

Sustainable Procurement Through Commencing Ecolabels in Fast Moving Consumer Goods Industry : Bangladesh Perspective

In Partial Fulfilment of the Requirement for the Degree of
Masters in Procurement and Supply Management (MPSM)

Supervisor:

Md. MostaGausul Hoque, PMP

BIGD, BRAC University,

Prepared by

ZarinTasnim

ID NO. 15182018, 8th Batch.

Masters in Procurement and Supply Management
BRAC University

BRAC Institute of Governance and Development (BIGD),

BRAC University, Dhaka, Bangladesh, March 1. 2017

Table of Contents

<i>Certification of Acceptance</i>	<i>iv</i>
<i>Statement of the Author</i>	<i>v</i>
<i>Acknowledgement</i>	<i>vi</i>
<i>Executive Summary</i>	<i>vii</i>
<i>List of Abbreviations</i>	<i>ix</i>
<i>List of Figures</i>	<i>xi</i>
<i>List of Tables:</i>	<i>xii</i>
<i>Chapter One: Introduction</i>	<i>2</i>
1.1. Statement of the Problem.....	2
1.2. Objective of the study	2
1.3. Type of Research.....	3
1.4. Dissertation Hypothesis.	3
1.5. Methodology.....	3
1.6. Limitations of the study	3
1.7. Significance of the study.....	4
1.8. Objective of the study	5
1.9. Structure of the thesis report.....	6
<i>Chapter Two: Theoretical Framework – Procurement & Eco-label</i>	<i>8</i>
2.1. Procurement	8
2.2. Sustainable procurement	9
2.2.1. Definition.....	9
2.2.2 Background of Sustainable Procurement	11
2.3. Eco-labelling	12
2.3.1. Definition.....	12
2.3.2. History	13
2.3.3. Objectives of Eco-Labelling:	13
2.3.4. Types of eco-labelling:	14
2.3.5. How to use eco-labels	16
<i>Chapter Three: Worldwide practices: FMCG industry</i>	<i>20</i>
3.1. Canada	20

3.2. United States	20
3.3. European Union	21
3.4. Northern Europe	21
3.5. ASEAN.....	21
3.6. Australasia.....	22
Chapter Four: Eco-labelling- Bangladesh context.....	25
4.1. Eco-labelling: opportunities for Bangladesh	28
4.2. Eco-labelling: concerns and challenges for Bangladesh.....	31
Chapter Five: Brief analysis of results of survey on “Eco-labels”	36
5.1. Demographic information:	37
5.2. Awareness and consumer behaviour aspects	39
5.3. Price and financial ability of customers’ aspect of eco-label	44
5.4. Promotional & business aspects of Eco-label.....	47
Chapter Six: Findings on the basis of primary data analysis	50
Chapter Seven: Logic in support of & against eco-label	53
7.1. Logic supporting eco-labels	53
7.2. Counter arguments against Eco-labels	55
Chapter Eight: Findings, Recommendations and Conclusion	57
8.1. Finding:	57
8.2. Recommendations:	58
8.3. Conclusion:	58
References	62
Appendix A	65
Appendix B	66
Appendix C	68
Appendix D	69
Appendix E.....	70
Appendix F.....	74
Appendix G	77

Certification of Acceptance

This is to certify that Zarin Tasnim, MPSM ID # 15182018, has accomplished her Dissertation Paper entitled 'Sustainable Procurement Through Commencing Eco-labels in FMCG industry: Bangladesh Perspective' under my guidance and supervision. She has concluded the report as a partial fulfilment of the requirement for the degree of Masters in Procurement and Supply Management (MPSM) in BIGD, BRAC University.

The report has been formulated under my recommendation and is a record of her legitimate work carried out successfully.

Signature:.....

Date:

Md. MostaGausulHoque, PMP
Director (Planning and Development)
Bangladesh Parliament Secretariat
(Deputy Secretary to the Government)

BIGD, BRAC University.

Statement of the Author

I hereby state that I am the sole author of this thesis. Additionally I declare that this paper has not been submitted anywhere.

I do authorize BRAC Institute of Governance & Development and the BRAC University to lend this thesis to other institutions/ individuals for the purpose of scholarly knowledge creation..

I do give consent to BRAC Institute of Governance & Development and the BRAC University to replicate this thesis by photocopying or by other means, in total or in part, at the request of other institutions for the purpose of scholarly research.

Moreover, I have read the University' Plagiarism Policy and I understand the consequences of a breach of this policy. I verify that other person's work contained herein is fully referenced and properly attributed.

A condition of using this dissertation is – anyone referring to this intellectual property must recognize the author's copyright and properly acknowledge all information/quotation derived from it.

.....

ZarinTasnim.

Student ID. 15182018

Masters in Procurement and Supply Management

BIGD, BRAC University.

Acknowledgement

I would first like to express my sincere gratitude to my advisor Md. MOSTA GAUSUL HOQUE, PMP at BRAC University. He consistently allowed this paper to be my own work, but steered me in the right the direction whenever he thought I needed it. I would like to thank him for his patience, motivation, enthusiasm, and immense knowledge. His guidance helped me in writing of this dissertation. I could not have imagined having a better advisor and mentor for my Masters Dissertation.

Besides my advisor, I would like to thank Ms. TANZINA MIZAN, Program Associate, BIGD, BRAC University, for her continuous support during the office hours.

I thank my fellow classmates during MPSM program: AHMED NUR ALAM, MD. MAZEDUL ISLAM, SAYEDA NIGER SULTANA, MOHAMMAD YASIR NAUSHAD, MOHAMMAD ATIQUL ISLAM, ISTIAQUE UDDIN AHMED, T.M. SHAMS ARIF, MD. ABU SAYED, MD. ARIFUR RAHMAN, MUHAMMAD TASLIM RAHMAN, MD. ASHRAFUZZAMAN, MD. ZAHIRUL ISLAM, MD. FATEMUL ISLAM for the stimulating discussions, for the sleepless nights we were working together before deadlines, and for all the fun we have had in the last more than one and a half year. Also I thank my friend HISHAM UDDIN KHAN, IBA, Dhaka University who helped me to develop my academic writing skills.

Finally, I must express my very profound gratitude to my parents MAHMUDUL HAQUE KHAN and ANISA BEGUM as well as to my spouse, KAZI TARIKUL ISLAM for providing me with unfailing support and continuous encouragement throughout my years of study and through the process of writing this dissertation. My heartfelt acknowledgement goes to my only sibling ZAHIN TABASSUM who was always there to support me and is the true inspirer of my life. She is the reason behind all my academic achievements.

This accomplishment would not have been possible without any of them. Thank you.

.....

ZarinTasnim.

Executive Summary

This dissertation was prepared to find whether implementing eco-labels in FMCG industry will be an appropriate step in the context of present consumer market in Bangladesh or not and to recommend ways of increasing the practice of eco-label implementation.

It provides an analysis and evaluation of the current trend of consumer behaviour, level of awareness among the consumers, their level of income and pricing concerns related to eco-labelling issues of the top three superstores of Bangladesh- Shwapno, Agora and meenaBazar. All calculations can be found in the data analysis and appendices. Results of data analysed show that the response from the consumers are not up to the expectations. In particular, the level of awareness regarding eco-labelling prospects among the consumers was poor.

This dissertation draws attention to the facts that

- 19%, a very significant portion of the total respondents admitted, they know nothing at all about this phenomenon! And another major portion of the total number of respondents.
- 25.9% of them said they have 'poor' knowledge on this issue.
- 36.2% of them 'Never' checks for eco-labels
- 32.8% selected 'not so frequently' when they were asked how often they check for Eco-labels.
- 44.8% of the respondents do not bother to be influenced while buying products even if it bears eco-label.
- Eco-labels do not leave any impact on 44.8% of the end users!

- Only 18% of the total respondents said eco-label influences their buying decision.
- When they were asked about implementation of eco-labels in retail industry – 56.9% of the respondents answered –they think it will be an appropriate step.
- 74.14% of the respondents have a monthly income of BDT 50000-80000
- 22.41% of them are not ready to pay any higher price and 8.62% of them are not even sure whether they are willing or not.
- Discounts/offers on products bearing eco-labels, 50% of the total respondents (29 respondents) opted for it.
- Advertisement on print media, 34.5% (20 respondents) of the total number said so.
- According to 15.5% of the total respondents presumed, arranging road show can be another effective way.
- And most importantly, unlike the dissertation hypothesis, there is a **negative correlation between the level of income and willingness of the customers to buy eco-labelled products.**

Comment [Z1]:

Considering our surroundings in Bangladesh, major recommendation is:

- Increasing awareness raising activities under public and private patronization.

This dissertation also declares the fact that the analysis conducted has limitations. Some of the limitations include:

- Sample size could not include all the superstores functioning within Bangladesh.
- The author is not an expert in statistical data analysis and consequently there might be lack of accuracy in data analysis.

List of Abbreviations

ACCC	Australian Competition and Consumer Commission
<u>ASEAN</u>	Association of Southeast Asian Nations
CIPS	Chartered Institute of Procurement and Supply
Defra	Department for Environment, Food and Rural Affairs
DOE	Department of Energy
EPA	Environmental Protection Agency
EPD	Environmental Product Declarations
EU	European Union
FMCG	Fast Moving Consumer Goods
GATT	General Agreement on Tariffs and Trade
GECA	Good Environmental Choice Australia
GECNZ	Good Environmental Choice New Zealand
GEN	Global Eco-labelling Network
GHG	GreenHouse Gas
GMO	Genetically Modified Organism
IJBER	International Journal on Business and Economic Research
IJMBR	<u>International Journal of Management and Business Research</u>
IJSCM	International Journal of Supply Chain Management
ISM	Institute of Supply Management
ISO	International Organization for Standardization
LCA	Life Cycle Assessment
NGO	Non-Governmental Organisation

OECD	Organisation for Economic Co-operation and Development
OEE	Office of Energy Efficiency
OHV	Off Highway Vehicle
POS	Point of Sale
PPM	Production and Process Methods
ROI	Return On Investment
SME	Small and Medium Enterprises
SPTF	Sustainable Procurement Task Force
TBL	Triple Bottom-Line
WTO	World Trade organization

List of Figures

Figure 1: Examples of Eco-labels in the world.....	24
Figure 2: Age group of the respondents (derived from table ii)	37
Figure 3: Percentage of the male and female respondents (derived from table ii).....	38
Figure 4: Percentage of the preferred super shops.....	39
Figure 5: Awareness about Eco-label	40
Figure 6: Awareness about eco-labels	41
Figure 7: Influence on customers.....	42
Figure 8: Eco-Label in Bangladesh according to customers	42
Figure 9: Derived from table viii, major percentage of the respondents (please see the colour references in the table).....	45
Figure 10: Monthly income of the respondents.....	46
Figure 11: Most appropriate way to promote eco-labels according to customers.....	49
Figure 12: Correlation between income and willingness of the customers.....	52

List of Tables:

Table i: ISO 14024 Guiding Principles	23
Table ii: Sex and age of the respondents.....	37
Table iii: percentage of customers knowing about eco-label.....	40
Table iv: Customers checking Eco-labels	41
Table v: Segments of customers according to their approach to environment. (Newell, 2001;Ginsberg and Bloom, 2004).....	42
Table vi: Influence on consumers.....	42
Table vii: Application od Eco-label, Consumers’ opinion.....	43
Table viii: Monthly income of the respondents (referred to figure 9).....	45
Table ix: value of X & Y	50
Table x: Detailed calculation of Mean of X and Y values, Deviation scores and Deviation squares.....	51

Chapter One: Introduction

1.1. *Statement of the Problem*

Problem to be investigated along with the growing environmental awareness the need for incentives to publicize the eco-labels. Taking environmental preferences into consideration in sustainable procurement is regarded to have a considerable potential as one of these incentives. Green procurement preferences may be stated as environmental requirements that the product need to fulfil or that need to be fulfilled during the works or service. However, environmental procurement preferences may also be formulated as criteria for eco-labelling on the products.

1.2. *Objective of the study*

The aim of this proposal is to study how eco-labelling requirements and criteria can be applied in the procurement of FMCG industry (supershops), in order to enhance environmental performance. More specifically, the objectives were to:

1. Increase the knowledge about current practice of applying environmental requirements and evaluation criteria in the procurement of fast moving consumer goods;
2. Analysis the effectiveness of the eco-labelling;
3. Analysis of consumer behaviour regarding willingness to buy eco-labelled products.;
4. Analysis the methods for the publicizing eco-labels in supershops.;
5. And finally, based on the findings of the analyses, present suggestions for promoting use of eco-labels in FMCG industry.

1.3. *Type of Research*

The proposed study is an exploratory one, covering review of comprehensive literatures/reports to identify the significant factors associated with eco-labelling. The study will use both qualitative and quantitative data, yet mainly depending on quantitative data collected from primary sources to find out real scenario in the context of Bangladesh.

1.4. *Dissertation Hypothesis.*

‘The income of the customers in Bangladesh has a very strong positive correlation with willingness to buy eco-labelled products’

Which actually indicates customer with higher income tends to be more willing to buy eco-labelled products and vice-versa.

1.5. *Methodology*

The proposed study is an exploratory one, covering review of comprehensive literatures/reports to identify the significant factors associated with eco-labelling. The study will use both qualitative and quantitative data. It would depend mainly on secondary sources for necessary data. Sources of secondary data would include Emerald insights, EBSCO, JSTOR, Questia. [Directory of Open Access Journals](#) , International Journal on Business and Economic Research (IJBER) by science publishing group, International Journal of Supply Chain Management (IJSCM) and [International Journal of Management and Business Research](#) (IJMBR). Primary data as well as face to face interviews has also been conducted and analysed.

1.6. *Limitations of the study*

Although the study has reached its aim, there are some unavoidable limitations.

Firstly, the study was conducted in a single semester which has lasted for 16 weeks. 16 weeks is not enough for the student to observe all of the eco-labeling practices across the world. It would be better if it was done in a longer time.

