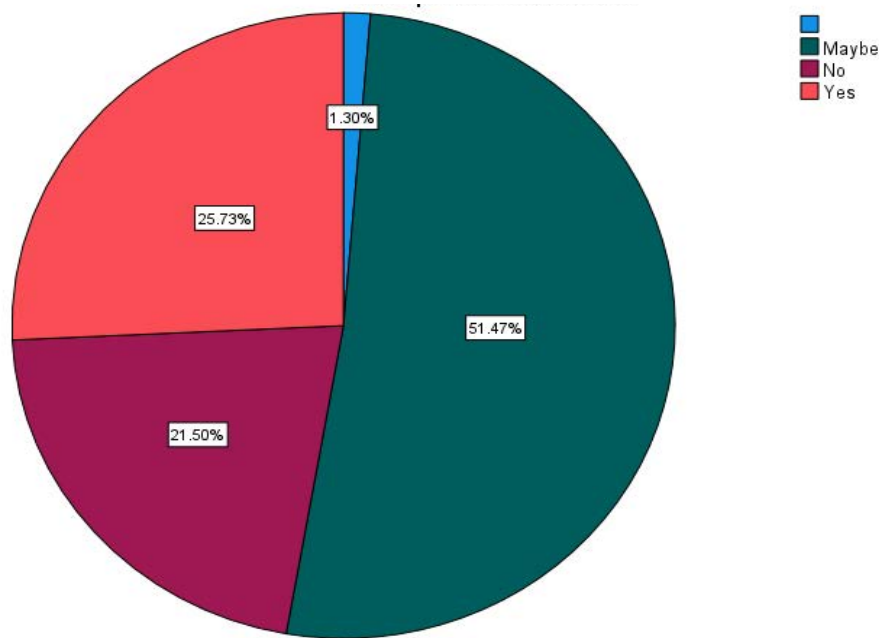
Figure 17 es the club promote awareness of the circular economy

A majority of the students remained uncertain as to whether clubs are actively promoting the circular economy. This could indicate a lack of clear view on the activities of the clubs in terms of sustainability and circular economy, or maybe CE-related activity needs to be more clearly communicated or promoted within clubs, or students do not understand what constitutes CE, which may contribute to indecision. One-quarter of the responding students believe that clubs are helpful in advancing CE. This group likely considers club involvement to be a useful platform for efforts in sustainability. These students might have been directly engaged with clubs or projects focused on sustainability or had a glimpse of the activities of CE within club activities. The 21% who disagreed thus showed there was an apparent gap in, or dissatisfaction with, the present level of

clubs promoting CE. It may mean that the clubs are not giving enough attention to sustainability issues or that CE is just not given a prominent place on the agenda. This can also be interpreted as the current CE efforts not being effective or noticed. The very low number of students choosing None of the above indicates most had an opinion, even if it was unsure.

The large uncertainty, further divided between agree and disagree, indicates that more can be done to improve awareness of circular economy activities among student clubs. This can also help the university understand whether the currently organized club activities align with the university's goals on sustainability. It may further indicate a need for more explicit CE-related programming or partnerships of clubs and university sustainability initiatives. A high percentage of "Maybe" answers signals a very good potential to improve upon communication of CE efforts or to develop new initiatives within the clubs that focus on the circular economy.

4.7.3 Curriculum or courses on circular economy in BRAC University

78.18 percent of students state that there is no course nor curriculum on the circular economy. Where 18.24 percent of students know that there are courses on this sustainable concept. Many respondents the courses offered to be from Anthropology, Biotechnology, Economics, and Environment courses. While the rest 3.58 percent of students seem clueless about the courses offered outside their own department although few courses outside the department come out to be very useful and impactful. This shows that the students are very much into spoon feeding rather than exploring courses outside its own department.

Response	Number of students (%)

No	78.18%
Yes (Anthropology, Biotechnology, Economics, Environment courses)	18.24%
Clueless about courses outside their department	3.58%