Secondly, this research study will contain information about few countries across the world including Bangladesh. Here, eco-labeling practices in UK, USA, Bangladesh & few more countries will be tried to be presented and might not represent all the latest scenario of the eco-labeling practices of the business world.

Thirdly, the research methodology itself is a limitation of the study, as only the scholarly articles & journals were investigated to collect information and no primary data was collected which may result into inadequate information presentation in this study.

Lastly, The writing style of the study might not be accurate due to lack of proper writing skills full of jargons & technical terminologies used in academic writing as the student is not a professional academic writer and new at academic writing.

1.7. *Significance of the study*

The dissertation is going to be considered as a noteworthy effort in studying Eco-labelling in the context of Bangladesh-FMCG industry. This study will also be advantageous to the students and instructors in supply chain management, Procurement and sustainability issues in retail management, corporate strategies when they employ effectual learning in field of practical learning particularly in different concepts related to the use of sustainable procurement and supply system. Furthermore, this research will provide recommendations on how to launch and promote sustainable procurement through eco-labelling in FMCG industry in compliance with legal & corporate issues.

In addition to the above mentioned points, this study will be worthwhile to the retail industry in training and informing their human resource as well as consumers in the area of supply chain management, procurement & supply management, objectives, and strategies. It will also assist as a future reference for researchers on the subject of eco-labelling and sustainable procurement. And importantly, this research will enlighten consumers to make up their mind whether choosing eco-label can leave an impact to change current situation of climate change or not.

1.8. Objective of the study

The aim of this proposal is to study how eco-labelling requirements and criteria can be applied in the procurement of food products and fast moving consumer goods, in order to enhance environmental performance. More specifically, the objectives were to:

1. Increase the knowledge about current practice of applying environmental requirements and evaluation criteria in the procurement of food products and fast moving consumer goods;
2. Analysis the effectiveness of the eco-labelling;
3. Analysis how the environmental requirements and eco-labelling can be combined to support sustainable procurement;
4. Analysis the methods for the publicizing eco-labels and evaluating its outcome;
5. And finally, based on the findings of the analyses, present suggestions for the role and possible use of eco-labels in FMCG & Food sector.

1.9. Structure of the thesis report

Chapter One: Introduction

- 1.1. Statement of the Problem
- 1.2. Objective of the study
- 1.3. Type of Research
- 1.4. Dissertation Hypothesis
- 1.5. Methodology
- 1.6. Limitations of the study
- 1.7. Significance of the study
- 1.8. Objective of the study
- 1.9. Structure of the thesis report

Chapter Two: Theoretical Framework – Procurement & Eco-label

- 2.1. Procurement
- 2.2. Sustainable procurement
 - 2.2.1. Definition
 - 2.2.2 Background of Sustainable Procurement
- 2.3. Eco-labelling
 - 2.3.1. Definition
 - 2.3.2. History
 - 2.3.3. Objectives of Eco-Labelling
 - 2.3.4. Types of eco-labelling
 - 2.3.5. How to use eco-labels—ten top tips

Chapter Three: Worldwide practices: FMCG d industry

- 3.1. Canada
- 3.2. United States
- 3.3. European Union
- 3.4. Northern Europe
- 3.5. ASEAN
- 3.6. Australasia

Chapter Four: Eco-labelling- Bangladesh context

- 4.1. Eco-labelling: opportunities for Bangladesh
- 4.2. Eco-labelling: concerns and challenges for Bangladesh

Chapter Five: Brief analysis of results of survey on “Eco-labels”

5.1. Demographic information

5.2. Awareness and consumer behaviour aspects

5.3. Price and financial ability of customers’ aspect of eco-label

5.4. Promotional & business aspects of Eco-label

Chapter Six: Findings on the basis of primary data analysis

Chapter Seven: Logic in support of & against eco-label

7.1. Logic supporting eco-labels

7.2. Counter arguments against Eco-labels

Chapter Eight: Findings, Recommendations and Conclusion

8.1. Finding:

8.2. Recommendations:

8.3. Conclusion:

Chapter Two: Theoretical Framework – Procurement & Eco-label

2.1. Procurement

Procurement is the procedure of prevailing, acquiring, buying goods, services or works from an outermost origin, commonly by means of [tendering](#) or competitive [bidding](#) process. “Procurement” is the overarching function that illustrates the activities and processes to acquire goods and services. Significantly, and distinct from “purchasing”, procurement engages the activities involved in establishing fundamental requirements, sourcing activities such as market research, vendor evaluation & negotiation of contracts. It can also include the purchasing activities required to order and receive goods.

Following the discussion with CIPS Australia¹ members, the following statements were publicized:

- “Procurement is the business management function that ensures identification, sourcing, access and management of the external resources that an organisation needs or may need to fulfil its strategic objectives”.
- Procurement is the business management function that ensures identification, sourcing, access and management of the external resources that an organisation needs or may need to fulfil its strategic objectives.
- Procurement exists to explore supply market opportunities and to implement resourcing strategies that deliver the best possible supply outcome to the organisation, its stakeholders and customers.

¹ Further details at https://www.cips.org/Documents/Knowledge/Procurement-Topics-and-Skills/13-SRM-and-SC-Management/Supplier-Relationship-Management/definitions_of_procurement_and_scm.pdf

- Procurement applies the science and art of external resource and supply management through a body of knowledge interpreted by competent practitioners and professionals.

Source: CIPS Australia

2.2. *Sustainable procurement*

2.2.1. *Definition*

Sustainable procurement is a purchasing and investment procedure taking into account the economic, environmental and social repercussions of the entity's spending. It permits organizations to satisfy their needs for goods, services, construction works and utilities. Organizations executing sustainable procurement satisfy their needs for goods, services, utilities and works not only on a private [cost-benefit analysis](#), but also with a view to maximising net benefits for themselves and a wider community.

In doing so they must incorporate external cost concerns into decisions in addition to the conventional [procurement](#) criteria of [price](#) and [quality](#), when in practice the sustainable consequences of a potential supplier's approach are often assessed as a form of quality consideration. These considerations are frequently divided into- environmental, economic and social consideration, often identified as "[triple bottom line](#)".

Sustainable procurement entails an intensified degree of alliance and involvement between all parties in entire supply chain. A business which desires to maintain profitability as well as the responsibility for the environment should go beyond strategies of buying and utilizing recycled materials & act in accordance with the government regulations of respective country.

According to Sustainable Public Procurement Implementation Guidelines²- it is a "process whereby public organizations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life-cycle basis in terms of generating benefits not only to the organization, but also to society and the economy, whilst significantly reducing negative impacts on the environment."

The Institute of Supply Management (ISM)³ elucidates sustainability as "the ability to meet current needs without hindering the ability to meet the needs of future generations in terms of economic, environmental, and social challenges."

Both ISM and Aberdeen Group, an independent research publisher, reports on a 'triple bottom-line (TBL)' approach to sustainability, which points at 3 fundamental considerations: economic, social, and environmental. Under this approach, the framework of sustainability is based on economic profitability, social responsibilities, and environmental awareness. When contrasting the TBL approach with sustainable 'green' procurement, the distinguishing factor is that sustainable 'green' procurement also emphasizes a holistic approach.

CIPS have acceded to Sustainable Procurement Task Force (SPTF)'s definition of sustainable procurement. The SPTF was inaugurated as a business-led task force by the UK Secretary of State for the Environment and the Chief Secretary to the Treasury with a view to develop a National Action Plan and make the UK a forefront in the European Union in sustainable procurement by 2009.

In Procuring the Future⁴, the output from the SPTF's Sustainable Procurement National Action Plan, sustainable procurement is elucidated as: 'a process whereby organisations meet their needs for goods, services, works and utilities in a way that achieves value for money on

² Available at <http://www.unep.org/resourceefficiency/Consumption/SustainableProcurement/tabid/55550/Default.aspx>

³ <https://www.missouristate.edu/procurement/89233.htm>

⁴ Procuring the Future is available at <http://www.sustainabledevelopment.gov.uk/publications/procurement-action-plan/index.htm>

a whole life basis in terms of generating benefits not only to the organisation, but also to society and the economy, whilst minimising damage to the environment.’

2.2.2 Background of Sustainable Procurement

Sustainable procurement is not a new phenomenon. Rather the corporate world comprehended a long ago - efficiency in energy usage, waste generation, and water consumption at the same time as using recycled materials, guarantees cost reduction. Sustainable procurement is grounded on the point of view that companies can simultaneously benefit from the ‘triple bottom line’.

In the opinion of United States Environmental Protection Agency (EPA)⁵, “since 1976, requirements for green purchasing have been incorporated into Federal regulations and Executive Order requirements, with a goal of integrating environmental considerations in all stages of the Federal purchasing process.”

The United Kingdom Department for Environment, Food and Rural Affairs (Defra)⁶ acknowledges that “sustainable procurement is a process whereby organisations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organisation, but also to society and the economy, whilst minimising damage to the environment.”

Anpreminent example of sustainability’s long term history in the private sector is Herman Miller, a global provider of furniture systems and products, initiating with the company’s founding in the 1920s. Drew Schramm, Herman Miller’s Vice President of Global Supply Chain and Logistics, in an interview with Purchasing Magazine, illustrates his company’s

⁵< <http://nepis.epa.gov/Exe/ZyPDF.cgi/P1008XQP.PDF?Dockey=P1008XQP.PDF>>

⁶<<http://www.unep.org/resourceefficiency/Consumption/SustainableProcurement/WhatIsSustainablePublicProcurement/tabid/101245/Default.aspx>>

sustainability hereunder: “We basically ask what are we doing today that will affect tomorrow... we can't be good for the earth if we're not able to stay in business. So the other side of that sustainability coin is that we have to be financially solvent.”⁷

2.3. *Eco-labelling*

2.3.1. *Definition*

A permissive method of environmental accomplishment certification and labelling carried out around the world is called "Eco-labelling". Products or services proven environmentally preferable overall, within a specific product or service category are recognized by ecolabels. GEN members manoeuvre some of the world's strongest ecolabels.

In contrast to "green" symbols, or claim statements generated by manufacturers and service providers, the most credible labels are awarded by an impartial third party for specific products or services that have been independently determined to meet transparent environmental leadership criteria, grounded on life-cycle considerations.

Ecolabels are symbols of approval given to products that are deemed to have fewer impacts on the environment than functionally or competitively similar products.

To advocate sustainably managed fast moving consumer goods to consumers is the target of ecolabelling initiatives. Product claims associated with ecolabelling target at tapping the increasing public demand for environmentally preferable products. Ecolabels generally rely on life-cycle assessment to determine the environmental repercussion of a product 'from cradle to grave'. Usually claims appearing on a product must be preceded by a chain of

⁷Visit <http://www.scmr.com/article/CA6578688.html> for further queries.

custody exercise that documents that the product was derived from, for example, a fishery certified as being 'sustainably managed'.

Prior to certification, a set of 'sustainability' standards or criteria against which a fishery is to be evaluated must be developed. Achieving and identifying 'sustainability' in fisheries is a complex process. The acceptance and credibility of standards is closely related to how the standards were developed, the standards themselves, and the accrediting or certifying process by which organizations are evaluated against the standard.

2.3.2. *History*

The origin of ecolabelling is found in the developing global concern for environmental protection on the part of governments, businesses and the public. As businesses have come to identify that environmental concerns may be converted into a market supremacy for certain products and services, various environmental declarations, claims and labels have emerged, such as natural, recyclable, eco-friendly, low energy, recycled content, etc. These have allured consumers looking for ways to decrease environmental impacts through their purchasing choices, but they have also led to some confusion and scepticism. Unproven or irrelevant claims have been branded "greenwash".

GEN member ecolabels provide lucidity for consumers and prove authenticity. From its beginnings in 1994, GEN has grown, in two decades, to embrace more than 27 organisations circling the globe, and stretching from Norway to New Zealand.

2.3.3. **Objectives of Eco-Labeling:**

The following are the objectives of eco-labelling

Safeguarding the Environment:

With increasing incidences of detriment to the ecology, and phenomena such as global warming and depletion of the ozone layer, it is high time that mankind made a mindful effort towards safe-guarding the environment

Encouraging Environment Friendly Innovation:

A few significant ideas are the product of an intelligent idle mind, but most successful innovations have been generated from the drive to fulfil a need. Promoting environment friendly products as a policy may help foster an innovative culture which results in such products. A very common and highly successful example is the entire gamut of electrical appliances which are ENERGYSTAR⁸ compliant, not only do they consume lesser energy; they also result in lesser emission of greenhouse gases and result in cost-savings in the long-run.

Consumer Awareness Rising:

Eco-labelling may assist develop awareness among the consumers about the environmental consequences of their choices and may in turn facilitate better well-informed buying decisions. Such decisions will accumulate and the cumulative effort will be a better-informed “aware” environment-friendly society which exercises more caution and care towards the environment.

2.3.4. Types of eco-labelling:

There are many different eco-labeling schemes and logo in operation around the world, each covering a different range of environmental criteria such as pollution or energy consumption during production. The International Organization for Standardization (ISO) has identified three broad types of voluntary environmental labels: Type I, Type II, and Type III.

⁸ Visit <https://www.energystar.gov/> for more info.

I. **Type I – Ecolabels** (ISO 14024:1999) only independent and reliable labels that consider the life-cycle impact of products and services are called “ecolabels”, even if this term is commonly used in a broad and not always correct way.

This group is the most useful from the point of view of a procurement practitioner. Ecolabels are based on ambitious criteria of environmental quality, and they guarantee that the awarded products respect the highest environmental standard in that market segment.

The criteria are usually developed through the involvement of a large number of stakeholders and awarded after an independent process of verification. Ecolabels labels take into account all adverse environmental impacts of a product throughout its life cycle, for example energy and water consumption, emissions, disposal, etc.

II. **Type II – Self-declared environmental claims** (ISO 14021:1999) the labels belonging to this group do not share some of the usual characteristics of environmental labels, the main difference being that they are not awarded by an independent authority. These labels are developed internally by companies, and they can take the form of a declaration, a logo, a commercial, etc. referring to one of the company products.

For what reason do companies develop their own environmental label or claim? Consumers and procurement practitioners are increasingly attentive to the environmental impact of what they purchase. For this reason, providing information on the environmental performance of products and services is becoming a commercially interesting option for many firms. When a company voluntarily makes a self-declaration that:

- refers to an environmental aspect of a product, to a component of the product or to its packaging;

- is made on the product, on product packaging, in product literature or in advertisement⁹

⁹ UK Department for Environment Food and Rural Affairs (Defra), “Green Claims - Practical Guidance”, 2003, p. 5

this is called an environmental claim or green claim.

This kind of producer declaration can provide useful information for procurers and requisitioners, but not always are green claims as accurate and true as they should be. If the information conveyed in claims is vague, misleading or inaccurate, the consequence can be loss of trust in claims and labels in general

III. **Type III** – Environmental impact labels (ISO 14025:2006) Type III labels consist in qualified product information based on life cycle impacts. Environmental parameters are fixed by a qualified third party, then companies compile environmental information into the reporting format and these data are independently verified. The environmental impacts are expressed in a way that makes it very easy to compare different products and sets of parameters, for example for public procurement purposes.

Type III labels do not assess or weight the environmental performance of the products they describe. This type of environmental labels only shows the objective data, and their evaluation is left to the buyer⁶. Type III labels are found in nine countries only⁷ and require exhaustive life-cycle data sheets called “environmental product declarations” (EPD)¹⁰

2.3.5. **How to use eco-labels**

- 1. Doing own research:** Find out a bit about the main, trusted eco-labelling schemes used in your country (some are listed below) and learn which ones apply to the products you buy regularly. Look out for those labels when you shop and you won't go too far wrong.
- 2. Specifics are good:** Concrete claims made by trusted manufacturers ("100% recycled") are usually trustworthy, though they may not tell the whole story (see also point 7).

¹⁰For more information on EPD, see <http://www.environdec.com/pageld.asp>.

- 3. Vagueness is bad:** Vague or unverified claims ("natural," "eco-friendly," "good for the planet," "kind to your skin") are worthless. Buzzwords like "organic" are also meaningless if they're not properly substantiated: unless a product is certified as organic by an independent authority, don't assume that it is.
- 4. Photo: Right:** Vagueness is bad: This "ecoclean" detergent claims to be "biodegradable", but doesn't define what biodegradable actually means. Most things are biodegradable eventually, even plastics that take 500 years to disappear: the important thing is how quickly something breaks down in the natural environment. Fortunately, this product comes from a very reputable manufacturer, so my inclination would be to telephone them and ask for more details. I'd also suggest to them that they include specific details on the packaging: if the product is as good as they seem to be suggesting, why not simply substantiate the claim?
- 5. Beware of greenwash:** Is a manufacturer making a real commitment to the environment or just making loud claims about a product that represents a relatively small part of their sales? Oil companies have been regularly accused of this. They run huge advertisements for their tiny solar energy research efforts, implying a huge commitment to the environment, when the vast majority of their business still comes from unsustainable, fossil fuels.
- 6. Misleading claims:** If a manufacturer can't honestly represent their product as eco-friendly ("We use 100% recycled packaging"), they may try to misrepresent it instead ("Our packaging is 100% recyclable"), purely to jump on the green bandwagon.
- 7. Photo: Top: Meaningful:** You can tell that the manufacturer of this red cardboard box is making an effort to reuse waste materials: the cardboard is "85% recycled"—a clear and specific claim.

- 8. Bottom: Meaningless:** This green label gives a misleading impression that the product is environmentally friendly—when it most likely isn't. "100% recyclable" doesn't mean the same thing as "100% recycled": the first simply means you, the consumer, can choose to recycle the product if you wish (or trash it if you don't), whereas the second is a specific statement that the manufacturers have made a genuine effort to reduce waste. If the makers were using recycled board, you can be sure they'd say "100% recycled" instead. "Made from renewable resources" is another meaningless statement. What exactly does "renewable" mean in this context? Have the manufacturers made a special effort to plant as many trees as they cut down? Or do they simply mean cardboard is renewable because it comes from trees?
- 9. Irrelevant claims:** No food manufacturer would get away with packaging that said "We don't put poison in our products," but manufacturers often say things like "Not tested on animals" even in countries where animal testing is prohibited by law.
- 10. What else is wrong?:** Just because a manufacturer gets one thing right, doesn't mean they deserve your custom. When you buy something advertised as "100% recycled," thinking you're doing good, are you actually buying cheap trash made in a sweatshop that's flown halfway around the world in an environmentally damaging way? If a manufacturer is really committed to the environment, they'll try to minimize all their environmental impacts, not just one of them. Eco-labels like the EU Eco Label are a good sign that a product manufacturer is taking much more than a token interest in the environment.
- 11. Less is more?:** Lots of eco-products are sold on the basis that they do less harm than conventional alternatives, but "less bad" doesn't necessarily make them "more good." You could opt to use "less bad" eco-friendly detergents, but you could cut out some detergents

altogether by using microfiber cloths, which would save money and keep chemicals out of the environment.

12. Keep things in perspective: It's great to be an ethical consumer, but bear in mind the bigger picture. Suppose you agonize for an hour over whether buying recycled envelopes is better than buying non-recycled ones—you're making relatively little difference to anything. Instead, target your efforts where they'll have more of an effect: why not spend an hour writing a letter to a local newspaper or starting a campaign to change something for the better?

13. Put them on the spot: Don't be afraid to ask manufacturers for more information about their products: you'll find that many products have customer inquiry email addresses and telephone numbers on them for precisely this reason.

Chapter Three: Worldwide practices: FMCG industry

3.1. Canada

The Office of Energy Efficiency (OEE) run by the Department of Natural Resources Canada regulates both the automobile and appliance manufacturers. EnerGuide label for vehicles found on all new passenger cars, light-duty vans, pickup trucks and special purpose vehicles not exceeding a gross vehicle weight of 3855 kg (8500 lb). The label shows the city and highway fuel consumption ratings and an estimated annual fuel cost for that particular vehicle. Federal law in Canada, under Canada's Energy Efficiency Regulations, requires that the EnerGuide label be placed on all new electrical appliances manufactured in or imported into Canada and that the label indicate the amount of electricity used by that appliance. This information is determined by standardized test procedures. A third-party agency verifies that an appliance meets Canada's minimum energy performance levels.

3.2. United States

All major home appliances must meet the Appliance Standards Program set by the US Department of Energy (DOE) on cooperation with the US Federal Trade Commission. Manufacturers must use standard test procedures developed by DOE to prove the energy use and efficiency of their products. Test results are printed on yellow EnergyGuide label, which manufacturers are required to display on many appliances. This label estimates how much energy the appliance uses, compares energy use of similar products, and lists approximate annual operating costs. Appliances that meet strict energy efficiency criteria set by the U.S. Environmental Protection Agency are eligible for the blue Energy Star label. The Energy Star label is also available on energy-efficient televisions, computers, audio visual equipment and electronics, office equipment, heating and cooling

equipment, and many more products. Energy Star is also available on energy efficient homes and buildings in the United States. American automobile manufacturers are required to use certified U.S. Environmental Protection Agency fuel economy test results and cannot use any other fuel mileage results to advertise vehicle fuel efficiency. The state of California has green sticker license plates issued to OHVs is introducing green stickers for all new automobiles in 2009.

3.3. European Union

The EU Ecolabel was established in 1992 by the European Commission. The EU Ecolabel helps to identify products and services that have a reduced environmental impact throughout their life cycle. Recognised throughout Europe, EU Ecolabel is a voluntary label promoting environmental excellence which can be trusted. It is the only pan-European Type I official ecolabel. The EU Ecolabel is awarded according to ecological criteria agreed on by experts, industry, consumer organisations and NGOs and verified by independent third parties. The implementation of the EU Ecolabel is set through the Regulation (EC) No 66/2010 of the European Parliament and of the Council.

3.4. Northern Europe

The Nordic swan is the official ecolabel in Nordic countries. It uses a system of standards, applications for licenses, and independent verification.

3.5. ASEAN

In Asia ASEAN is moving towards adopting the ISO's TC 207 environmental management system. Anyone can contribute verifiable sources substantiating its adoption and implementation by member countries as this information is not easily accessible.

3.6. Australasia

A number of ecolabels operate in Australia and New Zealand mostly as separate schemes operating in one country only. Global GreenTag operates and is recognised in both countries as is whereas GECNZ operates only within NZ. All 3 ecolabels are ISO 14024 compliant. GreenTag is also an Australian Competition and Consumer Commission (ACCC) approved Certification Mark.

Table i: ISO 14024 Guiding Principles

		Clause 5.1	Voluntary nature
Clause 5.2	ISO 14020 Principles apply	Clause 5.3	Applicants comply with environmental and other relevant legislation
Clause 5.4	Criteria development includes comprehensive life cycle consideration approach	Clause 5.5	Environmental criteria differentiate environmentally preferable products from others
Clause 5.6	Criteria based on indicators arising from life cycle considerations. Criteria set at attainable and measurable levels	Clause 5.7	Fitness for purpose and levels of performance [of products] taken into account in developing criteria
Clause 5.8	Criteria are set with a predefined validity period Criteria and product function requirements are reviewed, and potentially revised, within a predefined time period	Clause 5.9	Formal open participation process for selection and review of product categories, environmental criteria and product function characteristics
Clause 5.10	All [product] environmental criteria and function characteristics are verifiable Compliance assessment incorporates generally acceptable standards and methods	Clause 5.11	Transparency exists through all stages of ecolabelling program development and operation; information on significant program aspects is available for inspection and comment by interested parties
Clause 5.12	Unnecessary obstacles to international trade don't exist	Clause 5.13	Application and participation is open to all potential applicants
Clause 5.14	Development and selection of criteria based on sound scientific and engineering principles	Clause 5.15	Program is free from undue influence
Clause 5.16	Any fees are kept as low as possible and applied equitably to all applicants and licensees	Clause 5.17	Confidentiality of pertinent information is maintained
Clause 5.18	Mutual recognition is deemed desirable		



Figure 1: Examples of Eco-labels in the world¹¹

¹¹http://scholararticles.net/wp-content/uploads/2008/11/1_2.png

Chapter Four: Eco-labelling- Bangladesh context

The term 'eco-labelling' has turned into more than a buzzword in recent sustainable business goals. The manoeuvre of eco-labelling in various arrangements has been increasing for past many years. Questions emanate about how well these eco-labels and climate change issues are addressed and understood by consumers in Bangladesh.

Climate change is one of the most convoluted issues confronting us in recent days. Involving several dimensions, namely- environmental, economic, legal, social, technological, political and ethical, it is a global stumbling block, felt on local scales impacting our future generations in coming centuries. In spite of intensified awareness of climate change, emissions of GHGs sustained on a relentless rise. Global climate history indicates earth's 2015 surface temperatures were the warmest since modern records management began in 1880. Since then, the planet has experienced 1.4°F increase in global temperature. To realise the urgency of taking a step ahead by the consumers with a view to protecting our climate-our mother earth, these statistics are sufficient. It is high time for us to respond to climate change through constructive mitigation approach. In the modern business world eco-labelling is considered to be a worthwhile contribution by the consumer base towards climate change.

Predominantly, an eco-label is a symbol determining overall environmental preference of a product on the basis of life cycle considerations. Eco-labelling (i.e. Blue Angel, Nordic Swan, EnergyStar, The Recycling Symbol) enables consumers respond to climate change empowering people to distinguish between products detrimental to environment and accordant with the climate. It helps individuals understand the significance of their contribution to improve the global climate by minimising the environmental impacts. Currently, the highest number of traced eco-labels is 465 eco-labels in 199 countries. On the other hand, according to Eco-label Index, Bangladesh currently have only 6 international standard eco-labels in market.

A dynamic market for eco-labelled products promotes a corporate loyalty to continuous environmental advancement. Customers can expect to see the environmental effects of products diminish over time as environmental certification is a symbol of approval which indicates that a product meets a certain eco-label criteria. Additionally, it provides customers with visible affirmation of the product's desirability from an environmental aspect. Certification, therefore, has an educational responsibility for customers, and encourages competition among manufacturers. Eco-labels, in an addition, can act as a consumer protection tool as well. This is an indicator which pilots the market towards greater environmental apprehension.

In spite of the fact that, the sharing of eco-labels is mostly congregated in the industrialised countries, it leads to significant future prospects for developing countries such as Bangladesh, especially with regard to their trade with developed, 'Eco-label' conscious countries. Moreover, the potential for growth in the market share of eco-labelled products will mould eco-labelling a compelling business alternative. If Bangladesh improves in response to comply with eco-labelling, the potential advantages for us could go far beyond higher revenues that eco-labelled products may originate. It will demonstrate an opportunity to add value to existing products, expand reach in existing markets, or maintain market share in an antagonistic environment crossing the territory of this country.

Climate change broaches an extensive ethical duty because it concerns a problem caused by those who consume. Even if we discontinue emitting all GHGs (greenhouse gases) today, climate change will still continue to affect future generations. We should act selfish for our own betterment and take initiatives to address climate change by reforming and tweaking our behaviour, either by adopting this phenomenon of eco-labelling or by discovering new means all by ourselves.