Table 3 Course on circular economy

4.7.4 Would students like to participate in university programs that promote a circular economy?

Most of the students showed a sharp interest in university programs that provide an opportunity either to learn about or work with circular economic principles. It thus is a good opportunity for the university in acting upon this interest through developing or increasing CE-related programs, workshops, or campaigns. This also tends to mean a high awareness or interest among the students on issues related to sustainability and circular economy, though not being wholly involved in them. Quite a reasonable number of students responded with "Maybe", which could suggest interest but perhaps a lack of clear understanding of what the CE programs entail. This response also suggested that students would need detailed information about the benefits or content of these programs to make a decision. External factors like time, commitment, or relevance can also be taken as hindrances for this confused state of mind. It is encouraging that only a small percentage declined outright. From this, it would follow that the general negative sentiments about the programs of CE are not as many.
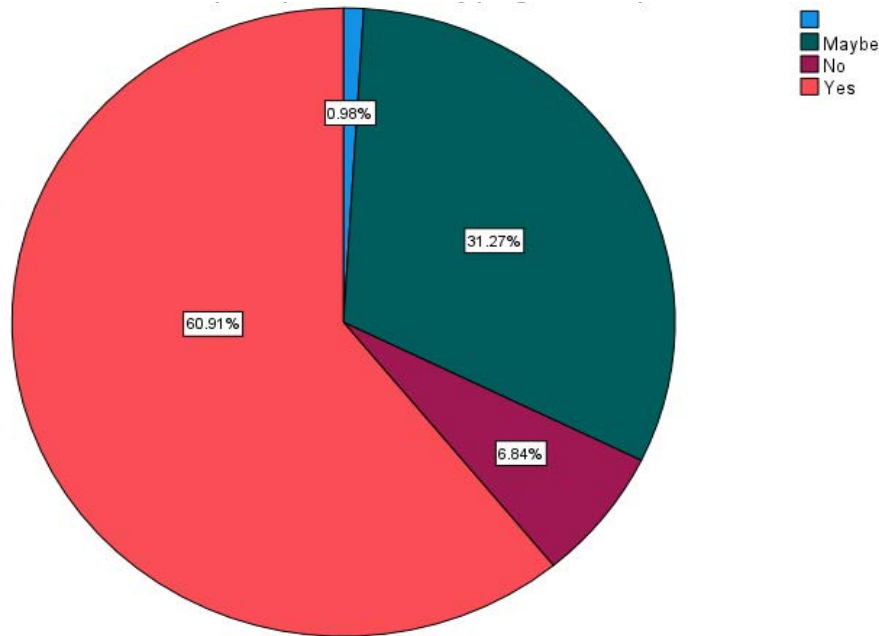
Figure 18 Student willingness to participate in university programs promoting the circular economy

This pie chart reflects that a majority of the students are open to contributing or engaging in the CE programs, which is very encouraging for the future of sustainability initiatives at the university. It is on this enthusiasm that the university can build, while also taking into consideration the concerns of those who are unsure or disinterested, to maximize the engagement in the circular economy effort.

Practice Theory and habitus is the set of dispositions individuals acquire through their experiences, which, in this case, includes involvement in student clubs and organizations (Bourdieu, 2005). The pie chart shows that 66.45% of students are not involved in any clubs, which suggests that their habitus does not strongly incorporate collective or organized sustainability efforts. This can be interpreted to mean that a lack of social capital—the networks and relationships that promote engagement with collective activities—is preventing them from being exposed to the principles of CE. A comment that without the development of social capital, individuals will not participate in group activities, and here fewer students are taking advantage of the available

opportunities for engaging with sustainability through student clubs (McDaniel, 2004). This can also be indicative of possible failures in communication by these clubs and the ease with which students can become engaged in such activities.

Further, the pie chart shows that 51.47% of students are uncertain whether clubs actively promote CE; this would mean a lapse in transmission of knowledge, competencies, and values or cultural capital relevant to sustainability. The field of the university and associated clubs should be those places where students are accumulating cultural capital around sustainability. As Norton et al. (2022) suggest, however, the uncertainty of students suggests that these clubs are not visibly or effectively promoting the awareness of CE. This is a disconnect in the club activities and student awareness of the need for better integration of sustainability into the agenda of these clubs. This is further exacerbated by the fact that 78.18% of the students reported no formal curriculum or courses on CE, which hampers the building of cultural capital related to CE in both academic and extracurricular fields.

Finally, the fact that most students are willing to take part in CE university initiatives but are not currently doing so depicts how field and capital is influential in setting trends of behavior. Although students possess an interest in sustainability, they may lack the capital (whether social, cultural, or symbolic) that facilitates active participation in these programs. The university, as a field, must bridge this gap by offering more structured opportunities for students to gain social capital through clubs or group-based sustainability projects, and to develop the cultural capital necessary to fully engage with CE principles (Cotter, 2019). By aligning university club activities with university sustainability initiatives and by allowing students to make stronger connections with these programs, BRAC University can help create a stronger sustainability-oriented habitus in its student body.

4.8. Additional Comments

Several respondents suggested the need for more practical workshops and stronger collaboration between student clubs and university administration to enhance awareness and engagement with circular economy practices

Theoretical framework and its application to findings.