The financial cost of eco-labelling could be quite high. At the same time, eco-labelling is seen by some as an important element for gaining access to 'green' markets. Eco-labels may potentially enhance the terms of trade of those developing countries able to accurately translate the mood of industrialised country consumers into environmentally friendly product development. There are also hopes that eco-labelling could provide new opportunities for attracting capital investment and joint ventures in developing countries, such as Bangladesh. As a least developed country with a big emerging market, Bangladesh needs to have a better understanding of issues of eco-labelling. Therefore, this paper discusses the challenges and opportunities eco-labelling may create for Bangladesh

4.1. Eco-labelling: opportunities for Bangladesh

“The overriding aim of eco-labelling schemes is to distinguish certain brands of products with less adverse environmental impact than others in their product category. Thus, eco-labelling may be seen as an important tool for gaining access to ‘green’ markets¹². For those producers willing and currently or potentially able to meet the sustainability requirements, eco-labelling presents an opportunity to add value to existing products, expand reach in existing markets, or maintain market share in a competitive environment.¹³

Product differentiation could be a way for some exporters in Bangladesh to enhance their export earnings and eco-labels could be one source of such product differentiation. Eco-labelling can also provide an opportunity for innovative producers to benefit from the use of more environmentally friendly production methods.¹⁴

Eco-labels may potentially enhance the terms of trade of those developing countries able to accurately translate the mood of industrialised country consumers into environmentally friendly product development.¹⁵

The potential for growth in the market share of eco-labelled products makes eco-labelling a compelling business choice. For example, if fisheries management improves in response to efforts to comply with certification criteria, the potential benefits to fisheries in both

¹²FIELD Briefing Paper on ‘Legal and Policy Issues in the Market Access Implications of Labelling for Environmental Purposes’ presented at the Sub-regional Brainstorming Workshop (Asia) on Specific Trade and Environment Issues in Paragraphs 31 and 32 of the Doha Ministerial Declaration in preparation for the Cancun WTO Ministerial Conference (30 July-1 August 2003, Bangkok) at 6

¹³ See for example, UNCTAD. 1994. Eco-Labelling and Market Opportunities for Environmentally Friendly Products, TD/B/WG.6/2. UNCTAD: Geneva

¹⁴ D. Downes and B. Van Dyke. 1998. Fisheries Conservation and Trade Rules: Ensuring that Trade Law Promotes Sustainable Fisheries, Centre for International Environmental Law and Greenpeace: Washington, D.C. p.33. <<http://www.ciel.org/Publications/fisheriesconservation.pdf>>

¹⁵ V. Vitalis, ‘Eco-labelling and WTO Rules: What Needs to be Done’ in OECD Roundtable on Sustainable Development (January 2001) at 3.

industrial and developing countries could go far beyond higher revenues that eco-labelled products may generate.¹⁶

Moreover, many governments and industry groups recognise that eco-labelling could provide needed economic incentives for better long term stewardship and availability of natural resources important for national economic welfare. In addition, eco-labelling schemes can provide countries a tool to help them fulfil commitments made under international agreements on important environmental imperatives such as responsible fishery or forestry and the conservation and sustainable use of biological diversity. There are also hopes that eco-labelling could provide new opportunities for attracting capital investment and joint ventures in developing countries. For example, entrepreneurs may hope to carve out a distinct market niche based on the promotion of the sustainable nature of some artisanal modes of fish harvesting to both socially and environmentally conscious Northern consumers.¹⁷

Although the issue of climate change has not yet affected the public's purchasing habits, the entry into force of the Kyoto Protocol is likely to spark overt policy and market based tools for energy efficiency and conservation in the near future.¹⁸ This is likely to increase demand for more energy efficient products and services such as greener energy products, building design, or power. Labelling is very likely to play an enormous role as companies explore means to reduce their total greenhouse gas emissions and purchase credit offsets.

Eco-Labeling is still new to Bangladesh and the concept is not very familiar to the public or to the business community. In order to make this concept known, issues related to eco-labeling should be disseminated with a view to encourage production and consumption of environmentally-friendly products, raise awareness of environmental protection and relate

¹⁶ C. Deere, *Eco-labelling and Sustainable Fisheries*, IUCN:FAO, 1999

¹⁷ B. Chaytor. 1999. "International Trade and Legal Rules to support Marine Biodiversity", Fisheries, International Trade and Biodiversity, draft manuscript, IUCN: Gland

¹⁸ Supporting Green Markets: Environmental Labelling, Certification and Procurement Schemes in Canada, Mexico and the United States, Commission on Environmental Cooperation (CEC), 1999

this to economic benefits of enterprises. Some developing countries, such as India, Malaysia, Singapore and Thailand, have used eco-labels on products that meet recognised environmental standards.¹⁹ Though lots of forum discussions have taken account of various aspects of eco-labels, Bangladesh has yet to decide on this issue.

Textiles,²⁰ leather products, garments²¹ and shrimp are some of the main export oriented products in Bangladesh and would benefit from the eco-labelling schemes. There is a need to keep their present markets or Bangladesh would face higher unemployment and poverty. It risks losing heavily from the final liberalization of trade in textiles and clothing if they are not well prepared for the expected business and market changes. These losses could undermine commitment to the Doha Development Agenda. There is an increasing pressure on the developing countries to adapt eco-labelling requirements as the consumers are gradually making preferences especially while buying clothing and textile products produced in environment friendly condition.²²

¹⁹ http://www.tradeknowledgenetwork.net/pdf/viet_eng.pdf

²⁰ The textile sector of Bangladesh encompasses spinning, weaving, dyeing-washing-finishing. In Bangladesh there are approximately 142 spinning mills (115 in private sector and 27 in govt. sector), 2232 weaving mills and 250 dyeing printing finishing and other mills

²¹ About 75% of the country's foreign currency earnings are through export of readymade garment. There are about 2800 garment factories in the country employing 1.5 million workers in the sector mainly women. They early export earning of Bangladesh through readymade garment (RMG) is about US \$ 3.8 billion. RMG in Bangladesh is produced mainly by imported fabrics and accessories according to the choice of the overseas buyer. Only 18 to 20% of the total consumption of fabrics is produced locally in the textile mills. <<http://epbbd.com/month23/ReadyMade.htm>>

²² http://www.academia.edu/1134007/LEGAL_AND_TRADE_ISSUES_RELATED_TO_ECO-LABELLING_BANGLADESH_PERSPECTIVES

4.2. Eco-labelling: concerns and challenges for Bangladesh

“In most case, it is the developed countries who advocate the adoption of eco-labelling.²³The EU and Canada, in particular, would like to see PPM eco-labels made legal, and to hold further discussions on the possibility of creating or adopting a set of standards within the WTO for eco-labels. On the other hand, developing countries fear that the labelling scheme may create unnecessary trade restriction, may not be cost-effective and the standard setting process may not be transparent. Moreover, distinctions made on the basis of how much natural resources were consumed in the process of creating a product might unnecessarily bias a consumer against products made in a developing country where that resource is in abundance .²⁴

With the growth of labelling programs, a number of concerns and challenges have arisen regarding their operation. There are concerns among some governments and industry groups that eco-labelling schemes could i) disguise underlying intentions to protect domestic industries, ii) restrict market access; and iii) erode national competitiveness for those less able to meet or afford foreign labelling and certification standards.²⁵

The OECD report (2002) expressed several concerns regarding private voluntary eco-labelling. Firstly, ‘one size fits all’ approaches may ignore differing domestic circumstances. The design of many private voluntary eco-labels frequently fails to take into account the different circumstances prevailing in other producer countries. It does not take account that one PPM may be appropriate in one part of the world, but quite inappropriate in others. Secondly, some of these programmes may have the potential to become a *de facto* market standard against which consumer assess all products. This may penalise not only third country

²³ D. Downes and B. Van Dyke, op cit., at 33

²⁴ A. Okubo, op cit., at 610.

²⁵ See D. Downes and B. Van Dyke. 1998. Op. cit . p.33-36. Also see, C. Deere, op. cit., at 23

exporters but even competitors from other states. Thirdly, many private voluntary eco-labels are developed with significant inputs from domestic producers and they may have some vested interest in establishing particular standards.

The eco-labelling schemes are often criticized for the failure of their methodologies in both criteria-setting and conformity assessment. It is acknowledged that the very nature of the schemes calls for a degree of subjective decision-making at some level.²⁶ Trade-related issues such as LCA and PPM information to consumers cause concern. For example, a Blue Angel uses LCA to identify the most important environmental impacts of a product's life cycle.²⁷ All aspects of the product, including its method of manufacture, use, length of service life and disposal, as well as all environmental impacts caused by the product, including emission of hazardous substances, energy consumption, water or soil contamination and waste are examined to develop the criteria for selection of a recipient.²⁸ However, criteria which directly address the production stage of a product have rarely been defined.²⁹ The reduction and avoidance of environmental damage which occurs at the production stage are left to legislative and regulatory measures.³⁰ Therefore, the program has been criticized for focusing on only a few isolated environmental impacts that usually occur during the use stage, but ignore the environmental burdens associated with the production process.³¹

It is also argued that there is a lack of transparency and opportunities for participation in the development of product standards that might play a role in assessments of

²⁶See John Henry, ISO and Eco-Labelling, in *Eco-Labelling and International Trade* 272, 274 (S. Zarrilli et al. eds., 1997).

²⁷See OECD, (1997) *Eco-labelling: Actual Effects of Selected Programmes* 25, at 26.

²⁸A. Okubo, *op cit.* at 607.

²⁹See OECD, (1997) *op cit.*, at 26.

³⁰OECD (1997), at 26.

³¹A Okubo, *op cit.*, at 607.

sustainability.³²The development of the criteria for labelling is mainly done by the country which initiated the program and without any consultation from and participation of potential trading partners. They can be even conceptualized in such a way that competitors from abroad are excluded from participation. This is of particular concern, for example, in the fisheries sector where governments have primary management responsibility for fisheries within national exclusive economic zones. They are obliged under international law to cooperate with governments of other countries in the management of shared fish stocks and of fish stocks on the high seas. Another example is where the Dutch have developed an eco-labelling scheme for cut flowers which considers the environmental effects of international transport. Thus it makes difficult for developing countries to participate in the scheme. Rather than allowing developing countries to benefit from their climatic advantage in flower production, they risk to be penalized based on their distance to the market.

³³Effective participation of governments in the development of the criteria for labelling is mainly done by the country which initiated the program and without any consultation from and participation of potential trading partners. They can be even conceptualized in such a way that competitors from abroad are excluded from participation. This is of particular concern, for example, in the fisheries sector where governments have primary management responsibility for the product standard setting process may therefore contribute to strong implementation of eco-labelling programmes.³⁴

There is also a concern that eco-labelling schemes can cause some discriminatory effects.³⁵It can be based on domestic environmental priorities and technologies in the importing country and may overlook acceptable products and manufacturing processes in the country of

³² C. Deere, *op. cit.*, at 23

³³ U Grote, 'Environmental and Food Safety Standards and International Trade: Concerns and Challenges for Developing Countries', at 7. Paper presented at the International Symposium Sustaining Food Security and Managing Natural Resources in Southeast Asia - Challenges for the 21st Century (2002, Thailand)

³⁴ C. Deere, *supra*, at 23.

³⁵ R. Vossenaar, UNCTAD's work on eco-labelling (Brazil, 2000) at 4. Paper presented at the International Seminar on Experiences in Eco-labelling (Sao-Paulo, 10 May 2000).

production. The definition of product categories, the determination of criteria may favour domestic over foreign produce.³⁶ One example of this is the German textile-labelling scheme, 'the blue angel', which virtually prefers products that use artificial dyes produced in Germany to natural dyes. It may require foreign producers to meet criteria which are not relevant in the country of production and environmental infrastructures may differ widely across countries. Moreover, certain parameters used for calculating the environmental effects of products throughout their life-cycle may be based on information collected in the importing country or countries with comparable conditions, and may overestimate the environmental impacts in the actual country of production.³⁷

The financial cost of eco-labelling could be quite high as well. It is divided in two parts: the cost of adjusting production processes to ensure that the product will receive the relevant eco-labels and the expense of subscribing to and maintaining participation in an eco-labelling programme.³⁸ The high cost of certification may negatively affect developing country exporters who are frequently small and medium sized enterprises. There are fears that the costs to comply with the criteria and principles of transnational or foreign eco-labelling schemes, going through the certification process, and maintaining certifiable status could be prohibitive.³⁹ As a result, developing countries have emphasised their need for greater financial and technical assistance for any eco-labelling scheme. An example could be GMO labelling. The technology needed to test for genetically modified organisms in food products is very expensive. The market opportunities offered by an eco-label that notes a product is

³⁶ See C. Deere, *op.cit.*, at 23

³⁷ See discussion in R. Vossenaar. 1997. *Eco-Labelling and International Trade: The Main Issues*. in S. Zarrilli, V. Jha & R. Vossenaar (Eds.). 1997. *Eco-Labelling and International Trade*, United Nations Conference on Trade and Development (UNCTAD); New York. *Supra*.

³⁸ Vitalis (2002) 'Private voluntary eco-labels: trade distorting, discriminatory and environmentally disappointing'. Paris: OECD. at 6.

³⁹ C. Deere, *op. cit.*, at 23.

GMO free might therefore be more limited in countries without existing testing facilities and in those that depend on low labour and capital costs.⁴⁰

While voluntary schemes need not result in explicit restrictions as some mandatory schemes might, they may indirectly affect trade due to institutional factors in producing countries. Institutional factors could include difficulties faced by producers in some countries in obtaining adequate supplies of materials, environmentally friendly technologies and other materials, which are acceptable for use in, or necessary to comply with standards for, eco-labelled products. Other institutional constraints could be inadequate and unequal financial and technical capacity within domestic regulatory agencies. Without the support of governments, many private industries cannot reasonably be expected to become sufficiently organised to independently institute effective management schemes and achieve certifiable status.⁴¹

In addition, the lack of timely and precise information about these standards is also a great obstacle for exports. In this regard, small and medium enterprises (SME) face several problems. While large firms obtain timely and accurate information directly from importers in developed-country markets and various other sources, SMEs tend to depend on secondary sources, basically government sources, often implying considerable time delays. Creating awareness of regulations, voluntary labels and eco-friendly technology would require government intervention.”⁴²

⁴⁰ Trade and Environment: a handbook (IISD and UNEP) at section 5.4.3. <http://www.iisd.org/trade/handbook/5_4_3.htm>

⁴¹ C. Deere, op. cit., at 24

⁴² http://www.academia.edu/1134007/LEGAL_AND_TRADE_ISSUES_RELATED_TO_ECO-LABELLING_BANGLADESH_PERSPECTIVES

Chapter Five: Brief analysis of results of survey on “Eco-labels”

The main purpose of the statistical survey on “Eco-label” was to find the level of awareness about eco-label among the customers of super shops in Dhaka. 58 customers of Shwapno, Agora and Meenabazar were covered by this survey among whom 34 respondents were male and 24 respondents were female.

Sample Selection and Determination of Size

The samples were selected in a randomized manner. Random sampling is the best single way to obtain a representative sample. No technique, not even random sampling guarantees a representative sample, but the probability is higher compared to others. Robson (1993) tells us that sampling theory supports stratified random sampling as an efficient choice because the means of the stratified samples are likely to be closer to the mean of the population overall. Leary (1995) is of the opinion that that a stratified random sample will typically reflect the characteristics of the population as a whole. Consequently the author decided to collect data from all the three main super stores of Bangladesh- Shwapno, MeenaBazar and Agora.

Sample Size = $(Z\text{-score})^2 * \text{Standard Deviation} * (1 - \text{Standard Deviation}) / (\text{margin of error})^2$ ⁴³

Confidence level 99% – Z Score = 2.576

⁴³ <https://www.qualtrics.com/blog/determining-sample-size/>

Standard deviation, .5

Margin of error (confidence interval) of +/- 3%

So, here the sample size is $55.2981333333^{44} = 55$. In this survey the author took a sample size of 58 respondents.

5.1. Demographic information:

The number of male respondents among interviewed customers is prevailed and share of male respondents made 58.6% per cent. 53.5% of the total number of respondents were aged 21-30 years and 29.3% of the total respondents were aged 31-40 years.

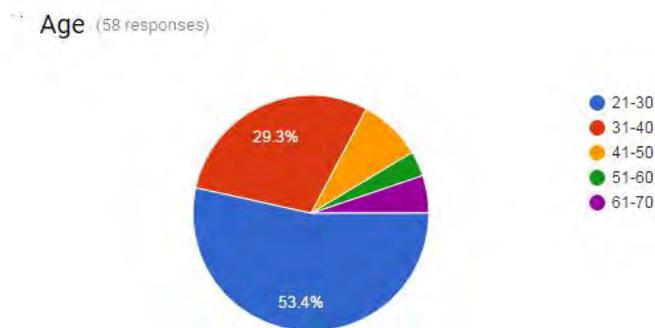


Figure 2: Age group of the respondents (derived from table ii)

Table ii: Sex and age of the respondents

Age group	Total		Of which			
	person	%	Male		Female	
			person	%	person	%
21-30	31	53.5%	12	20.64%	19	32.68%
31-40	17	29.3%	15	25.8%	2	3.44%
41-50	5	8.6%	4	6.9%	1	1.72%
51-60	2	3.44%	0	-	2	3.44%

⁴⁴ <http://web2.0calc.com/>

61-70	3	5.16%	3	5.16%	0	-
Total	58	100%	34	58.6%	24	41.4%

Deriving from the table ii, the percentage of the total male and female respondents are shown in the pie chart below. This demographic information are analysed as these play a vital role to study consumer behaviour.

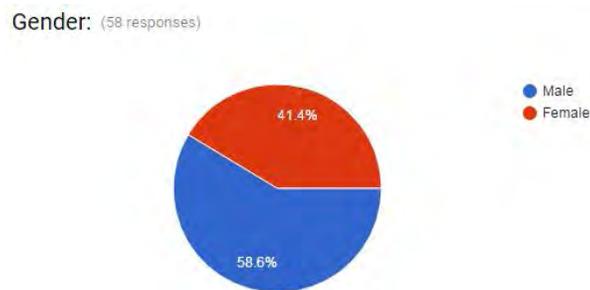


Figure 3: Percentage of the male and female respondents (derived from table ii)

5.2. Awareness and consumer behaviour aspects

Consumer behaviour⁴⁵ is "The study of individuals, groups, or organizations and the processes they use to select, secure, use, and dispose of products, services, experiences, or ideas to satisfy needs and the impacts that these processes have on the consumer and society." Importance of studying consumer behaviour in this dissertation lies in the fact, that this point will identify how the consumers are going to behave with eco-labelling issues.

To know in detail about how the consumers are going to behave, a total number of 58 respondents were brought under the survey conduction and 60.3% of them were customers of widely known superstore in Bangladesh 'Shwapno' whereas 34.5% and only 5.2% respondents were customers of Agora and MeenaBazar respectively. Potential root cause of such ratio is the availability of the store near the customers. Shwapno is a lot more available near the customers and can be found anywhere within Dhaka city. (the survey results are mainly limited within the territory of Dhaka city) .

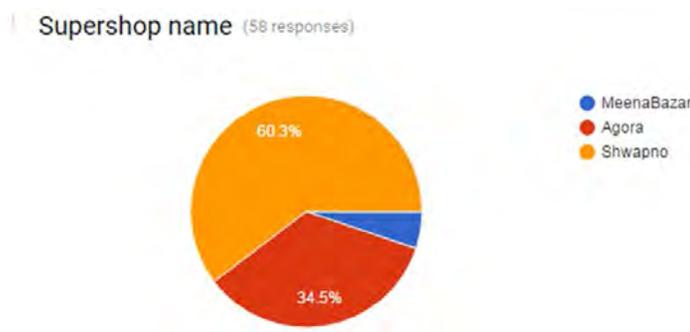


Figure 4: Percentage of the preferred super shops

While the vast majority of consumers in developed countries are now aware of concepts like organic and fairtrade, the prevalence of ecolabels is pretty new in a developing country like

⁴⁵<https://www.consumerpsychologist.com/>

Bangladesh. If ecolabel awareness statistics continue to rise at the current rate it would take long before ecolabel certification becomes a key pre-requisite for eco-products, and ‘greenness’ becomes just as important as price and quality to a growing base of consumers in Bangladesh.

Table iii: percentage of customers knowing about eco-label

	No. of respondents	%
Excellent	6	10.3%
Moderate	26	44.8%
Poor	15	25.9%
Nothing at all	11	19%

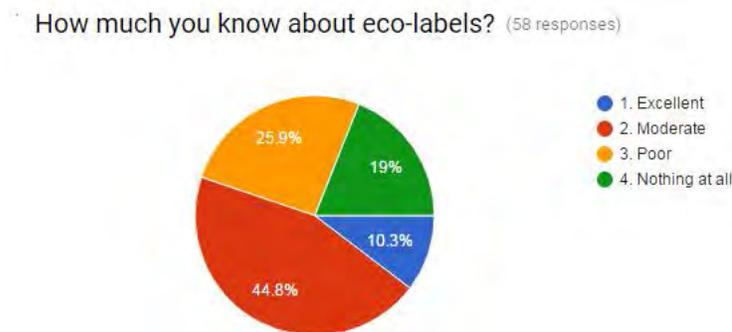


Figure 5: Awareness about Eco-label

Above table can quote a lot about the level of knowledge about eco-label in the final consumers- 19%, a very significant portion of the total respondents admitted, they know nothing at all about this phenomenon! And another major portion of the total number of respondents, 25.9% of them said they have ‘poor’ knowledge on this issue. Even if 44.8% of the respondents said they have moderate level of knowledge on this issue, it is matter of further observation- how much truth of it is depicted in their actual ‘consumer behaviour and psychology’ ! Again, derived from table iv, it can be said, a major percentage of the total

respondents, 36.2% of them ‘Never’ checks for eco-labels and 32.8% selected ‘not so frequently’ when they were asked how often they check for Eco-labels.

Table iv: Customers checking Eco-labels

	No. of respondents	%
Very frequently	5	8.6%
Frequently	13	22.4%
Not so frequently	19	32.8%
Never	21	36.2%

How often you check Eco-labels on products? (58 responses)

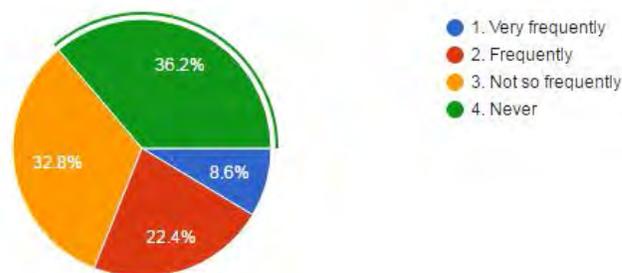


Figure 6: Awareness about eco-labels

Segment	Description
True-Blue Greens (9%)	They are the most environmentally focused and active group of consumers. They are more likely to contribute to environmental organizations. They are politically active and have made lifestyle changes to accommodate their environmental beliefs. They are the most likely to search for products that are environmentally friendly. In general, their behaviour matches their strong concern for the environment.
Greenbacks Greens (6%)	These are environmentally focused consumers who are willing to pay more for green products, however, they are less politically active than True-Blues.
Sprouts (31%)	These are willing to engage in environmental activities when it requires minimum work. They are price sensitive and may purchase environmentally friendly products only if they are comparably priced to other similar products.
Basic Browns (33%)	These individuals do not care that much about environment and do not participate in environmentally positive activities.
Grouzers (19%)	Grouzers feel that they are too busy to get involved in environmental matters and that even if they did, it wouldn't have any effect.

Table v: Segments of customers according to their approach to environment. (Newell, 2001;Ginsberg and Bloom, 2004)⁴⁶

Table V shows worldwide customer segmentation according to their awareness and willingness to respond towards eco-labelling as well as environmental issues as a consumer.

Does it influence your buying decision? (58 responses)

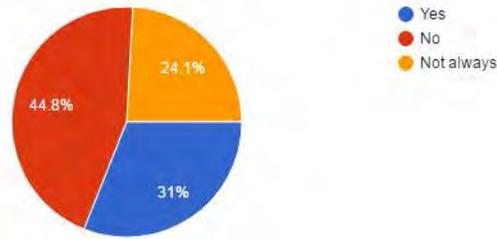


Figure 7: Influence on customers

Response	percentage	No. of Respondents
Yes	31%	18
No	44.8%	26
Not Always	24.1%	14

Table vi: Influence on consumers

Do you think implementing eco-labels in retail industry of Bangladesh is going to be an appropriate step?

(58 responses)

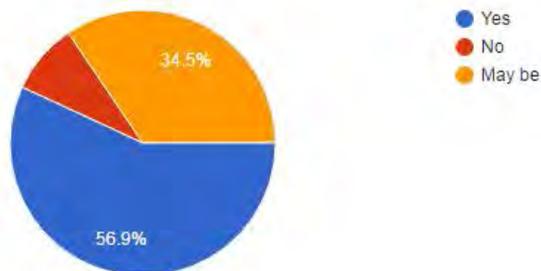


Figure 8: Eco-Label in Bangladesh according to customers

⁴⁶<http://scholararticles.net/eco-labelling-as-a-marketing-tool-for-green-consumerism/>

Response	No. of respondents	Percentage
Yes	33	56.9%
No	5	8.6%
May be	20	34.5%

Table vii: Application od Eco-label, Consumers’ opinion.

Corresponding to the figure 7, figure 8, table vi, table vii, it is observed that 44.8% of the respondents do not bother to be influenced while buying products even if it bears eco-label. Eco-labels do not leave any impact on 44.8% of the end users! And only 18% of the total respondents said eco-label influences their buying decision. When they were asked about implementation of eco-labels in retail industry – 56.9% of the respondents answered –they think it will be an appropriate step. And a minimal portion of the sample size , which is only 8.6% , expressed their opinion ‘NO’ to reply the same question.

5.3. Price and financial ability of customers' aspect of eco-label

Businesses do have to pay out certain costs to obtain an eco-label: application fee, audit inspection, brand use rights, product testing, etc. These costs can reach several millions of taka. The costs will be lower for businesses that have already implemented a quality management system together with procedures for monitoring its production. For the business, eco-labelling represents an investment aimed at promoting its products. As eco-labelling targets products intended for large-scale distribution, the costs involved in certification are recovered fairly rapidly and only have a minor impact on the product's final selling price.^{47, 48} Eco-labelled products are not necessarily more expensive. However, the cost of using the product should also be taken into account. Eco-labelled products often make it possible to cut operating costs such as expenditure on energy and waste: even if the initial purchase outlay is higher, eco-labelled products may prove far less expensive to use. Any extra cost can often be explained by the quality of eco-labelled products and their innovative design.

Considering the above facts, end customers were asked about pricing of the eco-labelled products. They were also asked, if they are ready to pay higher price in case needed.