Pierre Bourdieu's Practice Theory suggests interaction between habitus, capital (social, economic, and cultural), along with social fields that people happen to be part of, drives human behavior (Correia et al., 2021). This theory can explain how BRAC University students relate to CE practices according to their respective social backgrounds and previous schooling. Students' dispositions toward sustainability, for instance, recycling or reusing, are shaped by their habitus, which in turn is influenced by family background and socio-economic status. This might include middle-income students with resource-aware habits learned through a home with scarce resources. This is reflected, for example, in the high number of students who would reuse and recycle despite their limited familiarity with the formal concept of CE. Additionally, cultural and social capital play significant roles; students from more educated families tend to be more aware of sustainability practices, while low club participation suggests a gap in social capital that could limit broader engagement with CE initiatives.

The Theory of Planned Behavior (TPB) combines individuals' attitudes, subjective norms, and perceived behavioral control to lead to a certain intention and behavior; therefore, it helps explain student engagement in CE practices (Swaim et al., 2013). The findings from the survey indicate that a majority of students are motivated by concerns about the environment and social responsibility; thus, reflecting positive attitudes toward sustainability. However, a large number of the students remained undecided as to what role student clubs play in promoting CE initiatives, indicating a weak social norm setting for sustainability issues in the campus. Besides, the mixed perception about the initiatives taken by BRAC University indicates that students may perceive constraint in getting themselves involved with the aspects of CE practices.

If students perceive barriers-such as inadequate infrastructure or institutional support-they are less likely to act on their positive attitudes and social pressures.

The effectiveness of university policies related to CE—such as recycling programs and sustainability workshops—can also be understood through both theories. While Bourdieu's Practice Theory emphasized the fact that policies are poorly communicated or not integrated into the daily lives of students, they may fail to influence behaviors. This is echoed in the finding whereby, although a majority of students rated principles of CE as important, they perceived them to be poorly implemented. TPB puts forward that when students do not feel the university policies that will enable them to practice CE, their perceived behavior control is weakened and thus results in lower engagement (Maulana et al., 2024). With better education on increased infrastructure for recycling and more well-defined social norms, BRAC University can help bridge these gaps and build a more sustainable campus culture from the perspective of a circular economy.

Chapter 5: Conclusion

5.1 Overview and Key Findings

This thesis has explored perceptions about the circular economy among students at BRAC University and analyzed the university policy aligned with the principles of the circular economy. The findings revealed a mixed level of awareness and engagement with the concepts of the circular economy; most of them practice the behavior of reuse and recycling without recognizing such contributions as being part of the circular economy. Although BRAC University has taken steps toward sustainability, such as developing an energy-saving policy, initiating a recycling program, the majority of its students still remain unaware or disengaged from its programs.

Demographic analysis revealed that there is a bearing of socio-economic background, previous schooling, and gender on students' engagement with the CE principles. On the other hand, the topics of sustainability were more engaging to the female students. This verifies other broader research evidence on gendered attitudes towards environmental issues. Students from higher socio-economic backgrounds had greater access to cultural capital that facilitated their understanding and practice of sustainability. Results also showed a distinct student interest in more CE-related educational opportunities, such as workshops, enhanced recycling programs, and single-use plastics reduction policies. However, the limited number of formal courses in CE and the marginal engagement of student clubs in promoting sustainability indicates that there is significant room for improvement in effectively integrating CE principles within both academic and extracurricular programs.

This therefore calls for the need for not only BRAC University to make more upgrades in terms of sustainability but also increase awareness and participation among students. With an overall incorporation of the CE principles into the curriculum, and with strengthened connections

between students and the university's sustainability mission, there can be an increased inculcation of a culture of environmental responsibility and leadership among its students.

5.2 Recommendation

BRAC University should implement specific courses or modules on circular economy principles across various departments to enhance students' understanding of sustainability. These courses would equip students with practical skills to apply circular economy concepts in their personal and professional lives. Additionally, sustainability concepts could be integrated into existing courses in business, engineering, and social sciences to promote interdisciplinary engagement with circular economy practices, thereby broadening students' perspectives on sustainability issues.

BRAC University can arrange interactive workshops, seminars, and student projects on recycling programs and energy-saving policies that will raise awareness among people regarding sustainability issues. Such promotional campaigns need to involve a wide group of students who lack much awareness of the circular concept. It is through such active engagement of students that the university will be able to plant a culture of sustainability among them and highlight the significance of circular economy practices among the students.