⁴⁷ <http://www.ecolabels.fr/en/layout/set/print/faq/how-much-does-it-cost-a-business-to-obtain-an-eco-label>

⁴⁸ <http://ec.europa.eu/environment/ecolabel/faq.html>

Income	5%-10% Higher price		11%-15% Higher price		16%-20% higher price		Not ready to pay higher price		Not sure		Total	
	No. of res	%	No. of res	%	No. of res	%	No. of res	%	No. of res	%	No. of res	%
50000-80000	27	46.55%	3	5.17%	1	1.72%	10	17.24%	2	3.45%	43	74.14%
81000-120000	7	12.07%	0	0	0	0	0	0	1	1.72%	8	13.79%
120000 & above	1	1.72%	1	1.72%	0	0	3	5.17%	2	3.45%	7	12.07%
	35	60.35%	4	6.9%	1	1.72%	13	22.41%	5	8.62%	58	100%

Table viii: Monthly income of the respondents (referred to figure 9)

What percentage of high price is justified for you? (58 responses)

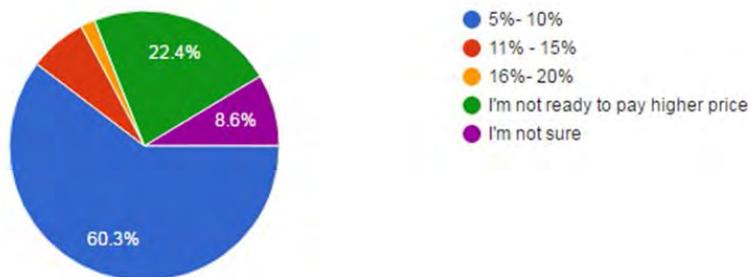


Figure 9: Derived from table viii, major percentage of the respondents (please see the colour references in the table)

C. Monthly income range (individual/family) : (58 responses)

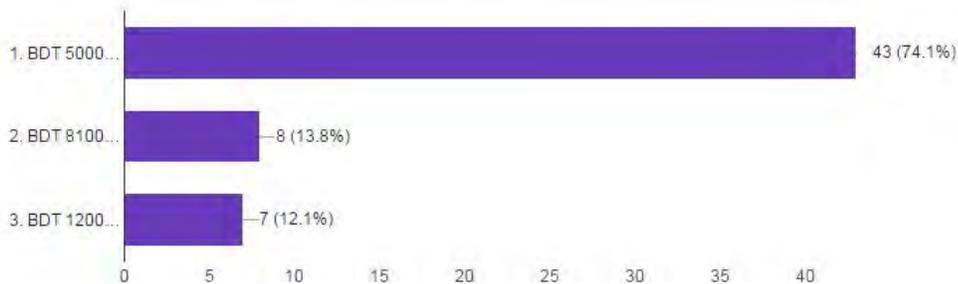


Figure 10: Monthly income of the respondents

From the above primary data analysis, following points came into attention,

- 74.14% of the respondents have a monthly income of BDT 50000-80000
- 13.79% of the respondents have a monthly income of BDT 81000-120000
- 12.07% of the respondents have a monthly income of BDT 120000 and above
- 60.35% of them are willing to pay 5%-10% higher price and 6.9%, 1.72% of them were ready to pay 11%-15% & 16%-20% higher price respectively whereas 22.41% of them are not ready to pay any higher price and 8.62% of them are not even sure whether they are willing or not.

5.4. Promotional & business aspects of Eco-label

In the context of Bangladesh, Eco-labelled products marketing strategy and argumentation predominantly depend on the specific type of consumer group a producer wishes to address. According to the survey and face to face interaction to the consumers, here are some significant strategies in which eco-labelled products can be promoted among the consumers in Bangladesh at current consumer market.

Just showing the logo

There is no need for time-consuming, costly work to prove - the products in the rack fulfil the eco-requirements, just showing Eco-label can do a lot to promote sustainable procurement

Ensuring POS (Point of Sale) advocacy

As the author talked to the respondents, an important potential promotional activity came out as final consumers' opinion - displays, crowners, stoppers, label hangers, danglers, x-banners or such display materials can easily grab customers' attention and encourage them to pick the eco-labelled product among thousands of products on the display rack. These measures are much unchallenging to implement if products are promoted in the super shops. In this case, shop management can place Eco-products perfectly in these outlets along with appropriate advertising materials

People “get in touch” with products at the point of sale (POS). There, it really makes sense to exemplify that these products bear an Eco-label.⁴⁹

Other than these promotional activities, consumers also talked about

⁴⁹ More at http://ec.europa.eu/environment/ecolabel/documents/marketing_guide_en.pdf

- Arranging fairs and promotional events/ activities
- Products/ company brochures
- Special websites
- Mobiles as electronic media (via sms)
- signs hanging together / shop decoration
- Outdoor posters (shop facades)
- Distributing brochures
- Shopping bags containing product samples
- In-store video advertisement
- Displaying official certificate at shop floor
- Using office supplies (pen/pencil/ envelops/ staplers/ markers) bearing such logos at POS
- Distributing company magazines
- Training for the sales staffs and informal discussion with them.

But among all the opinions, the top 3 ways to promote eco-label among customers were

1. Discounts/offers on products bearing eco-labels, **50%** of the total respondents (29 respondents) opted for it.
2. Advertisement on print media, **34.5%** (20 respondents) of the total number said so.
3. According to **15.5%** of the total respondents presumed, arranging road show can be another effective way.

What is the best possible way to you to promote Eco-labels? (58 responses)

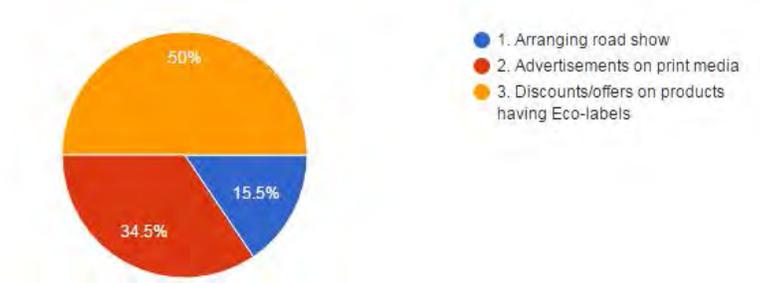


Figure 11: Most appropriate way to promote eco-labels according to customers.

Chapter Six: Findings on the basis of primary data analysis

Calculation of correlation between ‘Monthly income of the respondents’ and ‘influence of eco-labels on customers’ buying decision:

Table ix: value of X & Y

X Values (Monthly income)	Y Values (% of higher price customer willing to pay)
BDT 50000	7.5% = .075
BDT 60000	7.5% = .075
BDT 70000	7.5% = .075
BDT 80000	7.5% = .075
BDT 90000	7.5% = .075
BDT 100000	7.5% = .075
BDT 110000	7.5% = .075
BDT 120000	7.5% = .075

Values of X were taken from the income group of the customers. To calculate correlation easily, income groups were split up into individual amounts (BDT) and y values are the percentage of higher price customers are willing to pay. Again, it was a group of percentage (5%-10%) . to calculate the value of R, it was split up too. There were other higher price percentage groups as well but majority of every income group opted for ‘5%-10%’ option which they were willing to pay in exchange of eco-labelled products and a mean $(5+6+7+8+9+10/6=7.5)$ of the percentage group was considered as the value of y.

$X - M_x$	$Y - M_y$	$(X - M_x)^2$	$(Y - M_y)^2$	$(X - M_x)(Y - M_y)$
-35000.000	0.000	1225000000.000	0.000	0.000
-25000.000	0.000	625000000.000	0.000	0.000
-15000.000	0.000	225000000.000	0.000	0.000
-5000.000	0.000	25000000.000	0.000	0.000
5000.000	0.000	25000000.000	0.000	0.000
15000.000	0.000	225000000.000	0.000	0.000
25000.000	0.000	625000000.000	0.000	0.000
35000.000	0.000	1225000000.000	0.000	0.000
Mx: 85000.000	My: 0.075	Sum: 4200000000.000	Sum: 0.000	Sum: 0.000

Table x: Detailed calculation of Mean of X and Y values, Deviation scores and Deviation squares.

Result Details & Calculation

X Values

$$\sum = 680000$$

$$\text{Mean} = 85000$$

$$\sum(X - M_x)^2 = SS_x = 4200000000$$

Y Values

$$\sum = 0.6$$

$$\text{Mean} = 0.075$$

$$\sum(Y - M_y)^2 = SS_y = 0$$

X and Y Combined

$$N = 8$$

$$\sum(X - M_x)(Y - M_y) = 0$$

R Calculation

$$r = \frac{\sum(X - M_x)(Y - M_y)}{\sqrt{((SS_x)(SS_y))}}$$

$$r = 0 / \sqrt{((4200000000)(0))} = \text{NaN}$$

Meta Numerics (cross-check)

$$r = \text{NaN}^{50}$$

The value of R is NaN. This is a strong negative correlation, which means that high X variable scores go with low Y variable scores (and vice versa).

The value of R², the coefficient of determination, is NaN.

Key

X: X Values

Y: Y Values

M_x : Mean of X Values

M_y : Mean of Y Values

$X - M_x$ & $Y - M_y$: Deviation scores

$(X - M_x)^2$ & $(Y - M_y)^2$: Deviation Squared

$(X - M_x)(Y - M_y)$: Product of Deviation Score

⁵⁰<http://www.socscistatistics.com/tests/pearson/Default2.aspx>

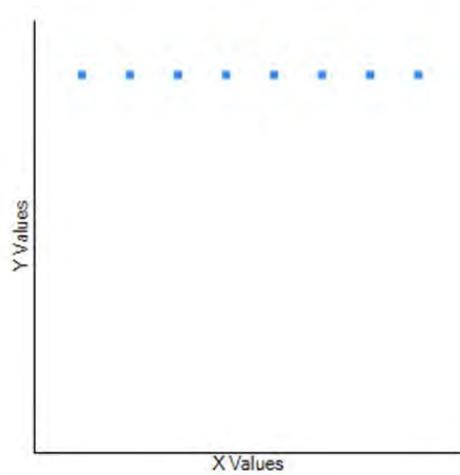


Figure 12: Correlation between income and willingness of the customers.

The above statistical calculation shows that the level of income of the consumers has a strong negative correlation with the willingness to buy eco-labelled products. Thus the dissertation hypothesis - *'The income of the customers in Bangladesh has a very strong positive correlation with willingness to buy eco-labelled products'* has been proved wrong. The author has collected primary data on the basis of that hypothesis and has analysed statistically to find out the actual correlation. As the calculation shows- willingness to buy eco-labelled products does not depend on the financial ability of the consumer, now another hypothesis can be developed to find the correlation between awareness/ level of education of the customer/consumer and willingness to buy eco-labelled products.

Chapter Seven: Logic in support of & against eco-label

7.1. Logic supporting eco-labels

Eco-labels offer several major benefits for both consumers and industries-

- **Informing consumer choice:** Eco-labelling is a constructive way of notifying customers about the environmental effect of selected products, and the alternatives they have. It empowers people to distinguish between products that are detrimental to the environment and those more compatible with environmental targets. An eco-label makes the customer well-informed about the usefulness of certain products, for instance, recycled paper or toxic-free cleaning agents. It also stimulates energy efficiency, waste minimization and product stewardship.
- **Encouraging economic efficiency:** Eco-labelling is substantially cheaper than regulatory controls. By authorizing customers and manufacturers to make environmentally protective decisions, the need for regulation is kept to a minimum. This is advantageous to both government and industry.
- **Stimulating market development:** When customers select eco-labelled products, they have an immediate impact on supply and demand in the marketplace. This is an indicator which pilots the market towards greater environmental apprehension.
- **Promoting continuous improvement:** A dynamic market for eco-labelled products promotes a corporate loyalty to continuous environmental advancement. Customers can expect to see the environmental effects of products diminish over time.
- **Stimulating certification:** An environmental certification program is a symbol of approval which indicates that a product meets a certain eco-label criteria. It provides customers with visible affirmation of the product's desirability from an environmental aspect. Certification therefore has an educational responsibility for customers, and encourages competition among

manufacturers. Since certified products have a renowned logo to help report customer choices, the product stands out more promptly on store shelves. Coveting the logo may persuade manufacturers to re-engineer products so that they are less detrimental to the environment.

- **Assisting in monitoring:** Another advantage of an official eco-labelling program is that environmental claims can be more simply observed. Competitors and customers are in a better stance to judge the validity of a claim.

7.2. Counter arguments against Eco-labels

Eco-labels are generally considered to be useful both for the company and consumers. Yet, there are very strong counter-arguments against this phenomenon. Eco-labelling as an academic concept seems to be nice, but when it comes to actually putting it into real business world, companies resist immediately due to one or more of the following reasons

- Their product/processes may not be environment friendly and hence they may not be competent enough to be granted an eco-label
- The process of certification may be complicated and time-consuming and the company may not see any tangible benefits from eco-labelling
- There is no clear incentive for the company to consider eco-labelling its products if it's already doing well in the market
- The organization may view it as an additional (unnecessary) cost without any ROI

The biggest problem with the increasing interest in eco shopping is that manufacturers may be tempted to make exaggerated or misleading claims, which confuse and exploited consumers since the cost of this product is higher. Instead of raising standards, the result is confusion among consumers, a systematic undermining of all eco-friendly products.

- It is impossible to establish objective, scientifically defensible criteria that identify 'environmentally superior' products in a category
- Eco-labels are an inherent barrier to product innovation for both the environment and other consumer values because criteria can only be based on today's understanding of products , technologies and environmental issue.
- Eco-labels train consumers to look only for symbols and fail to inform consumers about the specific environmental aspects of the products they purchase.

- Eco-labels create barriers by focusing on local or regional environmental priorities that may lack international relevance. (Coalition 1996, 2)

Chapter Eight: Findings, Recommendations and Conclusion

8.1. Finding:

The statistical calculation done in the ChapterSix shows that the level of income of the consumers has a strong negative correlation with the willingness to buy eco-labelled products. Thus the dissertation hypothesis - *'The income of the customers in Bangladesh has a very strong positive correlation with willingness to buy eco-labelled products'* has been proved wrong. The author has collected primary data on the basis of that hypothesis and has analysed statistically to find out the actual correlation. As the calculation shows- willingness to buy eco-labelled products does not depend on the financial ability of the consumer, now another hypothesis can be developed to find the correlation between awareness/ level of education of the customer/consumer and willingness to buy eco-labelled products.

8.2. Recommendations:

From the findings from this data analysis, it is assumed that the level of awareness and the education level of the end consumers are the major factors impacting the willingness to buy eco-labelled products. On the basis of this assumption, the major recommendation from the author is to – *increase the awareness raising and promotional activities patronized either by the public sector or private sector.*

The author also came into conclusion taken out of the expert's interview context that-

1. Country's existing **PPR needs to be changed**, especially in the area of sourcing, procurement, sustainable procurement etc...**Simultaneously** the public awareness has to be raised.
2. These can be done preferably in several **phase**. For instance in the 1st year of that new law application, only 5% of the total procurement will be done following sustainability rules and regulations and gradually in 2nd, 3rd, 4th year the percentage will go up at 10%, 15%, 20% respectively.
3. Products which can be procured sustainably with ease have to be **identified**.