The university should also encourage student clubs and organizations to take the lead in the popularization of circular economy practices. Funding, resources, and opportunities for collaboration with BRAC University's external sustainability organizations can make for crucial projects. This would widen the circle of sustainability-conscious students and build higher involvement in university policy as regards sustainability by establishing a particular student club or task force on circular economy themes. More importantly, enhanced recycling and waste management, clear instructions on waste separation, and actual policy enforcement to reduce

single-use plastics will complement the campus environment in terms of sustainability. Moreover, the monitoring and follow-up of the sustainability initiatives will be further supported by continuous improvements and student involvement in the development of sustainable behavior.

5.3 Limitation of research

The limitation in this thesis may be found in the relatively small sample size of the respondents, which might not represent the population of BRAC University students. The responses were limited to a certain group of students who had access to online platforms, hence it is very likely to present a potential selection bias whereby it was more probable for students highly engaged with digital tools or social media to participate in the study. This could eventually result in the overrepresentation of certain demographics or perspectives, such as students from urban, middle-income backgrounds, representing those from rural areas or with lower incomes. In effect, the findings do not comprehensively show the view of all students regarding the university's circular economy initiatives.

Another limitation is the fact that the nature of the study is cross-sectional; hence, it captures students' perceptions at one point in time. This type of approach doesn't take into consideration that attitudes or behavior can change as students go through their academic journey or new initiatives in sustainability are taken up by the university. This is apart from the fact that the research depends a lot on self-reported data, which are themselves susceptible to biases, such as social desirability bias, in which respondents overreport their engagement in sustainable practices. Evidently, a more comprehensive and longitudinal study utilizing an interview-survey qualitative-quantitative approach would lend a fuller and more detailed insight into how perceptions and behavior change among students over time in response to circular economy initiatives.

5.4 Further research

Further research on integrating CE principles into higher education institutions, in particular those in developing countries such as Bangladesh, may be addressed to an in-depth assessment of the effectiveness of university policy in pursuing sustainability. Longitudinal studies may be made to trace changes in the perception and behavior of students over time, whether or not institutional efforts like recycling programs, workshops, and policy changes bring about long-term changes in campus culture and students engaging in CE practices. It would further be worth determining how different departments or fields of study affect students' understanding and/or engagement in CE concepts to create a more tailored approach to integrating sustainability across different academic curricula.

The research might be directed at the potential of student-led initiatives and extracurricular activities to further circular economic practices. Valuable research would study how student clubs, organizations, and grassroots movements help raise awareness about sustainability and effect change in student behavior, and help appreciate how universities can support and scale such efforts. Lastly, research could examine the effectiveness of university partnerships with external stakeholders, including NGOs and industry partners, to develop a collaborative approach to CE education.

Moreover, this research may provide deeper insight into the ways in which circular economic principles might be embedded within university settings in a holistic way by expanding to include diverse stakeholders and initiatives involved in the process, therefore fostering a generation of environmentally conscious, proactive graduates.

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Appendices

Survey question

What is the Circular Economy?

The circular economy is an economic system aimed at minimizing waste and making the most of resources. It contrasts with the traditional linear economy, which follows a 'take, make, dispose model. Rather, it is concerned with the reuse, repair, refurbishment, and recycling of materials and goods already produced, hence creating a closed-loop system of lessened environmental impact, increasing sustainability.

Survey Description:

This questionnaire is part of my research study for my thesis, in which an assessment will be made regarding the understanding, attitude, and perception of students about the circular economy. It also seeks feedback on the current policy and initiatives that BRAC University is undertaking with respect to sustainability and circular practices. Your responses are very important to us in order to comprehend how well these concepts are instilled within the university atmosphere and how they can be further improved. Your responses will be kept confidential and used solely for academic purposes.

Section 1: Demographic Information

1. What is your gender?

• Male

• Female

• Prefer not to say

• Other:

2. What is your age?

●18-20

21-23

24-26

27 or above

3. Which department are you enrolled in?

•Social Sciences

* Engineering

*Business

• Other

4. What is your current academic year?

• 1st Year

• 2nd Year

• 3rd Year

4th Year

• Graduate/ Postgraduate student

5. Socio-economic background:

How would you describe your current socioeconomic status?

Definition: "By socioeconomic status, I mean the position of an individual or family in relation to others, based on factors such as income, education, occupation, and overall access to resources. This can influence the opportunities and living conditions one experiences."

• Lower-income

Middle-income

• Upper-middle-income

• High-income

6. Family Educational Background:

• No formal education

• High school

• Undergraduate degree

• Graduate degree or higher

7. Type of Schooling Prior to University:

• Public School

• Private School

• International School

• Madrasa

• Other:

Section 1: General Awareness of Reuse and Recycling

8. How often do you practice the following activities?

   - Reusing items (e.g., containers, clothes, electronics).