8.3. Conclusion:

The term 'eco-labelling' has turned into more than a buzzword in recent sustainable business goals. The manoeuvre of eco-labelling in various arrangements has been increasing for past many years. Questions emanate about how well these eco-labels and climate change issues are addressed and understood by consumers in Bangladesh. Climate change is one of the most convoluted issues confronting us in present days. Involving several dimensions, namely- environmental, economic, legal, social, technological, political and ethical, it is a global stumbling block, felt on local scales impacting our future generations in coming centuries. In spite of intensified awareness of climate change, emissions of GHGs sustained on a relentless

rise. Global climate history indicates earth's 2015 surface temperatures were the warmest since modern records management began in 1880. Since then, the planet has experienced 1.4°F increase in global temperature. To realise the urgency of taking a step ahead by the consumers with a view to protecting our climate-our mother earth, these statistics are sufficient. It is high time for us to respond to climate change through constructive mitigation approach. In the modern business world eco-labelling is considered to be a worthwhile contribution by the consumer base towards climate change.

Predominantly, an eco-label is a symbol determining overall environmental preference of a product on the basis of life cycle considerations. Eco-labelling (i.e. Blue Angel, Nordic Swan, EnergyStar, The Recycling Symbol) enables consumers respond to climate change empowering people to distinguish between products detrimental to environment and accordant with the climate. It helps individuals understand the significance of their contribution to improve the global climate by minimising the environmental impacts. Currently, the highest number of traced eco-labels is 465 eco-labels in 199 countries. On the other hand, according to Eco-label Index, Bangladesh currently have only 6 international standard eco-labels in market.

A dynamic market for eco-labelled products promotes a corporate loyalty to continuous environmental advancement. Customers can expect to see the environmental effects of products diminish over time as environmental certification is a symbol of approval which indicates that a product meets a certain eco-label criteria. Additionally, it provides customers with visible affirmation of the product's desirability from an environmental aspect. Certification, therefore, has an educational responsibility for customers, and encourages competition among manufacturers. Eco-labels, in an addition, can act as a consumer

protection tool as well. This is an indicator which pilots the market towards greater environmental apprehension.

In spite of the fact that, the sharing of eco-labels is mostly congregated in the industrialised countries, it leads to significant future prospects for developing countries such as Bangladesh, especially with regard to their trade with developed, 'Eco-label' conscious countries. Moreover, the potential for growth in the market share of eco-labelled products will mould eco-labelling a compelling business alternative. If Bangladesh improves in response to comply with eco-labelling, the potential advantages for us could go far beyond higher revenues that eco-labelled products may originate. It will demonstrate an opportunity to add value to existing products, expand reach in existing markets, or maintain market share in an antagonistic environment crossing the territory of this country.

Climate change broaches an extensive ethical duty because it concerns a problem caused by those who consume. Even if we discontinue emitting all GHGs (greenhouse gases) today, climate change will still continue to affect future generations. We should act selfish for our own betterment and take initiatives to address climate change by reforming and tweaking our behaviour, either by adopting this phenomenon of eco-labelling or by discovering new means all by ourselves. (Tasnim, 2016)

References

- [John Thøgersen](#), [PernilleHaugaard](#), [AnjaOlesen](#), (2010) "Consumer responses to ecolabels", *European Journal of Marketing*, Vol. 44 Iss: 11/12, pp.1787 – 1810
- Salzman, Jim. (1998). Product and Raw Material Eco_Labeling: The Limits for a Transatlantic Approach.*Berkeley Roundtable on the International Economy*. UC Berkeley: Berkeley Roundtable on the International Economy. Retrieved from: <https://escholarship.org/uc/item/3pz4721g>
- Salzman, J. (1997), Informing the Green Consumer: The Debate Over the Use and Abuse of Environmental Labels. *Journal of Industrial Ecology*, 1: 11–21. doi: 10.1162/jiec.1997.1.2.11
- Tasnim, Zarin. "Eco-labels: Alleviating climate change impacts", *The Financial Express (Dhaka)*, 29th September, 2016. Print
- John Thøgersen, PernilleHaugaard, AnjaOlesen, (2010) "Consumer responses to ecolabels", *European Journal of Marketing*, Vol. 44 Iss: 11/12, pp.1787 – 1810
- Armah, Paul W. "The determinants of eco-label usage in the organic produce market of northeast Arkansas." *American Agricultural Economics Association Annual Meeting*, American Agricultural Economics Association, Chicago, IL. 2001.
- Monteiro, Jose-Antonio."Eco-label adoption in an interdependent world." (2010).
- Basu, Arnab K., Nancy H. Chau, and Ulrike Grote."Eco-Labeling and Stages of Development." *Review of Development Economics* 7.2 (2003): 228-247.
- Salzman, James. "Informing the green consumer: the debate over the use and abuse of environmental labels." *Journal of Industrial Ecology* 1.2 (1997): 11-21.
- Rashid, NikRamliNik Abdul, KamaruzamanJusoff, and Kamsol Mohamed Kassim."Eco-Labeling perspectives amongst Malaysian consumers." *Canadian Social Science* 5.2 (2009): 1-10.
- Piotrowski, Ralph, and Stefan Kratz."Eco-labelling in the Globalised Economy." *Challenges of globalization: new trends in international politics and society*. New Jersey: Transaction Publishers (2005): 217-37.
- Gertz, Renate. "Eco-labelling—a case for deregulation?." *Law, Probability and Risk* 4.3 (2005): 127-141.

Smith, Ann, CeraselaStancu, and Conservation Authority. "Eco-labels: a short guide for New Zealand producers." Business & Sustainability Series (2006).

Golden, Jay S., et al. "An overview of ecolabels and sustainability certifications in the global marketplace." Nicholas Institute for Environmental Policy Solutions, Duke University (2010): 1-99.

Dahl, Richard. "Green washing: Do you know what you're buying." Environmental health perspectives 118.6 (2010): A246-A252.

Salzman, James. "Informing the green consumer: the debate over the use and abuse of environmental labels." Journal of Industrial Ecology 1.2 (1997): 11-21.

Bratt, Cecilia, et al. "Assessment of eco-labelling criteria development from a strategic sustainability perspective." Journal of Cleaner Production 19.14 (2011): 1631-1638.

Horne, Ralph E. "Limits to labels: The role of eco-labels in the assessment of product sustainability and routes to sustainable consumption." International Journal of Consumer Studies 33.2 (2009): 175-182.

Kijek, Tomasz. "Modelling of eco-innovation diffusion: the EU eco-label." Comparative Economic Research 18.1 (2015): 65-79.

www.defra.gov.uk

Armah, Paul W. "Setting eco-label standards in the fresh organic vegetable market of Northeast Arkansas." Journal of Food Distribution Research 33.1 (2002): 35-45.

Atkinson, Lucy, and Sonny Rosenthal. "Signaling the green sell: the influence of eco-label source, argument specificity, and product involvement on consumer trust." Journal of Advertising 43.1 (2014): 33-45.

Grunert, Klaus G. "Sustainability in the food sector: A consumer behaviour perspective." International Journal on Food System Dynamics 2.3 (2011): 207-218.

www.cips.org

Nderitu, K. M., and K. Ngugi. "Effects of green procurement practices on an organization performance in manufacturing industry: case study of East African Breweries Limited." European Journal of Business Management 2.1 (2014): 341-352.

Taufique, Khan MdRaziuddin, et al. "Synthesis of constructs for modeling consumers' understanding and perception of eco-labels." *Sustainability* 6.4 (2014): 2176-2200.

Czarnezki, Jason J. "The Future of Food Eco-Labeling: Organic, Carbon Footprint, and Environmental Life-Cycle Analysis." (2011).

Stein, Jasper. "The legal status of eco-labels and product and process methods in the World Trade Organization." *American Journal of Economics and Business Administration* 1.4 (2009): 285-295.

http://www.stat.gov.az/source/crimes/en/street_children.pdf

<http://print.thefinancialexpress-bd.com/2016/09/29/152782>

<http://scholararticles.net/eco-labelling-as-a-marketing-tool-for-green-consumerism/>

Journal of Bangladesh Institute of International and Strategic Studies (BIISS), vol.24(4), 529-562

Newspaper Article by the Author

Eco-labels: Alleviating climate change impacts

Zarin Tasnim

THE term 'eco-labelling' has turned into more than a buzzword in recent sustainable business goals. The manoeuvre of eco-labelling in various arrangements has been increasing for past many years. Questions emanate about how well these eco-labels and climate change issues are addressed and understood by consumers in Bangladesh.

Climate change is one of the most convoluted issues confronting us in recent days. Involving several dimensions, namely- environmental, economic, legal, social, technological, political and ethical, it is a global stumbling block, felt on local scales impacting our future generations in coming centuries. In spite of intensified awareness of climate change, emissions of GHGs sustained on a relentless rise. Global climate history indicates earth's 2015 surface temperatures were the warmest since modern records management began in 1880. Since then, the planet has experienced 1.4°F increase in global temperature. To realise the urgency of taking a step ahead by the consumers with a view to protecting our climate-our mother earth, these statistics are sufficient. It is high time for us to respond to climate change through constructive mitigation approach. In the modern business world eco-labelling is considered to be a worthwhile contribution by the consumer base towards climate change.

Predominantly, an eco-label is a symbol determining overall environmental preference of a product on the basis of life cycle considerations. Eco-labelling (i.e. Blue Angel, Nordic Swan, EnergyStar, The Recycling Symbol) enables consumers respond to climate change empowering people to distinguish between products detrimental to environment and accordant with the climate. It helps individuals understand the significance of their contribution to improve the global climate by minimising the environmental impacts. Currently, the highest number of traced eco-labels is 465 eco-labels in 199 countries. On the other hand, according to Eco-label Index, Bangladesh currently has only 6 international standard eco-labels in market.

A dynamic market for eco-labelled products promotes a corporate loyalty

to continuous environmental advancement. Customers can expect to see the environmental effects of products diminish over time as environmental certification is a symbol of approval which indicates that a product meets a certain eco-label criteria. Additionally, it provides customers with visible affirmation of the product's desirability from an environmental aspect. Certification, therefore, has an educational responsibility for customers, and encourages competition among manufacturers. Eco-labels, in an addition, can act as a consumer protection tool as well. This is an indicator which pilots the market towards greater environmental apprehension.

In spite of the fact that the sharing of eco-labels is mostly congregated in the industrialised countries, it leads to significant future prospects for developing countries such as Bangladesh, especially with regard to their trade with developed, 'Eco-label' conscious countries. Moreover, the potential for growth in the market share of eco-labelled products will mould eco-labelling a compelling business alternative. If Bangladesh improves in response to comply with eco-labelling, the potential advantages for us could go far beyond higher revenues that eco-labelled products may originate. It will demonstrate an opportunity to add value to existing products, expand reach in existing markets, or maintain market share in an antagonistic environment crossing the territory of this country.

Climate change broaches an extensive ethical duty because it concerns a problem caused by those who consume. Even if we discontinue emitting all GHGs (green house gases) today, climate change will still continue to affect future generations. We should act selfish for our own betterment and take initiatives to address climate change by reforming and tweaking our behaviour, either by adopting this phenomenon of eco-labelling or by discovering new means all by ourselves.

The writer is currently working at British Council Bangladesh and pursuing master's in Procurement and Supply Management at BRAC University, zarin_shormi@yahoo.com

Appendix B

Survey on Eco-labels - Customers

- A. Name:
- B. Age
- C. Monthly income range:
1. BDT 50000- 80000
 2. BDT 81000-120000
 3. BDT 120000 and above
- D. Organization name
- E. Super shop name
- F. How much you know about eco-labels?
1. Excellent
 2. Moderate
 3. Poor
 4. Nothing at all.
- G. How often you check eco-labels on products?
1. Very frequently
 2. Frequently
 3. Not so frequently
 4. Never
- H. Does it influence your buying decision?
1. Yes
 2. Not always
 3. No
- I. Do you think implementing eco-labels in retail industry of Bangladesh is going to be an appropriate step?
1. Yes
 2. No
 3. May be
- J. What percentage of high price is justified for you?
1. 5%- 10%
 2. 11% - 15%

3. 16%- 20%
4. I'm not ready to pay higher price
5. I'm not sure

K. What is the best possible way to you to promote Eco-labels?

1. Arranging road show
2. Advertisements on print media
3. Discounts/offers on products having Eco-labels

Appendix C

List of Interviewed Experts

Sl. no.	Interviewee	Position
1.	MostaGausulHoque, PMP.	Md. MostaGausulHoque Director (Planning and Development) Bangladesh Parliament Secretariat (Deputy Secretary to the Government) 0088-01715074409 (Cell), mostagausul@gmail.com

Appendix D

Appendix Interview Guide for Face to Face Interview

1. In your experience, why is Bangladesh lacking behind in sustainable procurement specifically in Eco-labelling?
2. The latest research shows that most consumers are unwilling to buy eco-labelled products even from the top superstores of Bangladesh. Why is this happening?
3. As per your opinion, why is it important to use aneco-label on fast moving consumer goods?
4. At present, what is the single most important initiative to be taken to promote eco-labelling as well as sustainable procurement?
5. What simple things can the government do right away to address this issue?
6. What are the typical things that could get in the way of implementing Eco-labelling?
7. How quickly can we expect results?