   - Recycling paper, plastic, or other materials.

   - Donating or selling items you no longer use.

   - Purchasing second-hand or recycled products.

   Options: Never, Rarely, Sometimes, Often, Always

9. What motivates you to reuse or recycle items? (Select all that apply)

   - Environmental concerns.

   - Saving money.

   - Social responsibility.

   - Convenience.

   - University initiatives (e.g., recycling bins, awareness programs).

   - Other: _____

10. How effective do you think the university's recycling initiatives are?

   - Very ineffective

   - Somewhat ineffective

   - Neutral

   - Somewhat effective

- Very effective

Section 2: Introduction to Circular Economy

11. Before today, how familiar were you with the term 'Circular Economy'?

   - Not at all familiar

   - Slightly familiar

   - Somewhat familiar

   - Very familiar

12. The concept of Circular Economy focuses on minimizing waste and making the most of resources. This includes practices like reusing, repairing, refurbishing, and recycling. How relevant do you think this concept is to the way you approach reuse and recycling?

   - Not at all relevant

   - Slightly relevant

   - Somewhat relevant

   - Very relevant

   - Extremely relevant

13. In your opinion, how well does the university promote practices aligned with the Circular Economy?

   - Not at all

   - Minimally

   - Moderately

- Well

- Extremely well

Section 3: Perceptions of University Policies and Practices

14. How important do you think it is for BRAC University to adopt Circular Economy principles

in its operations and policies?

  - Not important

  - Slightly important

  - Moderately important

  - Very important

  - Extremely important

15. Which of the following initiatives would you like to see BRAC University implement to

promote Circular Economy principles? (Select all that apply)

  - Enhanced recycling programs.

  - Workshops on reusing and repairing items.

  - Policies to reduce single-use plastics on campus.

  - Incentives for students to buy/sell used items.

  - Collaboration with student clubs to raise awareness.

  - Other: _____

16. How do you think incorporating Circular Economy principles in university policies can

impact your daily life and habits?

- No impact

- Slight impact

- Moderate impact

- Significant impact

- Major impact

Section 4: Role of Student Clubs and Initiatives

17. Are you a member of any student club or organization at BRAC University?

Yes

No

If yes, which club(s)?

Your answer

18. Do you think student clubs at BRAC University promote awareness about the Circular

Economy?

• Yes

• No

• Not Sure

• Maybe

If yes, mention here (which course)

19. Any curriculum or course that teaches on Circular Economy?

• Yes

• No

20. Would you participate in university programs that promote Circular Economy practices (e.g., workshops, campaigns, initiatives)?

   - Yes

   - No

   - Maybe

Additional Comments

Do you have any additional comments or feedback regarding BRAC University's approach to the circular economy?

Your answer

Summary

-58.31% of the respondents were female, showing higher female engagement with sustainability topics.

- The majority of respondents were between 21-23 years old, representing various academic majors and socio-economic backgrounds.

Socio-economic background

- 57.65% of them were from middle-income families, showing a significant positive relationship between socio-economic status and perceptions of CE.

General Awareness of Reuse and Recycling

26.7% of students always practice reuse and recycling, and 15% donate or sell unused items.

- A minority of students (0.7%) do not engage in any reuse or recycling activities.

Circular Economy Knowledge Gap

- 34.53% of respondents were unfamiliar with the term "circular economy," while only 10.10% were "very familiar."

- Despite not knowing the term, many students practice activities that fall under the CE umbrella through reuse and recycling.

Perception of Relevance of Circular Economy

47.23% of students believe CE is "very relevant," while 32.57% find it "somewhat important."

A small minority 8% consider the concept irrelevant to them.

University Promotion of Circular Economy

- Only 0.3% of the respondents reported having a "very good" level of understanding of CE.

- 46.3% rated their knowledge as "average," indicating room for improvement in CE-related education at the university.

Student Support for CE Policies

55.37% of the students responded that it was "very important" for the university to implement the principles of CE through the implementation of improved recycling programs, workshops on reusing/repairing items, among others.

Role of Student Club

66.45% of students are not a member of any student clubs, which may reduce the possibility of being exposed to CE initiatives. It means that 51.47% were uncertain whether clubs encouraged CE; therefore, communication or engagement about sustainability should be clear. Interest in CE Courses: 78.18% stated that there are no CE courses in the curriculum; this is an opportunity for the university to introduce or expand on sustainability education