Appendix E

Name of the respondents

Name (Optional)	Age	Gender	Monthly income	profession (optional)	preferred supershop
Anisa Begum	51	female	1. BDT 50000- 80000	Housewife	Swapno
MahmudulHaque Khan	63	male	1. BDT 50000- 80000	BJMC	Swapno
KaziTarikul Islam	34	male	1. BDT 50000- 80000	Transcom	Swapno
KaziRezwana Islam	23	female	1. BDT 50000- 80000	Student - BUBT	Swapno
Md. Ashrafuzzaman	33	male	1. BDT 50000- 80000	Labaid Group	Swapno
abulhaq	46	male	1. BDT 50000- 80000	Transcom	Swapno
Motin	29	male	1. BDT 50000- 80000	KFC	Swapno
Afrin Haque	27	female	1. BDT 50000- 80000	Student- BRAC University	Swapno
Md. Monirul Islam	34	male	1. BDT 50000- 80000	Pizza Hut	Swapno
AsmaAmjad	44	female	3. BDT 120000 and above	Housewife	Swapno
nasim	26	male	2. BDT 81000-120000	KFC	Swapno
Shaikh	27	male	1. BDT 50000- 80000	Company	Agora
Jayed	34	male	1. BDT 50000- 80000	own	Swapno
AhsanulKabirRitu	33	male	1. BDT 50000- 80000	Mutual Trust Bank	Agora
Akku	65	male	2. BDT 81000-120000	Samsung	Swapno
Pankaj	32	male	2. BDT 81000-120000		Agora
Khaja	25	male	1. BDT		Swapno

			50000- 80000		
Ahmed	29	male	1. BDT 50000- 80000	KFC	Swapno
Najmul	35	male	1. BDT 50000- 80000	GP	Swapno
Shihabuddin	32	male	2. BDT 81000-120000	BL	Agora
Nahid	35	male	1. BDT 50000- 80000	TFL	Swapno
Kashem Ali	44	male	2. BDT 81000-120000	Business	Swapno
Taslim	27	male	3. BDT 120000 and above	ministry of finance	MeenaBazar
Biplob	46	male	1. BDT 50000- 80000	Walton	Swapno
ShahrinAfroz	26	female	1. BDT 50000- 80000		Agora
ShahriarMofiz	32	male	1. BDT 50000- 80000	National Polimar Limited	Agora
Shahnaz Begum	56	female	1. BDT 50000- 80000	CWFD	Agora
	23	female	1. BDT 50000- 80000		Swapno
AnjumanAkterDoly	32	female	1. BDT 50000- 80000	Omicon Group	Agora
Md. MofizurRahman	62	male	1. BDT 50000- 80000		Agora
HabiburRahman	38	male	3. BDT 120000 and above	Marico Bangladesh Ltd	Swapno
Tausif Ahmed	23.5 years	male	3. BDT 120000 and above	British American Tobacco (BAT)	MeenaBazar
YasirNaushad	25	male	1. BDT 50000- 80000	UCBL	Agora
Tazin	30	female	1. BDT 50000- 80000	BRAC	Agora

	23	female	1. BDT 50000- 80000		Swapno
MehnazShahrin	27	female	2. BDT 81000-120000	Primesilicon Technology (BD) Ltd	Swapno
oishe	23	female	1. BDT 50000- 80000	Brac	Agora
Shourav	35	male	1. BDT 50000- 80000	AhsanullahUn i	Agora
masud	26	male	1. BDT 50000- 80000	NCC	Swapno
Mamun	32	male	2. BDT 81000-120000	HSBC	Swapno
Karin Paulina Rozario	26	female	1. BDT 50000- 80000	NotreDame University	Swapno
Babu	30	male	1. BDT 50000- 80000	Business	MeenaBaza r
SadiqurRahman	31	male	3. BDT 120000 and above	Pran RFL	Swapno
MostafizurRahman	48	male	3. BDT 120000 and above	UCBL	Agora
SadiaAfrad	26	female	1. BDT 50000- 80000	MapleLeaf Int. School	Swapno
AnikaSamiha	27	female	2. BDT 81000-120000	Premier Bank Limited	Agora
	25	female	1. BDT 50000- 80000		Agora
JannatulFerdousSurma	26	female	1. BDT 50000- 80000	DU	Swapno
ShubarnaSabrin	25	female	1. BDT 50000- 80000	BUBT	Swapno
Sibatmasood	27	female	1. BDT 50000- 80000	Southeast university	Swapno
Mir MonirHossain	32	male	1. BDT 50000- 80000	Quantum Foundation	Swapno
SakiburRahman	27	male	1. BDT 50000- 80000	Pran RFL	Swapno
FatemaSiddika	25	female	1. BDT	BRAC	Swapno

			50000- 80000	University	
LinaDilrubaSharmin	26	female	1. BDT 50000- 80000	ProthomAlo	Agora
Adeeba	40	female	3. BDT 120000 and above	British Council	Swapno
Farha	26	female	1. BDT 50000- 80000	City college n trust bank	Agora
ShakhawatHossen	24	male	1. BDT 50000- 80000	DU	Agora
Mariam Hossain	26	female	1. BDT 50000- 80000	HBRI	Agora

Appendix F

Definition of Terms

Bidding- Bidding is an offer (often competitive) to set a price by an individual or business for a product or service or a demand that something be done. ... In the context of auctions, stock exchange, or real estate the price offer a business or individual is willing to pay is called a bid.

Confidence interval - A confidence interval is an interval estimate combined with a probability statement. ... This means that if we used the same sampling method to select different samples and computed an interval estimate for each sample, we would expect the true population parameter to fall within the interval estimates 95% of the time.

Confidence level - Confidence level is the complement of the level of significance, i.e. a 95% confidence interval reflects a significance level of 0.05. The confidence interval contains the parameter values that, when tested, should not be rejected with the same sample.

Consumer- A consumer is a person or organization that uses economic services or commodities.

Consumer market- Consumer marketing is defined as creating and selling products, goods and services to individual buyers, as opposed to trying to appeal to businesses. Commercials trying to sell toys or books or movies to the average individual are examples of consumer marketing

Cost-benefit analysis-A cost-benefit analysis is a process by which business decisions are analysed. The benefits of a given situation or business-related action are summed, and then the costs associated with taking that action are subtracted

Efficiency- Efficiency is the comparison of what is actually produced or performed with what can be achieved with the same consumption of resources (money, time, labor, etc.). It is an important factor in determination of productivity. See also effectiveness.

Environmentally friendly - Environmentally friendly/ environment-friendly, (also referred to as eco-friendly, nature-friendly, and green) are sustainability and marketing terms referring to goods and services, laws, guidelines and policies that claim reduced, minimal, or no harm upon ecosystems or the environment.

Goods- An inherently useful and relatively scarce tangible item (article, commodity, material, merchandise, supply, wares) produced from agricultural, construction, manufacturing, or mining activities. According to the UN Convention On Contract For The International Sale Of Goods, the term 'good' does not include (1) items bought for personal use, (2) items bought at an auction or foreclosure sale, (3) aircraft or oceangoing vessels.

Margin of Error - The margin of error expresses the maximum expected difference between the true population parameter and a sample estimate of that parameter. To be meaningful, the margin of error should be qualified by a probability statement (often expressed in the form of a confidence level).

Monitoring- Monitoring is supervising activities in progress to ensure they are on-course and on-schedule in meeting the objectives and performance targets.

Point of Sale- A point of sale (POS) is the place where sales are made. On a macro level, a POS may be a mall, a market or a city. On a micro level, retailers consider a POS to be the area where a customer completes a transaction, such as a checkout counter. It is also known as a point of purchase

Price – Price is a value that will purchase a finite quantity, weight, or other measure of a good or service.

Private sector -The private sector is the part of the economy, sometimes referred to as the citizen sector, which is run by private individuals or groups, usually as a means of enterprise for profit, and is not controlled by the State (areas of the economy controlled by the state being referred to as the public sector).

Profitability - Profitability is the ability of a business to earn a profit. A profit is what is left of the revenue a business generates after it pays all expenses directly related to the generation of the revenue, such as producing a product, and other expenses related to the conduct of the business activities.

Public policy -Public policy can be generally defined as a system of laws, regulatory measures, courses of action, and funding priorities concerning a given topic promulgated by a governmental entity or its representatives.

Public procurement - Public procurement refers to the process by which public authorities, such as government departments or local authorities, purchase work, goods or services from companies.

Quality- Quality is the standard of something as measured against other things of a similar kind; the degree of excellence of something.

Random sampling- Random sampling is a method of selecting a sample (random sample) from a statistical population in such a way that every possible sample that could be selected has a predetermined probability of being selected.

Sample- A sample is a subset containing the characteristics of a larger population. Samples are used in statistical testing when population sizes are too large for the test to include all possible members or observations.

Services- services are Intangible products such as accounting, banking, cleaning, consultancy, education, insurance, expertise, medical treatment, or transportation. Sometimes services are difficult to identify because they are closely associated with a good.

***Source: www.investopedia.com/, www.businessdictionary.com/,
<https://www.wikipedia.org/>, www.yourdictionary.com, www.dictionary.com,
www.investorwords.com/, www.mathgoodies.com, <https://www.merriam-webster.com/dictionary/>, www.thefreedictionary.com/, www.mathsisfun.com

Standard deviation- Standard deviation is cumulative probability of a normal distribution with expected value 0 and standard deviation 1. In statistics, the standard deviation (SD, also represented by the Greek letter sigma σ or the Latin letter s) is a measure that is used to quantify the amount of variation or dispersion of a set of data values.

Supply chain - A supply chain is actually a complex and dynamic supply and demand network. A supply chain is a system of organizations, people, activities, information, and resources involved in moving a product or service from supplier to customer.

Tendering-Tender usually refers to the process whereby governments and financial institutions invite bids for large projects that must be submitted within a finite deadline. The term also refers to the process whereby shareholders submit their shares or securities in response to a takeover offer.

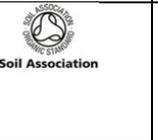
Triple bottom line - Triple bottom line (or otherwise noted as TBL or 3BL) is an accounting framework with three parts: social, environmental (or ecological) and financial. Many organizations have adopted the TBL framework to evaluate their performance in a broader perspective to create greater business value.

Appendix G

List of Eco-labels across the world

	<u>Acorn Scheme</u>		<u>British Allergy Foundation Seal of Approval</u>
	<u>AfOR Compost Certified</u>		<u>C.A.F.E. Practices</u>
	<u>AISE Charter for Sustainable Cleaning</u>		<u>California Certified Organic Farmers - CCOF</u>
	<u>Audubon International</u>		<u>CarbonNeutral</u>
	<u>Best Aquaculture Practices</u>		<u>Carbon Reduction Label</u>
	<u>Blue Angel</u>		<u>Carbon Trust Standard</u>
	<u>bluesign® standard</u>		<u>Compostability Mark of European Bioplastics</u>
	<u>Bonsucro</u>		<u>BRE Global Certified Environmental Profile</u>

	<u>BREEAM</u>		<u>UPS Carbon Neutral</u>
	<u>Compostable: Biodegradable Products Institute Label</u>		<u>UTZ Certified</u>
	<u>CSA Sustainable Forest Management</u>		<u>Water Efficiency Product L abelling Scheme</u>
	<u>CSRR Quality Standard</u>		<u>Waterwise Marque</u>
	<u>David Bellamy Conservation Award</u>		<u>Wholesome Food Association</u>
	<u>DIN-Geprüft</u>		<u>Whole Trade™ Guarantee</u>
	<u>Dolphin Safe / Dolphin Friendly</u>		<u>WQA Gold Seal</u>
	<u>EarthCheck</u>		<u>WQA Sustainability Mark</u>
	<u>EcoLogo</u>		<u>Organic Food Federation</u>
	<u>Eco-Schools</u>		<u>Passivhaus</u>
	<u>EKOenergy</u>		<u>Planet Positive</u>
	<u>Energy Saving Recommended</u>		<u>Programme for the Endorsement of Forest Certification (PEFC) schemes</u>

	<u>Environmental Product Declaration</u>		<u>R2/RIOS Certified Electronics Recycler</u>
	<u>EPEAT</u>		<u>Rainforest Alliance Certified</u>
	<u>EQUITRADE</u>		<u>RSPO Certified Sustainable Palm Oil</u>
	<u>e-Stewards Certification</u>		<u>SCS FloorScore®</u>
	<u>EU Ecolabel</u>		<u>SEE What You Are Buying Into</u>
	<u>Fair Flowers Fair Plants</u>		<u>SFC Member Seal</u>
	<u>Fairtrade</u>		<u>SMaRT Consensus Sustainable Product Standards</u>
	<u>Florverde Sustainable Flowers</u>		<u>Soil Association Organic Standard</u>
	<u>Flower Label Program (FLP)</u>		<u>Sustainable Agricultural Network</u>
	<u>Flybe Aircraft Ecolabel</u>		<u>Sustainable Forestry Initiative (SFI)</u>
	<u>Forest Stewardship Council (FSC) Chain of Custody Certification</u>		<u>Sustainable Tourism Education Program (STEP)</u>

	<u>Forest Stewardship Council® (FSC) Forest Management Certification</u>		<u>TerraCycle</u>
	<u>Friend of the Sea</u>		<u>UK Fuel Economy Label</u>
	<u>GEO Certified</u>		<u>Indoor Air Comfort</u>
	<u>Global Good Agricultural Practice (GAP)</u>		<u>Label STEP</u>
	<u>Global Organic Textile Standard</u>		<u>LEAF Marque</u>
	<u>Good Shopping Guide Ethical Award</u>		<u>Leaping Bunny</u>
	<u>GoodWeave</u>		<u>M1 Emission Classification of Building Materials</u>
	<u>Green-e Climate</u>		<u>Marine Stewardship Council</u>
	<u>Green Globe Certification</u>		<u>Natrue-Label</u>
	<u>GREENGUARD</u>		<u>Oeko- Tex Standard 100</u>
	<u>Greenspec PASS</u>		<u>Oeko- Tex Standard 1000</u>

	<p><u>Green Tourism Business Scheme</u></p>		<p><u>On-Pack Recycling Label</u></p>
	<p><u>HAND IN HAND</u></p>		<p><u>Organic Farmers & Growers Certification</u></p>
	<p><u>IBU Type III Environmental Declaration (IBU Environmental Product Declaration)</u></p>		

